Transcript of **Virtual Public Hearing**

Wednesday, August 25, 2021

EPA Hearing

Reference Number: 106557

1   UNITED STATES

2   ENVIRONMENTAL PROTECTION AGENCY

3

4   PUBLIC HEARING ON THE

5   REVISED 2023 AND LATER MODEL YEAR

6   LIGHT-DUTY VEHICLE GREENHOUSE GAS EMISSIONS STANDARDS

7   DOCKET NUMBER EPA-HQ-OAR-2021-0208

8

9   9:30 a.m.

10   Wednesday, August 25, 2021

11

12   (Virtual Webcast)

13

14

15

16

17

18

19

20   Room 2080

21   101 7th Street, NW

22   Washington, D.C. 20407

1   On behalf of the Environmental Protection Agency:

2   ALEJANDRA NUNEZ, Deputy Assistant Administrator for

3   Mobile Sources, Office of Air and Radiation

4   MICHAEL OLECHIW, Light Duty Center Director

5   Office of Transportation and Air Quality

6   Speaker Block 1:

7   PAUL BILLINGS, American Lung Association

8   CARA COOK, Alliance of Nurses for Healthy Environments

9   VIJAY LIMAYE, Natural Resources Defense Council

10   KATHERINE GARCIA, Sierra Club

11   RAMON CRUZ, Sierra Club

12   MOLLY RAUCH, Moms Clean Air Force

13   SUSAN HENDERSHOT, Interfaith Power & Light

14   GABRIAL FILIPPELLI, Indiana University

15   ANDREA MARPILLIERO COLORNINA, GreenLatinos

16   JARED SNYDER, New York State Department of

17   Environmental Conservation

18   JAMES FLYNN, Northeast States for Coordinated Air

19   Use Management

20   RASTO BREZNY, Manufacturers of Emissions Controls

21   Association

22

1   Speaker Block 1:

2   CHRIS BLILEY, Growth Energy

3   SENATOR TOM DASCHLE, High Octane Low Carbon Alliance

4   DENNIS BLAIR, Securing America's Future Energy

5   SHAINA OLIVER, Moms Clean Air Force

6   ALMETA E. COOPER, Moms Clean Air Force

7   JOEL LEVIN, Plug In America

8   NOAH HOWE, Ceres

9   Speaker Block 2:

10   DIANA VON VLEET

11   LIANE RANDOLPH, California Air Resources Board

12   EVAN FEHSENFELD, Program for Public Consultation

13   JULIE KIMMEL, Moms Clean Air Force

14   LAURIE ANDERSON, Moms Clean Air Force Colorado Chapter

15   CELERAH HEWES, Moms Clean Air Force

16   KEVIN STEWART, American Lung Association in the

17   Mid-Atlantic

18   MEREDITH HAINES

19   JONATHAN SHEVELEW, Tesla Owners Club of Pennsylvania

20   SANDRA REMILIEN

21   MELANIE BUZZELLI

22   JIM STEITZ

 1   Speaker Block 2:

 2   PATRICIA KEEFE

 3   ELIZABETH CHUN HYE LEE, United Methodist Women

 4   Renee M. Chacon, Spirit of the Sun

 5   AFTERNOON SESSION

 6   Speaker Block 3:

 7   DR. YOLANDA WHYTE, Moms Clean Air Force

 8   DEVIN WATKINS, Competitive Enterprise Institute

 9   SAM KAZMAN, Competitive Enterprise Institute

10   MARIO LEWIS, Competitive Enterprise Institute

11   PATRICK MICHAELS, Competitive Enterprise Institute

12   KATHERINE PRUITT

13   SCOTT HOCHBERG, Center for Biological Diversity

14   GREG HARNED, Center for Biological Diversity

15   LIZ SCOTT, American Lung Association

16   LAURA BENDER, American Lung Association

17   BOB YUHNKE, Policy Committee, Elders Climate Action

18   CHRISTOPHER HARTO, Consumer Reports

19   CAROLYN SEEMAN

20   SUSAN PATE, Retired

21   GEORGE AGORTSAS

22   VANESSA LYNCH, Moms Clean Air Force

```
 1    Speaker Block 3:

 2    KINDRA WEID, MI Air MI Health

 3    GEOFF COOPER, Renewable Fuels Association

 4    Speaker Block 4:

 5    JEFF ALSON, Environmental Protection Network

 6    WILLIAM DAVIDSON, Davidson

 7    LAURA KUNTZ

 8    RENE ST. JULIEN

 9    JENNA RIEMENSCHNEIDER, Asthma and Allergy Foundation

10        Of America

11    DANIEL GAGE, NGVAmerica

12    LILLA REEVES, NPCA

13    EDITH ZEWADSKI-BRICKER, United Methodist Women

14    MOLLY COLLINS

15    LARA LEVISON

16    EVE LUKENS-DAY, Environment America

17    KEN MINAULT, Sierra Club

18    ELIZABETH HAUPTMAN, Moms Clean Air Force Michigan

19    Speaker Block 5:

20    AMANDA BEGLEY

21    MARK CHUN

22
```

 1   Speaker Block 5:

 2   WILLIAM BARRETT, American Lung Association in

 3   California

 4   PATRICE TOMCIK, Moms Clean Air Force

 5   JAMES GALLAGHER

 6   LUCIA VALENTINE, Moms Clean Air Force

 7   DEBI CHERNAK, HR Cert Prep Pros, Inc.

 8   MARK ROSE, National Parks Conservation Association

 9   JENNIFER CANTLEY, Moms Clean Air Force

10   KARIN STEIN, Moms Clean Air Force

11   STEPHANIE KLEIN, Moms Clean Air Force

12   MICHELLE UBERUAGA, Moms Clean Air Force

13   ANN MESNIKOFF, Environmental Law & Policy Center

14   SENATOR MARCI FRANCISCO, Kansas State Senate

15   MAUREEN DUGAN, Sizer School

16   ROB LAREW, National Farmers Union

17   SHANN BAKER-BRANSTETTER

18   GREGORY A. CAUDILL, Retired Submarine Marine

19   Machinist Mate

20   ARTHUR SMITH

21   MILTON MITCHELL

22   KENNETH MOORE

1   P R O C E E D I N G S

2   Introductions, Logistics, EPA Opening Statements

3   MS. THOMPSON: It looks like we can go ahead and

4   get started.

5   Good morning and welcome to the United States

6   Environmental Protection Agency's Virtual Public

7   Hearing for the Revised 2023 and Later Model Year

8   Light-Duty Vehicle Greenhouse Gas Emissions Standards.

9   My name is Kayla Thompson from Abt Associates,

10   Contractor for the U.S. EPA.

11   We are now ready to begin and I'll turn it over to

12   EPA to get us started.

13   MS. NUNEZ: Good morning.   On behalf of the

14   Environmental Protection Agency and the Office of Air

15   and Radiation, I would like to welcome you to today's

16   Public Hearing and thank you to our contractor, Abt

17   Associates, who will help with administering the

18   virtual public hearing today.

19   I am Alejandra Nunez, the Deputy Assistant

20   Administrator for Mobile Sources with EPA's Office of

21   Air and Radiation.

22   With me today is Mike Olechiw, Light-Duty Center

1   Director in the Assessment and Standards Division

2   within EPA's Office of Transportation and Air Quality

3   or OTAQ.

4   Mike will be the presiding officer for today's

5   hearing.

6   Also during this hearing, we'll have on the panel

7   today Bill Charmley Robin Moran, and Tad Wysor from

8   OTAQ, and Mark Kataoka and Seth Bucksbaum from EPA's

9   Office of General Counsel.

10   As you know during his first days in office,

11   President Biden issued a series of Executive Orders

12   that set a clear direction for EPA and his

13   Administration to protect public health, address the

14   climate crisis, and ensure environmental justice.

15   It is truly historic to have an Administration

16   that has made these issues as a centerpiece of his

17   policy agenda.

18   These Executive Orders gave federal agencies

19   direction to use the best science to protect the

20   environment and public health, ensure access to clean

21   air for everyone, reduce greenhouse gas emissions, and

22   resilience to the impacts of climate change.

 1   Executive Order 13990 issued on President Biden's

 2 first day in office directed all agencies to review

 3 their regulations, orders, guidance, and policies to

 4 ensure, among other goals, that we are promoting the

 5 protection of public health and the environment,

 6 including the goals of reducing greenhouse gas

 7 emissions and prioritizing environmental justice.

 8   Under this Executive Order, EPA was asked to

 9 review the April 2020 action by the previous

10 Administration to weaken the light-duty vehicle

11 greenhouse gas emissions standards that had been in

12 place since 2012.

13   EPA has carefully reviewed the record and assessed

14 more recent information and the ongoing technological

15 progress in the auto industry in both internal

16 combustion and electrified technologies.

17   As we are considering this record and the various

18 authorities under the Clean Air Act, EPA has now

19 proposed a revised set of more stringent greenhouse gas

20 emissions standards that would apply to Model Years

21 2023 through 2026. These proposed standards for light-

22 duty vehicles are the subject of today's hearing.

1   As we show in the rulemaking documents that are

2   now available in Federal Register on EPA's website and

3   in the public docket, there is strong technical

4   evidence that the auto industry is in a position to

5   very quickly get the Clean Cars Program back on track

6   with annual greenhouse gas emissions reductions similar

7   to those that they have been planning for the past

8   decade.

9   In fact, by 2026 the proposed standards will

10 exceed the most stringent standards of the 2012

11 program. We project that the auto industry would meet

12 this technical challenge at a reasonable cost, that the

13 offsetting gasoline savings to vehicle owners will be

14 substantial, that the reductions in greenhouse gas

15 emissions would be large, and that the proposed

16 standards would achieve significant public health

17 benefits for Americans.

18   At the same time we are increasingly aware of the

19 urgency of the climate crisis and its sobering effects

20 almost daily in the news, a reality that international

21 climate scientists just brought into even sharper focus

22 in the major report earlier this month.

 1   EPA and this Administration are very clear that

 2 this proposal of revised emission standards, important

 3 though they are, will not in themselves result in

 4 sufficient emissions reductions. For that reason, we

 5 have also announced plans to develop a broader, longer-

 6 term set of regulations for light-duty vehicles that we

 7 plan to propose during the next year.

 8   As laid out in Executive Order 14037 issued

 9 earlier this month, the Administrator of the

10 Environmental Protection Agency shall, as appropriate

11 and consistent with applicable law, consider beginning

12 work on a rulemaking under the Clean Air Act to

13 establish new multi-pollutant emissions standards,

14 including for greenhouse gas emissions, for light- and

15 medium-duty vehicles, beginning with Model Year 2027

16 and extending through and including at least Model Year

17 2030.

18   As EPA embarks on this future set of longer-term

19 standards, we look forward to public engagement and

20 stakeholder input.

21   For today, however, we look forward to your

22 comments on our current proposal for standards for

1   Model Year 2026.   EPA welcomes all of the comments

2   we'll hear today and tomorrow from the many

3   stakeholders participating in this hearing as we

4   develop the final rule.

5   We also look forward to considering and reading

6   comments that we receive during the public comment

7   period which is open until September 27th.

8   Thank you all for attending this important public

9   hearing, and thank you to everyone who will provide

10   testimony today and tomorrow.

11   I will now turn it over to Mike Olechiw, the

12   presiding officer for today's hearing.

13   MR. OLECHIW: Okay.   Thank you, Ale.

14   As Ale said, the purpose of this hearing is to

15   receive oral testimony from interested parties

16   regarding EPA's Proposed Revisions to Light-Duty

17   Greenhouse Gas Emissions Standards.

18   We are conducting this hearing in accordance with

19   Section 307(d) of the Clean Air Act and this hearing

20   provides the forum for interested persons to submit

21   oral presentations.

22   We have scheduled time for all those who have

 1   registered using the online registration process.

 2   Because of the level of interest, we will end

 3   today's session at around 5 p.m. and continue the

 4   hearing tomorrow starting again at 9:30 a.m. Eastern,

 5   and we will continue tomorrow until all speakers have

 6   been heard.

 7   We appreciate that holding a public hearing

 8   virtually is relatively new, but EPA's committed to

 9   making use of evolving technologies and ensuring that

10   we hear from all who wish to provide oral testimony.

11   As a reminder, the public also has an opportunity

12   to submit written comments through September 27th,

13   2021.

14   At this time, we have almost 200 people registered

15   to present testimony today and tomorrow.

16   This hearing is being recorded and the transcript

17   will also be available electronically on the

18   regulations.gov website at EPA-HQ-OAR-2021-02-08.

19   We expect to post the recording of the hearing in

20   the next few days on the website for this rule.

21   This hearing will be conducted informally and

22   Formal Rules of Evidence do not apply.   However, as

1 presiding officer, I am authorized to strike from the

2 record statements which are deemed irrelevant or

3 needlessly repetitious and to enforce reasonable limits

4 on the duration of the statements of any speakers.

5   Speakers will be allowed to make oral statements

6 which they may later expand in writing for the record.

7 We request that speakers state their names and any

8 affiliation prior to making their oral statements and

9 to limit their testimony to three minutes.

10   When a speaker has finished their presentation,

11 members of this panel may ask questions concerning the

12 issues raised in the testimony.

13   Our contractor, Abt Associates, will be

14 facilitating the line-up of the speakers and helping to

15 keep testimony to three minutes.

16   We recognize that this is not a lot of time and

17 appreciate everyone's cooperation in allowing us to

18 give everyone a chance to speak today.

19   Please note that EPA's distributed a list and a

20 tentative order of those registered to speak today and

21 tomorrow and we may make slight adjustments to the

22 hearing for accommodations.

 1   We plan to take a 30-minute lunch break around

 2   12:30 p.m. today and an afternoon break around 3:30.

 3   Should there be members of the press with further

 4   questions about today's hearing, please contact Aaron

 5   Burgfeld at burgfeld.aaron@epa.gov.

 6   With that, I will now ask Kayla to start the

 7   hearing with our first set of speakers.

 8   MS. THOMPSON: Thank you.

 9   Before we begin, we'd like to go over some

10   logistics for today's public hearing. As a reminder,

11   all attendees are muted automatically. If you are

12   speaking today, you will receive a notification on your

13   screen that you are being promoted to the row of

14   panelists shortly prior to your speaking time.

15   You must accept that invitation to be able to

16   unmute when you are called to testify. This will also

17   allow you to turn on your camera which we encourage you

18   to do. Speakers connected by telephone should unmute

19   their phones when called to testify.

20   If you are having technical difficulties, please

21   send an e-mail to public_hearing@abtassoc.com or call

22   919-294-7712. If you are not registered to speak but

 1   you would like to speak tomorrow, August 26th, please

 2   send an e-mail again to public_hearing@abtassoc.com or

 3   call 919-294-7712.

 4   Now we will begin our public testimony. The

 5   expected speaking order is currently displayed on the

 6   screen. We ask that each person limit their verbal

 7   testimony to three minutes. We encourage you to

 8   provide your full written testimony and any additional

 9   comments of any length of Docket Number EPA-HQ-OAR-

10   2021-0208 on regulations.gov.

11   I will be introducing each speaker in turn.

12   Please speak slowly and clearly so our court reporter

13   can record these proceedings accurately.

14   The first speaker will be Paul Billings. Please

15   state your name and affiliation for the record.

16   Speaker Block 1

17   MR. BILLINGS: Good morning. I'm Paul Billings,

18   National Senior Vice President of Public Policy for the

19   American Lung Association.

20   Thank you for the opportunity to speak this

21   morning.

22   Air pollution is a major threat to public health

1   and air pollution discriminates against black and brown

2   communities and low-income communities. Air pollution

3   causes tens of thousands of people to die each year in

4   the United States and motor vehicles are a leading

5   source of emissions that create ozone or smog and

6   particle pollution.

7   Transportation is also the nation's leading

8   contributor to climate change.

9   The American Lung Association's most recent State

10   of the Air Report found that more than a 135 million

11   people in the United States, more than four in 10, live

12   in counties with unhealthy levels of air pollution.

13   Our report also found that people of color are

14   much more likely to live in counties with failing

15   grades for air pollution than white Americans.

16   We know that people who live near roadways and oil

17   and gas operations, including refineries, bear a

18   disproportionate burden of air pollution and that

19   climate change is making that pollution worse.

20   Let me repeat this. Climate change is making air

21   quality worse. My time is short. So I want to make

22   three brief points and will provide detailed written

1   comments prior to the deadline.

2   First, climate change is a health emergency. The

3   Intergovernmental Panel on Climate Change found that

4   the planet is on a path towards catastrophic

5   destruction if we do not make serious cuts to

6   greenhouse gas emissions as soon as possible.

7   From deadly floods in Tennessee to wildfires in

8   the West destroying communities and blanket the

9   continent with unhealthy particle pollution, no one can

10 escape the lethal consequences and the urgent need to

11 act.

12   EPA must finalize this rulemaking this year in

13 order to set stronger tailpipe standards for Model Year

14 2023. Climate change is a health emergency and the

15 Biden Administration must respond with dispatch.

16   Secondly, we must maximize the real world emission

17 reductions from this program. We are concerned about

18 loopholes and credits that reduce the actual emission

19 reductions from the vehicles on the road. EPA must not

20 allow these credits to undermine the emission

21 reductions.

22   Third, EPA's own analysis points to more

1   Protective Alternative Number 2, which would provide

2   more pollution reduction and more electric vehicles on

3   the road by 2026.

4   EPA estimates that Alternative 2 would result in

5   significant present value net benefits of up to a 180

6   billion and analyzed net benefits of up to 9.1 billion.

7   Quoting from the NPRM, "The total benefits far exceed

8   the costs of the program." As noted above, this is a

9   health emergency and maximizing pollution reductions is

10   needed.

11   We encourage EPA to pursue at minimum the

12   stringency laid out in Alternative 2 and remove excess

13   crediting and loopholes that will reduce the real world

14   benefits of a more health-protective alternative.

15   In conclusion, climate change is a health

16   emergency. EPA must maximize the pollution reductions,

17   minimize the loopholes, and finalize this rule this

18   year to implement the regulations in Model Year 2023.

19   Thank you very much, and I'd be happy to answer

20   any questions.

21   MS. THOMPSON: Thank you for your comment.

22   The next speaker will be Cara Cook. Please state

1   your name and affiliation for the record.

2   MS. COOK: Hi. Good morning. This is Cara Cook,

3   affiliation Alliance of Nurses for Health Environments.

4   Thank you for the opportunity to provide comments

5   today.

6   I'm a registered nurse and part of the Alliance of

7   Nurses for Health Environments, the only national

8   nursing organization focused solely on how the

9   environment impacts human health.

10   This proposal is a step in the right direction.

11   However, our organization strongly urges EPA to set the

12   strongest possible clean car standards to protect

13   public health and address the climate crisis.

14   As the transportation sector is the leading source

15   of harmful carbon pollution in the U.S., strong clean

16   car standards are critical to providing meaningful

17   pollution reductions and fuel savings.

18   If we do not make significant cuts in greenhouse

19   gas emissions as soon as possible, the worst impacts of

20   climate change will be unavoidable.

21   As nurses serving on the front lines of

22   communities and caring for impacted populations, we are

 1   already seeing the very real effects of climate change

 2   on health.

 3   The Administration has also expressed its priority

 4   of promoting environmental justice. Communities of

 5   color and low-income communities are disproportionately

 6   exposed and harmed by exposure to air pollution,

 7   including pollution from the transportation sector.

 8   Clean air pollution from this sector is a critical step

 9   in achieving that priority.

10   We thank EPA for taking the necessary first step

11   by addressing the previous Administration's rollbacks

12   of clean car standards but more is needed.

13   We are requesting EPA to move swiftly to set the

14   next round of standards and specifically the rule must

15   be as strong as possible for Model Year 2026 to ensure

16   the U.S. can achieve a hundred percent zero emission

17   vehicle sales by no later than 2035 consistent with the

18   Biden Administration's Executive Order.

19   The preferred alternative identified by EPA is not

20   as strong as the standard finalized during the Obama

21   Administration. The EPA itself identified a much

22   better rule, Alternative 2, which would put 400,000

 1   extra electric vehicles on the road by 2026 and result

 2   in a 130 million metric tons fewer greenhouse gas

 3   emissions.

 4   Also, we're urging EPA to set much stronger

 5   standards covering cars, SUVs, and light trucks through

 6   at least 2030. Standards should be reflective of the

 7   robust response required to reduce carbon pollution and

 8   to derive the transition to zero emission vehicles.

 9   And lastly, while the top line numbers of the

10   proposal look like they will lead to meaningful

11   emissions reductions, the standards are undermined by

12   unnecessary give-aways to automakers that reduce their

13   benefits and delay progress towards cleaner technology.

14   I want to close with just a reminder that clean

15   air and more efficient vehicles need cleaner air,

16   healthier people, and a thriving economy. The Alliance

17   of Nurses for Healthy Environments is urging EPA to

18   move forward with ambitious clean car standards that

19   meet the scale of the climate crisis and protect

20   health.

21   Thank you.

22   MS. THOMPSON: Thank you for your comment.

 1   The next speaker will be Vijay Limaye. You may

 2   now unmute and state your name and affiliation for the

 3   record.

 4   DR. LIMAYE: Good morning. This is Vijay Limaye.

 5   I'm with NRDC, and I want to thank EPA for organizing

 6   this public hearing.

 7   I'm trained as a Ph.D. environmental

 8   epidemiologist and I'm a former EPA scientist myself.

 9   I work to better understand the harmful effects of air

10   pollution and climate change on health. At EPA I

11   worked on air pollution and health science. I'm now a

12   climate and health scientist at NRDC.

13   I'm speaking today on behalf of our more than

14   three million members and online activists who support

15   our efforts to safeguard all Americans' right to clean

16   air, clean water, and a healthy planet.

17   This proposal comes at a critical moment. The

18   recent Comprehensive Climate Assessment from IPCC shows

19   that fossil fuel pollution, the burning of coal, oil,

20   and gas, is driving a rapid and widespread

21   destabilization of our planet.

22   According to that science, levels of carbon

 1   dioxide in the atmosphere haven't been this high in two

 2   million years. We are in dangerous uncharted territory

 3   in terms of the human experience because of our

 4   continued reliance on dirty fossil fuels.

 5   In this country the transportation sector is the

 6   top contributor to climate pollution and the window of

 7   time for us to slow further warming and limit the

 8   likelihood of dangerous tipping points is quickly

 9   closing.

10   This unprecedented moment demands strong action

11   which is why EPA should finalize a rule at least as

12   stringent as Alternate 2 which would achieve more

13   emission reductions than the proposal.

14   Maximizing those pollution reductions is critical

15   and urgent because the climate crisis is here and now

16   and it is fueling and a escalating public health

17   emergency and endangering people all across the

18   country.

19   It's contributing to more severe wildfires,

20   exacerbating dangerous heat waves and drought, spiking

21   levels of air pollution from ozone, smog, and wildfire

22   smoke, and super-charging rainfall and flooding.

1   If we continue down this path without cutting

2   harmful emissions, climate hazards will only worsen in

3   frequency, intensity, duration, and reach in the

4   future, and the costs of those hazards, which broke a

5   new record last year, according to federal data, will

6   skyrocket out of control.

7   Climate hazards have profound consequences that

8   are in vivid display right now, both in people's pain

9   and suffering and in the costly need for medical care.

10   These health costs are difficult to track and quantify

11   and so they are largely absent from public accounting

12   of climate damages.

13   For that reason, the health-related costs savings

14   of climate pollution reductions are not included in the

15   accounting of benefits from the proposed rule being

16   considered today. Because of these missing savings,

17   the reality is that the net benefits of a strong cars

18   plan are even higher than those currently estimated by

19   EPA.

20   I led a peer-reviewed analysis that estimated the

21   health costs of 10 climate-sensitive events across the

22   U.S. that occurred during just one recent year and

1   using public data and EPA's valuation methods, we found

2   that just those 10 events inflicted huge health harms,

3   about 900 deaths, 21,000 hospitalizations, and 18,000

4   ER visits, took a total financial toll of $10 billion

5   in damage.

6   So NRDC urges EPA to finalize light-duty vehicle

7   standards that maximize climate pollution reductions,

8   deliver cleaner air, and help to secure a safer and

9   healthier future.

10   Thank you.

11   MS. THOMPSON: Thank you for your comment.

12   The next speaker will be Katherine Garcia. You

13   may now unmute and state your name and affiliation for

14   the record.

15   MS. GARCIA: I'm Katherine Garcia from the Sierra

16   Club.

17   Good morning. My name is Katherine Garcia. I'm a

18   mother of a toddler and a climate activist. I'm also

19   the Acting Director of Sierra Club's Clean

20   Transportation for All Campaign and a resident of

21   Washington, D.C.

22   Thank you for the opportunity to testify today.

1   I spent years advocating for stricter vehicle

2   standards to reduce the number of unhealthy air days

3   for residents across the country. I cannot overstate

4   the importance of strong clean car standards, for

5   climate action, racial justice, and improving public

6   health.

7   I'm calling on EPA to strengthen this proposed

8   rule to deliver on our shared priorities.

9   President Biden and his Administration have

10 promised to take action to reverse Donald Trump's

11 illegal and dangerous attacks on cleaner cars and clean

12 air.

13   I thank the Administration for the speed with

14 which they have worked on new clean car standards to

15 set us back on track.

16   Strong standards will protect communities across

17 the country from harmful transportation pollution, set

18 enforceable regulations that the auto industry must

19 meet, and are critical to our nation slashing climate=

20 disrupting emissions and meeting our Paris Agreement

21 commitment by 2030.

22   This proposal has only been out for a couple of

1   weeks and already over 9,000 Sierra Club members and

2   supporters have sent in comments emphasizing the need

3   for the EPA to protect climate and public health by

4   finalizing a bold rule.

5   While I'm pleased to see the EPA has taken steps

6   to strengthen the current standards, I'm disappointed

7   to see that the agency is still offering loopholes

8   which would allow automakers to double down on gas

9   guzzlers.

10   The current proposal would reinstate a prior

11   loophole by treating each zero emission vehicle as

12   multiple zero emission vehicles when measuring

13   compliance. Not only does this loophole erode the

14   effectiveness of the rule, but recent research shows

15   that it is actually counterproductive to accelerating

16   the deployment of electric vehicles.

17   We should be past the point of multipliers by now.

18   Instead, the final rule should say loud and clear one

19   zero emission vehicle counts for one zero emission

20   vehicle.

21   During the previous Administration, Sierra Club in

22   coalition with the diverse set of advocacy groups

1   worked to defend the clean car standards. Now is the

2   moment for the Biden Administration to go further than

3   ever before and establish the strongest rule possible.

4   Thank you again for this opportunity.

5   MS. THOMPSON: Thank you for your comment.

6   The next speaker will be Ramon Cruz. Ramon, you

7   may now unmute and state your name and affiliation for

8   the record.

9   MR. CRUZ: Yes, hello. Thank you very much.

10   Thank you for the opportunity to testify today.

11   My name is Ramon Cruz, and I'm the President of

12   the Sierra Club, the nation's largest and most

13   influential grassroots environmental organization. I

14   live in Brooklyn, and I'm originally from Puerto Rico.

15   I'm here today to urge the EPA to set the

16   strongest possible clean car standards to deliver real

17   world emissions and reductions that match the urgency

18   of the climate crisis that we're living right now.

19   I want to go into the why behind these standards.

20   This rule would be our nation's strongest climate tool

21   if EPA gets it right. This summer has been devastating

22   for our communities. Our friends, family and neighbors

 1   have been on the front lines of heat waves, of

 2   wildfires, flooding, and more, and many times, you

 3   know, people speak about climate action for future

 4   generation. While the well-being of children growing

 5   up in this decade is of big importance, the reality of

 6   that we're experiencing the impacts of climate crisis

 7   right now and while all generations are impacted, not

 8   all communities are impacted the same way.

 9   All too often the communities least responsible

10   for our climate pollution are facing the burdens of the

11   crisis and suffering from toxic air pollution, as well.

12   So the latest IPCC report states in the strongest

13   way ever that the climate crisis will continue to

14   rapidly worsen unless the world slashes climate=

15   disrupting pollution as quickly as possible in the next

16   decade.

17   Transportation pollution is our nation's worst

18   offender when it comes to the climate crisis and this

19   rulemaking, if strengthened, can put us back on track

20   and to have strong standards and offer protection for

21   communities in New York and across the nation.

22   As proposed, this rule would result in much less

1   pollution reduction than the auto industry agreeing to

2   in 2012, despite the enormous progress that's occurred

3   on electric vehicles and the climate disasters we have

4   seen since then.

5   So we must get to a hundred percent electric

6   vehicles sales by 2035 and, unfortunately, the EPA's

7   proposed rule doesn't go far enough to get us on that

8   path.

9   We're also deeply concerned about the loopholes

10 that the proposal contains that would allow auto

11 manufactures to double down on gas-guzzling vehicles.

12   So today you have heard and will continue to hear

13 from a diverse movement of people, mothers, organizers,

14 environmental justice leaders, climate activists,

15 doctors, elected officials, and more, together telling

16 the EPA it's time to act. Many of these identities

17 overlap and our movement is strong because the fight

18 for a livable planet that belongs to all of us has deep

19 intersections between racial justice, climate action,

20 and people-powered changed.

21   We appreciate President Biden and his

22 Administration for following through on promises to

 1   address climate action and environmental justice by

 2   reversing the previous Administration's attacks on

 3   clean car standards, but by acting swiftly on these

 4   rules the Administration has acknowledged the

 5   importance of tackling climate pollution for

 6   transportation.

 7   But we need the boldest and strongest possible

 8   clean car standards to truly make good of these

 9   commitments. We cannot afford a rule that locks in

10   more climate pollution.

11   It's time for the Biden Administration to

12   reinstate our strongest tool against climate change and

13   go beyond the standards President Obama set nearly a

14   decade ago.

15   Thank you for the opportunity to testify.

16   MS. THOMPSON: Thank you for your comment.

17   The next speaker will be Molly Rauch. Molly, you

18   may now unmute and state your name and affiliation for

19   the record.

20   MS. RAUCH: Good morning. I'm Molly Rauch with

21   Moms Clean Air Force.

22   Thank you so much for the opportunity to testify

 1   today.

 2   The transportation sector is the largest source of

 3   climate pollution in the U.S. Cleaning up this

 4   pollution is one of the most important things we can do

 5   to fight climate change.

 6   On behalf of the more than one million members of

 7   Moms Clean Air Force, I'm asking EPA to finalize the

 8   strongest possible greenhouse gas emissions standards

 9   for light-duty vehicles.

10   Today and tomorrow you will hear from dozens of

11   Moms Clean Air Force staff and members from across the

12   country and thousands more of us will be submitting

13   comment into the public docket on this proposal.

14   We are here and speaking out because we see it as

15   our primary responsibility as parents to safeguard our

16   children's health and future.

17   The latest IPCC report, as you've heard, released

18   earlier this month has affirmed that we are living in

19   an unequivocal climate crisis, but we don't need a UN

20   report to tell us what so many of us are experiencing

21   in our own communities.

22   Searing heat waves, staggering wildfires, terrible

1   floods, unprecedented rainfall, choking drought, this

2   affects us all. My teenage son is an athlete who

3   trains outside in the summer. He's playing football

4   here in D.C. where we live and his team started daily

5   practices last week. We've had several heat emergency

6   days and today is a Code Orange air day for ozone.

7   We have historical average of 11 dangerously hot

8   days each year in D.C., but in the 2020s, in this

9   decade, we're projected to have 18 every year and by

10 the 2050s heat emergencies in D.C. are projected to

11 increase to 30 to 45 days each and every year. This is

12 hard on my son's body and it will harm the health of

13 athletes like him in the future.

14   At Moms Clean Air Force, we appreciate that the

15 Biden Administration is prioritizing climate action and

16 has pledged a 50 percent reduction of climate pollution

17 from 2005 levels by 2030. Now EPA must finalize the

18 strongest possible standards to cut pollution from

19 cars.

20   EPA's proposal details several options. The

21 preferred alternative, the quote unquote preferred

22 alternate, includes loopholes for automakers that may

 1   undermine the pollution reduction targets. Alternative

 2   2 is the stronger option that would reduce climate

 3   pollution faster, putting 400,000 extra electric

 4   vehicles on the road by 2026 and resulting in a 130

 5   million metric tons fewer greenhouse gas emissions

 6   among other significant benefits, including billions in

 7   economic benefits. This is the better option and Moms

 8   want you to go with Alternative 2.

 9   We need 100 percent of new car sales to be zero

10   emissions by 2035. To reach that goal the near-term

11   standards for climate pollution must be as strong as

12   possible as soon as possible.

13   Please finalize the strongest possible climate

14   pollution limits on cars and light trucks to help

15   protect our children's health and future from the

16   climate crisis.

17   Thank you.

18   MS. THOMPSON: Thank you for your comment.

19   As a reminder, if you are speaking today you will

20   receive a notification on your screen that you are

21   being promoted to the role of panelist shortly prior to

22   your speaking time.

 1   You must accept that invitation to be able to

 2   unmute when you are called to testify. This will allow

 3   you to turn on your camera which we encourage you to

 4   do. Speakers connected by telephone should unmute

 5   their phones when called to testify.

 6   If you're having technical difficulties, please

 7   send an e-mail to public_hearing@abtassoc.com or call

 8   919-294-7712.

 9   Additionally, if you are not registered to speak

10   but you would like to speak tomorrow, August 26th,

11   please send an e-mail with your name and phone number

12   to public_hearing@abtassoc.com or call 919-294-7712.

13   The next speaker will be Susan Hendershot. You

14   may now unmute and state your name and affiliation for

15   the record.

16   REV. HENDERSHOT: Thank you. My name is Reverend

17   Susan Hendershot, and I am here today as the President

18   of Interfaith Power & Light, and as an ordained

19   clergywoman in the Christian Church Disciples of

20   Christ.

21   IPL's mission is to inspire and mobilize people of

22   faith and conscience to take bold and just action on

 1   climate change. I speak on behalf of our 40 state

 2   affiliates, more than 22,000 congregations, and more

 3   than 6.5 million people of faith who are a part of our

 4   national network urging the Biden Administration and

 5   the EPA to enact the strongest and boldest standards to

 6   reduce vehicle pollution, at least as stringent as

 7   those in Proposal 2.

 8   While our Interfaith Power & Light network

 9   includes people of faith from diverse religious

10   traditions, I would like to speak to you from the

11   perspective of my own tradition which is Christianity.

12   In the Gospel of Matthew, Jesus is asked the

13   question, "Teacher, which commandment in the law is the

14   greatest?" He answers, "You shall love the Lord, your

15   God, with all your heart and with all your soul and

16   with all your mind. This is the greatest and first

17   commandment and the second is like it. "You shall love

18   your neighbor as yourself."

19   Ultimately, my advocacy, my testimony here, and

20   the work of people of faith around this country who

21   have been supporting strongest vehicle standards for

22   years is about living out that love for God and

1   neighbor.

2   When we love God, we protect what God has given us

3   as a gift to be nurtured and tended. When we love our

4   neighbor, we don't pollute their air, their land, or

5   their water.

6   At this moment in time, we have a choice. The

7   just-released IPCC report makes it startlingly clear

8   there is no time to waste in half measures or catering

9   to the interests of industry and manufacturing. We

10   have already locked our children and grandchildren into

11   a future on this planet that will have more heat waves,

12   more drought, more extreme weather, and more fires than

13   we are experiencing right now.

14   We have an actual opportunity here with vehicle

15   standards that can make a difference in lowering the

16   amount of air pollution that is impacting people's

17   health and in lowering greenhouse gas emissions that

18   are driving the climate crisis, but we can't wait. We

19   can't grant loopholes to auto manufacturers.

20   Ultimately, we are accountable to each other, to

21   our children, to our elders, to front line communities

22   that are suffering disproportionately.

1   We are accountable to the sacred responsibility

2   that we have been given by virtue of our covenant with

3   God in whatever way God is known to us. Specifically,

4   I ask you to restore national standards and revise them

5   beyond levels set during the Obama/Biden

6   Administration, to establish a 2030 standard for cars

7   and light-duty trucks that achieves fleet average

8   greenhouse gas emissions 60 percent or more below

9   today's average, put the nation on a trajectory to make

10 all new cars and light-duty trucks electric vehicles no

11 later than 2035, which requires at least 60 percent to

12 be electric by 2030, and ensure all new trucks and

13 buses are zero emission no later than 2040.

14   Thank you for holding this hearing and for the

15 opportunity to speak today. May God grant you wisdom

16 and guidance as you seek the common good. Thank you.

17   MS. THOMPSON: Thank you for your comment.

18   The next speaker will be Gabriel Filippelli. You

19 may now unmute and state your name and affiliation for

20 the record.

21   MR. FILIPPELLI: Hello. I'm Professor Gabriel

22 Filippelli. I'm a Chancellor's Professor of Earth

1   Sciences at Indiana University where I also direct the

2   Center for Urban Health.

3   I'm going to reiterate some of the excellent

4   points brought up by the former speakers but add a

5   little bit more of a health twist to some of this.

6   So, of course, the IPCC report that landed last

7   week was a shock to the world, but it was not a shock

8   to scientists like myself. I've been studying climate

9   change and climate change impacts for about 30 years,

10   and I've not only read most of the studies summarized

11   in that but produced many of them.

12   And so for us scientists, it's been very clear for

13   quite some time that climate change is a critical

14   global issue and we also know that transportation, of

15   course, is a large contributor to climate change, but

16   it is also a contributor to something that I study here

17   even locally Indianapolis and that's air pollution.

18   Now air pollution from transportation has severe

19   impacts on urban populations and as stated earlier, it

20   really does disproportionately impact our lower-income

21   brown and black communities and we have research

22   ongoing that shows just that.

1   Now I think COVID, the horrors of COVID also

2 brought an important window for us to view some of

3 these climate and air quality impacts through. The

4 COVID shutdowns markedly cleared the air around the

5 world, but it also cleared the air right here in the

6 U.S. in cities and towns and we just published a study

7 in the Journal Sustainability that shows how much that

8 clearance was.

9   In the two major months of COVID shutdowns, the

10 concentration of NO2 dioxides, which is a severe lung

11 irritant, the concentration in the atmosphere dropped

12 by 20 to 40 percent in major cities across the country.

13   This drop wasn't because of a reduction in energy

14 production. It was a reduction in transportation.

15 This was the lockdown which kept people at home and

16 those are people largely with the light vehicles and

17 light-duty truck sectors.

18   So what we saw was a very clear shutdown which

19 inevitably resulted in a significant, although only

20 temporary, improvement in public health in cities and

21 towns around this country.

22   Now wouldn't it be nice if we were intentional

1   about that and that's exactly what some of these air

2   quality standards have to be written for, written not

3   to just look at climate change in a global sense but

4   also to improve the air for our children in cities like

5   mine in Indianapolis and across this country, and I

6   think that that will require some significant

7   sharpening of some of these standards perhaps even

8   beyond what was stated initially as preferred

9   solutions.

10   So I encourage you to do this. I encourage you to

11   do this for global climate, but I encourage you to do

12   this for kids' right here in Indianapolis.

13   Thank you very much.

14   MS. THOMPSON: Thank you for your comment.

15   MS. MORAN: This is Robin Moran from EPA, on the

16   EPA panel. I would just like to ask you about the

17   study that you just referenced, will you be putting

18   that in the docket for the public record?

19   MR. FILIPPELLI: I will. It's an open access

20   study. So anyone can read it, but I'll make sure to

21   include that and that was my intention. Thank you.

22   MS. MORAN: Excellent. Thank you so much.

1   MS. THOMPSON: Thank you.

2   The next speaker will be Andrea Marpillero-

3   Colomina.   You may now unmute and state your name and

4   affiliation for the record.

5   MS. MARPILLERO-COLOMINA: Thank you so much.

6   My name is Andrea Marpillero-Colomina, and I am a

7   clean transportation advocate at GreenLatinos.

8   We are an active community of Latino environmental

9   and conservation champions fighting against climate

10 change and environmental degradation that intensifies

11 systemic social health and economic injustice in our

12 communities.

13   I thank this Administration for acting swiftly on

14 clean cars but urge the EPA to create the strongest

15 possible limits on vehicle pollution as it reconsiders

16 the previous Administration's attacks on clean car

17 standards.

18   These new standards will continue to promote

19 innovation throughout the automotive industry and will

20 ensure that the U.S. remains an auto industry leader,

21 but I urge you to keep these standards as originally

22 designed to ensure the greatest reductions in oil use

 1   in global warming emissions and protect communities

 2   from pollution and emissions impacts.

 3   I'm here today because I'm very concerned on

 4   behalf of my organization about the urgent need to

 5   create and support the implementation of stringent

 6   clean vehicle standards in order to mitigate the

 7   impacts of tailpipe emissions for Latino communities.

 8   As you may know, a recent nationwide study found

 9   that Latino children are three times more likely than

10   non-Hispanic white children to live in counties where

11   air quality standards are poor and nearly one-third of

12   Latino children live in counties where hazardous air

13   pollutant concentrations exceed the one-in-10,000

14   cancer risk level. Emissions from cars are literally

15   killing children.

16   A year-long study of 756 asthmatic Latino children

17   from inner city urban areas showed that participants

18   who live near a freeway were significantly more likely

19   to have asthma that was not well controlled and it is

20   well known that Latinos are twice as likely to visit

21   the emergency room for asthma than whites, and Latino

22   children are twice as likely to die from asthma as

1   their white counterparts.

2   Strong standards can prevent this exposure and

3   these completely unnecessary deaths. EPA must set the

4   strongest possible federal clean car standards to

5   ensure that we are protecting families from vehicle

6   pollution, saving drivers' money at the pump and

7   fighting climate change.

8   This means restoring standards to at least the

9   levels set by the Obama/Biden Administration and even

10   stronger than the Obama-era standards. By implementing

11   the strongest possible fuel economy standards, the EPA

12   would also be following through on its commitment to

13   environmental justice because issuing stronger clean

14   car standards will help address key transportation-

15   related impacts of pollution.

16   Again, I urge this Administration to act on this

17   important opportunity to make our cars and light-duty

18   trucks more efficient and better for families.

19   Thank you for this opportunity to testify.

20   MS. THOMPSON: Thank you for your comment.

21   The next speaker will be Jared Snyder. You may

22   now unmute and state your name and affiliation for the

 1   record.

 2   MR. SNYDER: Good morning. I'm Jared Snyder, the

 3   Deputy Commissioner for Climate, Air, and Energy at the

 4   New York State Department of Environmental

 5   Conservation.

 6   New York supports the strongest possible EPA

 7   action to reduce greenhouse gas emissions from

 8   vehicles. Each year brings new evidence of the

 9   seriousness of climate change and this summer provided

10   almost daily reminders of the climate crisis.

11   Recognizing the urgency in 2019, New York

12   established the Climate Leadership and Community

13   Protection Act which establishes the nation's most

14   aggressive emission targets, including achieving a

15   carbon-neutral economy by 2050.

16   Over the past five years New York and two dozen

17   other states in the Climate Alliance have led with

18   policies to support the clean vehicles transition. New

19   York is investing more than $1 billion in zero emission

20   cars, trucks, buses, and charging infrastructure over

21   the next five years, including an $85 million

22   competition to deploy innovative strategies in

 1   communities overburdened by vehicle emissions.

 2   These state policies provide EPA with a solid

 3   foundation to reverse the prior Administration's

 4   backsliding. National leadership is needed now and EPA

 5   should adopt the most aggressive regulations feasible

 6   to make optimal use of existing technologies.

 7   Based on their multiyear design and engineering

 8   process, manufacturers are ready to meet the 2012

 9   standards. Last summer five manufacturers representing

10   one-third of the U.S. market committed to emission

11   reductions through 2026 at rates comparable to those

12   proposed by EPA and many manufacturers have stated

13   recently that they intend to produce ZEVs exclusively

14   or almost exclusively by 2035.

15   EPA's proposal would effectively restore the

16   pathway provided by EPA's 2012 standards, providing a

17   solid foundation for the further action that EPA can

18   and must build upon. Importantly, the proposal will

19   also reduce ozone pollution across the country,

20   providing substantial public health benefits,

21   particularly to communities overburdened by air

22   pollution, and it will also provide the average

1   consumer close to $2,000 in fuel savings over the life

2   of a vehicle if they're buying electric vehicles and

3   create jobs in the burgeoning clean vehicle sector.

4   EPA should finalize this rule and immediately turn

5   to establishing new rules to achieve President Biden's

6   goal that 50 percent of all passenger vehicles sold in

7   2030 will be zero emission.

8   As the Governors of New York and 11 other states

9   recommended this April, those rules should guide the

10   transition to the sale of only zero emission vehicles

11   by 2035, putting the nation back on track and reducing

12   transportation emissions at this critical moment.

13   The climate crisis is here now and steadfast

14   leadership from the Federal Government and state

15   governments alike is needed to protect our planet and

16   create the jobs of the future.

17   Thank you.

18   MS. THOMPSON: Thank you for your comment.

19   The next speaker will be James Flynn. Please

20   state your name and affiliation for the record.

21   MR. FLYNN: Good morning. My name's James Flynn.

22   I'm the Senior Policy Advisor for Fleet Transportation

1   at the Northeast States for Coordinated Air Use

2   Management.

3   NESCOM is the regional association of state air

4   quality agencies in the Northeast. We serve as a

5   technical and policy advisor to our members and

6   facilitate multistate initiatives to accelerate

7   electric vehicle adoption.

8   For more than three decades NESCOM and its members

9   have closely collaborated with California and other

10   states, EPA, and the auto industry to promote low and

11   zero emission vehicles.

12   My testimony focuses on the urgent need to address

13   the climate crisis and justification nor the strongest

14   possible federal emission standards for light-duty

15   vehicles.

16   As an initial matter, NESCOM appreciates the

17   Administration's renewed commitment reflected in EPA's

18   proposed rule and recent Executive Orders to coordinate

19   the states leading the way in reducing vehicle

20   emissions, including those states that adopt

21   California's emission standards.

22   Indeed, seven of NESCOM's states have done that

1   and exercised their authority under Section 177 of the

2   Clean Air Act to meet California's Advanced Clean Cars

3   Standards.

4   The public health, environmental, and economic

5   costs of climate change impacts, such as increasing

6   heat waves, drought, sea level rise, flooding, and

7   wildfires are mounting. Transportation is the largest

8   source of GHGs in the U.S. and light-duty vehicles are

9   the largest contributor of those emissions. Mitigating

10   the climate crisis will require substantial reductions

11   in GHG emissions from motor vehicles.

12   Light-duty cars and trucks are also a major source

13   of particulate matter, air toxics, and ozone quality

14   pollutants that harm public health. Significant

15   portions of the Northeast are not meeting federal ozone

16   standards. Climate change is expected to exacerbate

17   trophic sphere ozone levels.

18   Low-income communities, communities of color, and

19   indigenous populations in the Northeast are

20   particularly vulnerable to the effects of climate

21   change and are disproportionately impacted by air

22   pollution.

1   There is ample justification for strong national

2   GHG standards that recover and restore the benefits of

3   the national program adopted by EPA in 2012. Zero

4   emission vehicle technology has advanced rapidly since

5   then and the pace of innovation has only accelerated

6   since EPA confirmed those standards to be

7   technologically feasible and appropriate during the

8   2018 Term Evaluation.

9   Battery costs continue to decline. Many

10   automakers have announced plans to electrify some or

11   all of their fleets. In the 2019 Framework Agreement

12   several manufacturers voluntarily agreed to comply with

13   California's GHG emission reduction targets for Model

14   Year 2026 across their national vehicle fleets,

15   notwithstanding the unjustified weakening of federal

16   and GHG standards in the Safe Vehicles Rule.

17   For many years NESCOM's members have been at the

18   forefront of community transportation policy, including

19   by adopting California's light-duty vehicle emission

20   standards, and are committed to the rapid

21   electrification of the entire light-duty fleet.

22   Strong national standards are a critical building

1   block for state efforts to accelerate the transition to

2   electric vehicles to achieve substantial reductions in

3   GHG and criteria fleet emissions.

4   For these reasons, NESCOM urges EPA to swiftly

5   adopt the most stringent GHG emission standards for

6   light-duty vehicles feasible for Model Years 2023

7   through 2026 and to act quickly to propose ambitious

8   post-Model Year 2026 standards.

9   Thank you for the opportunity to present this

10   testimony.

11   MS. THOMPSON: Thank you for your comment.

12   The next speaker will be Rasto Brezny. You may

13   now unmute and state your name and affiliation for the

14   record.

15   MR. BREZNY: Good morning. I'm Rasto Brezny, the

16   Executive Director for the Manufacturers of Emission

17   Controls Association.

18   We'll submit more detailed comments in writing,

19   but today I'd like to speak to a few specific aspects

20   relevant to EPA's revision of these standards.

21   MECA is a nonprofit association of the world's

22   leading manufacturers of clean vehicle technology,

 1   including emission control, engine efficiency, and the

 2   full complement of electrified and electric compulsion

 3   technologies.

 4   Our economy has benefited in hundreds of thousands

 5   of jobs among clean technology suppliers who have

 6   located plants here in the U.S. to respond to the need

 7   established by environmental standards.

 8   MECA members are commercializing the technologies

 9   needed to meet the Administration's goal of

10   transitioning transportation to a net zero emission

11   future.

12   Over the past 50 years the most stringent

13   standards in the U.S. have provided domestic suppliers

14   with a competitive advantage through the early adoption

15   and optimization of technologies on vehicles. The

16   original 2012 greenhouse gas standards allowed

17   suppliers to rapidly introduce new technologies to the

18   market and just a few years later, when EPA conducted

19   their midterm review, the pace and breadth of

20   technology options for compliance grew and the cost

21   reduced beyond the agency's initial projections.

22   The recent weakening of greenhouse gas standards

1   in 2018 have left many of these technologies on the

2   shelf and put the U.S. behind other strong auto

3   manufacturing regions, like Europe and China, where CO2

4   standards have continued to tighten. It's no surprise

5   that suppliers invest where the standards demand their

6   technologies.

7   Therefore, MECA supports EPA's reconsideration of

8   the light-duty greenhouse gas standards out to 2026 and

9   further consideration of standards for Model Year 2027

10   and beyond.

11   Our members depend on long-term regulatory

12   certainty to justify their investments that will allow

13   the U.S. to meet our national climate objectives and

14   ensure that our technology suppliers remain globally

15   competitive.

16   We agree with staff's conclusion that the majority

17   of the improvements out to 2026 are achievable through

18   broader deployment of existing technologies already

19   available for combustion engines and vehicles with

20   electrified power trains.

21   Performance-based standards are a proven method

22   for meeting environmental goals through a diversity of

1   technology solutions.

2   MECA supports EPA's continuation of the Off-Cycle

3   Credit Program with a higher credit cap in order to

4   provide the benefit of verifiable greenhouse gas

5   emission reductions by all technological means.

6   We encourage EPA to continue to improve and expand

7   the Off-Cycle Program by sharing data and resources

8   with NHTSA and CARB as well as adding a supplier-

9   initiated process for conditional credits, like that

10   included in the California Framework.

11   Thank you for this opportunity to speak today and

12   I'm happy to answer any questions you might have.

13   MS. THOMPSON: Thank you for your comment.

14   The next speaker on our list is Evan Fehsenfeld.

15   Evan, it appears that you are not currently on the list

16   of attendees. However, if you have joined using your

17   phone today or are listed under a different name,

18   please use the raised hand feature and we'll promote

19   you to panelist at this time.

20   (No response.)

21   MS. THOMPSON: Okay. We will move on to the next

22   speaker on our list at this time.

1   The next speaker will be Chris Bliley. You may

2 now unmute and state your name and affiliation for the

3 record.

4   MR. BLILEY: Thanks. My name is Chris Bliley, and

5 I'm the Senior Vice President of Regulatory Affairs for

6 Growth Energy.

7   Growth Energy is the world's largest association

8 of biofuel producers. Together, we remain committed to

9 helping our country diversify its energy portfolio in

10 order to grow more green energy jobs, decarbonizes our

11 nation's energy mix, sustain family farms, and drive

12 down the costs of transportation fuel for consumers.

13   We appreciate EPA's work to reshape the nation's

14 transportation mix to make it more sustainable as it's

15 a central driver for our industry, as well.

16   Vehicles and fuels operate as a system and liquid

17 fuels will continue to play a dominant role in the

18 transportation sector for decades to come even as

19 alternative technologies flourish.

20   As such, it's imperative to consider the vital

21 role that environmentally-sustainable fuel options,

22 such as ethanol, will play in reducing greenhouse gas

1   emissions from the current and future vehicle fleet.

2   Ethanol is an available and affordable means to

3   immediately clean up our liquid fuel supply. Recent

4   data from EH&E showed today's corn ethanol reduces GHG

5   emissions by an average of 46 percent compared to

6   gasoline and can provide reductions of up to 70 percent

7   with the use of readily-available technologies.

8   Ethanol's other environmental benefits are also

9   noteworthy. As has been researched, the use of ethanol

10   reduces air toxics, such as carbon monoxide and

11   benzene.

12   With a stable policy and access to drivers, we

13   believe we can deliver low-carbon, low-cost, high

14   performing-vehicle solutions that reduce GHG emissions

15   now and well into the future.

16   Today, E15 is approved for all 2001 and newer

17   vehicles, more than 95 percent of today's vehicle

18   fleet. One recent study found that by moving to E15

19   nationwide we can immediately reduce GHG emissions by

20   more than 17 million tons, the equivalent of taking

21   nearly four million cars off the road. Also, by using

22   E85 in the millions of flex fuel vehicles on the road

1   today, even greater reductions in GHG emissions and air

2   toxics can be achieved.

3   Additionally, it's imperative to consider the

4   benefits of using high-octane/low-carbon fuels to make

5   engines more efficient.

6   Growth Energy's been a leader on the need for

7   higher octane/low carbon fuels, first submitting a

8   proposal for a 100-RON E30 fuel nearly a decade ago.

9   The science supporting the benefits of a high-

10 octane/low-carbon mid-level blend in conjunction with a

11 high-compression ratio engine is not new. It's been

12 well explored by the National Labs, automobile

13 manufacturers, and other scientific institutions.

14   To achieve these important benefits we urge EPA to

15 provide strong and clear policy to encourage the

16 adoption of high-octane/low-carbon biofuel blends.

17 One, EPA should take action to encourage the use of

18 blends, such as E15 and E85, in today's vehicle fleet.

19 Two, EPA should require a minimum octane standard.

20 Higher octane fuels give automakers flexibility to meet

21 these proposed standards. Three, EPA should approve a

22 high-octane mid-level ethanol blend for vehicle

1   certification, such as a 100-RON E30 that we first

2   proposed.   Four, EPA and NHTSA should work together to

3   re-establish credits for the production of flex fuel

4   vehicles. Five, EPA should establish strong RFS

5   volumes for '21, '22 and well into the future, and six

6   and finally, I'd like to reiterate the call for EPA to

7   provide a solution on vapor pressure for all ethanol

8   blends above 10 percent.

9   Thank you in advance for your consideration and

10   look forward to working with you on fuel solutions to

11   achieve meaningful improvement in air quality.

12   MS. THOMPSON: Thank you for your comment.

13   As a brief reminder, if you are speaking today,

14   you will receive a notification on your screen that you

15   are being promoted to the role of panelist shortly

16   prior to your speaking time. You must accept that

17   invitation to be able to unmute when you are called to

18   testify. This will also allow you to turn on your

19   camera which we encourage you to do.

20   Speakers connected by telephone should unmute

21   their phones when called to testify.

22   If you are having technical difficulties, please

1   send an e-mail to public_hearing@abtassoc.com or call

2   919-294-7712. If you are not registered to speak but

3   you would like to speak tomorrow, August 26th, please

4   send an e-mail with your name and phone number to

5   public_hearing@abtassoc.com or call 919-294-7712.

6   The next speaker will be Senator Tom Daschle. You

7   may now unmute and state your name and affiliation for

8   the record.

9   SENATOR DASCHLE: Good morning. My name is Tom

10   Daschle, and I'm speaking today as the Chair of the

11   High Octane Low Carbon Alliance.

12   I'm pleased to be here on behalf of our members,

13   the National Farmers Union, the Clean Fuels Development

14   Coalition, the Renewable Fuels Association, and the

15   National Corn Growers Association.

16   We convened the Alliance to advocate for high-

17   octane/low-carbon fuels, particularly higher ethanol

18   blends, as an affordable and cleaner source of

19   transportation fuel.

20   As noted in the proposed rule, automakers are

21   making significant investments to help the country

22   achieve the Administration's goals of cutting carbon

1   emissions by half by 2030 and by reaching a net zero

2   economy by 2050.

3   Automakers have acknowledged that the average age

4   of a vehicle in the United States is now roughly 12

5   years and therefore a large portion of the vehicles

6   will continue to rely on liquid fuels for years to

7   come. Therefore, they're continuing to invest in

8   vehicle improvements that increase fuel economy and

9   reduce greenhouse gases and internal combustion engine

10   vehicles, many of which can be enhanced or complemented

11   with the use of high-octane/low-carbon fuels.

12   High ethanol blends have the ability to

13   immediately reduce greenhouse gas emissions for light-

14   duty vehicles by more than a hundred million metric

15   tons annually, more than the proposed rule will achieve

16   in any future year.

17   Higher ethanol blends can also substantially

18   reduce particulate emissions from gasoline that is

19   harming people's health and leading to premature death

20   and which disproportionately harms communities of

21   color.

22   Finally, these blends can reduce the demand for

1   imported oil by roughly one million barrels per day

2   with multiple economic and national security benefits.

3   For these reasons, we are deeply disappointed by

4   the failure of EPA to request comment on the role of

5   higher-octane/low-carbon fuels to advance the

6   Administration's climate, public health, and

7   environmental justice objectives.

8   We note EPA's recognition that, in addition to

9   substantially reducing greenhouse gas emissions, a

10 longer-term rulemaking could also address criteria,

11 pollutant, and air toxic emissions from the new light-

12 duty vehicle fleet, and we urge the agency to use that

13 rulemaking to propose a high-octane fuel standard.

14   We look forward to responding to your request for

15 comment in the proposed rule on increasing the

16 stringency for Mileage Year 2026 which can be achieved

17 with the widespread adoption of higher-octane/low-

18 carbon fuels.

19   And finally, we ask the agency to signal in the

20 final rule its intention for 2027 and beyond to enable

21 automakers to optimize the benefits of higher-

22 octane/low-carbon fuels in both new and existing

1   internal combustion engines.

2   Thank you very much.

3   MS. THOMPSON: Thank you for your comment.

4   The next speaker will be Admiral Dennis Blair.

5   You may now unmute and state your name and affiliation

6   for the record.

7   ADMIRAL BLAIR: Good morning. My name is Dennis

8   Blair. I serve as the Third Director of National

9   Intelligence and before that Commander-in-Chief of the

10   U.S. Pacific Command, and I offer this testimony as

11   Chairman of SAFE, an organization that was founded in

12   2004 to reduce our nation's dependence on oil as both

13   an economic and a national security priority.

14   We know that for some years oil will continue to

15   be the lifeblood of our transportation sector

16   underwriting our entire economy. We're the world's

17   largest oil consumer, accounting for 21 percent of

18   global consumption and two-thirds of that is used in

19   transportation, and this dependence exposes our

20   economy. It constricts our foreign policy.

21   Oil is a volatile commodity. The price is set on

22   a worldwide market. It's subject to spikes in price

1   from many different factors and supply disruptions

2   anywhere can affect prices everywhere, including to

3   Americans, and oil is subject to unpredictable anti-

4   free market actions from OPEC and hostile OPEC+

5   nations, like Russia.

6   As the Administration's recent plea to OPEC+ to

7   increase oil production shows, we remain beholden to

8   their actions to keep prices low for Americans who are

9   the ones who bear the brunt of our dependence when oil

10   prices spike.

11   And while the rulemaking cost-benefit process of

12   EPA does not consider the U.S. military budgets that

13   are spent to protect the global oil supply, SAFE has

14   conservatively calculated this burden as at least $80

15   billion a year, adding to the real price that we are

16   paying for oil.

17   And because of these factors, long-term demand-

18   side measures to reduce our transportation sector oil

19   consumption are our most effective weapon to counter

20   this oil dependence.

21   And as a result of this line of thinking, we

22   support robust, I say robust greenhouse gas emission

1   standards proposed by EPA.   SAFE is in favor of

2   revising the current rules to be as stringent as

3   technically possible.

4   Now there are other factors at work in this

5   complex energy transportation picture.   Transportation

6   worldwide is going electric and electricity in the U.S.

7   comes from fuel that is both domestic and diverse in

8   its source as well as low and stable in price.

9   Electrification of the transportation sector will

10   ultimately eliminate the economic and national security

11   consequences of our current dependence on petroleum.

12   However, in the meantime, we need fuel-efficient

13   vehicles to use as little oil as possible as well as

14   high domestic production to ensure an adequate

15   worldwide oil supply so that prices are low and stable.

16   A caution, however.   China has jumped to an early

17   lead and an early control over electric vehicle and

18   battery supply chains from minerals to markets.   The

19   revised standards proposed by EPA not only make

20   conventional vehicles more efficient but they should

21   also accelerate the development of the domestic

22   electric vehicle market to support an American EV

 1   industry using supply chains that are safe from Chinese

 2   influence.

 3   Accelerating this development is vital. If we do

 4   not compete, if we do not build our EV market, the

 5   United States risks trading its dependence on an

 6   unstable oil market dominated by nations that do not

 7   share our interests to a reliance on Chinese domestic

 8   policy for the minerals, components, and batteries that

 9   will power our economy in the 21st Century.

10   So it's important for this shift to an electrified

11   transportation sector, including ground transportation,

12   to happen as soon as possible, to spur investment in a

13   robust domestic EV supply chain.

14   American car companies can increase production of

15   EVs to more than 50 percent of all vehicle production

16   without stranding investments and with minimal

17   workforce disruption.

18   We recommend that in preparing its final rule, EPA

19   ensure that the extensions of the shelf life of

20   previously-earned greenhouse gas emission credits do

21   not slow this vital process down.

22   In summary, as transportation goes electric, more

1   stringent mileage standards will be vital in

2   accelerating U.S. efforts to lead that shift.

3   Thank you for the chance to offer this testimony

4   and my organization SAFE stands ready to support

5   however we can.   Thank you.

6   MS. THOMPSON: Thank you for your comment.

7   The next speaker will be Shaina Oliver.   You may

8   now unmute and state your name and affiliation for the

9   record.

10   MS. OLIVER: Hello?

11   MS. THOMPSON: We can hear you.

12   MS. OLIVER: Okay.   Thank you.   Thank you for

13   providing public comment today.

14   I want to remind everyone that we are on stolen

15   land of over 574 Indigenous tribes of North America.

16   My name is Shaina Oliver, and I live on ancestral

17   lands of the Cheyenne, Arapahoe, and Ute Nations,

18   including the 45 tribes that once occupied the state of

19   Colorado.

20   I'm a field organizer for Moms Clean Air Force and

21   Eco Madres of Colorado Chapter.   I'm an advocate for

22   Indigenous People's Rights to clean air, water, lands,

 1 and health. Moms Clean Air Force is united in fighting

 2 for all children's right to a safe and healthy

 3 environment.

 4   Most importantly, I'm an Indigenous mother of four

 5 and we are the descendants of the genocide known as the

 6 Indian Removal Act and known as the Long Walk of the

 7 Navajo. These types of policy violations have had a

 8 historic impact on Indigenous People's communities,

 9 health, wealth, and environmental well-being. Its

10 impacts continue to be felt today in the form of lack

11 of Indigenous representation and extractive capitalism,

12 decisions made about resource extraction continue to

13 hurt our communities of color, often as low-income

14 community members.

15   As a tribal member, I have seen the devastation of

16 the degraded lands and the dwindling of birds,

17 butterflies, bees. Our ancestral lands continue to be

18 sacrificed for mining, drilling, and infrastructure of

19 all sorts.

20   Pollution from cars and trucks, including heavy-

21 duty vehicles, degrades quality air and threatens our

22 health.

1   I support this Administration's proposal to

2   strengthen protection for clean car standards that will

3   protect all children's health and future. As a

4   Colorado resident, myself and my family have

5   experienced the worst air quality this past summer of

6   air quality levels above a 120 levels according to the

7   IQ Air Report by 9News Colorado.

8   I urge this Administration to move forward on

9   setting ambitious federal clean car standards would be

10   a step in the right direction. The transportation

11   sector is the largest source of carbon pollution in the

12   U.S. Cleaning up vehicle pollution is one of the most

13   important things we can do to fight climate change.

14   It is the Indigenous, black, Latino, and low-

15   income communities who bear the disproportionate burden

16   of air pollution and segregation has led to our

17   communities being located by highways and industrial

18   zones that impact our health.

19   Many people like myself bear the health burdens of

20   pollution, such as asthma, diabetes, heart disease,

21   respiratory illness, cancer, adverse birth outcomes,

22   and COVID-19 has become one more health burden our

1   communities disproportionately bear.

2   I've been living with asthma since my infancy and

3   worsening air quality due to heat and wildfires related

4   to climate change have a direct impact on my ability to

5   breath.

6   Protective clean car standards will save lives in

7   communities like mine because over 26 million people in

8   the United States are burdened with asthma, including

9   more than six million children.

10   With recent reports from the Intergovernment Panel

11   on Climate Change confirms that climate change is

12   widespread, rapid, and intensified, reconfirming the

13   warnings Indigenous knowledge-keepers have been raising

14   for years.

15   We must rethink of our next generation's future

16   and livability standards and access to clean air,

17   water, soil and health.

18   President Biden has promised to address climate

19   change and fight for environmental justice. By acting

20   swiftly on clean cars, the Administration has taken an

21   important step to tackling climate pollution from

22   transportation.

1   Colorado State of the Air Report by the American

2 Lung Association just gave us an F for ozone pollution.

3 So we cannot stand by and lose another opportunity to

4 strengthen a path to a hundred percent zero emissions

5 new vehicle sales by 2035.

6   Colorado moms, dads, and caregivers are counting

7 on your leadership and unity for all children's right

8 to breathe and play in a safe and healthy environment.

9   Thank you.

10   MS. THOMPSON: Thank you for your comment.

11   The next speaker will be Almeta Cooper. You may

12 now unmute and state your name and affiliation for the

13 record.

14   MS. COOPER: Good morning. My name is Almeta

15 Cooper, and I'm the Georgia Field Coordinator for Moms

16 Clean Air Force.

17   We are 26,645 members strong in Georgia and about

18 one million moms and dads nationally. We fight for the

19 recognition of the importance of equitable solutions in

20 addressing air pollution and climate change.

21   I'm speaking to you today from Downtown Atlanta

22 where I have lived for seven years. Metro Atlanta is

1   notoriously known for some of the worst traffic

2   congestion in the nation. According to the U.S. Bureau

3   of Transportation, from the outer edges of Fulton

4   County commuters can average traveling as much as 80

5   miles each work day.

6   Additionally, about 80 percent of the Fulton

7   County's thousands of commuters travel by car daily and

8   many are single occupants driving their vehicles.

9   Driving is the most harmful mode of transportation

10   to the health of communities and is directly related to

11   air quality. Therefore, it's no surprise that Fulton

12   County was again flagged with a failing grade by the

13   American Lung Association in its 2021 State of the Air

14   Report.

15   So you can easily understand why clean car

16   standards are important to me. Cleaning up vehicle

17   pollution is one of the most important actions we can

18   take as citizens to improve air quality and to fight

19   the adverse impact of climate change.

20   As a mom, as an African American woman, and a

21   member of my community, I care deeply about

22   environmental justice, especially the connection

1 between climate change and health equity for our

2 nation's most vulnerable populations.

3   I encourage the EPA to frequently consult with

4 front line communities and environmental justice

5 leaders to provide their input into decisions related

6 to the design and implementation of EPA rules.

7   As a Georgian, I am witnessing my own state

8 government trying to suppress the voice and vote of

9 many Georgians by imposing rules that will have

10 disparate adverse impact on communities of color.

11   There is a direct connection between climate

12 change, clean air, and health. In the last month

13 United Nations Intergovernmental Panel on Climate

14 Change reported out that climate change is widespread,

15 rapid, and intensifying, painting a grim picture of our

16 world's future unless swift and strong intervention is

17 taken immediately to curb the pollution causing global

18 climate change.

19   Protecting public health means keeping everyone's

20 air clean and safe to breathe and cutting greenhouse

21 gas pollution. Because climate change affects us all,

22 whether we live and work in suburban, rural, or urban

1   areas, we must unite in protecting clean air for our

2   children.

3   In closing, on behalf of Georgia's moms, dads, and

4   children, we ask that EPA finalize the strongest

5   possible option to regulate how much and how quickly to

6   limit climate pollution from cars and light trucks.

7   Please reject any alternative that contains big

8   loopholes for automakers and that may undermine

9   otherwise strong pollution reduction targets by 2026.

10   We support Alternative Number 2.

11   Thank you again to the EPA and its staff for

12   inviting public comment and permitting digital and

13   remote testimony to allow for increased participation

14   in public hearings.

15   MS. THOMPSON: Thank you for your comment.

16   The next speaker will be Joel Levin. You may now

17   unmute and state your name and affiliation for the

18   record.

19   MR. LEVIN: Good morning. I'm Joel Levin, the

20   Executive Director of Plug In America, the National

21   Association of Electric Vehicle Drivers. We represent

22   the two million plus EV drivers on American roads

1   today.

2   We commend EPA for acting quickly on the clean car

3   standards and given the choices, we would advocate for

4   Alternative Number 2, although we're concerned that it

5   is not nearly ambitious enough.

6   We are on track for EV sales to roughly double

7   from last year to something around four percent market

8   share for 2021. Thus, an aspiration to achieve eight

9   percent EV market penetration by 2026 is just simply

10   too cautious.

11   We would urge to go beyond these alternatives and

12   establish standards that aim for 25 percent electric

13   vehicle market share for 2026 which would put us on

14   track to achieve a hundred percent electric vehicle

15   market share by 2035 as many countries and many states

16   have already committed to do.

17   For more than a decade American automaker Tesla

18   has taken the world by storm showing true American

19   leadership and, as noted in the proposal, many other

20   automakers are now moving forward and have committed to

21   reach 50 percent market share EVs by 2030.

22   This change in the American automotive landscape

 1   needs to be more fully recognized. This is no longer

 2   2012 when the Obama standards came out. Times have

 3   changed and this proposal needs to more closely reflect

 4   today's realities rather than just continuing a trend

 5   from 10 years ago.

 6   As it stands, this proposal is going to seem dated

 7   and quaint by the time we reach Model Year '26. This

 8   is EPA's chance to step out of the business as usual

 9   trend line and really step into a more ambitious goal

10   that we and many others will fully support with the

11   agency and the Federal Government.

12   In 1961 President John F. Kennedy called on

13   America to land a man on the moon by the end of that

14   decade. He launched a national mission that at its

15   peak employed some 400,000 people and inspired a

16   generation and it created technological advances that

17   benefit us even now.

18   In his call for a $174 billion package of support

19   to electrify transportation, President Biden has shown

20   the same level of transformational vision. We would

21   challenge EPA to be no less visionary. This will

22   enable us to assert American leadership in tomorrow's

1   energy and transportation technologies, to create

2   millions of good-paying jobs across numerous

3   industries, and to reclaim our skies and to protect

4   future generations from the devastation of climate

5   change.

6   So thank you very much.

7   MR. CHARMLEY: Mr. Levin, this is Bill Charmley.

8   Can you hear me?

9   MR. LEVIN: Yes.

10   MR. CHARMLEY: Just one quick question. In your

11 testimony you said that for 2021 that some data was

12 indicating that for the U.S. we were on target to hit a

13 four percent share this year.

14   That's information in your public testimony.

15 Could you provide some additional information on that?

16 That would be very helpful. Thank you.

17   MR. LEVIN: Yes, sure. We're a little bit over

18 three and a half percent right now but it's

19 accelerating. So the numbers I've seen are close to

20 four percent by the end of the year, but, yes, I can

21 share that.

22   MS. THOMPSON: Great. And thank you for your

1 comment.

2   The next speaker will be Noah Howe. You may now

3 unmute and state your name and affiliation for the

4 record.

5   MR. HOWE: Good morning and thank you. My name is

6 Noah B. Howe, and I'm the Manager of the Transportation

7 Team at Ceres.

8   I'm testifying today on behalf of Carolee Ronn,

9 Senior Director of Transportation.

10   Ceres coordinates the business for Innovative

11 Climate and Energy Policy Network, a coalition of over

12 70 major businesses. We also coordinate the Ceres

13 Investor Network which includes 175 members with

14 collectively nearly $30 trillion in assets under

15 management.

16   I'm here today to testify in support of the Biden

17 Administration's Alternative 2 Proposal for updating

18 the SAFE 2 regulations.

19   The U.S.'s ability to meet climate goals and the

20 future competitiveness of the U.S. auto industry are

21 both contingent on strong vehicle standards and a rapid

22 shift to low-emission vehicles and electrification, and

1 Alternative 2 comes closest to realizing those goals.

2   Our companies and investors see climate change has

3 a significant risk in reducing greenhouse gases as a

4 major economic opportunity. Ceres analyses

5 consistently show that weak standards generate fewer

6 jobs while stronger standards support growth in the

7 auto industry and throughout the U.S. economy.

8   Auto parts suppliers especially stand to lose

9 under weakened standards. They employ 2.6 times more

10 Americans than automakers and Ceres analyses found that

11 the suppliers sector would have stood to lose $20

12 billion in sales of clean vehicle technologies from

13 2021 to 2025 under the Trump Administration's rule.

14   We strongly support EPA adopting the strongest

15 possible emissions standards and see this as a first of

16 many steps it should take to reduce transportation

17 emissions.

18   As you know, commercial vehicles are a major

19 driver of emissions and transportation emissions

20 disproportionately impact low-income and communities of

21 color.

22   Transportation emissions-related health care are

1   also major cost centers for companies. Establishing

2   higher standards for vehicle emissions will help to

3   substantially lower emissions-related health care costs

4   while simultaneously lowering their fuel costs.

5   Weak standards also undermine global

6   competitiveness. U.S. auto industry offerings will not

7   be aligned with global market demand without strong

8   standards that drive investment in more efficient

9   vehicles and electrification.

10   Additionally, strong standards insulate the auto

11   industry from oil price spikes. The Standards Act is

12   insurance against loss of U.S. auto industry market

13   share if fuel prices spike as happened in the 2000s,

14   particularly as they move towards larger, less fuel-

15   efficient vehicles which now make up 51 percent of new

16   vehicle sales.

17   The stronger standards represented by Alternative

18   2 will accelerate the cost-effective deployment of

19   fuel-efficient commercial vehicles, allow our members

20   to meet financial and climate goals, and significantly

21   reduce fuel costs for businesses and consumers.

22   We applaud EPA and the Biden Administration for

1   these initial steps. We also strongly urge that the

2   next round of standards are aligned with climate goals

3   by ensuring at least 50 percent EV sales by 2030 while

4   ensuring requisite reductions in conventional vehicles

5   in the interim.

6   Thank you and thank you for your time.

7   MS. THOMPSON: Thank you for your comment.

8   As a brief reminder, if you are speaking today you

9   will receive a notification on your screen that you are

10   being promoted to the role of panelist shortly prior to

11   your speaking time. You must accept that invitation to

12   be able to unmute when you are called to testify. This

13   will also allow you to turn on your camera which we

14   encourage you to do.

15   Speakers connected by telephone should unmute

16   their phones when called to testify.

17   If you are having technical difficulties, please

18   send an e-mail to publc_hearing@abtassoc.com or call

19   919-294-7712. If you are not registered to speak but

20   you would like to speak tomorrow, August 26th, please

21   send an e-mail with your name and phone number to

22   public_hearing@abtassoc.com or call 919-294-7712.

1   At this time we will move forward to Speaker Block

2 2.

3   Speaker Block 2

4   MS. THOMPSON: The first speaker on our list is

5 Liane Randolph. I'm not seeing Liane among the list of

6 current attendees. However, if you have joined using a

7 different name, we invite you to raise your hand and if

8 you have joined using your phone, you can raise your

9 hand by dialing Star 9.

10   (No response.)

11   MS. THOMPSON: Okay. We will go ahead and move on

12 to the next speaker on the list.

13   The next speaker will be Diana Van Vleet. You may

14 now unmute and state your name and affiliation for the

15 record.

16   As a reminder, you will need to accept the

17 invitation to be promoted to panelist.

18   MS. VAN VLEET: Hello. Can you hear me okay?

19   MS. THOMPSON: Yes.

20   MS. VAN VLEET: Thanks so much. Sorry about that.

21   Good morning. My name is Diana Van Vleet,

22 D-I-A-N-A V-A-N V-L-E-E-T, and I'm the National

1   Director of Outreach and Engagement for the American

2   Lung Association Healthy Air Campaign.

3   Thank you so much for the opportunity to speak

4   with you today.

5   First off, I'd like to express my thanks to

6   President Biden and his Administration for

7   acknowledging the importance of tackling climate

8   pollution from transportation.

9   This proposal and the broader actions on clean

10   cars from the Administration are a meaningful step in

11   the right direction, but we need the strongest possible

12   clean air cars standards to truly make good on

13   President Biden's commitment on climate action and

14   environmental justice.

15   We call on you to maximize the benefits of these

16   standards for health, avoid loopholes or credit schemes

17   that would leave health benefits on the table, and

18   finalize them into law this year.

19   The need for action on climate change could not

20   be more urgent. Earlier this month a report from the

21   UN Intergovernmental Panel on Climate Change found that

22   there is an extremely narrow window of time to act on

1   climate change after which point the worst impacts will

2   be unavoidable.

3   Climate change is a public health emergency and

4   the sooner we act the more lives we will save. Strong

5   standards for cars are a critical step needed to slash

6   greenhouse gas emissions.

7   Furthermore, the standards are very popular. I

8   want to emphasize this important point. Americans want

9   cleaner cars. In June the American Lung Association

10   released a poll showing that 74 percent of American

11   voters supported the Federal Government setting

12   stronger standards on tailpipe emissions for passenger

13   cars and trucks with the amount of emissions allowed

14   declining over time.

15   Here's some more findings from that poll. 72

16   percent of voters agreed that the nation should make

17   significant investments in zero emission vehicles as

18   part of efforts to rebuild the economy, 74 percent of

19   voters support the Federal Government advancing

20   policies to encourage a nationwide transition to

21   electric vehicles, and 70 percent of voters support the

22   Federal Government requiring that by 2040 all new

1   freight trucks, buses, and delivery vans sold in the

2   U.S. must produce zero tailpipe emissions.

3   The bottom line: Americans across the political

4   spectrum support specific policies to achieve a

5   pollution-free transportation future. We must take

6   action at every level to address climate change and

7   reduce greenhouse gas emissions in order to protect

8   health and save lives and that includes cleaning up

9   transportation pollution using the strongest possible

10   standards.

11   Climate change poses unprecedented threats to the

12   health of every American now and for every future

13   generation. There is no time to delay.

14   The Biden Administration must use all available

15   tools to promote the climate pollution reductions we so

16   desperately need. Please make this propose as

17   beneficial for health as possible and finalize it

18   quickly and then move forward with bold future

19   greenhouse gas standards for light- and heavy-duty

20   vehicles that accelerate the critical transition to

21   zero emission vehicles.

22   Thank you so much for your time.

1   MS. THOMPSON: Thank you for your comment.

2   The next speaker will be Liane Randolph. You may

3   now unmute and state your name and affiliation for the

4   record.

5   MS. RANDOLPH: Good morning. My name is Liane

6   Randolph, and I am the Chair of the California Air

7   Resources Board.

8   Thank you for the opportunity to testify about the

9   critical importance of stringent and sensible light-

10 duty vehicle greenhouse gas emission vehicle standards.

11   California welcomes this proposal from the U.S.

12 Environmental Protection Agency to replace the federal

13 standards that were irresponsibly relaxed by the

14 previous Administration choosing to ignore longstanding

15 principles of rulemaking, science, data, law, and a

16 credible public process.

17   We need to take urgent action now and recover the

18 progress that we have lost. Like your recent proposal

19 to restore California's authority for its greenhouse

20 gas emission and zero emission vehicle standards, which

21 we encourage you to quickly finalize, this proposal

22 returns to science and the Rule of Law as the

 1   foundations of the agency's actions.

 2   The need for stringent greenhouse emissions

 3   standards becomes more apparent by the day. Our skies

 4   are darkened by wildfire ash and our reservoirs are at

 5   alarming lows.

 6   Further, research and data from around the world,

 7   such as that collected in the Sixth Assessment Report

 8   of the Intergovernmental Panel on Climate Change,

 9   confirms the threat we all face: the climate crisis is

10   accelerating and pollution from motor vehicle engines

11   is a grave threat to our health and whether we will be

12   able to live in a climate that sustains human life as

13   we know it.

14   Stringent greenhouse gas emissions standards play

15   an essential role in staving off these existential

16   threats. These standards will have immediate positive

17   impacts. By reducing and eliminating pollution from

18   vehicles and the production, delivery, and burning of

19   the fuel to power them, the air becomes cleaner for

20   those that live, play, and work near roadways and

21   refineries, the same people who tend to bear a vastly

22   disproportionate burden of pollution and who tend to be

1   people of color and low-income.

2   The industry remains ready to meet the most

3   stringent proposed standards. Automobile manufacturers

4   and suppliers have developed the necessary technology

5   and at a lower cost than predicted.

6   Extensive analysis over the past decade by our two

7   agencies has consistently found that technologies on

8   the road today and under development will meet the

9   requirements.

10   Indeed, many automobile manufacturers have

11   publicly committed to move rapidly towards making

12   entirely zero emission vehicles. So these standards

13   reflect the direction of the industry.

14   We also, of course, are pleased that the

15   California Framework Agreement helped reinforce the

16   industry's progress and therefore to give the U.S. EPA

17   a particularly sound foundation on which to rebuild the

18   federal proposal.

19   Framework automobile companies and others are well

20   suited to make the progress proposed. Moreover, for

21   those manufacturers that may need time to incorporate

22   the necessary technologies into their vehicles, the

1   proposed standards provide the flexibility needed.

2   As U.S. EPA recognized, the benefits of these

3   standards far outweigh their costs. They directly pay

4   back their initial costs to drivers which is especially

5   important for the majority of people that buy and drive

6   used vehicles, and the proposal provides climate and

7   public health benefits that we all share.

8   At the California Air Resources Board, we look

9   forward to continuing to work with our partners at the

10   U.S. EPA as we move towards zero emission standards for

11   all passenger cars and light trucks by 2035.

12   The technology developed to meet these standards

13   will lead to improvements in future years and spread to

14   other sectors, reducing emissions from other kinds of

15   vehicles and off-road equipment, and it will meet the

16   growing public demand for clean transportation and

17   sustainable practices.

18   We appreciate U.S. EPA's consideration of our

19   previous comments, legal filings, and petitions for

20   reconsideration demonstrating that the federal

21   standards adopted in 2012, which avoided millions of

22   tons of unnecessary greenhouse gas emissions, are

1   appropriate and feasible.

2   U.S. EPA should quickly act on this proposal and

3   adopt the most stringent alternative while working to

4   recognize progress that leading companies have made.

5   Thank you for the opportunity to speak today.

6   MS. THOMPSON: Thank you for your comment.

7   The next speaker will be a speaker from Block 1.

8   Evan Fehsenfeld, you may now unmute and state your name

9   and affiliation for the record.

10   MR. FEHSENFELD: My name is Evan Fehsenfeld, and

11   thank you for giving me the opportunity to speak.

12   I am a Senior Research Associate at the Program

13   for Public Consultation which is part of the University

14   of Maryland's School of Public Policy.

15   Today I'm going to present data from our surveys

16   as well as from another respected polling organization

17   on the public's views of air pollution and fuel

18   efficiency standards.

19   We conduct surveys of the American public on

20   federal policy proposals. Our surveys differ from

21   standard polls in that we provide respondents with a

22   briefing on the topic, details of the proposals, and

1   arguments for and against each proposal. This content

2   is reviewed by advocates and opponents to ensure it is

3   accurate and balanced. We use national probability-

4   based samples by Nielsen Scarborough with at least

5   2,400 registered voters yielding a margin of error of

6   about two percent, plus or minus.

7   Overall, we find that large majority support the

8   government taking action to reduce air pollution. In a

9   September 2020 survey, 78 percent of voters assigned a

10   very or somewhat high priority to the government

11   working to reduce air pollution that causes negative

12   health effects. This included 54 percent of

13   Republicans, eight in 10 Independents, and 98 percent

14   of Democrats.

15   A survey in 2016 on the clean power plants

16   proposal from the Obama Administration was a proposal

17   to require all cars and trucks by 2025 to emit half the

18   CO2 emissions of the 2010 model elicited support from

19   73 percent of voters, including 86 percent of

20   Democrats, 71 percent of Independents, and 57 percent

21   of Republicans. This also had bipartisan support in

22   the states we oversampled, including Texas, Florida,

 1   and Oklahoma, and Ohio.

 2   They were informed that this proposal would

 3   increase the cost of vehicles but save consumers more

 4   on gas in the long run. Similarly, increasing fuel

 5   efficiency standards for heavy-duty trucks, vans,

 6   tractors, and similar vehicles was supported by 71

 7   percent, including 84 percent of Democrats, 68 percent

 8   of Independents, and 56 percent of Republicans, though

 9   they were told the increase would increase the cost of

10   the vehicle, once again saving money on gas in the long

11   run.

12   These were also supported in Texas, despite its

13   dependence on oil, as well as in Ohio and Florida.

14   After the Trump Administration's replacement of

15   the Clean Power Plan with the Affordable Clean Energy

16   rule, which froze the fuel efficiency standards, a

17   survey by Yale University and George Mason University

18   asked respondents whether they would support the

19   government setting stronger fuel efficiency standards

20   for cars, trucks and SUVs, a large majority of 78

21   percent of voters were in support, including 91 percent

22   of Democrats, 76 percent of Independents, and 62

1   percent of Republicans.

2   In conclusion, increasing fuel efficiency

3   standards as a way to reduce air pollution is

4   consistently supported by a large majority of the

5   public, including majorities of Republicans, even after

6   informed that it would raise the cost of vehicles.

7   At the Program for Public Consultation, we do not

8   take a position on policy issues but believe that in a

9   democracy it is important for government agencies to

10   consult citizens on key public issues that the

11   government faces.

12   We encourage you to take the views of all of the

13   public into account when deciding whether to change

14   federal fuel efficiency standards.

15   Thank you for your time and appreciate the

16   opportunity to speak.

17   MS. THOMPSON: Thank you for your comment.

18   The next speaker will be Julie Kimmel. You may

19   now unmute and state your name and affiliation for the

20   record.

21   MS. KIMMEL: Hello. Can you hear me?

22   MS. THOMPSON: Yes, we can.

 1   MS. KIMMEL: Okay. My name is Julie Kimmel. I'm

 2 a Project Manager for Moms Clean Air Force and a parent

 3 of a sensitive and energetic six-year-old daughter.

 4   Thank you for the opportunity to testify today.

 5   I live with my daughter and husband in Reston,

 6 Virginia, and I grew up here in Northern Virginia. For

 7 as long as I can remember we've had issues with traffic

 8 congestion and cars and trucks are certainly our

 9 largest source of air pollution.

10   In fact, the transportation sector is responsible

11 for 48 percent of carbon pollution in Virginia. We

12 clearly cannot address the climate crisis without

13 moving decisively to zero pollution vehicles.

14   In the last year the Virginia General Assembly

15 passed some important legislation for reducing tailpipe

16 pollution in the Commonwealth, establishing an advanced

17 clean cars program and electric vehicle rebate program

18 and a grant fund for electric school buses and heavy-

19 duty vehicles, but Virginia can't do this work to cut

20 climate pollution alone and neither can any other

21 state.

22   I support this Administration's proposal to

 1   strengthen federal greenhouse gas emissions standards

 2   for passenger cars and light trucks. This proposal is

 3   a step in the right direction for the health of our

 4   children and our climate.

 5   Climate change is already affecting my community

 6   in Reston. Over the last decade we've had several

 7   severe wind storms, a phenomenon I don't recall from my

 8   childhood here. We've also seen multiple so-called

 9   100-year rain storms, and the annual number of days

10   when temperatures soar past 90 degrees is growing.

11   I mentioned that my daughter is six. She just

12   started first grade. The absolute biggest joy in her

13   whole life is meeting her friends after school outside

14   at our neighborhood playground. They play make-believe

15   and build shelters for bugs. They jump rope and throw

16   Frisbees. Playing outdoors is so important for young

17   children. They learn how to be cooperative,

18   compassionate humans on the playground.

19   When the temperatures climb past 95 degrees, I

20   have to ask my daughter to stay inside. She plays

21   hard, overheats easily, and I do not want to risk a

22   trip to the emergency room for heat-related illness.

1   It's not just me and my kid and my neighbors.

2   Families across the country are losing so many valuable

3   play and school days to extreme storms, extreme heat,

4   and wildfires, thanks to climate change, and this on

5   top of the education crisis we're facing because of

6   COVID.

7   As a parent worried about the impacts of climate

8   change on our children's education, health, and future,

9   I want EPA to finalize the strongest possible national

10 greenhouse gas emissions standards for passenger cars

11 and light trucks. To stall the climate catastrophe

12 threatening our kids, we must get ourselves on the path

13 to 100 percent zero emissions new vehicle sales by 2035

14 and that means the near-term standards for climate

15 pollution that we're talking about today not only

16 should be as strong as possible but also should avoid

17 loopholes and put automakers on track to hit that 100

18 percent zero emissions by 2035 target.

19   Thank you for the opportunity to testify.

20   MS. THOMPSON: Thank you for your comment.

21   The next speaker on our list is Yolanda Whyte, who

22 we do not currently see listed in the attendee list.

1   However, if you have joined using a different name, we

2   would invite you to raise your hand at this time. If

3   you have called in, you may raise your hand by dialing

4   Star 9 on your phone.

5   (No response.)

6   MS. THOMPSON: All right. We will move on to the

7   next speaker on our list.

8   Elizabeth Hauptman. We also do not see you listed

9   on the attendee list. However, if you have joined

10   using a different name or your telephone, we would

11   invite you to raise your hand at this time.

12   (No response.)

13   MS. THOMPSON: Okay. The next speaker on our list

14   is Laurie Anderson.

15   Laurie, you may now unmute and state your name and

16   affiliation for the record.

17   MS. ANDERSON: Hi. My name is Laurie Anderson,

18   and I'm a Field Organizer for Moms Clean Air Force in

19   Colorado. I grew up in Colorado and I thank you for

20   this opportunity to testify today.

21   I'm a mom of five kids and a mechanical engineer

22   by degree, but I turned my focus to protecting public

1   health and safety after becoming a mom. I also serve

2   as a council member for the City and County of

3   Broomfield here in Colorado, speaking on my own behalf.

4   My community is located along Colorado's Front

5   Range where we are known for our majestic mountains and

6   sunshine. However, not so well known is our

7   problematic air inversions where cool night time air

8   traps high levels of pollution up against the Rocky

9   Mountains which impacts our air quality and Front Range

10   communities.

11   The Denver Metro North Front Range is currently

12   listed serious non-attainment for ground level ozone

13   and we just passed the EPA July deadline to be

14   downgraded to severe non-attainment as we contend with

15   pollution from the oil and gas sector in the DJ Basin

16   combined with vehicle pollution.

17   Climate change and air pollution is a reality we

18   must contend with and we must address pollution from

19   all sectors. Therefore, I support this

20   Administration's proposal to reduce greenhouse gas

21   emissions from cars and light trucks.

22   The EPA must set the strongest possible federal

1   clean car standards through 2026, avoiding loopholes,

2   and putting automakers on track to meet ambitious

3   pollution reduction goals.

4   A few years ago recognizing the benefit of leading

5   by example, I switched to an EV in an effort to reduce

6   my own pollution. I purchased my Nissan Leaf

7   understanding that this would be a change but I never

8   regretted that decision. Our communities are ready to

9   embrace the change to EVs and cleaner vehicles.

10   The transportation sector is the largest sector of

11   carbon pollution in the U.S. Cleaning up vehicle

12   pollution is one of the most important things we can do

13   to fight climate change.

14   Additionally, by reducing tailpipe pollution which

15   includes NOX, a precursor to ozone, we thereby help

16   reduce ground level ozone pollution and our hope of

17   getting out of ozone non-attainment so we can breathe

18   easier along Colorado's Front Range.

19   I am also concerned about the impacts of climate

20   change. Last year Colorado experienced the three worst

21   wildfires in our state's history which impacted air

22   quality across the state and Colorado remains in severe

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   drought on the Western Slope and that is where our

2   water supply comes from.

3   We are also facing abnormal weather patterns, such

4   as two tornadoes over the past couple months have

5   touched down in this area, and this is an area where we

6   rarely even have a tornado watch.

7   Additionally, Colorado relies on our winter

8   snowpack for our water supply and it is down

9   substantially from years prior. These impacts are

10   serious and we must reduce our pollution now.

11   In order to set us on the path to 100 percent zero

12   emissions new vehicle sales by 2035, the near-term

13   standards for climate pollution must be as strong as

14   possible. Therefore, please finalize the strongest

15   possible national greenhouse gas emissions standards

16   for passenger cars and light trucks for Model Year

17   2026.

18   Thank you.

19   MS. THOMPSON: Thank you for your comment.

20   As a quick reminder, if you are speaking today,

21   you will receive a notification on your screen that you

22   are being promoted to the role of panelist shortly

 1   prior to your speaking time. You must accept that

 2   invitation to be able to unmute when you are called to

 3   testify. This will also allow you to turn on your

 4   camera which we encourage you to do.

 5   Speakers connected by telephone should unmute

 6   their phones when called to testify.

 7   If you are having technical difficulties, please

 8   send an e-mail to public_hearing@abtassoc.com or call

 9   919-294-7712. If you are not registered to speak but

10   would like to speak tomorrow, August 26th, please send

11   an e-mail with your name and phone number to

12   public_hearing@abtassoc.com or call 919-294-7712.

13   Our next speaker will be Celera Hughes. You may

14   now unmute and state your name and affiliation for the

15   record.

16   MS. HUGHES: My name is Celera Hughes, and I am

17   with Moms Clean Air Force, New Mexico Chapter.

18   My name is Celera Hughes, and I am a Moms Clean

19   Air Force organizer in Albuquerque, New Mexico. Thank

20   you so much for the time to speak today.

21   New Mexico is known for its beautiful skies and

22   outdoor spaces, but Albuquerque continues to receive

1 failing ozone grades from the American Lung

2 Association's State of the Air Report in large part

3 because of vehicle pollution.

4   The transportation sector is the largest source of

5 carbon pollution in the U.S. Cleaning up vehicle

6 pollution is one of the most important things we can do

7 to fight climate change.

8   That is why I was glad to hear that the EPA is

9 proposing to strengthen federal greenhouse gas emission

10 standards for passenger cars and light trucks which

11 accounts for 17 percent of U.S. climate pollution.

12   Climate change is impacting New Mexico and the

13 Southwest with drought and longer more intense wildfire

14 seasons as well as increased heat waves that threaten

15 the health of New Mexico's families.

16   We've seen rising heat and climate impacts,

17 including wildfires, that are causing air pollution

18 from places over 400 miles away. This summer the

19 wildfires burning in Arizona put Albuquerque as public

20 health alert of smoke and particulates traveled

21 hundreds of miles.

22   On the first day of summer camp, my eight-year-old

 1   daughter suffered from heat stroke as we saw the

 2   beginning of a heat wave hitting the Southwest. On the

 3   third day, I had to explain that she could not play

 4   outside because the air was dirty from smoke and

 5   particulate matter caused by wildfires one state over.

 6   Over the past few weeks, we've had numerous days

 7   where air quality officials have told us the air

 8   outside is unhealthy to breathe due to smoke and ozone

 9   and our skies are so thick with particulate matter we

10   cannot see the Sandia Mountains.

11   Our children now have to spend large portions of

12   the summer inside because air is literally too

13   dangerous to breathe outdoors. We have to make a

14   change now before this becomes the new normal.

15   We cannot address the climate crisis without

16   moving decisively to zero pollution vehicles and this

17   proposal is a step in the right direction.

18   The pollution from cars not only causes climate

19   change but it degrades air quality and threatens our

20   health. The EPA must set the strongest possible

21   federal clean car standards through 2026, avoiding

22   loopholes, and putting automakers on track to meet

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   ambitious pollution reduction goals.

2   Thank you again for your time today.

3   MS. THOMPSON: Thank you for your comment.

4   The next speaker on our list is Renee Chacon.   It

5   appears that Renee is not listed on our attendee list

6   at this time.   However, if you have joined using a

7   different name, please raise your hand at this time.

8   If you have joined using your phone, you may raise your

9   hand by dialing Star 9.

10   (No response.)

11   MS. THOMPSON: We will move on to the next speaker

12   on our list.

13   The next speaker will be Kevin Stewart.   Please

14   state your name and affiliation for the record.

15   MR. STEWART: Good morning.   I thank the hearing

16   panel for your work today.

17   I am Kevin Stewart, and I serve as Director of

18   Environmental Health, Advocacy, and Public Policy for

19   the American Lung Association.

20   Today, I am speaking on behalf of the American

21   Lung Association in the Mid-Atlantic, covering

22   Delaware, the District of Columbia, Maryland, New

1   Jersey, Pennsylvania, Virginia, and West Virginia, and

2   I'm representing not only the millions of people there

3   who suffer from chronic lung disease but also the tens

4   of millions of others who desire to breathe clean air

5   and so protect their good health.

6   According to the American Lung Association's most

7   recent State of the Air Report in just this service

8   area, not a mere handful but 20 counties, home to 13

9   million people, accounting for one-third of that

10   region's population, earned failing grades for ozone

11   smog, and a clear majority of these counties average at

12   least five days a year when ozone levels were high

13   enough to pose clear risks for people in sensitive

14   groups, children and seniors as well as people with

15   chronic lung and heart disease, risks severe enough to

16   send people to emergency rooms and hospitals.

17   Despite many years of improvement in emissions and

18   efficiency standards for vehicles and fuels, we in the

19   Mid-Atlantic still face a serious problem.

20   Transportation-related air pollution, including

21   significant contributions from light-duty vehicles,

22   continues to be a major source of both greenhouse gases

 1   and ambient air pollution.

 2   According to the most recent emission inventories,

 3   highway vehicles alone account for about 17 percent of

 4   the Mid-Atlantic's contributions to volatile organic

 5   compounds and for fully 39 percent, the largest share

 6   for any emissions tier, for nitrogen oxides, the

 7   primary driving precursor of ozone formation in the

 8   Mid-Atlantic.

 9   The need for the strongest possible clean car

10   standards in the short term and on track for the clean

11   electric vehicle market in the longer term implemented

12   as soon as possible could not be clearer and lest there

13   be any wonder about the need for these improvements, I

14   can cite no more convenient example than the fact that

15   today has been declared an air quality action day for

16   ozone smog for much of the Mid-Atlantic, for Baltimore,

17   Washington, and Northern Virginia, and the South, to

18   Delaware and Philadelphia and the East, to Pittsburgh

19   and the West, and quoting from the official forecast,

20   "Ozone formation during the late morning, afternoon

21   will be robust and eight-hour maximum concentrations

22   are expected to reach into the Code Orange range," and

1   the extended forecast continues, "The heat is expected

2   to continue Thursday with sunshine for the most part

3   and again Code Orange ozone concentrations are

4   possible," and climate change is making these scenarios

5   all the more likely. The need is clear.

6   Thank you.

7   MS. THOMPSON: Thank you for your comment.

8   The next speaker will be Meredith Haines. You may

9   now unmute and please state your name and affiliation

10   for the record.

11   MS. HAINES: Thank you for the opportunity to

12   testify, especially remotely.

13   My name is Meredith Haines, and I'm here as a

14   private citizen. I'm calling in from Vienna, Virginia,

15   and in Virginia, we recognize that addressing

16   transportation's outsized contribution to greenhouse

17   gas emissions is critical to climate policy.

18   And in February, the state legislature passed

19   clean car standards, joining other forward-looking

20   states, such as our neighbor Maryland, and we need the

21   action of this Administration to lead all states to

22   swift and effective change, and I urge the EPA to adopt

 1 at a minimum the second alternative.

 2   I'm a chemical oceanographer by training. I have

 3 learned to analyze processes on scales far greater than

 4 the individual human experience and the fact that the

 5 largest ecosystem on the planet is showing

 6 unprecedented breakdown is a realization that I find

 7 difficult to comprehend.

 8   The vast capacity of the ocean has buffered out

 9 pollution's impact enormously, directly absorbing

10 greenhouse effects and excess heat and tempering

11 atmospheric warming and yet we have reached ecosystem

12 limits largely within my lifetime.

13   Now ocean life suffers stresses of marine heat

14 waves on top of generally warmer and more acidic waters

15 with less oxygen.

16   However, it seems until the impacts show up on our

17 coasts affecting real estate and impacting our summer

18 beach trips, then it's a problem happening somewhere

19 else. So I don't need to remind the panel that there

20 is no Plan B at least for today. The better news is

21 there is at a minimum an Alternative 2.

22   To keep this in very human scale terms, driveway

1   issues, if you will, with Alternative 2 consumers will

2   have more dollars in their pockets, in their budgets,

3   and Consumer Reports tells me it would be $2,100 per

4   vehicle.

5   Our communities will have cleaner air benefits

6   sooner and will be more choices in electric vehicles,

7   and I want consumers to get a strong signal that zero

8   emission vehicles are the future and that is the future

9   we want with lower running costs, cleaner air to

10   breathe, and wider ecosystem benefits.

11   And to briefly touch on where regulation meets

12   policy, I note that the regulatory analysis does not

13   appear to consider the impact of the carbon tax and

14   given that a carbon price is considered by economists

15   and scientists and I advocate for it, the best policy

16   for rapid emissions reductions and is broadly

17   implemented worldwide should be part of the

18   conversation and consumers will use their climate

19   action incentive payments or carbon cash back and the

20   known schedule of carbon price increases and want to

21   further benefit economically by making more fuel-

22   efficient/less-carbon-intensive choices.

 1   Just in conclusion, I urge you to reinstate the

 2   Obama/Biden standards with your Alternative 2 and set

 3   even stronger ones through 2030 and loopholes undermine

 4   the possibility of meeting our emissions reduction

 5   target and delay undermines the messages of urgency

 6   that should accompany all action.

 7   Thank you for hearing my testimony.

 8   MS. THOMPSON: Thank you for your comment.

 9   The next speaker will be Jonathan Shevelew. You

10   may now unmute and please state your name and

11   affiliation for the record.

12   MR. SHEVELEW: Hi. My name is Jonathan Shevelew.

13   I'm the CEO of the Tesla Owners Club of Pennsylvania,

14   but I'm here today as a private citizen.

15   Thank you for giving me the opportunity to

16   comment.

17   I'm not here to spout statistics to prove that

18   we're faced with a climate crisis. I believe that any

19   reasonable individual at this point should recognize

20   that this is the case.

21   I'm also not here for myself. The worst effects

22   of this crisis will probably not be felt during my

1   lifetime.   I'm here because when I look at my children

2   and my five-year-old grandson, I am terrified for the

3   future that they will inherit because of the selfish

4   indifference that my generation has demonstrated.

5   We need to recognize that we are faced with a

6   climate crisis and therefore need to act as if this is

7   a crisis and not a minor inconvenience that we can

8   address gradually over a period of time.

9   These initiatives should have been implemented 20

10   years ago.   To now decide to accept the 20-year

11   transition like GM is proposing is foolhardy and will

12   have devastating results, especially when we already

13   have manufacturers that have demonstrated that

14   achieving a 100 percent reduction in GHG is possible

15   today.

16   To encourage manufacturers to continue to invest

17   funds and resources into reducing the emissions from

18   fossil fuel-based engines is an absurd approach with

19   diminishing returns, especially when we've already

20   accepted the fact that these types of engines will

21   disappear.

22   When a country like Norway, who is also a major

1   oil producer, can make this full transition by 2025,

2   why would we think that we can't do that here?

3   Necessity is the mother of invention. I spent

4   many years in software design and development and we

5   had a saying that any program will expand to fit all

6   available space.

7   If you accept 20-year targets that will eliminate

8   any sense of urgency, then it will take the full 20

9   years for this transition to happen.

10   The EPA is noting already the need for a longer-

11   term rule. So why once again are you going to kick

12   that can down the road? Your current proposals don't

13   even meet the goals of the Obama Administration. This

14   is not earth-shattering news to vehicle manufacturers.

15   They have known that this was coming for years but had

16   no incentive to move towards EVs.

17   It's imperative that we push them harder by making

18   the financial penalties so severe that not investing in

19   the transition would be a disastrous business decision

20   for them. The costs associated with transitioning

21   their products to ZEVs needs to be less than the

22   penalty for not doing it.

Trustpoint.One | Alderson.   www.trustpoint.one
www.aldersonreporting.com   800.FOR.DEPO
(800.367.3376)

1   There is also a political reality to consider.

2 While currently the government is recognizing the

3 climate crisis we are faced with, those positions can

4 change with future administrations. In order to assure

5 that we don't waver from this path, the EPA needs to

6 put rules in place that are aggressive and which need

7 to be acted on immediately.

8   By setting 2025 as the goal to eliminate GHG

9 emissions from light-duty vehicles, it assures there

10 will be no future diversions based on a changing

11 political landscape.

12   Faced with severe penalties for noncompliance

13 beginning in 2026, I have no doubt that the OEMs will

14 find a way to make this happen.

15   We will be held accountable and we'll be judged

16 for our actions in this crisis by subsequent

17 generations. What we do today will affect the quality

18 of life for this planet for many years and it's time

19 for us to be the adults in the room.

20   Thank you for allowing me to comment.

21   MS. THOMPSON: Thank you for your comment.

22   The next speaker will be Sandra Remilien. Sandra,

1   you may now unmute and please state your name and

2   affiliation for the record.

3   MS. REMILION: (Audio glitch) and eliminate

4   unnecessary loopholes for automakers. (Audio glitch.)

5   Transportation is the biggest source of greenhouse

6   gas emissions and makes up 20 percent of emissions.

7   (Audio glitch) makes up about 4.6 metric tons of carbon

8   monoxide. (Audio glitch) creates about 8,887 rems of

9   CO2.

10   When I was in high school, I had mild asthma.

11   Stronger clean car standards would ensure I have clean

12   air and clean air helps me breathe easier. I like the

13   smell of clean air. I have breathed clean air only to

14   have the air become polluted again (unintelligible.) I

15   have smelled the exhaust from car tailpipes and

16   gasoline and carbon monoxide, methane, nitrous oxide,

17   and things that come from car tailpipes.

18   Particulate matter worsens asthma and causes

19   premature death. Tailpipes cause air pollution.

20   Electric cars do not emit tailpipe emissions or the

21   gases that come from gasoline-powered cars. Fuel-

22   efficient cars lower air pollution and emissions from

 1   cars. Fuel-efficient cars emit less carbon dioxide.

 2   A Consumer Reports survey found that nine in 10

 3   adults in the U.S. (audio glitch) reduces greenhouse

 4   gas emissions.

 5   Once again, I urge the EPA to set the strongest

 6   possible standards because they help with air pollution

 7   and lower greenhouse gas emissions. Alternative 2

 8   saves $2,100 per vehicle. Please make our cars and

 9   light-duty trucks clean and efficient. Please make the

10   clean car standards through 2030 stronger and for

11   automakers to avoid these standards.

12   Thank you for the opportunity to testify.

13   MS. CHARMLEY: Ms. Remilien, this is Bill Charmley

14   with the EPA. I just want to let you know thank you

15   for your testimony and we're able to hear almost

16   everything you said, except for about maybe like the

17   first 20 or 30 seconds. The connection was poor. But

18   I did want to let you know we do have your written

19   testimony. So if you hear later that maybe the

20   recording wasn't great, we did hear almost everything

21   you had to say and we'll make sure that we review your

22   written testimony.

1   MS. REMILION: Thank you.

2   MS. THOMPSON: Thank you for your comment.

3   The next speaker will be Melanie Buzzelli.   You

4   may now unmute and please state your name and

5   affiliation for the record.

6   MS. BUZZELLI: Thank you.

7   Good morning.   My name is Melanie Buzzelli,

8   M-E-L-A-N-I-E, Buzzelli, B-U-Z-Z-E-L-L-I.   I do work at

9   the Lung Association, but I'm here today to speak as a

10   private citizen.

11   I'd like to thank you for the opportunity to speak

12   with you today about this important topic as well as

13   thank President Biden and his Administration for

14   recognizing and seeking to address climate pollution

15   from transportation.

16   I'm happy to see this proposal and the broader

17   efforts on the part of the Administration regarding

18   clean cars, but I'm here to say that it is not enough.

19   I'm seeking a Master's in Public Health at George

20   Washington University and currently I'm enrolled in a

21   class pertaining to Environmental and Occupational

22   Health.

1   Recently, the professor asked us to look at the

2   concentration of carbon dioxide in the atmosphere when

3   we entered the program and compare it to the

4   concentration now. In June of 2019 the concentration

5   level was approximately 414.1 parts per million, and in

6   June of 2021 the concentration level was approximately

7   418.94 parts per million.

8   The professor then asked us to compare these

9   numbers to the point of no return, generally recognized

10   as 450 parts per million, and reflect on how we felt.

11   I had a hard time attempting to describe my myriad of

12   emotions at the time and I don't think I've become any

13   more articulate since then, but I think the word I

14   ultimately ended up landing on to suffice for now which

15   was terrified.

16   I know these numbers aren't a surprise for you and

17   they weren't necessarily a surprise to me either, but I

18   think it is nonetheless important to constantly remind

19   ourselves of what we face.

20   Working in policy myself, I know how easy it is

21   for politics and bureaucracy to chip away at big

22   change, but on the issue of climate change we simply

 1   cannot afford for that to happen.

 2   We need to be doing as much as we can at every

 3   opportunity we have and in that vein, while this

 4   proposal is a step in the right direction, much more is

 5   needed.

 6   The transportation sector is the largest source of

 7   greenhouse gas emissions in the United States.

 8   Gasoline and diesel-powered cars, SUVs, trucks, buses,

 9   vans, and more pollute the air we breathe and drive

10   climate change.

11   I ask that EPA finalize this rule as quickly as

12   possible so that it can take effect as quickly as

13   possible and in doing so, I ask that EPA maximize the

14   emissions reductions and health benefits of this rule.

15   EPA must also hold automakers accountable in order

16   to ensure that the standards actually result in real-

17   world reductions in greenhouse gas emissions and then,

18   perhaps more importantly, I ask that EPA set up

19   stronger standards to follow. Stronger standards

20   covering cars, SUVs, and light trucks through at least

21   2030 and stronger standards for heavy-duty vehicles are

22   necessary to drive the transition to zero emission

 1   vehicles that the nation and the world desperately

 2   need.

 3   Climate change is terrifying. It's truly an

 4   existential crisis and I hope it's one that we're

 5   willing to meet.

 6   Thank you again for the opportunity to speak with

 7   you today and for your work on this vital issue.

 8   MS. THOMPSON: Thank you for your comment.

 9   As a reminder, if you are speaking today, you will

10   receive a notification on your screen that you're being

11   promoted to the role of panelist shortly prior to your

12   speaking time. You must accept that invitation to be

13   able to unmute when you are calling to testify. This

14   will also allow you to turn on your camera which we

15   encourage you to do.

16   Speakers connected by telephone should unmute

17   their phones when called to testify.

18   If you are having technical difficulties, please

19   send an e-mail to pubic_hearing@abtassoc.com or call

20   919-294-7712. Additionally, if you are not registered

21   to speak but would like to speak tomorrow, August 26th,

22   please send an e-mail with your name and phone number

1   to public_hearing@abtassoc.com or call 919-294-7712.

2   The next speaker on our list is Kent Minault.

3   Kent, you are not currently on the list of attendees.

4   However, if you have joined using a different name, we

5   would invite you to raise your hand at this time. If

6   you have joined using your phone, you can raise your

7   hand by dialing Star 9.

8   (No response.)

9   MS. THOMPSON: Okay. We will move on to the next

10   speaker on our list.

11   The next speaker will be Jim Steitz. You may now

12   unmute and please state your name and affiliation for

13   the record.

14   MR. STEITZ: Hello. My name is Jim Steitz, no

15   real affiliation to give, and I'll keep my comments

16   brief.

17   I believe that in setting new auto efficiency

18   standards a controlling central organizing concern of

19   EPA must be mitigating the existential threats of

20   climate change.

21   The need of human civilization and every part

22   thereof, including EPA, to reduce our carbon emissions

1   really must override all economic objections from

2   automakers, the oil industry, dealerships, any other

3   parties that may have financial objections to strong

4   standards but whose lives are not literally in jeopardy

5   as are those of our children most decidedly.

6   The selection of Alternative 2 and the

7   reinstatement of standards sets by the Obama

8   Administration should be considered a perfunctory

9   minimum policy in light of recent data o climate

10   change.

11   In fact, EPA, I believe, should really look to the

12   analysis of the International Energy Agency that

13   dropped in May which outlines what they believe, and

14   they have a lot of expertise in this area, would be the

15   most economically- and technically-plausible way to

16   keep climate change below catastrophic levels and they

17   found that internal combustion vehicle sales would have

18   to essentially end by 2035 and that's not many vehicle

19   generations away and any EPA policy that does not force

20   automakers on to that path is really not acknowledging

21   reality.

22   Moreover, there really must be no opportunity for

1   evading the mileage standards by shifting around sales

2   volume among categories. For three decades now, these

3   standards have been undermined by this farce of

4   classifying SUVs as light trucks and manufacturers then

5   promote these quasi-military vehicles to satisfy either

6   misplaced masculine vanity or illusions of personal

7   safety, neither of which are related to the categories

8   of the original purpose of the actual work vehicles for

9   construction or farming or what have you.

10   Manufacturers have tremendous ability to drive

11   purchaser preferences. Their complaints about their

12   abilities in selling fuel-efficient vehicles are really

13   just self-fulfilling prophesies and they must be

14   disregarded.

15   If the auto manufacturers have to accept lower

16   profit margins to derive the sales of fuel-efficient

17   and electric vehicles, that's really a trivial concern

18   in the big scheme of things hanging over the EPA right

19   now, and these standards have to commence immediately

20   with mileage improvements demanded in the very next

21   vehicle year. They cannot be back-loaded to let

22   manufacturers stall for time and then lobby to weaken

1   the standards later.

2   The past three decades of very frustrating

3   feckless haggling with the industry, all kinds of

4   industries really, over carbon emissions demonstrates

5   if you set targets for more than a few years out, then

6   those standards are consistently ignored either as

7   someone else's problem or as a nuisance for the

8   government relations office to fix, not the CEO's

9   problem. So we cannot make that mistake either again.

10   This is our last chance and so I really urge EPA

11   to get it right and to act with more boldness than any

12   political history would suggest as precedence and

13   that's all.

14   Thank you.

15   MS. THOMPSON: Thank you for your comment.

16   The next speaker on our list is Patricia Keefe.

17   You may now unmute and state your name and affiliation

18   for the record.

19   MS. KEEFE: Okay. Can you hear me?

20   MS. THOMPSON: We can hear you.

21   MS. KEEFE: Okay. Clean cars in our state. So I

22   worked with our state senator and I found out that the

1   EPA of Minnesota was developing rules about clean cars.

2   So we do have that process already entered into the

3   state register in Minnesota. So the process is going

4   forward and I'm sure the EPA can get a copy of -- can

5   you still hear me -- a copy of the rules that were

6   developed by the EPA and they were entered into the

7   Minnesota Register recently and they used some of the

8   information from California's experience on clean cars.

9   So we now are in -- it's now being in the public

10   domain and the rules will be applied in the future to

11   new cars and light trucks in Minnesota. So if EPA here

12   wants to get those, they can get them from the EPA of

13   Minnesota and so can anybody else.

14   Thank you.

15   MS. THOMPSON: Thank you for your comment.

16   The next speaker will be Elizabeth Chun Hye Lee.

17   You may now unmute and please state your name and

18   affiliation for the record.

19   MS. LEE: Are you able to hear me?

20   MS. THOMPSON: Yes, we can hear you.

21   MS. LEE: Thank you.

22   Hello. My name is Elizabeth Chun Hye Lee. I

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

 1   serve as the Executive for Economic and Environmental

 2   Justice at United Methodist Women and climate justice

 3   is one of our issue priorities. We are a faith-based

 4   women's organization with members in every state of the

 5   U.S.

 6   The most recent IPCC report notes that human-

 7   caused climate change is fueling cataclysmic changes to

 8   our planet and warns that limiting global warming will

 9   be beyond reach in the next two decades without

10   immediate, rapid, and large-scale reductions in

11   greenhouse gas emissions.

12   The U.S. has a moral responsibility to drastically

13   reduce our own emissions. We must do our fair share.

14   While we are only four percent of the world's

15   population, the U.S. has contributed more than 25

16   percent of cumulative greenhouse gas emissions and is

17   the biggest contributor.

18   Women, children, and youth are already being

19   disproportionately affected. The UN reports that 80

20   percent of people being displaced by climate change are

21   women and when natural disasters hit, women and

22   children have been 14 times more likely than men to

1   die, more vulnerable to gender-based violence, and

2   afterwards there has been as much as 20 to 30 percent

3   increase in trafficking.

4   Because transportation is the largest climate-

5   polluting sector in the U.S., by implementing the

6   strongest possible fuel economy standards, EPA can

7   ensure that automakers and bus and technology to make

8   more efficient vehicles rapidly shift to electric

9   vehicles significantly reduce greenhouse gas emissions

10   and reduce co-pollutants that will protect the planet

11   and our health.

12   I speak about this concern also as a mother of a

13   seven-year-old and as an Asian American having grown up

14   and lived in environmental justice communities in

15   Queens, New York.

16   It was unsurprising when I read that the 2019

17   Union of Concerned Scientists Report found that Asian

18   American residents are exposed to twice as much PM 2.5

19   pollution as were white residents in New York. Our

20   roads are heavily trafficked by cars and buses and our

21   air is heavily polluted from tailpipe emissions.

22   I am also a caretaker for my 79-year-old father

 1 who has COPD and bronchiectasis. My father was

 2 recently rushed to the ICU and intubated for many weeks

 3 unable to breathe on his own. Fortunately, he is now

 4 home recovering but the greatest threat to his lung

 5 function is air pollution.

 6   Passing the strongest standards to reduce tailpipe

 7 emissions will not only protect my father's life but

 8 the 103,000 people living with COPD and over 36,600

 9 children living with pediatric asthma and the 1.6

10 million people of color in Queens County alone.

11   Implementing the strongest fuel economy standards

12 that exceeds Obama's standards will address the climate

13 crisis, protect women, protect communities of color,

14 and protect the health of all our families.

15   Thank you very much.

16   MS. THOMPSON: Thank you for your comment.

17   The next speaker will be Renee Chacon. You may

18 now unmute and state your name and affiliation for the

19 record.

20   MS. CHACON: It's Renee M. Chacon. I reside on

21 the homelands of the Ute, the Cheyenne, the Arapaho,

22 the Lakota, and 48 tribes that still and travel as we

1   document in our nonprofit which is an Indigenous women-

2   led nonprofit Spirit of the Sun here in the homelands

3   of what we call Colorado.

4   I ask that you be good ancestors in this space. I

5   ask that you learn what it really means to look at

6   protecting clean spaces for future generations.

7   I live in Palmer City, Colorado. We deal with

8   several different forms of particulate pollution,

9   mainly the transportation sector, and also other

10   extractive industries, like Suncor fully-leased

11   hydrogen cyanide, hydrogen sulfide, and benzene.

12   We live with issues of respiratory and circulatory

13   issues far before COVID. In Indigenous spaces, urban

14   and rural, that does mean a death sentence.

15   The transportation sector is the largest source of

16   carbon pollution in the U.S. We need to clean up

17   vehicle pollution. Honestly, it's one of the most

18   important things we can do for climate change and the

19   climate impacts that disproportionately impact the

20   communities.

21   We helped define last year what is

22   disproportionately-impacted communities starting with

1   Indigenous communities and that means if there has been

2   any degradation to our quality of life, our health and

3   safety, and ultimately endangerment when there is no

4   regulations and true forceful and enforceable

5   protections for our future generations.

6   We need to strengthen proposals from the EPA and

7   we need clean car standards now. In all honesty,

8   President Biden has promised to address climate change

9   and fight for environmental justice, but that needs to

10   have radical and revolutionary actions now.

11   EV is a technology that we can help in

12   disproportionately-impacted communities now. We need

13   to have some form of reparations from the harm done by

14   corporations, especially extractive industries, but

15   ultimately we need to build true transformative

16   transition for disproportionately-impacted communities

17   and future generations first. That does have to start

18   with some support of convertible energy and this

19   proposal to honestly safeguard standards and forcible

20   protections.

21   What is the use of having regulations if we do not

22   have corporations able to be regulated when they cause

1   harm and, most of all, have protections to communities

2   that we know are already harmed by disproportionate

3   disparities of respiratory? This is asthma, anemia,

4   heart disease, and death by COVID for Indigenous

5   communities which has wreaked havoc in our communities,

6   urban and rural.

7   We need to address climate change by protecting

8   our children's future and little lungs. In any way

9   that you can have clean car standards, I advise you to

10 do this now for future generations.

11   If you want to know how to be an ally and

12 accomplice for disproportionately-impacted communities,

13 please look us up at spiritofthesun.org. I've been

14 working in environmental justice my entire life, so has

15 my entire family, all of my aunties and my community.

16   We are tired of being choked out and flushed out

17 of Colorado and if we are honestly going to combat

18 climate change and climate impacts with

19 disproportionately-impacted communities, we need to see

20 that the system is not broken but has been working as

21 designed to target these areas and we need to dismantle

22 and rebuild by understanding that the first key is to

1   learn from your mistakes and protect the communities

2   that have been harmed first.

3   Thank you.

4   MS. THOMPSON: Thank you for your comment.

5   At this time I will call on speakers we were

6   unable to hear testimony from earlier in this speaker

7   block.

8   The first speaker on my list is Yolanda Whyte.

9   Yolanda, I do not currently see you on the attendee

10   list.   However, if you have joined using a different

11   name, we ask that you raise your hand at this time and

12   if you have joined using your phone, we would invite

13   you to raise your hand by dialing Star 9.

14   (No response.)

15   MS. THOMPSON: Okay.   The next name on our list is

16   Elizabeth Hauptman.   If you have joined using a

17   different name, we would ask you to raise your hand at

18   this time and if you have joined using your phone, you

19   may raise your hand by dialing Star 9.

20   (No response.)

21   MS. THOMPSON: At this time I will move on to the

22   last speaker on my list, Kent Minault.   If you have

1   joined using a different name, we would invite you to

2   raise your hand and if you have joined using your

3   phone, you may raise your hand by dialing Star 9.

4   (No response.)

5   MS. THOMPSON: Okay. We are now at the end of our

6   morning session.

7   EPA, are you ready to recess until after the

8   scheduled lunch break?

9   MR. OLECHIW: We are, and I wanted to take this

10   opportunity to thank everyone that took the time to

11   speak this morning. We very much appreciate everyone's

12   comments and are looking forward to the testimonies

13   that we will hear in this afternoon's session starting

14   at 1 o'clock.

15   MS. THOMPSON: Thank you.

16   We are now adjourning for lunch break and will

17   resume the virtual hearing at 1 p.m. Eastern Time.

18   (Whereupon, the virtual public hearing was

19   adjourned for lunch.)

20

21

22

```
 1                    AFTERNOON SESSION

 2        MS. THOMPSON:  Welcome back to the Environmental

 3   Protection Agency's Public Hearing for the Revised 2023

 4   and Later Model Year Light-Duty Vehicle Greenhouse Gas

 5   Emissions Standards.

 6        My name is Kayla Thompson from Abt Associates,

 7   contractor to the U.S. EPA.

 8        We are now ready to continue the Virtual Public

 9   Hearing.

10        I'll turn it over to EPA to get us started.

11         MR. OLECHIW:  I'm sorry.  I didn't realize that I

12   was opening up the Afternoon Session.  So fell asleep

13   at the wheel here.

14        I'm not sure I have any opening remarks, other

15   than to once again thank everyone that spoke in this

16   morning's session and we're looking forward to hearing

17   all of the speakers in this afternoon.

18        Thank you, Kayla.

19        MS. THOMPSON:  Thank you.

20        Before we resume the hearing, we'd like to go over

21   some logistics.  As a reminder, all attendees are muted

22   automatically.  If you are speaking today, you will
```

1   receive a notification on your screen that you are

2   being promoted to the role of panelist shortly prior to

3   your speaking time. You must accept that invitation to

4   be able to unmute when you are called to testify. This

5   will also allow you to turn on your camera which we

6   encourage you to do.

7   Speakers connected by telephone should unmute

8   their phones when called to testify.

9   If you're having technical difficulties, please

10 send an e-mail to public_hearing@abtassoc.com or call

11 919-294-7712.

12   Additionally, if you are not registered to speak

13 but you would like to speak tomorrow, August 26th,

14 please send an e-mail to public_hearing@abtassoc.com or

15 call 919-294-7712.

16   Now we will continue with our public testimony.

17 The expected speaking order is currently displayed on

18 the screen. We ask that each person limit their verbal

19 testimony to three minutes. We encourage you to

20 provide your full written testimony and any additional

21 comments of any length to the Docket Number EPA-HQ-OAR-

22 2021-0208 on regulations.gov.

1   I will be introducing each speaker in turn.

2 Please speaker slowly and clearly so our court reporter

3 can record these proceedings accurately.

4   The first speaker will be Yolanda Whyte. Yolanda,

5 you may unmute and please state your name and

6 affiliation for the record.

7   Speaker Block 3

8   DR. WHYTE: Yes. Hello. Thank you so much for

9 this opportunity to testify.

10   I'm Dr. Yolanda Whyte. I'm a pediatrician based

11 out of Atlanta, and I specialize in environmental

12 health. I'm a member of Moms Clean Air Force and also

13 the EPA's Children's Health Protection Advisory

14 Committee.

15   I want to thank Moms Clean Air Force for inviting

16 me to participate in this hearing.

17   I support this EPA Administration and this

18 proposal to reduce pollution from passenger cars and

19 light trucks for Model Years 2023 to 2026 with the goal

20 of reducing our consistently-increasing greenhouse gas

21 emissions. Urgent actions must be taken now.

22   As you know, Atlanta is reported to have amongst

1   the worst urban sprawl in the nation and we're known

2   for our traffic congestion. We have so many highways

3   around and through the city that it's hard to avoid

4   traffic pollution.

5   Right about now it's hot, humid, and it also has

6   an odor particular to the more rural areas that I

7   frequently visit. Many parts of the city are

8   considered urban heat islands which are

9   disproportionately affected by our changing climate.

10   We are learning more about heat-related illnesses

11   in which some, like heat stroke, are fatal, especially

12   for babies and teen athletes, and some heat-related

13   illnesses increase the risk of pregnancy complications

14   and adverse birth outcomes, like prematurity, low birth

15   weight, and stillbirths, thus worsening health

16   disparities of maternal mortality and infant mortality.

17   This morning's Air Quality Index for the part of

18   the city where I live was 108. This is in the orange

19   range considered unhealthy for sensitive groups.

20   Unfortunately, there are no public health warnings

21   informing vulnerable residents, such as babies,

22   seniors, those with heart or lung disease, of this risk

```
 1   or the need to stay indoors, close the windows, and

 2   take measures to improve indoor air quality.

 3        Last December for the first time in world history,

 4   air pollution was listed as a cause of death on a death

 5   certificate.  The young girl had severe uncontrollable

 6   asthma due to ozone particulate matter and nitrogen

 7   dioxide air pollutants from living along a busy roadway

 8   in London and London has more protective standards than

 9   we do here in the U.S.

10        It would be great if the EPA worked with the U.S.

11   Department of Health and Human Services to train

12   physicians to also understand the health impacts of air

13   pollution and also educate patients about it and ways

14   to protect themselves from it.

15        I'm available to work with the EPA and Health and

16   Human Services on this task.

17        Therefore, since traffic has now become the main

18   source of air pollution, the strongest clean car

19   standards are urgently needed, especially since many of

20   the health impacts mentioned earlier are preventable.

21        Therefore, I urge EPA to set the strongest

22   standards on the fastest timeline to protect our
```

1   health, especially for the most vulnerable who cannot

2   defend themselves or be able to speak today.

3   Thank you so much.

4   MS. THOMPSON: Thank you for your comment.

5   The next speaker will be Devon Watkins. Please

6   state your name and affiliation for the record.

7   MR. WATKINS: Hello. My name is Devon Watkins

8   from the Competitive Enterprise Institute.

9   On CO2 EPA claims this rule's greatest benefits

10   are from PM 2.5, but there are problems with that

11   analysis. The Clean Air Scientific Advisory Board, a

12   statutorily-required board of experts, found that EPA

13   failed to provide adequate evidence of particular

14   matter causing nervous system effects or cancer as EPA

15   claimed.

16   Even worse, according to members of CASAC, EPA's

17   mortality causation determinations to be based almost

18   exclusively on epidemiological studies which cannot be

19   used in isolation to determine causation.

20   The Chairman of CASAC identified what he described

21   as unstated, untested, unverified, and mistaken

22   assumptions, including the failure to distinguish

 1   between true exposure values and estimated exposure

 2   values in analyzing and presenting information, that

 3   EPA is relying upon studies which do not address

 4   exposure measurement errors and should not be used or

 5   relied or cited as evidence.

 6   To correct these statistical errors, CASAC

 7   Chairman Cox said that EPA should use errors and

 8   variables analysis to correct for the exposure error.

 9   The EPA Administrator at the time said that he had

10   reviewed the errors that CASAC had identified and

11   ordered that those problems be fixed in the final

12   version but EPA did not do so. EPA ignored the

13   recommendations of CASAC and proceeded without allowing

14   them to continue to review the analysis as they had

15   requested.

16   Instead, EPA removed all of the members of CASAC,

17   every last person, without addressing the problems they

18   raised and only let back on the panel those that agreed

19   with EPA.

20   EPA continues in this rulemaking to ignore the

21   statistical errors identified by former CASAC Chairman

22   Cox, continues to refuse to use errors and variables

1   analysis to correct for errors in the data that even

2   EPA has acknowledged exist. This is inexcusable.

3   EPA has a responsibility under the EPA to consider

4   all important factors for its decision, including

5   potential problems to its analysis that it has been

6   made aware of.

7   The Competitive Enterprise Institute sued EPA to

8   ensure that it be forced to consider the problems that

9   CASAC identified. That court case is currently being

10   held in abeyance at EPA's request because EPA said that

11   they were reconsidering the rule, but this proposed

12   rule does not reconsider any of the errors Chairman Cox

13   identified. It doesn't even mention them.

14   EPA cannot continue to ignore the problems

15   identified by the independent scientific experts that

16   EPA asked to evaluate its claims. Removing them from

17   office doesn't eliminate those statistical errors and

18   EPA may be sued again if it continues to ignore the

19   errors identified by the independent scientific experts

20   EPA asked to review their work.

21   Thank you.

22   MS. THOMPSON: Thank you for your comment.

1   The next speaker will be Sam Kazman. Please state

2   your name and affiliation for the record.

3   As a reminder, you will need to accept the

4   invitation to be promoted to panelist.

5   MR. KAZMAN: Okay. Hello. I'm Sam Kazman,

6   General Counsel of Competitive Enterprise Institute.

7   CEI submits that EPA's proposal fails to

8   adequately deal with the issue of traffic safety.

9   First, EPA has arbitrarily restricted the range of

10 alternatives that it is considering. It states that it

11 isn't considering alternatives less stringent than the

12 California Framework. Its reason for this is that the

13 Framework represents a level of stringency that five

14 manufacturers have already committed to achieving.

15   But the fact that five car makers have committed

16 to meeting this standard says little about whether that

17 standard satisfies all the appropriate criteria, which

18 include health and safety.

19   In the 2020 SAFE Rulemaking, it was clear that the

20 less stringent alternatives posed by the agencies had

21 greater traffic safety benefits than the more stringent

22 alternatives. This relationship continues to hold for

1   the alternatives that EPA is now considering and for

2   that reason, the agency should not ignore alternatives

3   that are more lenient than the California Framework.

4   Secondly, EPA has apparently downplayed the safety

5   risks of mass and sized reductions in vehicles. It

6   states that car makers can achieve its proposed

7   standards using only modest levels of mass reduction,

8   but even if manufacturers can use only modest down-

9   sizing, this does not mean that they necessarily will.

10   Some of them may well use more downsizing, in which

11   case the safety impacts might be greater.

12   Moreover, what EPA calls its "central estimate" of

13   the mass safety effect, the 0.07 percent increase in

14   fatalities, seems to be questionably low, especially

15   since a large component of that estimate rests on some

16   alleged safety benefit from downsizing.

17   We submit that the mass safety effect is much

18   stronger. In the words of the Insurance Institute for

19   Highway Safety, a bigger, heavier vehicle provides

20   better crash protection than a smaller, lighter one,

21   assuming no other differences.

22   As for the possibility that larger vehicles

 1   significantly endanger the occupants of smaller

 2   vehicles, the Insurance Institute finds that this

 3   threat is not as large as it once was.

 4   CAFE's history demonstrates that it has not always

 5   been administered with a candid assessment of its

 6   lethal impact on traffic safety. In 1992, in the case

 7   of CEI v. NHTSA, a D.C. Circuit Panel found that NHTSA

 8   had arbitrarily ignored the likelihood that its

 9   standard kills people. The panel found that NHTSA had

10   done so through a combination, and I'm quoting from the

11   court decision here, "of lame claims, bureaucratic

12   mumbo-jumbo, fudged analysis, and statistical sleight

13   of hand." We hope that such an episode won't be

14   repeated again.

15   Thank you.

16   MS. THOMPSON: Thank you for your comment.

17   The next speaker will be Marlo Lewis. Please

18   state your name and affiliation for the record.

19   MR. LEWIS: My name's Marlo Lewis. I'm a Senior

20   Fellow in Energy and Environmental Policy at the

21   Competitive Enterprise Institute.

22   My comments address the EPA's use of the social

1   cost of greenhouse gases to estimate the net benefits

2   of the agency's proposed rule.

3   The EPA estimates that during Calendar Years 2023

4   to 2050 the proposal's greenhouse gas emission

5   reductions will deliver $91 billion in climate change

6   benefits.   Those benefits are a mirage.

7   Since 2010, the Interagency Working Group or IWG

8   has cherry-picked assumptions and inputs to produce

9   wildly-inflated social cost estimates. The IWG

10   averages the results of three integrated assessment

11   models, two of which ignore the immense agricultural

12   benefits of atmospheric carbon dioxide fertilization.

13   The IWG relies on climate sensitivity estimates derived

14   from other models that project about three times more

15   warming in the tropical bulk atmosphere than has been

16   observed over the past 40 years.

17   The most egregious methodological bias, however,

18   is the IWG's selection of baseline emission scenarios.

19   Four of its baseline scenarios assume that coal scales

20   up rapidly to become the world's leading energy source

21   after 2050 with consumption continuing to increase well

22   into the 23rd Century.

1   Those scenarios result in post-22100 cumulative

2 carbon dioxide emissions far in excess of estimated

3 fossil fuel reserves as the Electric Power Research

4 Institute pointed out in its 2014 Technical Review of

5 the IWG's work.

6   To even approach the massive cumulative emissions

7 projected in the IWG baselines, University of Colorado

8 Professor Roger Pilkey, Jr., explains, "The world would

9 have to make it a policy goal to burn as much coal as

10 possible over the coming centuries. That seems

11 unlikely."

12   In effect, the IWG's procedure is to take the

13 high-end 21st Century forcing trajectory called RCP 8.5

14 and then extend it out to the Year 2300. As is well

15 known, RCP 8.3 carbon dioxide emissions in 2050 are

16 more than twice the level projected by the

17 International Energy Agency in its baseline emissions

18 scenarios.

19   RCP 8.5 is no longer a plausible emission pathway

20 for the 21st Century. There is no evidence the world

21 will return to coal over the next eight decades, much

22 less over the next 280 years.

1   The IWG's social cost estimates are a

2   methodological house of cards. Using those values to

3   estimate the net benefits of the proposed rule flouts

4   basic standards of scientific integrity.

5   Thank you.

6   MS. THOMPSON: Thank you for your comment.

7   The next speaker will be Patrick Michaels. You

8   may now unmute and state your name and affiliation for

9   the record.

10   MR. MICHAELS: Thank you.

11   I am Patrick J. Michaels, Senior Fellow in Energy

12   and Environment at the Competitive Enterprise Institute

13   and also a Senior Fellow at the CO2 Coalition.

14   I will discuss the proposed regulation's effects

15   on global surface temperature compared to existing

16   standards and what benefits can be expected to accrue

17   from the proposed changes.

18   In a word, the answer to both is simple: none.

19   It is a standard procedure for the EPA to assess

20   temperature consequences of proposed or existing

21   policies using something called the "Model for the

22   Assessment of Greenhouse Gas-Induced Climate Change,"

1   which was developed at the National Center for

2   Atmospheric Research and indeed the acronym for it is

3   MAGGICC, the Model for the Assessment of Greenhouse

4   Gas-Induced Climate Change.

5   One can use MAGGICC to determine the effects of

6   the continuation of current vehicle standards versus

7   what is now proposed which bears some resemblance to

8   the proposals from the Obama Administration EPA.

9   Using standard MAGGICC assumptions which includes

10   an equilibrium climate sensitivity of 3.0 degrees C,

11   MAGGICC calculates the net savings of global warming to

12   be 3,000ths of a degree Celsius by the year 2100.

13   Assuming the standard atmosphere, that is roughly the

14   average temperature between the air surrounding your

15   head and the air surrounding your mid=section.

16   According to the National Oceanic and Atmospheric

17   Administration, the inherent error in current

18   calculations of global average surface temperature is

19   0.08 degrees Celsius or 800ths of a degree Celsius,

20   which is 27 times, I said 27 times larger than the

21   calculated effect of the new standards.

22   Yet the Administration goes on to calculate the

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   social costs of this regulation, coming up with a net

2   benefit of nearly $100 billion by 2050. Given that the

3   MAGGICC-calculated temperature change is a mere

4   3,000ths of a degree by 2100, the change by 2050 would

5   be even less than half of that.

6   It simply defies logic to calculate the benefits

7   of a regulation that will have an impossible-to-detect

8   effect on surface temperature because it is those same

9   temperature changes that drive the cost estimates.

10   In summary, the proposed vehicle standards will

11   have an undetectable effect on surface temperature

12   which means an undetectable climate "benefit," despite

13   enormous costs that will be foisted upon unwilling

14   consumers of vehicles that they would choose not to

15   purchase today and they would only purchase them

16   tomorrow if forced to this feckless regulation.

17   Thank you.

18   MS. THOMPSON: Thank you for your comment.

19   The next speaker will be Katherine Pruitt. You

20   may now unmute and state your name and affiliation for

21   the record.

22   MS. PRUITT: Good afternoon. My name is Katherine

1   Pruitt and I'm testifying as a private citizen living

2   in Takoma Park, Maryland. Thank you for the

3   opportunity to speak today.

4   I am grateful and relieved after so many rollbacks

5   of critical public health and environmental protections

6   under the previous Administration that President Biden

7   and his Administration have acknowledged the importance

8   of tackling pollution from the transportation sector

9   that is contributing to climate change.

10   As you know, earlier this month the world got some

11   sobering news from the UN"s Intergovernmental Panel on

12   Climate Change that affirmed in the starkest terms that

13   we are in a deepening climate crisis. The UN Secretary

14   General described the report as a Code Red for

15   Humanity.

16   I appreciate that the Biden Administration is

17   taking a small step in the right direction with this

18   proposal and other broader actions on clean cars,

19   climate change, and environmental justice which I

20   support.

21   Today is expected to be another Code Orange Day

22   here, unhealthy for sensitive groups due to

 1 unseasonable warmth, according to the forecast. These

 2 sensitive groups include a lot of people in my family

 3 and in my community. My husband and I are older

 4 adults. My brother has heart disease and diabetes. My

 5 son has exercise-induced asthma.

 6   We all need to take precautions and limit our

 7 activities to protect our health when the air quality

 8 is bad.

 9   We know that the traffic all around us is

10 contributing to the problem. We live just a few miles

11 from I-95 in one direction and the nightmare that is

12 D.C. traffic in the other direction. The region is

13 growing and there are more cars and more vehicle miles

14 traveled all the time.

15   The transportation sector is the largest source of

16 greenhouse gas emissions in the United States.

17 Gasoline and diesel-powered cars, SUVs, and pickup

18 trucks pollute the air we breathe and drive climate

19 change.

20   Stronger standards for cleaner cars, if enacted

21 now, will make a much-needed difference in my community

22 and will protect my family.

1   The great thing about setting standards is that it

2   works and the public supports it. It ensures equitable

3   access to health and environmental benefits that

4   cleaner technologies are making available now and into

5   the future.

6   EPA must finalize the rule this year, 2021, to

7   cover Model Years 2023 through 2026.

8   Additionally, EPA must also move ahead to set much

9   stronger standards covering cars, SUVs, and light

10   trucks through at least 2030 to drive the transition to

11   zero emission vehicles the nation needs and that

12   President Biden has called for in his Executive Order.

13   Again, climate change is a health emergency and

14   the Biden Administration must use all available tools

15   to promote carbon pollution reductions. There is no

16   time to delay.

17   Thank you.

18   MS. THOMPSON: Thank you for your comment.

19   As a reminder, if you are speaking today, you'll

20   receive a notification on your screen that you're being

21   promoted to the role of panelist shortly prior to your

22   speaking time. You must accept that invitation to be

1 able to unmute when you are called to testify. This

2 will also allow you to turn on your camera which we

3 encourage you to do.

4   Speakers connected by telephone should unmute

5 their phones when called to testify.

6   If you're having technical difficulties, please

7 send an e-mail to public_hearing@abtassoc.com or call

8 919-294-7712. If you are not registered to speak but

9 you would like to speak tomorrow, August 26th, please

10 send an e-mail with your name and phone number to

11 public_hearing@abt.assoc.com or call 919-294-7712.

12   The next speaker will be Scott Hochberg. You may

13 now unmute and state your name and affiliation for the

14 record.

15   MR. HOCHBERG: Hello. Good afternoon. My name is

16 Scott Hochberg, and I'm a Staff Attorney with the

17 Center for Biological Diversity.

18   The center is a national nonprofit conservation

19 organization and its Climate Law Institute works to

20 protect people, wildlife, and ecosystems from climate

21 change and fossil fuel pollution.

22   Since taking office, President Biden has vowed to

1 meet the urgent demands of the climate crisis through a

2 clean energy revolution. He was right about one thing.

3 We are indeed in a crisis and the term "urgent" is an

4 understatement.

5   The summer of 2021 is shaping up to be one of the

6 hottest on record with climate change contributing to

7 severe drought and wildfires across the globe, extreme

8 flooding in Europe and China, and a deadly heat wave in

9 the Pacific Northwest. The time for half measures is

10 sadly over.

11   This rule represents the EPA's single biggest

12 chance to actualize the President's commitment. What

13 was needed at the very least was a return to the Obama

14 standards in 2023 and a seven percent annual drop in

15 emissions to make up for lost time under the disastrous

16 SAFE 2 Rule.

17   But EPA's proposal does not return to the Obama

18 standards until 2026, despite the fact that automakers

19 have had almost a decade to prepare for those rules.

20 Automakers already have the technology to comply with

21 the Obama standards. Delaying significant emissions

22 savings until 2026 puts this rule along with the

1   longer-term standards in jeopardy from a future

2   Administration that might have different goals.

3   EPA describes an Alternative 2+ proposal that hits

4   closer to the mark through slightly stronger standards

5   with an additional 10 grams per mile savings in 2026.

6   In fact, EPA provides no reason why it did not adopt

7   this alternative from the very beginning.

8   According to EPA's own analysis, Alternative 2 is

9   feasible given the prior notice of automakers, a

10   commitment of several of them to the California

11   Framework, and the need to reduce greenhouse gas

12   emissions.

13   But even this proposal falls short of what is

14   needed to meet the country's commitments to addressing

15   the climate emergency. Instead, EPA should strengthen

16   its alternative proposal even further with fewer

17   loopholes and tighter stringency standards that set us

18   on a path to 100 percent zero emission vehicle sales by

19   2030.

20   The recent IPCC report was intended to be a Code

21   Red wakeup call for the world. EPA needs to toughen

22   this proposal to make it up to the challenge.

1   Thank you.

2   MS. THOMPSON: Thank you for your comment.

3   The next speaker will be Greg Harned. You may now

4   unmute and please state your name and affiliation for

5   the record.

6   MR. HARNED: Good afternoon and thank you for the

7   opportunity to testify.

8   My name is Greg Harned, and I'm a Legal Fellow

9   with the Climate Law Institute at the Center for

10   Biological Diversity.

11   In addition to increasing the stringency of the

12   standards, as my colleague just advocated, EPA should

13   remove the numerous compliance loopholes from the

14   credit system that will undermine this rule's emissions

15   reductions.

16   Electric vehicles are here, effective, and

17   becoming increasingly affordable. By 2023, EVs are

18   projected to achieve cost parity with internal

19   combustion engine vehicles and multiple studies,

20   including one from the Argonne National Lab, show that

21   EVs are already cheaper to maintain than ICEVs.

22   Similarly, vehicle range and charging

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   infrastructure has steadily increased, making EVs an

2   attractive option for many consumers. The driving

3   force behind the slow adoption of EVs is therefore not

4   the practicality or cost of EVs but, rather, the

5   reluctance of obstinant automakers to adopt new

6   technologies and market EVs.

7   EPA should completely end the use of the credit

8   multipliers for EVs. The proposed multiplier cap and

9   2025 sunset provision are insufficient limits on a

10   credit system that was set to expire in Model Year

11   2021. Without accounting for good emissions from

12   electricity generation, the multipliers for EVs failed

13   to accurately reflect emissions savings and ultimately

14   overestimate the reductions.

15   Furthermore, EPA should not allow manufacturers to

16   carry forward model year credits for 2016 and 2020 into

17   Model Years 2023 and 2026. The 2016 to 2020 credit

18   system served its purpose by promoting EV production

19   and automakers have had sufficient time and opportunity

20   to use existing credits.

21   Extending the credit's lifetimes, as they were set

22   to expire, is a blatant unwarranted handout to the

1   slowest adapting automakers. It provides no real

2   benefit to consumers in the form of decreased

3   emissions, increased EV sales, or cheaper vehicles.

4   Likewise, the credits for full-sized pickups is a

5   big give-away to the Big 3 automakers. Recent trends

6   in SUV and pickup sales are the result of automakers'

7   deplorable decision to shift production and heavily

8   market vehicles that were cheaper to produce because of

9   their larger size and looser emission standards. By

10   providing a pickup truck credit, EPA is not actually

11   serving consumers best interests but instead

12   propagating a production trend driven by manufacturer

13   greed.

14   Lastly, rather than expanding the off-cycle and AC

15   credit systems, EPA should update its testing

16   conditions to accurately reflect real-world vehicle

17   emissions. Sending credits to technologies who

18   supposed benefits are not captured by current testing

19   methods risks inaccurately estimating the emissions

20   saved from those technologies and presents an

21   opportunity for automakers to program their cars to

22   cheat the test system.

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   Removing these loopholes and adopting stronger

2   standards is a crucial step in achieving President

3   Biden's 2030 and 2050 emissions goals.

4   Thank you for the opportunity to testify.

5   MS. THOMPSON: Thank you for your comment.

6   The next speaker will be Liz Scott.   You may now

7   unmute and please state your name and affiliation for

8   the record.

9   MS. SCOTT: Thank you.

10   Good afternoon.   My name is Liz Scott, and I am

11   speaking to you today on behalf of the American Lung

12   Association and the millions of lung health patients

13   that deserve cleaner air.

14   I want to quickly say that I appreciate that EPA

15   is moving forward with undoing the rollback of

16   greenhouse gas standards for light-duty vehicles that

17   occurred in the previous Administration.

18   As my colleagues have noted here today, we are

19   calling on EPA to finalize this rule this year and to

20   make sure it maximizes the health benefits and

21   emissions reductions.

22   The final standards must not include loopholes

1   that result in emissions reductions on paper that don't

2   end up benefiting public health in practice.

3   I want to spend the remainder of my short time

4   today talking about the responsibility EPA has to

5   protect and improve public health by setting even

6   stronger standards in the future.

7   Standards under this rule are a necessary step but

8   are limited to Model Years 2023 to 2026. We need to

9   see more health-protective standards beyond that.

10   In the Executive Order on Strengthening American

11 Leadership and Clean Cars and Trucks, the President

12 directed EPA to establish new multi-pollutant emissions

13 standards for light- and medium-duty vehicles covering

14 Model Years 2026 to 2030.

15   Setting up more protective standards now will

16 ensure that the nation is on track to meet the

17 President's goal of having 50 percent on passenger

18 vehicles be zero emission in 2030.

19   We encourage EPA to move quickly to finalize this

20 current rule and begin the process of future standards

21 without delay.

22   Pollution from cars is helping to drive climate

1   change which can lead to more excessive heat like what

2   we've seen across the country and the globe in recent

3   months and the rise in intensity of extreme weather

4   events and wildfires.

5   Setting strong greenhouse gas standards for cars

6   and light trucks is only part of the solution towards a

7   healthier future.

8   A report released by the American Lung Association

9   in September of 2020 found that transitioning the

10   nation to electric light- and heavy-duty vehicles

11   powered by non-combustion renewable energy would lead

12   to a $113 million in climate benefits annually by 2050.

13   Greenhouse gases are not the only pollutant

14   released by tailpipes. Air pollutants released from

15   cars contribute to ozone and particulate matter

16   pollution which both have direct health impacts,

17   particularly for vulnerable populations, like those

18   with existing lung disease.

19   Our Road to Clean Air Report also found that a

20   transition to electric vehicles would yield $72 billion

21   in health benefits annually by 2050.

22   To sum up my remarks to you today, we appreciate

1   that this Administration is reversing the rollback of

2   greenhouse gas standards for light-duty vehicles and

3   call on you to finalize these standards this year,

4   ensuring they maximize the benefits to health.

5   Further, we urge EPA to prioritize setting strong

6   light-duty standards for Model Years 2026 to 2030, plus

7   heavy-duty vehicle standards, that drive the nationwide

8   transition to zero emission vehicles.

9   We also will never pass up an opportunity to call

10   for the support of transitioning the transportation

11   sector to electric vehicles as soon as possible to set

12   the nation on a path towards a healthier future.

13   Thank you for your time.

14   MS. THOMPSON: Thank you for your comment.

15   The next speaker will be Laura Bender. You may

16   now unmute and please state your name and affiliation

17   for the record.

18   MS. BENDER: Hi. My name is Laura T. Bender. I'm

19   the National Vice President for Healthy Air at the

20   American Lung Association.

21   Our mission is to save lives by improving lung

22   health and preventing lung disease, and I thank you for

1   your time today.

2   The American Lung Association puts a high priority

3   on pushing for policies that drive our nationwide

4   transition to zero emission vehicles, as you've heard.

5   EPA's proposal is a critical step on the road to

6   the zero emission future that we're calling for. As

7   you've heard from my colleagues, we urge EPA to make

8   this proposed rule as strong as possible to maximize

9   its health benefits and to keep out loopholes or credit

10   schemes so that the rule doesn't lead to health harms

11   that could have been avoided.

12   It also means finalizing the rule this year and

13   then moving to set stronger standards for future light-

14   duty vehicles as well as stronger standards for heavy-

15   duty vehicles.

16   Today, I'd like to use my time to highlight the

17   breadth of the support of the health community for

18   cleaning up greenhouse gas emissions from vehicles.

19   Climate change is a health emergency. I imagine

20   many of you on the line today are personally

21   experiencing some of those impacts right now, just like

22   millions of Americans across the country.

1   We know that these impacts will get dramatically

2 worse without strong federal action. In fact, we often

3 hear from physicians and nurses that they are seeing

4 the impacts of climate change on their patients right

5 now.

6   We hear about direct lung health concerns with

7 student athletes who are exposed too often to wildfire

8 smoke or parents who have to choose to keep their kids

9 from playing outside at all on hazardous air days, and

10 we hear about a whole array of other impacts affecting

11 everything from cardiovascular health to mental health.

12   That's why health and medical organizations have

13 been spending years rallying support for cleaner cars.

14 In 2017, the Lung Association wrote a letter to EPA and

15 NHTSA signed by more than 700 medical and health

16 professionals from across the nation urging both

17 agencies to implement strong state and federal advanced

18 clean car regulations to protect public health.

19   In 2018, we joined more than 90 national, state,

20 and local health and medical organizations in

21 commenting against the SAFE Rule Act.

22   Earlier this year, the Lung Association and 13

1 national health and medical organizations, including

2 the American Public Health Association, the National

3 Association of County and City Health Professionals,

4 the Medical Society, Consortium on Health, and the

5 American Psychological Association all sent a letter to

6 President Biden calling on him to set the strongest

7 possible emissions standards to protect public health.

8   We asked the Administration to act urgently to

9 ensure the same or better greenhouse gas emissions

10 reductions scheduled to be achieved under the Obama-era

11 standards and then set stronger standards through at

12 least Model Year 2030.

13   And just last month, a robust contingent of the

14 health community submitted commented to EPA in support

15 of state authority to set stronger cleaner car

16 standards, including 28 national, state, and local

17 health and medical organizations and dozens of health

18 professionals. In fact, some of the organizations

19 represented are testifying today and tomorrow.

20   Climate change is a health emergency but it's also

21 a health opportunity. That's why the health community

22 supports cleaning up our nation's vehicles because it

1 not only addresses climate change but also provides

2 immediate benefits to health by eliminating dangerous

3 tailpipe pollution.

4   The nation urgently needs to reduce greenhouse

5 gases from transportation to avoid the worst health

6 impacts of climate change. A nationwide transition to

7 zero emission vehicles has the potential to provide

8 immediate benefits to health and to equity.

9   We call on you to drive that transition with this

10 rulemaking and with future ones.

11   Thank you.

12   MS. THOMPSON: Thank you for your comment.

13   Our next speaker will be Bob Yuhnke. You may now

14 unmute and please state your name and affiliation for

15 the record.

16   MR. YUHNKE: Hello. My name is Bob Yuhnke. I

17 serve on the Policy Team at Elders Climate Action and

18 U.S. Climate Network.

19   Today, I'm representing the 15,000 elders at

20 Elders Climate Action where I dedicated to leaving a

21 livable planet for our grandchildren. We cannot do

22 that alone. Our grandchildren need your help.

1   The world's climate scientists have provided the

2   targets that we need to meet: cut half of our

3   greenhouse gas emissions by 2030 and achieve zero

4   emissions no later than 2050.

5   President Biden's Executive Order on January 21st

6   committed to creating a zero emission economy in the

7   United States by 2050.

8   We also need your help to make the air in our

9   cities safe for our grandchildren to breathe. We have

10 201 urban counties holding the population of over 140

11 million Americans. They're in violation of either the

12 ozone standard or the particulate standard or both.

13 Our cities are not a safe place to raise our grandkids

14 and we need your help to solve that problem, too.

15   This rule package fails to lay out a path to

16 achieve these targets. The path to zero emissions and

17 air quality safe for our grandkids to breathe requires

18 that we replace fossil fuel-burning vehicles with zero

19 emission vehicles as soon as possible.

20   This is not a technological challenge any longer.

21 That challenge has been met. We now know how to get to

22 zero emissions with vehicles that serve the needs of

1   most Americans. What's missing is the commitment to

2   deploy the technology to achieve the benefits that are

3   available from implementing that technology.

4   We ask you to join California in establishing

5   sales targets for zero emission vehicles beginning with

6   the 2026 Model Year. Other speakers have spoken to the

7   fact that the industry has been on a path of developing

8   zero emission vehicles for more than a decade. They

9   are quite capable of meeting a zero emission vehicle

10   sales target. We need you to require them to do that.

11   Sales targets are important to ensure that all

12   automakers are on the path to a zero emission economy.

13   At this point, you cite in the record that five

14   automakers are committed to that call, but that leaves

15   many other automakers who are not committed to that

16   goal. They must be brought into line with achieving

17   the goals laid out by the President for zero emission

18   economy to evolve.

19   Sales targets are also necessary for automakers to

20   know that they will have a market for vehicles that

21   will justify their investment in supply chains needed

22   for the production of batteries and fuel cells to meet

1   the overall needs of our economy.

2   Sales targets, ramping up to a hundred percent of

3   sales, must be set to ensure that vehicles are

4   available in time to replace the 280 million internal

5   combustion engine vehicles that are on the road in the

6   United States today before 2050.

7   This rule does not start on that path. That is

8   our primary concern, that the agency has not laid out a

9   strategy which would be implemented initially by the

10 first steps taken by this rule to achieve either a zero

11 emission economy or achieve the emission reductions in

12 the co-pollutants that are necessary to make our cities

13 safe.

14   Zero emissions vehicles reduce both the greenhouse

15 gas emissions and the pollutants that contribute to

16 ozone formation and particulate exposures. Ozone non-

17 attainment has been an intractable problem since the

18 beginning of the Clean Air Act back in the 1960s. We

19 have not solved that problem.

20   We have seen in fact that with rising

21 temperatures, ozone concentrations in many American

22 cities are now becoming worse. They're happening. Our

1   violation days are increasing in number and the peak

2   concentrations during the summers are rising.

3   Those impacts of climate warming have to be solved

4   by replacing our internal combustion engine vehicles.

5   Vehicles are the largest source of emissions that

6   contribute to ozone formation. Only the elimination of

7   those emissions will solve that problem.

8   So we ask you to reconsider the rule beginning

9   with the Model Year 2026 for the purpose of setting in

10 motion a zero emission mandate that will ultimately

11 lead to the replacement of the internal combustion

12 engine in the United States and the problems of both

13 climate change and dirty air that are associated with

14 the emissions of those vehicles.

15   Thank you.

16   MS. THOMPSON: Thank you for your comment.

17   As a reminder, if you are speaking today, you will

18 receive a notification on your screen that you are

19 being promoted to the role of panelist shortly before

20 your speaking time. You must accept that invitation to

21 be able to unmute when you are called to testify. This

22 will also allow you to turn on your camera which we

1   encourage you to do.

2   Speakers connected by telephone should unmute

3   their phones when called to testify.

4   If you are having technical difficulties, please

5   send an e-mail to public_hearing@abt.assoc.com or call

6   919-294-7712. If you are not registered to speak but

7   you would like to speak tomorrow, August 26th, please

8   send an e-mail with your name and phone number to

9   public_hearing@abtassoc.com or call 919-294-7712.

10   The next speaker will be Christopher Harto. You

11   may now unmute and please state your name and

12   affiliation for the record.

13   MR. HARTO: Thank you for the opportunity to

14   testify today.

15   My name is Christopher Harto, and I'm a Senior

16   Policy Analyst at Consumer Reports.

17   CR supports EPA's efforts to reverse the previous

18   Administration's disastrous rollback and reinstate

19   strong light-duty vehicle greenhouse gas standards.

20   However, we believe that this proposal does not go

21   far enough to meet the climate challenge ahead of us

22   and will only recover about 75 percent of the consumer

1   and climate benefits of the original Obama/Biden

2   standards.

3   Consumer Reports has three primary asks of EPA as

4   you move to quickly finalize this rulemaking.

5   Number 1, Adopt your Alternative 2. Number 2,

6   Increase the stringency of the standard in 2026 by 10

7   grams per mile. Number 3, Rein in credits and

8   loopholes that undermine the real-world benefits of the

9   rule.

10   EPA's own analysis shows that Alternative 2 will

11   result in greater net benefits and CR agrees. This

12   alternative essentially matches the stringency of the

13   original Obama/Biden standards which automakers already

14   agreed to almost a decade ago.

15   Furthermore, trends have shown that declining

16   compliance costs and growth in electrification will

17   make meeting this level of stringency even easier.

18   There is no strong justification for setting a strong

19   standard weaker than Alternative 2.

20   CR also supports increasing the stringency of the

21   2026 standard by 10 grams per mile. According to EPA's

22   own analysis, the current proposal will result in less

1   than 10 percent electrification in 2026, putting the

2   U.S. fleet well behind both automakers and the

3   President's stated goal of achieving 50 percent

4   electrification in 2030.

5   Increasing the stringency in 2026 will provide

6   automakers with sufficient lead time for factoring

7   these stronger standards into their production plans

8   while putting the U.S. on a better trajectory to meet

9   our climate commitments.

10   CR also asks EPA to strongly consider further

11   limiting credits and multipliers that reduce the

12   effectiveness of the rule. While CR applauds EPA's

13   effort to greatly limit the harm done by electric

14   vehicle multipliers, these multipliers by EPA's own

15   analysis do not increase electrification and should be

16   eliminated.

17   CR also questions that expansion of the off-cycle

18   credit cap without putting into place stronger

19   requirements to ensure that these technologies actually

20   deliver real-world benefits.

21   Without sufficient verification of the emissions

22   savings, these credits have the potential to be a

1   massive give-away to automakers with technologies that

2   don't deliver real-world benefits.

3   Finally, giving 20 grams per mile and extra

4   credits for a technology marketed as "power boost"

5   which only increases fuel economy by two miles per

6   gallon but increases horsepower by over a hundred

7   horsepower is unwarranted.

8   At this moment, you have a historic opportunity to

9   make a difference in the lives of all Americans and we

10   urge you to seize on it by setting the strongest

11   possible standards to address this climate emergency.

12   Thank you for your time.

13   MS. THOMPSON: Thank you for your comment.

14   The next speaker will be Brian Jennings. Please

15   state your name and affiliation for the record.

16   MR. JENNINGS: Good afternoon. My name is Brian

17   Jennings, and I'm the CEO of the American Coalition for

18   Ethanol. Thank you for the opportunity to testify.

19   Since nearly all of the 270 million light-duty

20   vehicles on U.S. roads today run on liquid fuel, it

21   would seem reasonable that in order to significantly

22   cut CO2 emissions from their tailpipes, consideration

1   must be given to the fuel powering the engines,

2   including steps to replace petroleum with lower carbon

3   and higher octane alternatives, such as ethanol.

4   Instead, EPA impractically suggests vehicle

5   greenhouse gas emissions can be reduced merely by

6   plugging more vehicles into the grid without much

7   consideration to how the electricity powering those

8   cars is generated.

9   I will be the first to admit that when electric

10 vehicles are actually charged with low carbon power

11 sources, they could play a meaningful role in reducing

12 greenhouse gas emissions, but electric vehicles

13 comprise just two percent of all light-duty vehicles on

14 the road today and most of them are hybrid that also

15 use liquid fuels.

16   In other words, even as EV sales increase,

17 Americans will continue to rely upon billions of

18 gallons of liquid fuels for decades to come.

19 Therefore, this proposal must replace (audio glitch)

20 greater evidence, on improving the quality of liquid

21 fuel, and the role that low-carbon/high-octane ethanol

22 can play in making significant greenhouse reductions in

1   the near term.

2   Don't just take my word for it. In January, the

3   Rhodium Group released a compelling report indicating

4   that even under the most aggressive sales scenarios,

5   EVs alone will not achieve net zero emissions by mid-

6   century. Rhodium explained that meeting this goal

7   also depends on decarbonizing liquid fuels and CAFE

8   greenhouse standards.

9   This was followed by an equally-compelling report

10   by Harvard indicating that just average corn ethanol

11   greenhouse gas emissions are already 50 percent cleaner

12   than gasoline.

13   Truth be told, many (audio glitch) are on a

14   trajectory to reach both net zero and net negative

15   emissions in the not-too-distant future. If the

16   overarching goal is net zero emissions by mid-century,

17   let's start making progress right now by taking full

18   advantage of the 15 billion gallons of domestically-

19   produced ethanol available today as an affordable way

20   to boost octane and meaningfully reduce greenhouse gas

21   emissions from gasoline-powered engines.

22   I have three recommendations as I conclude my

1 remarks. Number 1, EPA should establish a minimum

2 research octane number rating for fuel in the range of

3 98 to 100 RON with 25 to 30 percent ethanol and provide

4 automakers with the corresponding circ fuel option for

5 engine testing purposes.

6   Number 2, Adopt the latest Department of Energy

7 CREET model with respect to the life cycle greenhouse

8 gas emissions of ethanol and other transportation

9 fuels.

10   And finally, instead of putting your thumb on the

11 scale to favor electric vehicles through multipliers

12 and incentives, establish a technology-neutral approach

13 that also provides automakers with incentives to

14 continue producing flexible fuel vehicles and vehicles

15 optimized to run on higher-octane blends.

16   Thank you very much.

17   MS. THOMPSON: Thank you for your comment.

18   The next speaker will be Carolyn Seaman. You may

19 now unmute and please state your name and affiliation

20 for the record.

21   MS. SEAMAN: Thank you for the opportunity to

22 speak today.

 1   My name is Carolyn Seaman, and I am testifying as

 2   a private citizen.

 3   Please adopt Alternative 2 which would lead to

 4   cleaner air. I have lived with asthma most of my life

 5   and need clean air to survive.

 6   When I was growing up in Los Angeles in the 1970s,

 7   there were many days that I had to go to the hospital

 8   from asthma attacks because of the air pollution. I

 9   was close to death more than once.

10   The air quality has improved since then, but we

11   need to continue to set high standards for automakers.

12   My life depends on it and now so does the life of my

13   young niece who also has asthma.

14   For all of us with respiratory problems, stronger

15   emission standards for cars are a matter of life and

16   death. I have a plug-in hybrid car now and would never

17   go back to a low-mileage gas-powered car. I charge it

18   with electricity generated by the solar panels on my

19   house. Not only am I no longer contributing to deadly

20   pollution but I am saving money on gas and maintenance.

21   We all need to do our part go make the world a

22   healthier place to live.

1   Please reinstate the Obama/Biden federal standards

2   with Alternative 2 and set even stronger ones through

3   the next decade.

4   Thank you for the opportunity to testify today.

5   MS. THOMPSON: Thank you for your comment.

6   The next speaker will be Susan Pate.   Please state

7   your name and affiliation for the record.

8   MS. PATE: Hi.   My name is Susan Pate.   I'm a

9   retired computer systems engineer.

10   I have two children, three grandchildren, one with

11 asthma, but I'm very concerned for their future.   I

12 want them to have an earth to walk on and clean air to

13 breathe and so that's why I'm testifying today.

14   I relocated from Phoenix to a suburb of St. Louis

15 about 15 years ago.   I subsequently installed a solar

16 water heater about 13 years ago and have been so very

17 pleased with how it runs.   It's only after two or three

18 days of no sun that I have to go to my backup

19 electricity for the solar water heater in order to take

20 a warm shower.

21   Because of this experience, I recently ordered an

22 electric car, but it's better than electric because

1   it's run by solar energy. The car will run and I

2   bought a lower car because of the prices, but I bought

3   a car for under 30,000 that will get me 40 miles per

4   gallon on sunshine and if I need to recharge my

5   battery, I do so by plugging into a regular outlet. We

6   don't need any special stations for recharging, and I

7   love this option, and I think we would have zero, that

8   is, none emissions by using solar energy to run our

9   cars.

10   I really think that's so cool and it's good for

11   not only our atmosphere but also our ground because

12   we're not going to be drilling for oil, we're not going

13   to be fracking and causing earthquakes, and it's going

14   to be so much less expensive.

15   So I would like to just urge you to actually make

16   the standards more stringent for auto emissions and

17   remove that -- well, add the Alternative 2 so that

18   nobody has a way to get out of meeting your standards.

19   Thank you for letting me talk today and good luck.

20   MS. THOMPSON: Thank you for your comment.

21   The next speaker will be George Agortsas. You may

22   now unmute and please state your name and affiliation

1   for the record.

2   MR. AGORTSAS: Thank you.

3   Good afternoon.   Thank you for the opportunity to

4   testify today.   My name is George Agortsas, and thank

5   you for pronouncing my last name really well.   I'm here

6   today as a private citizen.   My background is in

7   engineering.   I worked for Western Digital in Southern

8   California.

9   I support the swift action on clean cars and urge

10   the EPA to adopt the most stringent standards that

11   would deliver greater environmental benefits and

12   savings to consumers.

13   Fundamentally, I'm here today to share my concern

14   about the future of our children and grandchildren.   I

15   want to leave them a better world so they can thrive.

16   I believe it's difficult to thrive when you're

17   dealing with health issues related to air pollution.

18   It's difficult to thrive when the extremes in weather

19   create dangerous environment.   It's difficult to thrive

20   when economically we're burdened with the aftereffects,

21   including increased medical costs, increased costs to

22   address more and more disasters, and costs to address

1   displaced families due to climate change, and other

2   disasters.

3   That's my main motivation. I really, really want

4   to leave a better planet for our children and

5   grandchildren and those that follow.

6   Lastly, we have been leaders in the industrialized

7   world in developing technologies and thriving

8   economically from the leadership we've shown over the

9   last 100 years.

10   I feel that same leadership can be leveraged and

11   can be used to implement technologies. I believe the

12   technologies are available. I don't believe that we

13   have an issue of not having technologies available.

14   It's about adoption of those technologies as fast

15   as possible to benefit the planet and to benefit

16   ourselves in the end not only from air pollution but

17   also economically.

18   As we made the transformation when we were

19   industrializing, we can make the same transformation

20   away from a carbon-based economy and we have the

21   ability to do so. All it takes is willpower.

22   I look to you and our leaders to provide that

1   willpower and provide that leadership so we can

2   accelerate our transition out of a carbon-based

3   economy.

4   Therefore, I urge the EPA to adopt these stringent

5   guidelines for the automotive industry, transportation

6   industry, so we can reduce emissions because I believe

7   we can make a difference in the world not only for our

8   children but also for others as we've done in the past.

9   I know we're capable. We just need the willpower.

10   On a personal note, I want to share, and I know

11   not everybody has the means to do this, but over the

12   last 10 years, I've had three homes and have had solar

13   panels on all three. So technology is there. Again,

14   it's a matter of economics for not everybody can afford

15   solar panels.

16   I've also had hybrid vehicles up until 2008 and

17   then since 2008 we've gone all electric vehicles and as

18   others have mentioned, it's very convenient, it's very

19   cost-effective, and we just need the leadership to

20   drive the adoption of the available technology.

21   At the end of the day, my belief, my first belief

22   is that's all it will take for us to get ourselves out

1   of the current situation we've created over the last

2   hundred years.

3   Thank you for your time. I appreciate the

4   opportunity to speak.

5   MS. THOMPSON: Thank you for your comment.

6   The next speaker will be Vanessa Lynch. You may

7   now unmute and please state your name and affiliation

8   for the record.

9   MS. LYNCH: Absolutely. Thank you all for this

10   amazing opportunity to testify today and join all these

11   other voices saying important and thoughtful things

12   about how we can support our future generations.

13   My name is Vanessa Lynch, and I'm a Field

14   Organizer in Pennsylvania for Moms Clean Air Force. I

15   live in the Pittsburgh area with my husband and two

16   children.

17   I'm asking the Environmental Protection Agency to

18   choose the strongest option for their Late Model Light-

19   Duty Greenhouse Gas Emissions Standard which avoids all

20   loopholes for automakers.

21   The latest Intergovernmental Panel on Climate

22   Change Report summarizes the State of the Science on

1   Climate Change confirming climate change is widespread,

2   rapid, and intensifying. The report paints a grim

3   picture of our world's future unless swift and strong

4   action is taken immediately to curb the pollution

5   causing global climate change.

6   The transportation sector is the largest source of

7   carbon pollution in the U.S. We cannot address the

8   climate crisis without moving decisively to zero

9   pollution vehicles electrified by zero pollution

10   electric power sources.

11   In Pennsylvania, climate change is clearly making

12   an impact. The Pennsylvania Department of

13   Environmental Protection reports the state has the

14   highest number of Lyme disease cases in the nation,

15   triple the number of cases from 10 years ago.

16   If you talk to families in Southwest PA, it's not

17   if you know someone who's been impacted but, rather,

18   how severe were those impacts. From short-term

19   antibiotic treatment to long-term joint pain and

20   swelling, inflammation of the brain and spinal cord and

21   nerve pain, my neighbors and friends have experienced

22   them all.

1   In my local community, landslides and major rain

2   events are becoming much more frequent. Our family was

3   recently forced to install an interior French drain in

4   our basement due to major flooding. Mold and mildew

5   growth caused major home repair issues and health

6   concerns as a result of the increase in rain to our

7   region and these impacts are felt by each of us,

8   regular American citizens across the country.

9   From 2010 to 2020, Pennsylvania experienced 37

10   extreme weather events, costing the state up to $10

11   billion in damages, those creating the increasing

12   financial burden climate change is becoming to

13   Pennsylvania's families.

14   In order to set us on the path to 100 percent zero

15   emissions new vehicle sales by 2035, the near-term

16   standards for climate pollution must be as strong as

17   possible and in order to protect families like mine

18   from the most dire impacts of climate change, the

19   Environmental Protection Agency must take bold and

20   ambitious action at every opportunity to protect our

21   children's health and future.

22   Thank you.

1   MS. THOMPSON: Thank you for your comment.

2   The next speaker will be Kindra Weid. You may now

3 unmute and please state your name and affiliation for

4 the record.

5   MS. WEID: Hi. Good afternoon. My name is Kendra

6 Weid.

7   MS. THOMPSON: Sorry. Didn't nail that one.

8   MS. WEID: I am, first and foremost, a very

9 concerned and passionate person about the planet and

10 also I care about others. I am a critical care

11 registered nurse and I'm also speaking on behalf of MI

12 Air MI Health. We are a nonprofit bipartisan coalition

13 of health professionals, mostly nurses, who advocate

14 for clean air in Michigan. We believe that everyone

15 deserves to breathe clean and healthy air.

16   As many have already pointed out, I'm going to be

17 stating a lot of things that have already been said,

18 but we're all well aware that the transportation sector

19 is the largest emitter of greenhouse gas emissions and

20 also air pollution that impacts public health.

21   For the record, MI Air MI Health fully supports

22 the U.S. EPA's proposal to tighten greenhouse gas

1   standards for passenger cars, SUVs, and light trucks

2   for Models 2023 to 2026, replacing the SAFE Vehicles

3   Rule.

4   However, we also feel that it's critical to push

5   even further and we call on you today to set much

6   stronger standards covering cars, SUVs, and light

7   trucks through at least 2030.

8   We are in the midst of a climate crisis and

9   emissions contributing to climate change need to be

10   eliminated as quickly as possible. The time to act was

11   yesterday and we are already seeing these effects as

12   evidenced by the floods in Detroit this summer, most

13   recently in Tennessee over this past weekend, wildfires

14   along the Western Coast, extreme heat events, severe

15   drought. The list of examples goes on and on.

16   Climate change poses very serious threats to

17   public health and to the lives of all Americans,

18   especially our most vulnerable, our kids, older adults,

19   low-income communities, BIPOC communities, and people

20   living with chronic diseases which is who I see in the

21   hospital.

22   This is a public health emergency and we need to

1   do everything we can to drive down these emissions from

2   all sectors but especially the transportation sector.

3   As a nurse in the ICU during this pandemic, I have

4   witnessed and continue to witness patients with chronic

5   underlying heart and lung conditions, many of which

6   could be attributed to or are worsened by their

7   environment and their exposure to transportation

8   emissions, based on their proximity to very large

9   transportation corridors.

10   Research from Harvard University demonstrated this

11   link between long-term exposure to air pollution and

12   increased mortality from COVID-19.

13   Again, MI Air MI Health fully supports quickly

14   finalizing today's proposal to move forward with strong

15   ambitious greenhouse gas and fuel efficiency standards

16   for cars, light trucks, and SUVs.

17   We encourage even more aggressive action. Our

18   environment, public health, and our most vulnerable

19   populations can't afford to be idle on this issue, and

20   I hope that you feel the urgency that I feel. Everyone

21   deserves to breathe clean and healthy air.

22   Thank you. I apologize.

Trustpoint.One   Alderson.   www.trustpoint.one
www.aldersonreporting.com   800.FOR.DEPO
(800.367.3376)

1   MS. THOMPSON: Thank you for your comment.

2   The next speaker will be Geoff Cooper. You may

3   now unmute and please state your name and affiliation

4   for the record.

5   MR. COOPER: Okay. Well, thank you, and good

6   afternoon.

7   My name is Geoff Cooper, and I am the President

8   and CEO of the Renewable Fuels Association. The RFA is

9   the leading voice for America's ethanol industry and

10 our mission is to advance the development, production,

11 and use of low-carbon renewable fuels, like ethanol.

12   We appreciate the opportunity to share our

13 thoughts on EPA's proposed rule today and we will be

14 submitting more detailed comments in writing.

15   We also endorse the remarks delivered earlier

16 today by Senator Tom Daschle, who's the Chairman of the

17 High Octane Low Carbon Alliance, of which RFA is a

18 founding member.

19   RFA believes well-designed fuel economy and

20 greenhouse gas standards can work in tandem with

21 programs, like the renewable fuels standard, to

22 significantly reduce fossil fuel consumption, improve

1   public health, and combat climate change.

2   If our nation is to reach its goal of net zero

3   greenhouse gas emissions by mid-century, we'll need

4   both cleaner, more efficient cars and cleaner, more

5   efficient fuels, and that's why the members of my

6   organization recently committed to achieving net zero

7   carbon footprint for ethanol by 2050 or sooner.

8   Unfortunately, we believe EPA's proposal fails to

9   recognize that the fuels we put into our engines can

10   have as much or more impact on fuel economy and

11   greenhouse gas emissions as the engine technologies

12   themselves.

13   We believe the proposal missed a critical

14   opportunity to solicit public comment on potential

15   regulatory pathways for adopting high-octane/low-carbon

16   liquid fuels as a means of improving fuel economy and

17   reducing greenhouse gas emissions from the light-duty

18   vehicle fleet.

19   Recent studies and analyses, including the

20   Department of Energy's Comprehensive CoOptima Research

21   Program, clearly show that ethanol-based high-

22   octane/low-carbon fuels can increase fuel efficiency by

1   five to nine percent and reduce life-cycle greenhouse

2   gas emissions per mile by nine percent or more when

3   paired with the right engine technologies.

4   Why would we leave those low-cost efficiency gains

5   and emissions reductions on the table, especially when

6   we all know liquid fuels and internal combustion

7   engines will continue to dominate light-duty

8   transportation for decades to come?

9   We also note that EPA's Technical Assessment of

10   the proposed CO2 standards assumes "broader

11   availability of high-compression ratio technologies."

12   EPA assumes those high-compression engines will be

13   necessary to achieve the '23 through '26 fuel economy

14   requirements.

15   EPA's proposal notes that an engine with high-

16   compression natural aspiration and direct injection is

17   "a very cost-effective internal combustion engine

18   technology that is in use today and ready for broader

19   application."

20   But what the proposal fails to mention is that

21   those engines that utilize high-compression ratio

22   technology will require higher-octane fuels to prevent

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   premature fuel ignition.

2   In other words, the proposed rule counts on broad

3   deployment of high-compression ratio engines that will

4   require high-octane fuel but does nothing to ensure

5   that those high-octane fuels will actually be produced

6   or available in the marketplace.

7   Because EPA's relying on these engine technologies

8   to deliver the fuel efficiency gains and emissions

9   reductions necessary to meet future standards, we

10   believe discussion of the high-octane fuels that enable

11   these technologies is well within the scope of this

12   rulemaking process and we would urge you to treat any

13   written comments you receive regarding the role of

14   octane as germane to this rulemaking.

15   We also ask that the final rule include a

16   statement expressing the agency's intent to consider

17   adoption of a high-octane fuel in the range of 98 to

18   100 RON as part of a future rulemaking to establish

19   standards for 2027 and beyond.

20   Thank you and I look forward to any questions.

21   MS. THOMPSON: Thank you for your comment.

22   As a reminder, if you are speaking today, you will

 1   receive a notification on your screen that you are

 2   being promoted to the role of panelist shortly before

 3   your speaking time. You must accept that invitation to

 4   be able to unmute your call to testify. This will also

 5   allow you to turn on your camera which we encourage you

 6   to do.

 7   Speakers connected by phone should unmute their

 8   phones when called to testify.

 9   If you are having technical difficulties, please

10   send an e-mail to public_hearing@abtassoc.com or call

11   919-294-7712. If you are not registered to speak but

12   you would like to speak tomorrow, August 26th, please

13   send an e-mail with your name and phone number to

14   public_hearing@abt.assoc.com or call 919-294-7712.

15   We will now move on to the next speaker block.

16   Speaker Block 4

17   MS. THOMPSON: The next speaker will be Jeff

18   Alson. You may now unmute and please state your name

19   and affiliation for the record.

20   MR. ALSON: Thank you.

21   My name is Jeff Alson, and I'm speaking on behalf

22   of the Environmental Protection Network, a group of

 1   more than 550 EPA alumni volunteering their time to

 2   protect the integrity of EPA, human health, and the

 3   environment.

 4   From 1978 to 2018, I was a senior engineer and

 5   policy advisor at EPA's Office of Transportation Air

 6   Quality, and I worked extensively on the clean car

 7   standards.

 8   EPN strongly believes that EPA's top priority must

 9   be a post-2026 rule to establish a clear regulatory

10   requirement to achieve near 100 percent zero emissions

11   car and light truck sales by 2035.

12   Transportation is the leading source of U.S. GHG

13   and it takes about 15 years of new car sales to turn

14   over the fleet. If the U.S. is to reach the IPCC goal

15   of net zero emissions by 2050, it's imperative that EPA

16   promulgate standards to transform the new car fleet to

17   zero emissions vehicles by 2035, providing critical

18   regulatory certainty and lead time and a level playing

19   field for automakers to be EV leaders without worrying

20   that others may drag their feet.

21   EPN strongly supports the proposed 2023 to 2026

22   standards as an important building block and the

 1   minimum needed to establish a foundation for a strong

 2   2035 rule. Any changes should be made in the direction

 3   of more, not less, stringent standards.

 4   There is no question that automakers have

 5   sufficient led time to meet the proposed standards.

 6   Until last year's rollback, manufacturers' product

 7   plans were geared towards meeting the original 2025

 8   standards finalized in EPA's 2012 rule which were

 9   slightly more stringent than the current proposal, and

10   in fact there are products on the market today that

11   meet the future standards and existing plans to expand

12   advanced technologies to more products.

13   Zero emissions vehicles offer large public health

14   benefits to everyone but especially to vulnerable

15   communities who are the most at risk to climate-related

16   extreme weather events as well as to high pollution

17   levels from urban freeways and oil refineries.

18   The lower and more stable fuel and maintenance

19   costs of electric vehicles will be a major economic

20   benefit to low-income communities as unanticipated

21   gasoline price spikes and repair bills can destroy a

22   tight family budget.

1   Finally, EPN supports EPA's decision to undertake

2   its own GHG rulemaking, separate from NHTSA, reversing

3   the previous Administration's decision to essentially

4   lock agency staff out of a meaningful role in the 2020

5   rollback.

6   NHTSA has clear legal limits on considering

7   electric vehicles from setting CAFE standards and

8   cannot promulgate CAFE rules for more than five years

9   at a time, thereby making CAFE limited in its ability

10   to address long-term climate impacts.

11   It is imperative that future EPA rulemakings not

12   be constrained by NHTSA's statutory limitations.

13   Thank you.

14   MS. THOMPSON: Thank you for your comment.

15   The next speaker is William Davidson. You may now

16   unmute and please state your name and affiliation for

17   the record.

18   MR. DAVIDSON: Thank you for the opportunity to

19   testify today.

20   My name is Bill Davidson, and I live in New Mexico

21   with my wife and some of our children.   I'm here today

22   as a concerned citizen.

 1   I support the Administration's action on cleaner

 2 cars and urge the EPA to adopt the second alternative

 3 that would deliver savings to consumers, eliminate

 4 loopholes, and, most importantly, reduce pollution and

 5 greenhouse gases.

 6   When we built our home several years ago, we built

 7 it to the passive house standard. Our home is super

 8 insulated, air tight, and, thanks to solar panels, it

 9 produces about 35 percent more energy than we use. The

10 surplus electricity will charge our next electric

11 vehicle, either an EVA or a plug-in hybrid.

12   I am very concerned about climate change, forest

13 fires, floods, storms, etcetera, are causing hundreds

14 of billions of damage and devastating lives here and

15 abroad. We need automakers to bring more electric cars

16 and hybrids to market.

17   My wife and I take a lot of driving trips to see

18 family and our beautiful country and we need and want

19 cars with great fuel mileage and with long electric

20 range.

21   Cleaner cars of all types are a win-win for

22 everyone. Everyone wins with cleaner air. Everyone

1   wins with less dependence on oil, and everyone wins by

2   slowing and ultimately reversing climate change, and

3   when I say everyone, I include automakers who will also

4   win domestically and internationally by selling cleaner

5   cars.

6   I urge the Administration to set the highest

7   standards possible because it is the right thing to do.

8   We should be making our vehicles cleaner and more

9   efficient. I urge you to adopt the second alternative

10   and set even higher standards through 2030 and beyond

11   and ensure there are no loopholes.

12   Thank you for the opportunity to speak today.

13   MS. THOMPSON: Thank you for your comment.

14   The next speaker will be Laurie Kuntz. You may

15   now unmute and please state your name and affiliation

16   for the record.

17   MS. KUNTZ: Hi. My name is Laurie Kuntz, and I'm

18   here today as a private citizen.

19   I support this Administration's swift action on

20   clean cars but urge the EPA to adopt the second

21   alternative.

22   As a biology graduate, I've been learning about

1   the dangers of climate change and ecological

2   degradation since the 1990s. Now in the 2020s, we are

3   close to losing an entire class of species, anthozoa,

4   commonly known as coral, because of the acidification

5   and warming of ocean water that occurs with higher

6   amounts of carbon in the atmosphere.

7   If we lose coral, an entire class of marine

8   invertebrates, that's the equivalent of losing all

9   mammals on the planet since mammals are an equivalent

10   class of land vertebrates. If we lost coral or any

11   other class of species, I'm confident that we would see

12   worldwide ecological collapse.

13   If ecosystems can't function properly, the web of

14   life will be untangled and humans will suffer and die.

15   In my own area in Idaho, I've seen extreme drought.

16   I've seen a wildfire come within two miles of my home,

17   and I've seen reductions in wildlife populations over

18   the past five years. I've seen birds die of heat

19   stroke this year. I haven't seen any rusty catch

20   bumble bees for the past two years, and I've seen

21   chipmunks and birds with tumors caused by a degraded

22   environment.

1   Reducing greenhouse gas emissions is the only way

2   to change this path and prevent ecological collapse.

3   We must enact the strongest fuel economy standards

4   possible and support incentives and infrastructure for

5   electric vehicles in order to achieve this.

6   I bought my first electric vehicle in 2016 and my

7   second EV in 2018. These vehicles have cost me about

8   $13 a month in extra electricity compared to

9   approximately $250 a month in gasoline that I bought

10   when I commuted to work in a gas vehicle.

11   I've also seen huge savings in maintenance costs

12   since there are no spark plugs to replace, no belts,

13   and no engine to require oil changes.

14   Setting strong federal clean car standards through

15   2026 can put us back on track to save consumers up to

16   $80 billion in reduced gas, maintenance, and price

17   costs over the lifetime of new vehicles purchased

18   during the next five years while restoring clean air in

19   our communities.

20   I do support the EPA's Alternative 2 in the

21   proposed rule since it would eliminate many loopholes

22   and would impose stronger standards for automakers.

1   Thank you.

2   MS. THOMPSON: Thank you for your comment.

3   The next speaker on our list is Ken Webb.   Ken, we

4   do not currently see you listed on the list of

5   attendees.   However, if you have joined using a

6   different name, we'd ask that you use the Raise Your

7   Hand feature at this time, and if you have joined by

8   calling in, you should be able to raise your hand by

9   dialing Star 9 on the phone.

10   (No response.)

11   MS. THOMPSON: Okay.   We will move on to our next

12   speaker.

13   The next speaker is Rene St. Julien.   You may now

14   unmute and please state your name and affiliation for

15   the record.

16   MR. ST. JULIEN: Thank you for the opportunity to

17   testify today.

18   My name is Rene St. Julien, and I'm here as a

19   private citizen.

20   I support this Administration's swift action on

21   clean cars but also urge the EPA to adopt their second

22   alternative which would deliver greater savings to

1   consumers and eliminate unnecessary loopholes for

2   automakers.

3   I moved to Dallas, Texas, over 50 years ago, after

4   completing my enlistment in the U.S. Air Force as a

5   weatherman. As a weatherman, I recorded the weather

6   and visibility for pilots and so watching the weather

7   as a hobby has been what I've done ever since.

8   When I began working in Dallas, I worked in high-

9   rise office buildings and noticed it was easy to see

10   over 20 miles away from the upper floors. Before I

11   retired a couple of years ago, the visibility was down

12   to about two to three miles.

13   Of course, some of my coworkers called the brown

14   layer that loomed over the city "morning haze" instead

15   of what it really was, air pollution caused by the

16   congested sluggish crawl of commuter traffic.

17   The world has seen incredible technological

18   innovations over the past 40 years, many things

19   changing at a speed which was almost hard to keep up

20   with. Who would have thought even a couple of years

21   ago that we could have a virtual meeting like this on

22   Zoom?

1   Meanwhile, the automotive industry still produces

2 cars and trucks using the same fossil fuel-burning

3 internal combustion engines that were being made in the

4 early 1900s.

5   About all the auto industry has done is taken the

6 same technology and refined it a little every decade,

7 generally in the areas of comfort, style, and

8 reliability. For the most part, changes in the areas

9 of safety or the environment are rarely made

10 voluntarily and only when the Federal Government

11 mandates it.

12   It appears that the open market competition has

13 failed us. After 120 years, the extremely complex

14 internal combustion engine should be retired. Tesla's

15 the only car manufacturer that has dared to take on the

16 status quo.

17   Our culture needs to set its expectations much

18 higher as to what is possible when the best minds get

19 to work. We need to stop wallowing in the past and

20 start getting innovation and competition to accelerate

21 us into a true clean energy future at a much faster

22 rate than past standards have set.

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   In conclusion, I would like to urge this

2   Administration to be aggressive and set the strongest

3   possible standards. They also need to prioritize

4   Alternative 2 in the proposed ruling eliminating

5   unnecessary loopholes for automakers.

6   Thank you for the opportunity to testify today.

7   MS. THOMPSON: Thank you for your comment.

8   The next speaker is Gregory Caudill. Gregory, we

9   do not at this time see you in our list of attendees.

10   However, if you have joined using a different name, we

11   would invite you to raise your hand. If you have

12   called in, you can raise your hand by dialing Star 9 on

13   your phone.

14   (No response.)

15   MS. THOMPSON: Okay. We will move on to the next

16   speaker.

17   The next speaker is Jenna Riemenschneider. You

18   may now unmute and please state your name and

19   affiliation for the record.

20   MS. RIEMENSCHNEIDER: I'm Jenna Riemenschneider,

21   Director of Advocacy at the Asthma and Allergy

22   Foundation of America, also known as AAFA.

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   Founded in 1953, AAFA is the oldest and largest

2 patient advocacy organization for those with asthma and

3 allergic disease and we support the Administration's

4 proposal to strengthen greenhouse gas standards for

5 passenger cars, SUVs, and light trucks.

6   I am speaking both on behalf of AAFA National and

7 on behalf of our AAFA Michigan Chapter.

8   25 million Americans have asthma, including over

9 six million children, and over 3,600 people die each

10 year from asthma. That's about 10 people a day. It's

11 a chronic disease that causes your airways to become

12 inflamed, making it hard to breathe, and there is no

13 cure for asthma.

14   In the United States the burden of asthma falls

15 disproportionately on the black, Hispanic, American

16 Indian, and Alaska Native populations, and especially

17 on children. These groups have disproportionately high

18 rates of poor asthma outcomes, including

19 hospitalizations and deaths.

20   In fact, as documented in our 2020 Asthma

21 Disparities Report, black Americans are three times

22 more likely to die from asthma than white Americans and

1 five times more likely to be treated in an emergency

2 room, and black women have the highest death rates from

3 asthma versus any other group.

4   Poor air quality and exposure to air pollution is

5 a very significant risk factor, both for developing

6 asthma and for those who already have an asthma

7 diagnosis.

8   That's why clean air and addressing the climate

9 crisis are particularly important to the asthma and

10 allergy community and especially those in racial and

11 ethnic minorities.

12   As the leading contributor to air pollution and

13 the largest source of climate pollution in the U.S.,

14 cleaning up the transportation sector represents

15 immense opportunity for public health benefits.

16   Measures to reduce vehicle emissions will address

17 the burden of air pollution on two fronts. First, the

18 populations near highways will benefit from reduced

19 pollution in their immediate outdoor environments and,

20 second, other communities will benefit from the

21 upstream pollution reductions associated with the

22 extraction, transportation, and refinement of petroleum

1   products.

2   As we know, the communities most impacted on both

3   fronts are disproportionately low-income, largely

4   racial and ethnic minority populations, making this

5   proposal an environmental justice imperative.

6   We support clean and safe air for everyone bur

7   especially for vulnerable populations, like those with

8   asthma and other chronic respiratory diseases. EPA's

9   proposal is a good start to addressing the previous

10   Administration's rollbacks but that's just it. It's a

11   start.

12   We must make haste to finalize the rule this year

13   and we must make haste to set up even more health

14   protective standards beyond that. Climate change is a

15   public health emergency and we cannot afford to delay

16   action.

17   Thank you for your time.

18   MS. THOMPSON: Thank you for your comment.

19   The next speaker is Mary Mathews. At this time we

20   do not see Mary listed in the -- among the attendees.

21   However, Mary, if you have joined using a different

22   name, we would invite you at this time to raise your

1   hand, and if you have joined by calling in today, you

2   can dial Star 9 on the phone to raise your hand.

3   (No response.)

4   MS. THOMPSON: Okay. We will move to the next

5   speaker on our list.

6   The next speaker is Daniel Gage. You may now

7   unmute and please state your name and affiliation for

8   the record.

9   MR. GAGE: Hi. I'm Daniel Gage, President of

10   Natural Gas Vehicles for America. We're a national

11   trade association dedicated to the decarbonization of

12   transportation sector through the increased use of

13   gaseous fuels, including renewable and conventional

14   natural gas and eventually hydrogen.

15   Our 200+ members support the ultimate goal of

16   Model Year 2023 and later light-duty GHG standards to

17   decarbonize the transportation sector as quickly as

18   possible while greatly reducing the harmful criteria

19   emissions that contribute to poor air quality and

20   federal ambient air standards non-attainment.

21   In comments to previous Administrations, NBG

22   America consistently articulated that renewable natural

1   gas should be a key part of any inclusive mix for three

2   main reasons.

3   Number 1, RNG is a zero carbon now solution.

4   Latest data puts the carbon intensity of bio-CNG in

5   California's system at negative 16.57 grams of CO_2

6   equivalent per mega jewel. That's the lowest of any

7   on-road motor fuel energy source, including fully-

8   renewable electric from solar or wind.

9   Number 2, RNG is the dominant natural gas motor

10   fuel. Last year, RNG displaced conventional natural

11   gas derived from fossil sources as the dominant on-road

12   fuel source nationwide. In California with its Low-

13   Carbon Fuel Standard Program, 92 percent of NGB motor

14   fuel is from renewable sources today.

15   Number 3, natural gas motor fuel is increasingly

16   sustainable and carbon-free. By 2030, 80 percent of

17   natural gas on-road motor fuel in the United States

18   will be derived from renewable sources, rising to 100

19   percent by 2050.

20   NGB America agrees that climate change is

21   cumulative. The longer we wait, the harder it gets to

22   solve and there is no single perfect, affordable, and

1   immediate solution to addressing transportation-related

2   climate change emissions. Thus, all clean options must

3   be advanced to make a collective difference beginning

4   now.

5   This proposed rulemaking would roll back

6   improvements advanced by the previous Administration

7   that removed barriers to natural gas certification and

8   incentivized expanded natural gas vehicle production in

9   the form of sales multipliers. These sales multiplier

10   incentives should not be eliminated but reinstated and

11   expanded to advance every available affordable and

12   scalable clean car solution.

13   Not every fleet is the same. So providing

14   significant renewable natural gas vehicle incentives to

15   automakers will allow for flexibility to meet those

16   varied needs. Existing RNG programs will reward

17   renewable fuel production but the RFS Program -- I'm

18   sorry -- rewards renewable fuel program, but it does

19   not reward vehicle production.

20   Without incentives for vehicle manufacturers,

21   there will be no NGVs, not when other technologies are

22   mandated, heavily subsidized, and supported by

1   disproportionate incentives.

2   Expanded deployment of affordable and available

3   zero carbon RNG trucks and work vans will meet the

4   Administration's goal of getting more clean replacement

5   vehicles on the road right away, impacting frontline

6   communities sooner, and an established, mature, and

7   varied RNG refueling infrastructure already exists

8   coast-to-coast.

9   Finally, when EPA considers GHG emissions in the

10   transportation sector, it must look beyond tailpipe.

11   All emissions matter, well-to-wheel and mile-to-mile.

12   EPA's regulations must be amended to ensure that

13   manufacturers have greater reason to produce ultra-low

14   carbon motor vehicles that operate on biofuels, not

15   just vehicles that have so-called zero tailpipe

16   emissions.

17   Thank you very much.

18   MS. THOMPSON: Thank you for your comment.

19   As a reminder, if you are speaking today, you will

20   receive a notification on your screen that you're being

21   promoted to the role of panelist shortly prior to your

22   speaking time. You must accept that invitation to be

 1 able to unmute when you are called to testify. This

 2 will also allow you to turn on your camera which we

 3 encourage you to do.

 4   Speakers connected by telephone should unmute

 5 their phones when called to testify.

 6   If you are having technical difficulties, please

 7 send an e-mail to public_hearing@abtassoc.com or call

 8 919-294-7712. If you are not registered to speak but

 9 you would like to speak tomorrow, August 26th, please

10 send an e-mail with your name and phone number to

11 public_hearing@abtassoc.com or call 919-294-7712.

12   The next speaker on our list is Ulla Reeves. We

13 do not currently have you listed as an attendee.

14 However, if you have joined using a different name, we

15 would encourage you to raise your hand at this time and

16 if you have called in to the meeting today, you can

17 dial Star 9 to raise your hand.

18   (No response.)

19   MS. THOMPSON: The next speaker on our list is Jim

20 Caruso. We do not have Jim listed as an attendee at

21 this time. However, Jim, if you have joined using a

22 different name, we would invite you to raise your hand

1   at this time and as a reminder, if you have joined

2   using your phone, you can dial Star 9 to raise your

3   hand.

4   (No response.)

5   MS. THOMPSON: We will move on to the next speaker

6   on our list.

7   The next speaker will be Chris Nevers. You may

8   now unmute and please state your name and affiliation

9   for the record.

10   MR. NEVERS: Thank you for the opportunity to

11 testify today.

12   My name is Chris Nevers, Senior Director of Policy

13 at Rivian, where our mission is to keep the world

14 adventurous forever.

15   Rivian is an independent U.S. EV-only manufacturer

16 building electric adventure vehicles in Normal,

17 Illinois, including our R1T truck, 1S SUV, and an

18 electric delivery van for Amazon.

19   The R1T and 1S are regulated under the EPA Light-

20 Duty Greenhouse Gas Program and together with the

21 electric delivery van will displace some of the largest

22 and most polluting vehicles on the road with all-

1   electric options.

2   We greatly appreciate EPA's vision of these

3   standards and the proposal to restore California and

4   state authority. Course correction in this regulation

5   after the dramatic rollback is no easy task.

6   The proposal covers the largest federal program

7   regulating greenhouse gas emissions. Its importance to

8   the auto industry, economy, and the environment cannot

9   be understated.

10   This proposal is making leads in the right

11   direction and we endorse Alternative 2 as the proposed

12   option with the most environmental and economic

13   benefit. We applaud the top line year-over-year

14   efficiency improvements and the Administration's vision

15   on EV deployment and we believe the top line

16   improvements can be reached without new provisions that

17   otherwise diminish the promised environmental and

18   economic benefits.

19   To pursue this vision, our analysis has identified

20   some provisions likely to result in delays to the

21   stated goals of this Administration. These proposed

22   elements are not necessary given the rapidly-growing

1   availability of EVs in every market segment.

2   A simple regulatory framework aligned with the

3   auto industry's recent investments and commitments will

4   help achieve the President's goals and accelerate

5   environmental and economic benefits.

6   To achieve President Biden's vision, we recommend

7   the following. First, we urge EPA to reduce or

8   eliminate some of the additional flexibilities and

9   extensions of various credit programs, specifically

10   advise against extending the lifetime of expired

11   credits and against reviving the strong hybrid truck

12   incentive.

13   We also urge maintaining the off-cycle credit cap

14   at 10 grams per mile. Collectively, these elements

15   would significantly weaken this program if adopted.

16   Secondly and perhaps counterintuitively, we

17   recommend not extending the credit multiplier for van

18   technology vehicles. This multiplier is no longer

19   needed and weakens the program by double-counting

20   emissions reductions. So like the extension of

21   credits, we recommend not extending the advanced

22   technology multiplier.

1   Finally, we recommend that EPA update its baseline

2   fleet beyond 2017 market data and clarify the

3   assumption of a 50/50 car-truck fleet mix. This

4   baseline fleet does not affect recent EV expansion nor

5   does it reflect the increase in demand for trucks over

6   cars.

7   In closing, I've had the privilege in my career

8   observing this program from multiple perspectives,

9   including the agency, conventional industry, the trade

10   association, and now Rivian. I've seen what the

11   collective ambition of this industry can achieve.

12   Some stakeholders are advocating for additional

13   flexibility and less stringent standards in the short

14   term but now is not the time to sit back, accept

15   delayed economic and environmental gains, and let other

16   markets take the lead in developing the advanced

17   vehicles.

18   Let's continue driving electrification and job

19   creation forward in the U.S. by building on what

20   manufacturers have already begun. We ask that the EPA

21   adopt Alternative 2 without additional flexibilities,

22   thereby ensuring American competitiveness and that the

1   promised environmental and economic benefits are

2   realized.

3   We also look forward to EPA quickly moving on

4   reauthorizing the Clean Air Act Waiver for California

5   and Section 177 states.

6   Thank you for your time.

7   MS. THOMPSON: Thank you for your comment.

8   The next speaker is Edith Zewadski-Bricker. You

9   may now unmute and please state your name and

10   affiliation for the record.

11   MS. ZEWADSKI-BRICKER: Thank you for the

12   opportunity to speak today.

13   I am Edith Zewadski-Bricker, Social Action Liaison

14   to the Florida Conference Leadership Team of the United

15   Methodist Women.

16   I'm here today as a private citizen and a woman of

17   faith to advocate for the strongest vehicle emissions

18   standards possible.

19   We are in a moment where our policy choices will

20   impact the present and the future, harming those that

21   are poor the most.

22   As leaders, you have the grave responsibility to

 1 alleviate the climate crisis, to protect the poor here

 2 and around the world, to protect generations to come,

 3 to protect our nation's sovereignty, and ultimately to

 4 save the planet.

 5   This purpose frames the issues discussed here

 6 today. The current Administration has recognized the

 7 urgent need for increased vehicle efficiency and

 8 limited vehicle planet-warming emissions is the very

 9 reason. The Environmental Protection Agency must do no

10 less.

11   Now is not the time to pander to the automakers

12 with complex credit schemes and tax loopholes that can

13 be manipulated in the name of profits. Please remember

14 the climate crisis is the Number 1 issue facing the

15 nation and the world.

16   Unfortunately, only the policymakers, not

17 individual citizens, can tackle these issues in a

18 significant way.

19   I am here because global warming is slated to

20 flood the Florida Keys, my home. Here in South

21 Florida, the Miami-Herald headline reads Sea Rise under

22 Scrutiny in Condo Collapse. How many condos will

1   collapse as the changing climate exacerbates the damage

2   from hurricanes? How much will state and local

3   governments spend uselessly fighting sea level rise?

4   I implore you to see past the politics, past the

5   powerful, past the profits, and even past the present

6   to the impact of your decisions on the future.

7   As long as I'm here now, consider the poor and

8   inner city Miami whose children are already dying from

9   asthma and pneumonia and COVID-19 as a direct or

10 indirect result of diesel fuel bus and gasoline vehicle

11 emissions.

12   Just today in our local paper, we read about the

13 farmers in Homestead concerned with saltwater intrusion

14 into South Florida's water supplies from sea level rise

15 and an increase in pests and disease that thrives in

16 warmer climates. In the Herald yesterday, we read

17 about outdoor workers subject to increased

18 temperatures.

19   In your wisdom, from the depths of your soul, as

20 the voice of conscience, that little Jiminy Cricket on

21 your shoulder, decide in favor of the strictest

22 emissions standards and the highest of vehicle

 1   efficiency that will exceed the Obama/Biden federal

 2   standards.

 3   Thank you.

 4   MS. THOMPSON: Thank you for your comment.

 5   The next speaker is Molly Collins. You may now

 6   unmute and please state your name and affiliation for

 7   the record.

 8   MS. COLLINS: Thank you so much for the

 9   opportunity to speak with you today about this critical

10   topic.

11   I'm Molly Collins. I'm here as a private citizen

12   in Milwaukee, Wisconsin.

13   I'd also like to thank this Administration for

14   acknowledging the importance of tackling climate

15   pollution from transportation which, as others have

16   mentioned today, is an important step in the right

17   direction.

18   I wanted to share my story with you today and ask

19   you to commit to making the strongest possible clean

20   car standards so that my two kids and my community can

21   breathe easier.

22   My son Dylan was born with some health challenges

1   and one of those was asthma, and it was really tough to

2   have to hold a toddler still while he did his nebulizer

3   treatments and it was extremely scary as a new mother

4   to worry that my child could not breathe.

5   Fortunately, we came through that challenge okay.

6   He turned 20 this week. He's about to begin his second

7   year of college, but his whole life Dylan has been

8   pretty impacted by air quality and like a lot of people

9   in our community here in Milwaukee, which is on the

10   American Lung Association's list of the 25 Cities with

11   the Worst Ozone Pollution, getting those air quality

12   alerts on your phone can impact a lot about how you

13   live your life that day and what you're able to do and

14   as I'm sure you know, the increasing temperatures due

15   to climate change make ozone more likely top form and

16   that impacts a lot of people.

17   People should have the freedom to move through

18   their day not worrying about whether or not they're

19   going to be able to breathe. It's past time we take

20   action and start to meaningfully work towards

21   environmental justice.

22   Earlier this month, a report from the UN

1   Intergovernmental Panel on Climate Change found that we

2   are on the path towards catastrophic destruction if we

3   do not make serious cuts in our greenhouse gas

4   emissions as soon as possible.

5   We must act with the urgency our situation

6   requires. We are seeing the effects of our

7   indifference in the news every day as extreme storms,

8   wildfires, earthquakes, etcetera, and I hate that I'm

9   leaving our planet in this state to my children.

10   We have the tools to begin to address these

11   issues. The EPA must finalize the rule this year and

12   ensure that these standards result in real-world

13   reductions in greenhouse gas emissions.

14   I hope my kids, our community, and I can count on

15   you to move forward with bold greenhouse gas and fuel

16   efficiency standards for cars, light trucks, and SUVs

17   that accelerate the critical transition to zero

18   emission vehicles.

19   Thank you so much.

20   MS. THOMPSON: Thank you for your comment.

21   The next speaker is Claudia Hidalgo. We do not

22   currently see Claudia listed as an attendee. However,

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   if you have joined using a different name, we would

2   invite you to raise your hand at this time, and if you

3   have called in to the meeting today, you can raise your

4   hand by dialing Star 9 on your phone.

5   (No response.)

6   MS. THOMPSON: We will move to the next speaker.

7   The next speaker is Lara Levison. You may now

8   unmute and please state your name and affiliation for

9   the record.

10   MS. LEVISON: Thank you.

11   My name is Lara Levison, and I am testifying as a

12   private citizen and a member of several environmental

13   organizations.

14   I request that EPA and NHTSA make the clean air

15   standards much stronger than you have proposed in the

16   draft rule. As we know, the transportation sector is

17   now the largest source of greenhouse gas emissions in

18   the U.S.

19   My boyfriend and I were on a road trip this

20   weekend. Our highways are filled with rivers of cars

21   and trucks and the vehicles keep getting bigger. We

22   need to improve their efficiency. Even I have a bigger

1   car than I used to since my boyfriend is an antique

2   dealer.

3   Stronger clean car standards will give us greater

4   reductions in climate pollution which we desperately

5   need and will save us consumers money, as well.

6   I heard on the news this morning that today here

7   in Washington, D.C., will be the 41st day this summer

8   with temperatures of 90 degrees or higher. When I

9   first learned about global warming several decades ago,

10   I didn't think I'd see the effects in my lifetime but

11   they're now all around us.

12   Congress gave the Administration the authority to

13   require clear vehicle emissions in the Energy

14   Independence and Security Act which passed in 2007. At

15   that time I worked for Speaker Pelosi in the Speaker's

16   Office and I helped to get that clean energy and

17   climate bill passed.

18   I did not work on the fuel efficiency provisions

19   in the bill, but I watched the negotiations on those

20   provisions play out. It took a lot of work and

21   political capital for Speaker Pelosi and her allies to

22   overcome the entrenched resistance of the automakers

1   and their allies to get that provision into the bill.

2   Thanks to Speaker Pelosi and the advocates for

3   greater fuel efficiency inside and outside of Congress,

4   you have the authority to make auto emissions cleaner.

5   You should not squander this opportunity to tackle the

6   climate crisis and save consumers money.

7   Thank you for considering my views.

8   MS. THOMPSON: Thank you for your comment.

9   The next speaker is Karen McElfish. We do not

10 currently have you listed among the attendees.

11 However, if you joined using a different name, we would

12 invite you to raise your hand at this time, and if you

13 have called in, you may raise your hand by dialing Star

14 9 on your phone.

15   (No response.)

16   MS. THOMPSON: We will move on to the next speaker

17 on our list.

18   The next speaker is Maria Hase. Maria, we do not

19 have you currently listed as an attendee.   However, if

20 you have joined using a different name, we would

21 encourage you to raise your hand at this time, and if

22 you have called in, you can raise your hand by dialing

1   Star 9 on your phone.

2   (No response.)

3   MS. THOMPSON: We will move on to the next

4   speaker.

5   The next speaker will be Eve Lukens-Day. You may

6   now unmute and please state your name and affiliation

7   for the record.

8   MS. LUKENS-DAY: Hello. My name is Eve Lukens-

9   Day, and I'm here today as an associate with

10   Environment America, a national network of 29 state

11   environmental groups with members and supporters across

12   the country who want clean air and a healthy climate.

13   Thank you for this opportunity to testify.

14   I would like to thank this Administration for

15   taking the first steps to roll back the attacks the

16   previous Administration placed on clean car standards

17   by reinstating limits on vehicle pollution.

18   However, I urge you to make the proposed standards

19   even stronger to ensure the greatest reduction in

20   global warming emissions and air pollution and to

21   accelerate the expansion of the electric vehicle

22   market.

 1   I'm here today because as a young person I'm

 2   concerned about having a livable future to inhabit.

 3   Transportation is now the Number 1 source of climate

 4   emissions in the U.S. and the majority of those

 5   emissions come from every-day cars and trucks.

 6   These emissions also cut short an estimated 58,000

 7   American lives every year. We've already seen the

 8   damage climate change can do this year. Where I live

 9   in Philadelphia, we've entered our sixth heat wave of

10   the summer this week and experienced intense flash

11   flooding and rainfall for the last few months.

12   Scientists are saying that these impacts are

13   coming even faster than they previously expected. So

14   it's imperative that we do everything we can to clean

15   up how we get around to curb the progression of the

16   climate crisis.

17   The preferred alternative identified by EPA is not

18   as strong as the Obama/Biden standard and is riddled

19   with loopholes and give-aways to automakers that

20   undermine otherwise strong emissions reduction targets.

21   It's been almost 10 years since the Obama/Biden

22   vehicle fuel efficiency standards were set. We must

 1 start by reinstating at least those standards and

 2 ideally stronger ones as the climate crisis has

 3 progressed rapidly over the last decade.

 4   The sense of these standards are essential in

 5 spurring innovation and clean car technology, but the

 6 U.S. can achieve 100 percent zero emission vehicle

 7 sales by 2035 which is in line with the Biden

 8 Administration's goal of net zero greenhouse gas

 9 emissions by 2050.

10   The EPA itself identifies a much better rule,

11 Alternative 2, which would put 400,000 extra electric

12 vehicles on the road by 2026 and result in a 130

13 million metric tons fewer greenhouse gas emissions.

14   Once again, I urge this Administration to set the

15 strongest standards possible because they are working.

16 We should maximize the benefits by making our cars and

17 light-duty trucks more efficient and I urge you to go

18 back to at least the Obama/Biden federal standards and

19 ideally to even stronger ones.

20   This is essential in ensuring that we have safe

21 air to breathe today and a livable future to inhabit

22 tomorrow.

1   Thank you for the opportunity to testify.

2   MS. THOMPSON: Thank you for your comment.

3   As a reminder, if you have speaking today, you

4 will receive a notification on your screen that you are

5 being promoted to the role of panelist shortly prior to

6 your speaking time. You must accept that invitation to

7 be able to unmute when you are called to testify. This

8 will also allow you to turn on your camera which we

9 encourage you to do.

10   Speakers connected by telephone should unmute

11 their phones when called to testify.

12   If you're having any technical difficulties,

13 please send an e-mail to public_hearing@abtassoc.com or

14 call 919-294-7712, and if you are not registered to

15 speak but you would like to speak tomorrow, August

16 26th, please send an e-mail with your name and phone

17 number to public_hearing@abtassoc.com or call 919-294-

18 7712.

19   The next speaker will be Kent Minault. You may

20 now unmute and please state your name and affiliation

21 for the record.

22   MR. MINAULT: Hi. Thanks so much for taking my

1   testimony today.

2   I'm Kent Minault. I work for the Sierra Club, but

3   I'm speaking as a private citizen today from Knoxville,

4   Tennessee, where I live, and I'm calling to urge EPA to

5   adopt the second alternative and basically to treat the

6   climate disruption as the crisis that it is.

7   Here in Knoxville, the city is attempting to take

8   some strong measures to deal with the climate crisis

9   and I was privileged to sit in on the Mayor's Climate

10   Council a year ago when they started meeting and we

11   received some information, graphs showing the

12   greenhouse gas reductions from building efficiency and

13   especially dramatic greenhouse gas reductions that came

14   from changing all the street lights to LED, but it was

15   another slide that really shocked us all because it

16   showed that a spike in transportation emissions was

17   four times greater than all those other reductions.

18   In other words, despite our city's best efforts to

19   this point, we were actually going backwards and

20   transportation was the reason.

21   Throughout the United States, utilities are making

22   strides at greenhouse gas reductions and so are

1   municipalities and counties and I sat in yesterday on a

2   webinar hosted by the previous speaker about school bus

3   adoption, as well, and we're starting to take steps on

4   that in Tennessee.

5   But I urge you to take the most stringent stance

6   you can take in regulating greenhouse gas emissions

7   from transportation because that's the hard nut. We're

8   progressing in a lot of areas, but if we don't lick

9   transportation, then we'll lose the climate fight.

10   Thank you so much for your kind attention.

11   MS. THOMPSON: Thank you for your comment.

12   The next speaker will be Elizabeth Hauptman. You

13   may now unmute and please state your name and

14   affiliation for the record.

15   MS. HAUPTMAN: Hi. I'm Elizabeth Hauptman, and

16   I'm with Moms Clean Air Force, Michigan.

17   My name is Elizabeth Hauptman, and I live in

18   Brighton, Michigan. Air pollution from the

19   transportation sector not only harms the health of our

20   children but it also contributes to the climate crisis.

21   On behalf of Moms Clean Air Force and nearly

22   30,000 members throughout Michigan, I'm asking the EPA

1   to implement the strongest vehicle pollution standards

2   possible. Pollution harms all of us but

3   disproportionately impacts children. Kids are smaller,

4   living closer to the ground than the rest of us,

5   standing just about tailpipe high where concentrations

6   from pollution from cars, trucks, and buses is coming

7   directly at them.

8   Children's still developing hearts and lungs are

9   being exposed to the dirty exhaust from vehicles that

10   spew carcinogenic poisons into the air. This tailpipe

11   pollution causes poor air quality that can exacerbate

12   asthma, causing more asthma attacks, resulting in

13   millions of missed school days, games, and outdoor

14   family activities for kids across the country.

15   My son has asthma and his disease is made worse by

16   air pollution. In the summertime, we need to watch our

17   weather app to see if it's safe for our son to play

18   outdoors. On hot days when the air quality is

19   terrible, I know he's going to have a tough day. As a

20   mother who's seen the fear in her son's face as his

21   chest tightens and he gasps to breathe, we must do more

22   to protect him and the children who suffer from this

1   chronic illness.

2   Parents like me far too often have had to rush

3   home after soccer games, swimming on hot summer days,

4   to use our children's nebulizers. Michigan has some of

5   the worst asthma rates in the country, according to the

6   American Lung Association. Childhood asthma rates are

7   significantly higher for children of color. Latino

8   children are twice as likely to die from asthma and

9   black children are 10 times more likely to die from

10   asthma than white non-Hispanic kids.

11   These statistics make it abundantly clear that

12   strong clean standards or a shift to zero emission

13   vehicles is an environmental and social justice issue.

14   Our children deserve justice in every breath. Because

15   my son and over 166,000 children in Michigan who suffer

16   from asthma need tougher air quality standards to

17   protect their children from the nation's largest source

18   of carbon pollution, tailpipe pollution.

19   In addition, we need these strong EPA standards to

20   address the urgent climate crisis now. This climate

21   crisis is not something you'll see impacts some day in

22   the future. We're seeing climate impacts right now,

1   extreme weather events, like excessive rainfall, storms

2   like we had last night, floods, heat waves.

3   Currently the strong clean standards are the best

4   tool we have in our toolbox to fight climate change.

5   Addressing pollution from the transportation sector

6   will fight climate change cannot wait. Michiganders

7   and kids deserve the strongest clean car standards EPA

8   has proposed.

9   Thank you very much for taking my testimony today.

10   MS. THOMPSON: Thank you for your comment.

11   The next speaker will be Mary Mathews. Mary, you

12   will need to accept the invitation to become a panelist

13   in order to unmute.

14   (No response.)

15   MS. THOMPSON: Okay. Looks like Mary may have

16   dropped from the call and so at this time, we will move

17   on to the next speaker group.

18   Speaker Block 5

19   MS. THOMPSON: The first speaker will be Amanda

20   Begley. Amanda, you will need to accept the invitation

21   to become a panelist in order to unmute.

22   MS. BEGLEY: Hello. Can you see me?

1   MS. THOMPSON: Yes, and we can hear you.

2   MS. BEGLEY: Okay. All right. Hello, everyone.

3   Thank you for the opportunity to testify.

4   My name is Amanda Begley from Los Angeles,

5   California, and I'm here today as a private citizen.

6   I thank this Administration for acting swiftly on

7   clean cars but urge EPA to create the strongest

8   possible limits on vehicle pollution as it reconsiders

9   the recent attack on clean car standards.

10   These standards will continue to promote

11   innovation throughout the automotive industry and will

12   ensure that the U.S. remains an industry leader. These

13   standards have already gone through a rigorous

14   technical review process which found that auto

15   manufacturers have the technology to meet the

16   standards.

17   I urge you to keep those standards as originally

18   designed to ensure the greatest reduction in oil use

19   and global warming emissions.

20   I'm here because I'm concerned about climate

21   change. The latest IPCC report, the Intergovernmental

22   Panel on Climate Change, the first part of the sixth

 1   assessment was recently released, and the assessment

 2   details in stark and clear language that climate change

 3   is widespread, rapid, and intensifying. It is here, it

 4   is now, it is us.

 5   The assessment detailed that warming will increase

 6   over the next three decades because nations have

 7   delayed curbing fossil fuel emissions for so long. In

 8   almost all emissions scenarios contained in the latest

 9   assessment, global warming is expected to hit 1.5

10   degrees C in the early 2030s. That is so soon.

11   The global temperature average has already risen

12   one degree C or about two degrees Fahrenheit since the

13   Industrial Revolution, and with that two degrees of

14   additional warming we've had recordbreaking heat waves,

15   California's ever-increasing and intense wildfire

16   season, Australia fires, China flooding. I could go on

17   and on.

18   Here in California, I have already had to flee my

19   home not knowing if I would be able to return due to

20   wildfire. Over 30,000 Californians right now are

21   evacuated from their home and some of them won't have a

22   home to return to and the windy season hasn't even

1 begun yet.

2   I've had several friends lose homes and had their

3 places of employment burn down, yet the warming will

4 increase, so will the fires, flood, and drought. We

5 have a choice, you have a choice. We have a window of

6 opportunity to avoid things getting worse. The slower

7 we act, the worse the consequences will be, and the

8 faster we act, the less severe the consequences will

9 be.

10   Transportation is the largest source of carbon

11 emissions in the United States and it is critical that

12 we both make our gasoline-powered cars and trucks more

13 efficient and we must shift rapidly to electric

14 vehicles.

15   Not only will setting the strongest standards

16 possible help with climate change, but they will also

17 help clean the air. The environmental justice concerns

18 of this are immense. Our communities of color suffer

19 from higher rates of asthma and respiratory disease.

20   Once again, I urge this Administration to set the

21 strongest standards possible because they are working.

22   Thank you for the opportunity to testify. We have

1   no time to waste.

2   MS. THOMPSON: Thank you for your comment.

3   Before we proceed with Speaker Block 5, we would

4   like to invite anyone who may have been skipped on the

5   list of Speaker Block 4 to raise their hand and we

6   would be happy to promote the so they can make their

7   testimony at this time.

8   (No response.)

9   MS. THOMPSON: Just another quick reminder that if

10   you are from Speaker Block 4, we are inviting you to

11   raise your hand at this time.   We would also like to

12   provide a quick reminder that if you have called in,

13   you can raise your hand by dialing Star 9.

14   If you are having technical difficulties, we would

15   encourage you to e-mail public_hearing@abtassoci.com or

16   call 919-294-7712.

17   (No response.)

18   MS. THOMPSON: Okay.   We will proceed with the

19   next available speaker on Speaker Block 5.

20   As a quick note, we will be going through the

21   speakers who are currently listed as attendees from

22   Speaker Block 5 until 3:30 p.m. Eastern Time.

1   The next speaker will be Mark Chun. You may now

2   unmute and please state your name and affiliation for

3   the record.

4   MR. CHUN: Good morning. This is Mark Chun from

5   Hawaii. I'm Past President of USC Marshall School of

6   Business Alumni.

7   Today, I'm testifying to urge the EPA to adopt

8   Alternative Number 2.

9   I followed the journey of EPA adoption since 2010

10 and, unfortunately, only justified my purchase this

11 year. The primary two reasons are economics and range

12 anxiety. This tells a story about economics.

13   Alternative 2 drives customers to make decisions

14 not only for lofty global warming aspirations but, more

15 importantly, the basic pocketbook. Federal plus state

16 incentives can level the playing field against nice

17 cars plus provide gateways to the every-day low-to-

18 middle-income families.

19   For example, California provides up to 2,500 on

20 used EVs to qualified households. For myself, I was

21 happy with my former Lexus and Acura cars, but the

22 manufacturers dragged their feet and only went hybrid

 1   which still requires traditional high maintenance, i.e.

 2   gas, oil, transmission, tune-up, fan belt, expenses.

 3   Automakers will only seek loopholes to standards to

 4   maximize profits from legacy vehicle services.

 5   We need to enforce higher standards to address

 6   immediate global warming concerns as soon as possible.

 7   Let's talk about range anxiety. The majority of

 8   households work within a 15-to-30-minutes radius from

 9   home. Providing economic incentives for not only new

10   but used CPO EVs would expedite adoption.

11   I just purchased just this year after 12 years of

12   following this with my used 2017 Tesla which as an

13   initial range of 240, now 230, which is more than

14   enough to circle the island. Most people in the

15   California and different neighborhoods also have that

16   same ability to do their daily stuff within that 35.

17   In conclusion, there's 14 Asian and European

18   countries that have ice bands ranging from the Year

19   2025 to 2050 with an average of 2034 as the target

20   date.

21   Let's do all we can to incentivize average Joe

22   households by making EVs economical and easy to get

1   started.

2   Next, we need to mandate the automakers to do the

3   right thing for our environment by legislating a

4   pathway to compliance and not leave it to their own

5   means.

6   Finally, let's ensure USA takes the leading role

7   amongst the global community by setting the bar to

8   ensure success.

9   Thank you very much.

10   MS. THOMPSON: Thank you for your comment.

11   The next speaker will be William Barrett. You may

12   now unmute and please state your name and affiliation

13   for the record.

14   MR. BARRETT: Thank you.

15   My name is Will Barrett. I'm the Senior Director

16   of Clean Air Advocacy with the American Lung

17   Association, based in Sacramento, California.

18   I'm pleased to be speaking to you today and to be

19   following a long list of supporters of setting the

20   strongest possible light-duty greenhouse gas emissions

21   standards.

22   We believe this provision is a vital response to

 1   the alarming public health risks posed by climate

 2   change in every corner of our nation and especially in

 3   communities already most at risk due to poor air

 4   quality.

 5   The climate crisis is on full display today. Like

 6   many Americans, Californians have faced extreme heat

 7   warnings, air quality alerts, and red flag warnings for

 8   wildfire risk.

 9   As I speak to you today, EPA's Air Now website

10   shows very unhealthy and even hazardous air quality

11   impacting residents of multiple states due to Western

12   wildfires. Lives have been lost, homes have been lost,

13   entire communities have been lost.

14   With each extreme event, we become more acutely

15   aware of and concerned by the many connections between

16   climate change and public health.

17   Given that the transportation sector is the

18   leading source of greenhouse gas emissions, U.S. EPA

19   must act this year to adopt and finalize standards

20   through 2026 that go beyond previous standards and

21   deliver real-world emission reductions. This is

22   necessary in order to reflect the urgency of our

 1   climate crisis and to set a course for the rapid

 2   transition away from combustion technologies.

 3   We call on you as EPA to use all the tools

 4   available to respond to this crisis and these standards

 5   really represent one of the most powerful levers

 6   available.

 7   The American Lung Association urges the U.S. EPA

 8   to build off of and really to go beyond the foundation

 9   set by the 2012 standards to really at a minimum

10   achieve the stringency outlined in Alternative 2.

11   We call on U.S. EPA to ensure that crediting and

12   other loopholes are not allowed to reduce the emission

13   reductions or real-world benefits of the final rules.

14   Alternative 2 could provide the strongest

15   foundation for more stringent rules to follow, would

16   usher in greater reductions in harmful pollutants,

17   yield health and societal benefits that EPA states will

18   far exceed the costs, and really can accelerate the

19   pathway to zero emission technologies that is urgently

20   needed to protect our health and our climate.

21   We call on U.S. EPA to set the standards at least

22   to the level outlined in Alternative 2 and to ensure

1   that these stringency levels are achieved in the real

2   world.

3   U.S. EPA should also move quickly to establish

4   even more stringent next round standards that set the

5   path to full electrification in the light-duty sector

6   as well as to begin the work of standards to accelerate

7   the growing medium- and heavy-duty zero emission

8   vehicle segments.

9   These actions support cleaner air, healthier

10   climate, and relief for communities most burdened by

11   both on-road transportation sources and fossil fuel

12   infrastructure that threatens health on a daily basis.

13   Thank you for your time and attention and for

14   considering our perspectives.

15   MS. THOMPSON: Thank you for your comment.

16   As a reminder, if you are speaking today, you will

17   receive a notification on your screen that you are

18   being promoted to the role of panelist shortly prior to

19   your speaking time. You must accept that invitation to

20   be able to unmute when you are called to testify. This

21   will also allow you to turn on your camera which we

22   encourage you to do.

1   Speakers connected by telephone should unmute

2   their phones when called to testify.

3   If you're having technical difficulties, please

4   send an e-mail to public_hearing@abtassoc.com or call

5   919-294-7712. If you are not registered to speak but

6   you would lie to speak tomorrow, August 26th, please

7   send an e-mail with your name and phone number to

8   public_hearing@abt.assoc.com or call 919-294-7712.

9   The next speaker will be Patrice Tomcik. You may

10   now unmute and state your name and affiliation for the

11   record.

12   (No response,)

13   MS. THOMPSON: To unmute, you will need to click

14   the Unmute button on the lower left-hand side of your

15   screen. There should be an icon shaped like a

16   microphone that you can click on.

17   MS. TOMCIK: Hello. Can you hear me?

18   MS. THOMPSON: Yes, we can hear you.

19   MS. TOMCIK: I am so sorry. Thank you.

20   Hello and my name is Patrice Tomcik, and thank you

21   for this opportunity to testify today. I am the

22   National Field Manager for Moms Clean Air Force, an

1   organization of over one million moms and dads united

2   to protect our children's health from air pollution and

3   climate change.

4   I live in the town of Gibsonia located in

5   Southwestern Pennsylvania with my husband and two

6   children where vehicle pollution degrades our air

7   quality and contributes to climate change and today I'm

8   asking the EPA to finalize the strongest possible

9   greenhouse gas emissions standards for light-duty

10   vehicles in order to protect children's health in the

11   future.

12   Today was the first day of school for my two sons.

13   Although I am thankful to have in-person classes again,

14   I'm also anxious about sending my sons back to school,

15   too. My children's schools, they are located less than

16   500 feet from the heavy trafficked state road of 228.

17   Studies have shown that the highest daytime

18   exposures of traffic pollution are within 500 feet of a

19   busy road. On an average day, at least 10,000 vehicles

20   and 500 light-duty trucks travel this heavily-congested

21   roadway.

22   Closing school windows and doors can help lessen

 1   the traffic pollutant exposures but the reality is, is

 2   that fine particles, ultrafine particles, gases, and

 3   vapors are able to readily penetrate the indoors where

 4   they can be breathed in by very young lungs.

 5   In the evening, my kids attend outdoor two-hour

 6   sports practices and games at the school sports complex

 7   located near the roadway. This is the environment my

 8   children have been exposed to since kindergarten and

 9   now through their high school years.

10   Unfortunately, my story is not unique since many

11   schools across the nation are built near busy roadways

12   because the land is cheap. I know that children are

13   especially impacted by pollution since their lungs and

14   brains are still developing until early adulthood.

15   Toxic air pollution exposures have deleterious

16   effects that can last a lifetime. I'm very worried

17   about what my children are breathing into their lungs

18   every day. My youngest son is a cancer survivor and is

19   immune-compromised.

20   As a mother, I try to make his home environment as

21   healthy as possible, but I know that I can't control

22   the air my son breathes and depend on the Administrator

 1   and EPA to do your jobs.

 2   Please finalize the strongest possible climate

 3   pollution limits on cars and light trucks to help

 4   protect our children's health and futures.

 5   Thank you very much.

 6   MS. THOMPSON: Thank you for your comment.

 7   The next speaker will be James Gallagher. James,

 8   you may unmute and please state your and affiliation

 9   for the record.

10   MR. GALLAGHER: (Inaudible.)

11   MS. THOMPSON: James, I do apologize for

12   interrupting you. Your volume is very, very low. You

13   may need to sit a little bit closer to the microphone

14   if at all possible. My apologies.

15   MR. GALLAGHER: Interesting. Is this any better?

16   MS. THOMPSON: Much better.

17   MR. GALLAGHER: Okay. I'll try to swallow the

18   computer.

19   As I said, I'm James A. Gallagher. I'm here as a

20   public citizen with a deep interest in the automotive

21   industry. I was born and raised in Detroit.

22   After obtaining a Bachelor and Master of

1   Engineering degrees from the University of Detroit in

2   1968, I worked as an engineering (inaudible) at Ford

3   Motor Engineering in the summer of 1965 and then as an

4   engineer and manager at the National Security Agency

5   for 52 years, 35+ as a federal employee including

6   receiving the NSA Meritorious Civilian Service Award,

7   and 16+ years as an engineering support contractor.

8   I strongly support this Administration's swift

9   action on clean cars but urge the EPA to adopt their

10   second alternative which would deliver greater savings

11   to consumers and eliminate unnecessary loopholes for

12   automakers.

13   I do not like federal regulations, but I have seen

14   how it has been necessary to improve the safety of

15   automobiles and reduce the pollution they create. My

16   first car --

17   MS. THOMPSON: I'm sorry to interrupt again. It

18   appears that the audio is still quite difficult to hear

19   for our panel. I'm not sure if there's a way to pull

20   the computer perhaps a little bit closer.

21   MR. GALLGHER: I guess the microphone on this is

22   somewhere on the top -- at the bottom of the screen.

1   So is this any better?

2   MS. THOMPSON: It is. Again, my apologies.

3   MR. GALLAGHER: That's quite all right. I haven't

4   done this before.

5   Let's see. As I said, I grew up in Detroit, born

6   and raised there, obtained my Bachelor's and Master's

7   degrees from the University of Detroit in 1968.

8   I worked as an engineering student assistant at

9   Ford Motor Engineering in the summer of 1965 and then

10 as an engineering manager of the National Security

11 Agency for 52 years, 35+ of them as a federal employee,

12 including receiving the NSA Meritorious Service Award,

13 and the remaining 16+ years as an engineering support

14 contractor.

15   I do support the Administration's swift action on

16 clean cars but urge the EPA to adopt their second

17 alternative which would deliver greater savings to

18 consumers, such as me, and eliminate unnecessary

19 loopholes for automakers.

20   I do not like federal regulations but I have seen

21 how it has been necessary to improve the safety of

22 automobiles and reduce the pollution they create. My

1   first car, a used 1957 Lincoln, weighed 5,600 pounds

2   and got 10 to 15 miles per gallon of gasoline. My

3   current car, a 2014 Lincoln MKZ Hybrid Sedan, weighs

4   far less, is far safer, and gets 40 to 45 miles per

5   gallon of gasoline. Regulation has had a positive

6   effect.

7   I watched the escalating extreme climate events,

8   such as wildfires, droughts, and extreme heat, in the

9   Northwest where my brother Gary has had to evacuate his

10   home from the fires and my brother Tom died July 15th

11   of lung cancer. He never smoked.

12   Meanwhile, we have tornadoes, hurricanes, and

13   extreme flooding throughout our country and throughout

14   the world. We have to change our ways but there are

15   rich and powerful industries that do not want to change

16   the status quo.

17   I value our industry. My father spent his entire

18   working life at Ford Motor Company. He was a naval

19   officer in the Pacific during World War II. He retired

20   in 1980 as the General Counsel of Purchasing and was

21   proud of his time at Ford which provided the income to

22   feed, clothe, house, and educate all eight of his

1   children. I hope industry will continue to play that

2   valuable role.

3   Once again, I urge this Administration to set the

4   strongest possible standards because they work. We

5   should be making our cars and light-duty trucks even

6   cleaner and more efficient.

7   I urge you to reinstate the earlier federal

8   standards with your Alternative 2 and set even stronger

9   ones for 2030, plus ensure there are no loopholes for

10   automakers to get around these standards.

11   Thank you again for the opportunity to testify.

12   MR. OLECHIW: Mr. Gallagher, will you be

13   submitting your comments in written form, also?

14   MR. GALLAGHER: As soon as I figure out how to do

15   that.

16   MR. OLECHIW: Okay. Perfect. Thank you.

17   MR. GALLAGHER: You're welcome.

18   MS. THOMPSON: Thank you for your comment.

19   The next speaker will be Lucia Valentine. Lucia,

20   you may now unmute and please state your name and

21   affiliation for the record.

22   MS. VALENTINE: Hello. My name is Lucia

1   Valentine, and I am the West Virginia Organizer with

2   Moms Clean Air Force, and thank you for the opportunity

3   to testify today.

4   I'm from Shepherdstown, West Virginia, and have

5   lived in the Mountain State my whole life. My passion

6   work is dedicated to the intersection of advocacy,

7   environmental justice, and children's health.

8   Growing up on the basic of the Potomac River, I

9   experienced exacerbated climate disasters, such as

10   flooding, due to the negative impacts that greenhouse

11   gases have on our environment. This is in major part

12   due to the lack of clean vehicle standards.

13   The transportation sector is the largest source of

14   carbon pollution in the U.S. and the EPA must set the

15   strongest possible federal clean car standards

16   throughout 2026, avoiding loopholes and putting

17   automakers on track to meet ambitious pollution

18   reduction goals.

19   The pollution from cars not only causes climate

20   change but it also (audio glitch) the future of our

21   children, families, and communities all across our

22   beautiful state of West Virginia.

1   The EPA proposal includes several options for how

2   much and how quickly to limit climate pollution from

3   cars and light trucks. Preferred alternative

4   identified by EPA is not the strongest option and

5   includes some loopholes to automakers that may

6   undermine other pollution reduction targets.

7   Option Number 2 would put 400,000 extra vehicles

8   on the road by 2026 and result in 130 million metric

9   tons of greenhouse gas emissions. In order to set us

10   on the path to 100 percent zero emissions by 2035, the

11   near-term standards for climate pollution must be as

12   strong as possible.

13   So thank you for your time to testify today.

14   MS. THOMPSON: Thank you for your comment.

15   The next speaker will be Mark Rose. Mark, you may

16   now unmute and please state your name and affiliation

17   for the record.

18   MR. ROSE: Thank you for this opportunity to

19   comment.

20   My name is Mark Rose, and I'm the Sierra Nevada

21   Program Manager for National Parks Conservation

22   Association, America's leading voice to protect and

1   preserve our national parks.

2   I'm testifying today because the dual threats of

3   air pollution and climate change caused by light-duty

4   vehicles pose some of the greatest challenges to our

5   national parks and communities.

6   Nearly all 423 national park units are now at risk

7   due to climate change. Climate impacts from vehicle

8   greenhouse gases is leading to runaway heat waves,

9   droughts, sea level rise, coastal flooding, and the

10   Modaco wildfires whose smoke I've been breathing in for

11   weeks.

12   If we do not act quickly, we may lose some of our

13   national parks namesake features, such as the glaciers

14   in Glacier National Park, the Joshua Trees in Joshua

15   Tree National Park, and the Sequoias in nearby Sequoia

16   National Park.

17   Vehicle air pollution also severely limits

18   visibility in many national parks with haze cutting

19   down on as many as 90 miles average visibility in

20   places like Kings Canyon.

21   It also significantly harms the health and well-

22   being of park visitors, wildlife, and treasured

Trustpoint.One | Alderson.   www.trustpoint.one
www.aldersonreporting.com   800.FOR.DEPO
(800.367.3376)

1 ecosystems.

2   Beyond my role at NPCA, I also recently spent

3 numerous years living in Fresno and working on air

4 quality issues in California's San Joaquin Valley, one

5 of the most polluted regions in the nation for MPM 2.5

6 and ozone pollution, the majority of which comes from

7 vehicles.

8   I have seen firsthand the impacts of vehicle

9 pollution on the health of my neighbors and friends.

10 We must do more to protect these citizens, especially

11 persons of color and low-income individuals living in

12 the many environmental justice communities across the

13 nation who are most impacted by air pollution and

14 climate instability.

15   While I thank the Administration for acting

16 quickly to restore the so-called California Waiver and

17 update these standards, the proposal EPA has put forth,

18 however, does not go far enough.

19   To meet our national climate goals, protect our

20 communities, and preserve our beloved public lands for

21 generations to come, NPCA firmly believes we must move

22 forward with the strongest possible standards. Such

1   standards should achieve no less than the total tonnage

2   of greenhouse gas emission reductions that would have

3   been achieved under the previous Obama-era rules by

4   2025.

5   We further ask EPA not to include any unnecessary

6   loopholes or credits that allow manufacturers to avoid

7   real-world reductions.

8   Alternative 2 is a good starting point, but I

9   strongly urge you to go even further.

10   As reported in Bloomberg News today, this position

11   appears to also be shared by members of the Biden

12   Administration who have expressed concern that EPA's

13   proposed alternative does not go far enough.

14   According to the recent IPCC Code Red for Humanity

15   Report, we are running out of time to correct course.

16   With the transportation sector becoming the largest

17   emitter of greenhouse gases in the nation and passenger

18   vehicles accounting for the vast majority of those

19   emissions, we must do more to set America on a path

20   towards achieving 100 percent zero emission vehicle

21   sales by no longer than 2035.

22   Thank you for this opportunity to comment, and I

1   ask that you please strengthen your proposal.

2   MS. THOMPSON: Thank you for your comment.

3   At this time, we will begin a brief recess. EPA,

4   when would you like to reconvene?

5   MR. OLECHIW: We will take a recess from half past

6   the hour till 15 minutes to the hour, so on the East

7   Coast that would be 3:30 until 3:45, and I just want to

8   take this opportunity to thank all of this afternoon's

9   testifiers and speakers. We very much appreciate the

10 input on the proposed rule. So we'll reconvene at 15

11 minutes to the hour.

12   Thank you.

13   (Recess.)

14   MS. THOMPSON: Greetings, everyone.

15   This is Kayla Thompson from Abt Associates, EPA's

16 contractor.

17   It is currently 3:45 p.m. Eastern Time, and we are

18 now rejoining EPA's Public Hearing about the Revised

19 2023 and Later Model Year Light-Duty Vehicle Greenhouse

20 Gas Emissions Standards Proposal.

21   As a reminder, if you are speaking today, you will

22 receive a notification on your screen that you are

1   being promoted to the role of panelist shortly prior to

2   your speaking time. You must accept that invitation to

3   be able to unmute when you are called to testify. This

4   will also allow you to turn on your camera and we

5   encourage you to do so.

6   Speakers connected by telephone should unmute

7   their phones when called to testify.

8   If you are having any technical difficulties,

9   please send an e-mail to public_hearing@abtassoc.com or

10   call 919-294-7712. If you are not registered to speak

11   but you would like to speak tomorrow, August 26th,

12   please send an e-mail to public_hearing@abtassoc.com or

13   call 919-294-7712.

14   The expecting speaking order is displayed on the

15   screen. I will be introducing each speaker in turn.

16   The first speaker will be Jennifer Cantley.

17   EPA, are you ready to proceed?

18   MR. OLECHIW: Yes, we are ready to proceed. Thank

19   you, Kayla.

20   MS. THOMPSON: Great. Jennifer, as a reminder,

21   you will need to accept the invitation to be made a

22   panelist in order to unmute today. When you are ready,

1 please unmute and state your name and affiliation for

2 the record.

3   MS. CANTLEY: Can you hear me?

4   MS. THOMPSON: We can.

5   MS. CANTLEY: Okay. Good afternoon.

6   My name is Jennifer Cantley. Thank you for the

7 opportunity to testify. I'm an Organizer with Moms

8 Clean Air Force.

9   I'm a born and raised Nevadan who currently lives

10 in the state's capitol Carson City with my family and

11 my two children who are asthmatic along with my third

12 son and my fiancé.

13   We are all survivors of COVID and I am

14 unfortunately a long-hauler who suffers with mild COPD,

15 inflammation around my heart, and pseudo-tumor cerebri

16 due to the virus which leads me to why I am a supporter

17 of the Administration's proposal to the regulatory

18 actions to reduce greenhouse gas emissions in this

19 country.

20   In Nevada, we are currently being pounded by

21 wildfire smoke in which the City of Reno just reported

22 the 10 worst air quality days in Reno's history, all

 1   being in the last 11 months. Reno is only a 20-minute

 2   drive from my house, and I'm sure Carson City would

 3   have similar air quality reports if we had stronger air

 4   departments like the big city does versus the rural

 5   communities, especially when we see that this year's

 6   American Lung Association's report with the rural

 7   county that I grew up in, Douglas County, having more

 8   red air days than Las Vegas and Reno, Nevada.

 9   This is because of the wildfire smoke and the

10   record high heat we're having. When you combine the

11   two together, it makes families, such as mine, hard to

12   want to get out of bed some days.

13   My family is a low-income family who cannot afford

14   central air conditioning and when we have these record

15   high heats, combining with the wildfire smoke at this

16   time, we have to turn off our swamp cooler which brings

17   up the heat in our house, then triggers our breathing

18   issues, which then makes more asthma attacks. This

19   then tops it off, we have orange ozone days.

20   We need your support. Now in Nevada, heat and

21   wildfire smoke are becoming a yearly occasion. It's no

22   longer from June to September. The vehicle pollution

1   has always been a Number 1 part of our air pollution.

2   This is why the EPA must make stronger possible federal

3   air standards for 2026, avoiding the loopholes and

4   putting automakers on track to meet ambitious

5   pollution-reducing vehicles.

6   When I say avoiding loopholes, this is another

7   important issue for Nevadans as we hold 25 percent of

8   the world's lithium for the EV vehicles that will be

9   producing the batteries for these EV cars.

10   The Federal Government must hold these companies

11   to the highest standards, especially for foreign

12   companies coming to rural communities. Low-income

13   families, especially Native communities, 13 percent of

14   Indigenous children, have asthma attacks compared to

15   8.6 percent of the children of non-Indigenous descent.

16   A lithium site currently in Nevada could produce

17   5,800 tons of sulfuric acid a day towards the Piute

18   Shoshone Territory in Nevada. This is why we need to

19   make the strongest possible national greenhouse

20   emission standards for passenger cars and light trucks

21   through Model Years of 2026.

22   Thank you.

1   MS. THOMPSON: Thank you for your comment.

2   The next speaker will be Karen Stein. As a

3   reminder, you will need to accept the invitation to

4   become a panelist in order to unmute.

5   MS. STEIN: Thank you, and let me just minimize my

6   screen so I can read my notes.

7   Good afternoon. I'm Karen Stein. I live in Rural

8   Iowa, and I am the Iowa Organizer for Moms Clean Air

9   Force as well as its Eco Madres Program, which

10 addresses the disproportionate effects of air pollution

11 and the climate crisis on Latino and Indigenous

12 communities.

13   Thank you for this opportunity to testify in favor

14 of the Revised 2023 and Later Year Light-Duty Vehicle

15 Greenhouse Gas Emissions Standards.

16   Here in Iowa, my primary place of residence since

17 I arrived from Latin America in 1980, we still have not

18 recovered from the horrific torrential storm of a year

19 ago which killed four people and caused over $1 billion

20 in damages.

21   We lost seven million trees in Iowa, four million

22 of them in urban areas. I had known over 200 of those

1   trees for 40 years. My daughters have climbed several

2   of them while growing up and now two of the three

3   daughters have decided not to have children because of

4   what they see as happening to our climate.

5   Iowa has lost shade and wildlife habitat for

6   decades to come. This year, we have endured an

7   extremely hot summer. People's electric bills due to

8   air conditioning usage are high and this is especially

9   difficult for communities in low-wealth neighborhoods.

10   Iowa's skies have been hazy most of the summer due

11   to the wildfires in the Western United States and I am

12   experiencing breathing difficulties for the very first

13   time in my life. I even went to get tested for COVID

14   because of severe persistent cough episodes which

15   turned out to be caused by particulate matter in the

16   air.

17   I know children with asthma in the Latino

18   communities in Iowa who have hardly been able to play

19   outdoors this summer due to the haze and the heat and

20   they badly needed to be able to play in the midst of

21   this pandemic.

22   Allow me to switch to Spanish before concluding in

1   English. (Speaking Spanish.) I said that all of what

2   I'm describing is due to the climate crisis which we're

3   experiencing, which is made worse by vehicular

4   pollution and many times Latino communities are not

5   aware of the causes and don't have access to the tools

6   that would allow them to take action while at the same

7   time they are being among the most affected by climate

8   change and pollution.

9   With my words in Spanish, I wish to underscore

10   that limiting pollution from dirty vehicles is

11   essential in achieving environmental justice. The EPA

12   must set the strongest possible federal clean car

13   standards and put automakers on track to meet the

14   pollution reduction goals that the Intergovernmental

15   Panel on Climate Change tells us we must achieve.

16   Gracias, thanks.

17   MS. THOMPSON: Thank you for your comment.

18   The next speaker is Barry Morse. Barry, we do not

19   currently have you listed among the list of attendees.

20   However, if you have joined using a different name, we

21   would invite you to raise your hand at this time, and

22   if you have called in you may dial Star 9 on your phone

1   in order to raise your hand.

2   (No response.)

3   MS. THOMPSON: We will move to the next speaker on

4   our list.

5   The next speaker is Debi Chernak. Debi, we also

6   do not see you as being currently listed among the

7   attendees. However, if you have joined under a

8   different name, we would ask that you please raise your

9   hand at this time, and if you have called in to the

10   meeting today you can raise your hand by dialing Star

11   9.

12   (No response.)

13   MS. THOMPSON: We will move to the next speaker on

14   our list.

15   The next speaker will be Stephanie Klein.

16   Stephanie, when you're ready, please unmute and state

17   your name and affiliation for the record.

18   MS. KLEIN: My name is Stephanie Klein, and I am

19   with Moms Clean Air Force.

20   Thank you for the opportunity to testify today. I

21   am the Washington, D.C., Field Organizer for Moms Clean

22   Air Force. I'm a mom and a resident of the District of

 1   Columbia.

 2   I'm an environmental scientist by training and was

 3   a career employee of this agency for 14 years. As

 4   such, I have firsthand knowledge of the importance of

 5   EPA's role in protecting the public from harmful levels

 6   of air pollution and I understand that agency staff do

 7   not take this responsibility lightly.

 8   I want to thank you for holding this hearing today

 9   and giving members of the public like me a chance to

10   give input. I strongly support EPA's proposal to

11   strengthen federal greenhouse gas emissions standards

12   for passenger cars and light trucks for Model Years

13   2023 to 2026.

14   Cleaning up vehicle pollution is one of the most

15   important things we can do to clean up our air and

16   fight climate change.

17   Washington, D.C., has one of the highest ground

18   level ozone pollution rates in the country. The

19   American Lung Association grades our city at an F in

20   its State of the Air Ozone Pollution Ratings. One in

21   10 kids in D.C. suffers from asthma which is

22   exacerbated by ground level ozone pollution, and in

1   some parts of the city, particularly our low-wealth and

2   BIPOC communities, the childhood asthma rate is as high

3   as one in three.

4   Cars are one of the major sources of ground level

5   ozone pollution and our kids are living with the

6   impacts.

7   We also know that cars are one of our major

8   sources of greenhouse gases. Ground transportation

9   accounts for 22 percent of our climate pollution here.

10   Like communities across the country, Washington,

11   D.C., is experiencing the effects of climate change

12   today. We are living through record-breaking heat

13   waves, snowstorms, and floods caused by rising sea

14   levels and heavy rain events.

15   Our famous cherry blossoms are even blooming

16   earlier as the planet warms.

17   Part of my job as an organizer is to speak with

18   members of my community about the causes and health

19   impacts of air pollution locally. When I talk to kids,

20   while they typically do not understand the process by

21   which cars burn gasoline to make energy, they do grasp

22   the basic concept of tailpipe pollution, and the

1   reaction is always, well, we need to make cars run as

2   cleanly as possible, and they're right.

3   EPA has an important job in setting pollution

4   limits for cars, but we must also go further to address

5   the climate crisis by moving decisively to zero

6   pollution vehicles. In order to set us on the path to

7   100 percent zero emissions new vehicles by 2035, the

8   near-term standards for climate pollution must be as

9   strong as possible.

10   EPA's proposal includes several options for how

11   much and how quickly to limit climate pollution from

12   cars and light trucks.

13   On behalf of Moms Clean Air Force's more than

14   3,000 members in Washington, D.C., I urge EPA to

15   finalize the strongest option possible.

16   Thank you for your time today.

17   MS. THOMPSON: Thank you for your comment.

18   The next speaker will be Michelle Uberuaga. It

19   appears Michelle is not currently listed as an

20   attendee. However, if you have joined using a

21   different name, we would encourage you to raise your

22   hand at this time, and it seems like we have an

1 individual who is raising their hand. So I will

2 promote them to panelist at this time.

3   MS. UBERUAGA: Thank you so much. Apologize. I

4 can't change my name and this is my work account, but

5 thank you so much for your time today and I'm grateful

6 for your work at EPA. You have an incredibly important

7 job and a laudable mission to protect human health and

8 the environment. So thank you.

9   My name's Michelle Uberuaga, and I am the mother

10 of three and a member of Moms Clean Air Force. I live

11 on Apsaroka land in Southwest Montana, and I work full-

12 time running a community-based conservation group here

13 in Yellowstone Northern Gateway. That's my name there,

14 the Park County Environmental Council.

15   I'm testifying today to support the EPA's

16 proposal. This proposal is a step in the right

17 direction to address the urgent climate emergency that

18 we are living in right now.

19   As many speakers have already stated, we are at a

20 crucial tipping point. Every decision you make to

21 reduce pollution today matters, and I really want you

22 to understand the urgency of this work to my family and

1   to so many other Montana families. Our kids are

2   watching and they're worried.

3   We've spent the past two months in Montana under

4   hazy and smoke-filled skies. We can't play outside.

5   We can't fish because of the heat-related closures on

6   our rivers. My kids are still pretty young, but they

7   know that something is not right and they're worried.

8   Montana's drought is killing farmers. Climate

9   change is impacting every part of our lives, our

10   economy, and our way of life, and our kids are counting

11   on you to take action to protect their future.

12   So for these reasons, I urge the EPA to set the

13   strongest possible federal clean car standards. We

14   need to keep U.S. automakers on track to meet ambitious

15   pollution reduction goals as soon as possible.

16   I'm also testifying because my family, like many

17   Montana families, is impacted from air pollution from

18   cars and trucks. Livingston is a small town in a rural

19   county on the Northern edge of Yellowstone National

20   Park, and you might imagine that we have pretty good

21   air quality, but like every other place, we experience

22   local pollution from vehicles. It's inescapable.

1   In fact, pollution from vehicles can create

2 serious air quality concerns even in Yellowstone

3 National Park where cars often get lined up back-to-

4 back sometimes for miles. The air pollution when that

5 happens is visible as it sits in the air in remote

6 river valleys.

7   In our little town, we experience pollution from

8 vehicles regularly. Livingston, like many towns, sits

9 right off I-90. When the freeway closes for bad

10 weather, heavy truck traffic is rerouted right through

11 our downtown, right down Main Street, past our

12 elementary school. Sometimes traffic gets backed up

13 for several miles, semis, cars, trucks, slowly inc

14 through town, past schools, restaurants, and sidewalks.

15   My kids are also personally impacted from

16 pollution from vehicles that idle at their schools.

17 Like many places, parents idle their cars during pickup

18 and drop-off which happens on the playground. It's

19 alarming to see our playground flanked on all sides by

20 idling cars and air pollution.

21   We can and we must do better for our kids and for

22 our communities. An estimated six million children

1   under 18 suffer from asthma. My son has three kids on

2   his soccer team that have asthma. My husband is the

3   coach and he has to make judgment calls about whether

4   it's safe to practice or play games. Parents should

5   not be making those decisions.

6   This summer, our local hardware store teamed up

7   with our city government to give out free DIY air

8   filters, boxed fans with filters for homes this summer.

9   Many families, like mine, don't have air conditioning.

10   With extreme heat and smoke, we have very few options

11   to protect our families.

12   We need your help. Local families and communities

13   can work together to protect themselves from dangerous

14   pollution, but we shouldn't have to, and many

15   especially vulnerable communities just don't have the

16   resources or time. We need your leadership to protect

17   vulnerable children across our country from air

18   pollution and climate change,

19   Strengthening car standards is a simple step and

20   we can and must continue to do more to protect

21   communities from air pollution and climate change.

22   I want my kids to know that we did everything we

1   could to protect their future.

2   Thank you so much for your time and for your

3   consideration today.

4   MS. THOMPSON: Thank you for your comment.

5   The next speaker will be Ann Mesnikoff. You may

6   now unmute and please state your name and affiliation

7   for the record.

8   MS. MESNIKOFF: Hi. My name is Ann Mesnikoff.

9   I'm the Federal Legislative Director for the

10   Environmental Law and Policy Center. ELPC is the

11   Midwest's leading public interest, environmental, and

12   legal advocacy organization. We appreciate the

13   opportunity to testify today.

14   It is critical to remember that the necessity for

15   this NPRM and this hearing is because the auto

16   industry, which agreed to the 2012 program, including

17   letters of commitment, lost no time in pushing the

18   Trump Administration to undermine it. As a result, we

19   have lost years of emissions reductions as the urgency

20   for action mounts daily.

21   I have three brief points to make today. First,

22   we need to act with urgency. The Six IPCC Report makes

1   clear both the human causes of climate change and its

2   devastating impact.

3   EPA's reminder in the NPRM that greenhouse gases

4   endanger public health and welfare is important, but

5   EPA fails to capture the scope of the tragic impacts we

6   are seeing almost daily across the U.S. and around the

7   world and the absolute urgency of strong standards.

8   ELPC is specifically concerned about the threat

9   climate change poses to the Midwest and the Great Lakes

10   which contain 21 percent of the world's freshwater

11   supply and provide drinking water for over 42 million

12   people.

13   In 2019, ELPC sponsored a report by leading

14   Midwest climate experts and scientists that detailed

15   the harmful impacts of climate change on the Great

16   Lakes and our region.

17   The change in climate brings increased storm

18   intensity, changes in water temperatures, flooding,

19   runoff, and algal growth, all presenting a significant

20   increasing threat to the Great Lakes.

21   In the region, the boundary waters has been

22   evacuated due to the threats of wildfire and costly

1   weather-related disasters, like the recent devastating

2   flooding in Detroit, have been linked to climate

3   change.

4   Second, EPA must issue strong technology-forcing

5   standards for cars and light trucks. EPA itself notes

6   that addressing the climate crisis will require

7   substantial reductions in greenhouse gas emissions from

8   the transportation sector and that we are in a pivotal

9   moment.

10   We agree, and we appreciate that EPA is using its

11   authority under the Clean Act to begin with Model Year

12   2023 and act separately from NHTSA, but the climate

13   crisis can leave no doubt that EPA must adopt

14   Alternative 2 with at least the 10 grams per mile

15   increase in stringency for Model Year 2026.

16   EPA acknowledges that automakers were already

17   planning for stronger standards and they should not be

18   rewarded with anything less than Alternative 2.

19   It is, however, hard to decipher how the veritable

20   smorgasbord of so-called flexibilities undermines the

21   top line targets EPA sets out and therefore the

22   benefits.

1   Flexibilities allow automakers to stall gasoline

2   vehicle improvements and fail to significantly boost

3   the electric vehicle market given automakers already

4   announced plans.

5   Light truck vehicles with dismal fuel economy

6   dominate the market today. The market is now 50/50 as

7   EPA assumes. These vehicles will be on the road

8   guzzling gas and spewing climate pollution well beyond

9   2030. Each year that automakers can exploit

10   flexibilities and ship out gas-guzzling trucks with

11   little or no change undermines our ability to mitigate

12   the climate crisis. EPA must shut down this

13   smorgasbord and strengthen Alternative 2 to meet the

14   climate moment.

15   Third, a strong auto manufacturing base is

16   critical to the economies and well-being of Great Lakes

17   Midwest states where ELPC works. Past analysis by BGA

18   and NRDC concluded that there were nearly 300,000 jobs

19   in the advanced technology vehicle sector. Three

20   states, Michigan, Indiana, and Ohio, top the list.

21   I appreciated the remarks this morning from Noah

22   Howe from Ceres who called out the link between

 1   stronger standards and innovation, job creation, and

 2   competitiveness, all of which are important in the

 3   states in the Midwest, the auto manufacturing base.

 4   EPA makes clear in the NPRM that the proposed

 5   standards will be met with existing technology. Even

 6   Alternative 2, while stronger, will not spur innovation

 7   and fuel-saving technologies because loopholes will

 8   allow auto manufacturers to do more of the same with

 9   the climate paying the price.

10   In conclusion, EPA must strengthen and adopt

11   Alternative 2 with at least the additional reduction in

12   10 gram per mile for Model Year 2026 while closing

13   loopholes.

14   EPA must act swiftly on setting standards for

15   Model Year 2027 and beyond.

16   I will note from the story in Bloomberg News today

17   that many of us, many, many folks testifying today are

18   calling for stronger standards, and we share the same

19   concerns as folks in the White House who urge for a

20   stronger rule.

21   You have time to strengthen this program in the

22   final standards. A safer climate depends on it.

1   Thank you.

2   MS. THOMPSON: Thank you for your comment.

3   The next speaker is Maureen Dugan. Maureen, we do

4   not currently have you listed on the list of attendees.

5   However, if you have joined using a different name, we

6   would invite you at this time to raise your hand and if

7   you have called in to the meeting today, you can do so

8   by dialing Star 9.

9   (No response.)

10   MS. THOMPSON: We will move on to the next

11   speaker.

12   The next speaker will be Senator Marci Francisco.

13   You may now unmute and please state your name and

14   affiliation for the record.

15   SENATOR FRANCISCO: I'm Marci Francisco of

16   Lawrence, Kansas. I'm a former Mayor of Lawrence and

17   currently represent the Second District in the Kansas

18   Senate. That district includes much of Lawrence and in

19   Camden in Douglas County and almost all of Jefferson

20   County.

21   My thanks to you, the EPA officials, for the

22   opportunity to testify today in support of the EPA

1   solidifying strong greenhouse gas emissions standards

2   for light-duty vehicles to further fuel efficiency of

3   automobiles and curb pollution.

4   Many of my constituents have urged me to support

5   measures that will be beneficial for the health and

6   prosperity of our communities. I am testifying today

7   because I'm aware that often it is the Federal

8   Government that must take the lead in setting

9   standards.

10   Both as a private citizen and an elected state

11   Senator serving over 80,000 Kansans in Northeast

12   Kansas, I believe that our state officials working with

13   our Federal Government hold the responsibility to

14   safely regulate air pollution for the shared public

15   interest.

16   As has been testified to today, vehicle emissions

17   not only constitute one of the largest sources of

18   greenhouse gas emissions in the United States but cars

19   and trucks also emit deadly air pollutants, such as PM

20   2.5.

21   By strengthening pollution standards for passenger

22   vehicles and light-duty trucks as proposed, it would

1 mean significant gains in both public health and our

2 environment, all while providing consumers with

3 opportunities for lower vehicle costs and economic

4 savings.

5   As an elected representative, I believe stronger

6 federal safeguards on vehicle emissions would benefit

7 my constituents. Addressing vehicle pollution by

8 strengthening vehicle efficiency and encouraging hybrid

9 electric vehicle technology falls squarely in the EPA's

10 mission.

11   Strengthened standards and a path to 60 percent

12 vehicle emission reduction and a 50 percent electric

13 vehicle fleet by 2030 should spur economic growth and

14 public health protections.

15   Personally, I have been fortunate to be able to

16 make choices to reduce my personal vehicle emissions.

17 For years, I was able to commute to my job at the

18 University of Kansas by bicycle. I did get a driver's

19 license when I was 38 and commuted once a week to the

20 University Medical Center in Kansas City, Kansas. For

21 the last 17 years, I've used a car to commute to our

22 state's capitol during the legislative session.

1   My husband and I agreed that we would look for a

2   newer car if I were re-elected in 2020. For the past

3   year, we've been the proud owners of an all-electric

4   car. It is an absolutely fabulous in-town car. When I

5   drive to the grocery store, if I go on 6th Street,

6   which has stop signs and traffic lights and then come

7   home down the hill on 9th Street, I can make the trip

8   with the same estimated miles left on our car.

9   When I'm commuting to the legislature, I can plug

10   in the car at night, avoiding peak use times. Because

11   Kansas is within the Southwest Car Pool's region, I can

12   also check the wind forecast for our region and plug in

13   the car when wind generation in our region is over 50

14   percent.

15   However, I do recognize from living in a

16   neighborhood adjacent to the University of Kansas

17   campus, my neighbors who do not live in a house with a

18   garage and park on spaces off the alley or on the

19   street do not have the same opportunities to make EV

20   charging work for the best.

21   Unfortunately, charging a car during the day may

22   increase our dependence on fossil fuels.

1   Please focus on reducing the emissions from both

2 internal combustion engines as well as encourage

3 electric vehicles and embrace the opportunities for the

4 standard to be raised for all passenger vehicles and

5 light-duty trucks so that we have fewer emissions and

6 thus a lower negative impact to society's health and

7 ecosystems.

8   Lastly, I want to send a very, very tardy thank

9 you to the EPA officials for your regulations regarding

10 landfill locations in the 1970s. Because of those, and

11 I served on the Lawrence Commission, you helped the

12 City of Lawrence begin its tripping and recycling

13 programs.

14   Here is another chance to utilize your power in

15 solidifying better vehicle emission standards for our

16 country and the world's benefit. Many Kansans and I

17 are counting on you.

18   Thank you.

19   MS. THOMPSON: Thank you for your comment.

20   The next speaker will be Maureen Dugan. When you

21 are ready, please unmute and state your name and

22 affiliation for the record.

1   MS. DUGAN: Thank you so, so much, and I

2 apologize. I was coming home from school and I

3 apologize.

4   My name is Maureen Dugan. Can I get my hand down?

5 Yeah. I'm speaking to you today as a Massachusetts

6 High School Science Teacher with almost 50 years in the

7 field.

8   I'm here to implore you to institute the second

9 alternative for clean car emissions. History has shown

10 us that the auto industry will fight this with

11 everything that they have.

12   As some of you may remember, I spent too much time

13 today trying to get a picture up of L.A. in '68 versus

14 now. The first time the EPA mandated emissions

15 standards, the American automakers screamed and

16 refused. While Japan hired engineers, Detroit hired

17 lawyers.

18   Repeatedly, Detroit has decried regulation to

19 protect our environment and only does the right thing

20 when mandated to do it. The result is that America

21 lost its hegemony in regard to the automobile industry.

22   Please force Detroit to let their lawyers and

1   lobbyists go and force them to hire American engineers

2   instead. Help make use the forefront of this

3   technology, help make us the leader again, and protect

4   people's health and that of the planet. We're relying

5   on you. Please make us safer.

6   Usually I teach biology and recently began

7   teaching environmental science instead. While many of

8   my former students have gone on to successful science

9   careers in medicine, in engineering, and a lot of

10   stuff, environmental science is the single most

11   important course that I can teach.

12   My students are painfully -- my high school

13   students are painfully aware of the wildfires, floods,

14   rising sea levels, threatened polar bears, etcetera,

15   that are in large part due to fossil fuel emissions.

16   I am here to tell you that these kids are scared and

17   they're scared enough to feel helpless.

18   This is only my second time teaching this course,

19   but previously each time I would suggest some way that

20   the kids could change their behavior, using a reusable

21   water bottle or buying less consumables, their mantra

22   was "we're screwed." It's up to my students and me and

1   you to make this better. We need to rely on you for

2   this regulation. Please make us safer.

3   This year, my mantra for them will be things are

4   getting better. The air quality in L.A. is better than

5   it was in the '70s. Rivers are no longer catching on

6   fire. We're using fewer CFCs in our air conditioning.

7   The hole in the ozone layer is getting smaller. We're

8   using more renewable energy. Our cars are getting more

9   efficient and less polluting. That's my job to teach

10   and instill hope into these kids so they can make a

11   difference without having to be Greta Thunberg..

12   I need to hold my students, some of them

13   unwilling, to high standards. We need you, I implore

14   you, to make the unwilling industry do the right thing

15   and protect people's and the planet's immediate and

16   long-time health. We need to rely on you. Please make

17   us safer. Close the loopholes and don't give credence

18   to the industry's specious claims that this cannot be

19   done. Enact the second alternative.

20   If Americans won't, then I'm betting the Japanese

21   will. We need to rely on you. Please make us safer

22   and thank you so much for your time.

 1   MS. THOMPSON: Thank you for your comment.

 2   As a reminder, if you're speaking today, you'll

 3   receive a notification on your screen that you are

 4   being promoted to the role of panelist shortly prior to

 5   your speaking time. You must accept that invitation to

 6   be able to unmute when you are called to testify. This

 7   will also allow you to turn on your camera which we

 8   encourage you to do.

 9   Speakers connected by telephone should unmute

10   their phones when called to testify.

11   If you are having technical difficulties, please

12   send an e-mail to public_hearing@abtassoc.com or call

13   919-294-7712. If you are not registered to speak but

14   you would like to speak tomorrow, August 26th, please

15   send an e-mail with your and phone number to

16   public_hearing@abtassoc.com or call 919-294-7712.

17   The next speaker is Rob Larew. Rob, we do not

18   currently have you listed among our attendees at this

19   time. However, if you have joined under a different

20   name, we would ask that you raise your hand, and I can

21   see a phone number raising their hand and so I am going

22   to allow you to talk and you will need to make sure

1   that your phone is unmuted in order to comment.

2   MR. LAREW: Thank you for this opportunity and for

3   the technical assistance there.

4   I must say as a rural resident that we appreciate

5   all the flexibility here as rural broadband challenges

6   and connectivity for rural residents to be able to

7   connect in many of these opportunities is a very

8   significant and very real challenge for many of us.

9   My name is Rob Larew, and I serve as the President

10   of National Farmers Union, a grassroots organization

11   that advocates on behalf of family farmers and ranchers

12   and rural communities.

13   Founded in 1902, today NFU represents

14   approximately 200,000 farmers across the country whose

15   operations range in size, type, and production method.

16   NFU appreciates the opportunity to present this

17   testimony on EPA's proposal to revise the light-duty

18   vehicle greenhouse gas emission standards for Model

19   Years 2023 and later.

20   While automakers continue to invest in vehicle

21   electrification, there has also been ongoing

22   investments in vehicle improvements that reduce

1   greenhouse gas emissions and internal combustion engine

2   vehicles.

3   EPA previously agreed that these current and

4   promising technologies may be able to deliver

5   significant improvements in reducing greenhouse gas

6   emissions once fully deployed. These new technologies

7   go hand-in-hand with the use of high-octane fuels, such

8   as mid-level ethanol blends.

9   Higher ethanol levels increase engine and vehicle

10   efficiency, providing greater GHG emission reductions,

11   as well as reducing emissions of criteria pollutants

12   and air toxics, such as benzene, celluline, and xylene.

13   Several studies already have been presented to EPA

14   regarding the many benefits of high-octane/low-carbon

15   fuels, such as E3, and the National Highway Traffic

16   Safety Administration's Draft supplemental

17   Environmental Impact Statement recognizes increased GHG

18   benefits with higher blends of ethanol as well as the

19   ongoing reduced carbon intensity of corn ethanol.

20   Yet EPA appears to admit consideration of high-

21   octane/low-carbon fuels in the proposal. We believe

22   this to be an error and a missed opportunity.

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

1   As recently stated by the Alliance for Automotive

2   Innovation, which represents automakers that produce

3   nearly 99 percent of the new light-duty vehicles sold

4   in the United States, vehicle improvements along with

5   high-octane fuel should be encouraged as additional

6   solutions as soon as possible to maximize environmental

7   benefits across the fleet.

8   The Alliance acknowledged that these benefits

9   would be realized by new and existing internal

10   combustion engines. GHG reductions through high-

11   octane/low-carbon fuels could be occurring now.

12   In closing, NFU asks EPA to again acknowledge the

13   potential for high-octane/low-carbon fuels, such as

14   E30, to reduce GHG emissions from light-duty vehicles

15   today.

16   NFU also understands this proposal to be the first

17   of several regulatory actions to address vehicle air

18   emissions. In finalizing this rule and developing

19   these proposals, EPA also must consider the economic

20   benefits increased use of mid-level ethanol blends as a

21   high-octane/low-carbon cost-effective fuel will bring

22   to struggling rural communities while also benefiting

1   consumers.

2   NFU believes EPA can and should apply its current

3   authority under the Clean Air Act to approve and

4   require higher-octane levels as well as to remove

5   existing regulatory barriers to using mid-level ethanol

6   blends, such as allowing E3 to be used as a

7   certification fuel.

8   NFU will submit more detailed written comments and

9   we appreciate this opportunity today.

10   MS. THOMPSON: Thank you for your comment.

11   The next speaker will be Shannon Baker-

12   Branstetter. You may now unmute and please state your

13   name and affiliation for the record.

14   MS. BAKER-BRANSTETTER: Good afternoon.

15   I'm Shannon Baker-Branstetter, Deputy Director of

16   Policy for Dream Corp Green for All. We work to

17   advance solutions to poverty and pollution toward a

18   world that's green for all, not green for some.

19   Thank you so much for the opportunity to join this

20   hearing.

21   We are heartened to see EPA state a target of

22   reducing pollution by 60 percent by 2030 which will

 1   save lives and accelerate clean transportation choices,

 2   but changes are needed to ensure the rule actually

 3   delivers on this goal.

 4   In a short time I'd like to focus on two main

 5   points. First, strong greenhouse gas emissions

 6   standards for passenger vehicles are essential to meet

 7   climate and racial equity goals, and, second, EPA's

 8   Alternative 2 reduces more pollution and has higher net

 9   benefits than EPA's proposal, and Alterative 2 should

10   be the basis for the final rule.

11   Racial inequalities and wealth, health, and risks

12   from a changing climate means that every improvement to

13   addressing climate change is especially beneficial to

14   people in communities of color.

15   We may be beyond the point of being able to truly

16   fix the climate disaster that burning fossil fuels has

17   reaped but every fraction of a degree matters.

18   The big impact and a marginal difference in

19   emission abatement is especially true for the most

20   vulnerable. People who live in floodplains or red-line

21   neighborhoods, low-income households who may be

22   uninsured or underinsured for health or property

1   coverage, people who don't have the means to move or

2   improve the resiliency of their homes, and people

3   exposed to air pollution or have pre-existing health

4   conditions are all more vulnerable to the effects of

5   climate change.

6   As the Number 1 contributor to the highest

7   emitting sector in the United States, light-duty

8   vehicles present an opportunity, indeed an obligation,

9   to reduce emissions as quickly as feasible so that

10   other human needs can be met.

11   For example, increasing extreme heat means that we

12   will need to add air conditioning for people to avoid

13   heat stroke which can cook people's organs without a

14   place of reprieve.

15   Transportation has the highest potential to reduce

16   emissions and we can do this without losing mobility.

17   We can still get where we need to go with lower

18   emissions and can make these cuts in transportation

19   emissions far easier than in other essential sectors.

20   According to EPA's own analysis, the fuel savings

21   alone offset the costs of Alternative 2. Alternative 2

22   has almost 30 percent higher net benefits and even

1   applying a seven percent discount rate, both EPA's

2   proposal and Alternative 2 have the same delta between

3   the costs and fuel savings. Therefore, there's no

4   downside to adopting Alternative 2 compared to the

5   proposal.

6   The higher net benefits under both three percent

7   and seven percent discount rate make Alternative 2 the

8   most rational option.

9   Given the risks of abrupt changes from global

10   temperature rise identified in the 2021 IPCC Report,

11   the benefits of reducing emission are very likely

12   underestimated in the government's analysis.

13   When it comes to passenger vehicle emissions,

14   there's room for dramatic improvement. In Model Year

15   2019, average emission rates for all new vehicles

16   increased three grams per mile, even as all automakers

17   were compliant with the standards.

18   There are too many loopholes and bonus credits

19   even in the existing program and stricter standards and

20   less potential for gaining the system will be needed to

21   reach a 60 percent reduction in emissions by 2030.

22   In conclusion, the status quo even before the

1   COVID-19 pandemic made far too many people of color

2   sick and died too early from issues directly related to

3   inequity in economic and environmental injustice. We

4   can build prosperity for all Americans by adopting

5   pollution standards that are strong enough to protect

6   the health of the most vulnerable and to encourage

7   innovation and deployment of clean transportation

8   solutions.

9   EPA's Alternative 2 is the clear superior choice

10   to reach these goals.

11   Thank you very much.

12   MS. THOMPSON: Thank you for your comment.

13   The next speaker will be Mitch Hescox. We do not

14   currently have you listed among the attendees at this

15   time. However, if you have joined under a different

16   name, we would invite you at this time to raise your

17   hand and if you have joined using your phone, you can

18   raise your hand by dialing Star 9.

19   (No response.)

20   MS. THOMPSON: Okay. We will move on to the next

21   speaker.

22   Our next speaker will be Gregory Caudill. You may

1   now unmute and please state your name and affiliation

2   for the record.

3   MR. CAUDILL: Good afternoon.

4   My name's Gregory Caudill, and I'm here today as a

5   private citizen, retired tire salesman, and retired

6   chief machinist mate, nuclear, on submarines.

7   I fully support this Administration's swift action

8   on clean cars and I strongly urge the EPA to adopt the

9   second alternative for more stringent regulations.

10   In the year 2000, my wife and I purchased the

11   second Honda Insight that arrived in Gainesville,

12   Florida, and our first five years of ownership my wife

13   averaged 74 miles per gallon.

14   Over the time we owned the Insight she never went

15   below an average of 60 miles per gallon. She put over

16   350,000 miles on that little car, which brings me to my

17   concerns.

18   How will light-duty vehicle standards be

19   maintained once they are established? What kind of air

20   will our grandchildren be breathing in 2050 or a

21   thousand years? How will we protect our shrinking oil

22   supplies for the future?

1   With every Administration change, we see changes

2   to clean air regulations. In the area of science, in

3   the area of convenience, and then there are people who

4   believe the science but lack the fortitude to effect

5   change and people who believe the science but are

6   unable to get the necessary votes to establish

7   permanent change. This time we must not fail.

8   Strong standards have been established before and

9   I have seen them gutted every time.

10   The United States put mankind on the moon but

11   hasn't managed to apply the same drive to make the

12   automotive industry more efficient. We're too busy

13   playing politics.

14   The clean air provisions deserve to be protected

15   by federal legislation across the full spectrum. We

16   must enact laws, not rules, in order to succeed.

17   The rich aren't worried about clean air. They'll

18   be able to purchase it when the rest of us are gasping.

19   We are leaving our children's children one of the

20   largest tax bills in history. What are we going to do

21   when we can no longer use tomorrow's money to pay

22   today's bills? Why are we using tomorrow's carbon

 1   credits to pay for today's pollution?

 2   The EPA should tighten light-duty emissions and

 3   this Administration must once again make those rule

 4   changes by law. My grandchildren are inheriting a

 5   planet I barely recognize. Global warming has already

 6   produced hotter summers and warmer winters from 50

 7   years ago.

 8   The ice caps and glaciers are melting. Our

 9   freshwater supplies are threatened. Homes are coming

10   apart in the Midwest because of excessive groundwater

11   removal by commercial and farm interests.

12   Additionally, we are filling our low-wealth and

13   people of color communities by not achieving

14   environmental justice to mitigate the impact that

15   climate change is causing.

16   Ladies and gentlemen, gender neutrals, we will go

17   to Mars. We will go out to the asteroid belt and

18   beyond in the next two three hundred years. We're

19   going to need petroleum solvents, oils, and greases.

20   How can we continue to plunder our remaining petroleum

21   resources?

22   Strong clean air standards will drive down

 1   pollution, provide communities savings, and spur

 2   innovation such as membrane nano-fiber hydrogen fuel

 3   cells, lithium alkaline long-term storage batteries,

 4   and wind and solar-powered rapid-charging stations.

 5   The U.S. should have solar power from every roof,

 6   private or public. We can raise the clean car

 7   standards. We must partner with the automotive

 8   industry to create strong standards that close the

 9   loopholes of weaker legislation.

10   So I say let's save money and move ever forward

11   toward the Alternative 2 clean standards.

12   Thank you.

13   MS. THOMPSON: Thank you for your comment.

14   At this time, as we are slightly ahead of schedule

15   for the day, we will open up comments to anyone who is

16   scheduled to speak tomorrow who would like to speak

17   today.

18   We will take the first five to 10 comments and

19   please indicate that you are here by raising your hand

20   and we will promote you to panelist.

21   Kenneth Moore, I can see that you have your hand

22   raised. So I will be promoting you to panelist at this

1   time.

2   As a reminder, you will need to accept the

3   invitation in order to become a panelist and therefore

4   be able to unmute.

5   Kenneth, I believe I just gave you the ability to

6   unmute, although you will be unable to turn on your

7   video, if you would like to try unmuting at this time.

8   (No response.)

9   MS. THOMPSON: It seems that there may be some

10   technical difficulty. If you are experiencing

11   technical difficulties, we would encourage you to e-

12   mail public_hearing@abtassoc.com or call 919-294-7712.

13   As a reminder, we are currently opening it up for

14   comments that were originally scheduled for tomorrow.

15   So feel free to raise your hand and we will promote you

16   to panelist.

17   Arthur Smith, I see that your hand is raised and

18   so I will promote you now. When you are ready, please

19   unmute and state your name and affiliation for the

20   record.

21   MR. SMITH: Thank you for this opportunity to

22   testify.

1   My name is Arthur Smith. I am here today as a

2 private citizen. I am now retired but served 20 years

3 in the Air Force analyzing foreign threats to our

4 weapons systems, followed by five years at Southwest

5 Mutual Institute and 12 years at Syracuse Research

6 Corporation, SRC. While at SRC, I led a group

7 analyzing the maximum detection range of hostile radars

8 that might threaten U.S. aircraft.

9   You will note that none of our aircraft have been

10 shot down by hostile radars and missiles in the last 20

11 years.

12   I hold a Master's degree in Electrical Engineering

13 from the University of Oklahoma.

14   I strongly support this Administration's swift

15 action on clean cars.

16   My personal reasons for testifying, I admit to

17 being strongly influenced by Elon Musk. Since 2012, I

18 listened to what he said about hastening our transition

19 to sustainable energy.

20   As soon as I could convince my wife, we bought a

21 2014 Tesla Model S. I still regard it as my most

22 satisfying purchase.

1   In addition, I installed solar panels on my roof

2 and I take great pleasure in driving on sunshine. My

3 Tesla automobile is quick, clean, quiet, and costs

4 nothing to drive.

5   In addition, Tony Seba in his book Clean

6 Disruption and Rethink X has been a major influence. I

7 strongly believe we could provide all of our energy

8 from solar, wind, and battery by 2030. We only lack

9 the will.

10   We had a major power problem in February here in

11 Texas with many deaths and total loss of power and

12 water for some households for days. Our Governor was

13 quick to blame the problem on renewable energy. That

14 quickly proved false.

15   The Biden Administration has pledged to put the

16 U.S. on track to reduce greenhouse emissions by more

17 than 60 percent by 2030. Alternative 2 is the better

18 plan because it closes loopholes, saves consumers, and

19 addresses the ongoing climate crisis.

20   Let's get on with it. By 2030, we should be able

21 to convert to all renewable energy. Fewer electric

22 cars versus hybrids are the best, most efficient

1 transportation alternative and emit zero pollution. We

2 must fix the source of electric power, however.

3   Thank you for this opportunity to testify. Below

4 I've attached Rethink X diagram that shows it would

5 cost $197 billion over 10 years to transition Texas to

6 all solar, wind, and batteries but then we would be

7 entirely free from air-polluting fossil fuel and

8 provide clean air for our grandchildren.

9   In addition, we would have considerable excess

10 energy under almost all conditions. This requires a

11 lot more solar power, a lot more batteries, but not as

12 much as you might think, and a few more wind turbines.

13   Thank you again.

14   MS. THOMPSON: Thank you for your comment.

15   It appears that Milton Mitchell may have joined us

16 as a panelist. If you would like to make your comment

17 today as opposed to morrow, you are welcome to unmute

18 and please state your name and affiliation for the

19 record.

20   MR. MITCHELL: Yes. My name is Milton Mitchell,

21 and good afternoon to everyone.

22   I reside in fort Washington, Maryland, and I am

1   here today as a private concerned citizen and also an

2   immuno-compromised African American male 61 years old.

3   First, let me say that the air quality right now

4   is tragically toxic and it's only getting worse. I

5   heard a great deal of the eloquent panelists earlier

6   speaking. I heard everything they were saying. So I

7   decided to reduce what I was going to say tomorrow and

8   I was glad I would be able to share today.

9   But one of the biggest concerns I have right now

10 is my family lives in Connecticut and we see all the

11 devastation that's going on up there. I have family

12 down in Florida, see erosion of the sand and sea and

13 buildings falling, collapsing. I have family in

14 Northwest, in part of California, Washington, where all

15 the fires are burning right now, and what they have in

16 common is the air that is flowing across the skies that

17 they're breathing in and right now along with how we're

18 trying to survive with the pandemic, as I am myself,

19 being in the hospital for three plus months on a

20 temporary heart machine due to hereditary amyloidosis

21 and a poisoned liver, I know what it is to breathe

22 hard.

 1   I don't want anyone to ever go through what I had

 2   to go through and the road that we're on right now with

 3   the toxicity, the pollution, the problem we're having

 4   with the waters, contamination of the fish I love so

 5   well, and, most of all, the vehicles that we all drive.

 6   So what I ask today is that the EPA do everything

 7   it can within its power to do everything it can to

 8   reduce any pollution or toxicity because myself, along

 9   with millions, almost two to three percent of the

10   population is immuno-compromised, transplant

11   recipients. Some have transplanted hearts, some liver,

12   whatever the case may be. It could be heart, could be

13   liver, could be kidneys, and at this particular time

14   what we're looking for is help and support and

15   direction from the leadership.

16   I'm very proud of the Biden Administration at this

17   time and I voted for him and I worked for him very

18   hard, but this here is something that's urgently

19   important right now.

20   I'm painfully concerned as I see what is going on.

21   We must wear the masks. We must do all the things to

22   stay healthy, but we can control the climate if we do

 1   the right thing here which must be done.

 2   So I ask today as the African American 61-year-old

 3   male with immuno-compromised, takes a great deal of

 4   medication, that EPA do something to help all

 5   compromised individuals, to help all people, the 330

 6   million that is in this country at this particular

 7   time.

 8   I decided to reduce my speech that I was going to

 9   have today, but I will submit in writing the much

10   longer.

11   I thank the panelists for its time and hope

12   everybody stays healthy and well during this

13   challenging time.

14   Thank you very much.

15   MS. THOMPSON: Thank you for your comment.

16   MR. MITCHELL: Thank you.

17   MS. THOMPSON: The next speaker who raised their

18   hand is Kenneth Moore. Kenneth, you are welcome to

19   unmute and please state your name and affiliation for

20   the record.

21   MR. MOORE: My name is Kenneth Moore, and I serve

22   as Moderator of the First Congregation Church. Our

1 church is one of thousands of faith communities that

2 are part of Interfaith Power & Light. I'm not speaking

3 for our church but as a private citizen.

4   The latest report by the IPCC has rightly called a

5 Code Red for Humanity, but the climate scientists who

6 prepared the report also offered the hopeful assessment

7 that if the top emitting countries respond to the

8 report's alarm bells with aggressive efforts to curb

9 carbon pollution, the worst climate outcomes remain

10 avoidable.

11   For those of us living in the Foothills of

12 California, this year's fires have been terrifying. We

13 have a family in our congregation that lost their home

14 in the River Fire and other families have had to

15 evacuate because of the Caldor Fire.

16   This year's dreadful fire season has come about in

17 part because of our use of fossil fuels has warmed the

18 planet by one degree Celsius. The scientists predict

19 that the intensity of extreme weather will be twice as

20 bad compared to today's conditions if temperatures

21 reach two degrees and quadruple as bad if global

22 warming reaches three degrees.

 1   AS Texas Climate Scientist Katherine Hague put it,

 2   "Again and again assessment after assessment, the IPCC

 3   has already made it clear climate change puts at risk

 4   every aspect of human life as we know it. We're

 5   already starting to experience those risks today, but

 6   we know what we need to do today to avoid the worst

 7   future impacts. The difference between a fossil fuel

 8   versus a clean energy future is nothing less than the

 9   future of civilization as we know it."

10   That's why I believe that the EPA must set the

11   strongest possible federal clean car standards.

12   Choosing to continue producing less-efficient vehicles

13   just isn't wasteful, it's a moral travesty. It is

14   critical that the United States move without delay

15   toward a clean energy economy.

16   The EPA's rules can have a profound impact upon

17   the sector that currently generates the largest

18   percentage of climate pollution, transportation.

19   By adopting the strongest possible clean car

20   standards, you will not only drive down vehicle

21   pollution but you'll also spur the economy as new

22   sustainable automotive technologies are brought online.

1   While the purchase costs of electric vehicles is

2 currently higher than fossil fuel vehicles, that's

3 about to change. With increased production and

4 advances in better e-technology, the range and purchase

5 costs of electric vehicles will soon be on part with

6 fossil cars and trucks.

7   I'm thankful for the EPA's commitment to

8 environmental justice because pollution has had its

9 greatest impacts on the most vulnerable in our

10 communities.

11   As faith leaders, we are eager to support the work

12 that the EPA is doing not only to reduce pollution but

13 to implement just and equitable solutions to the

14 climate crisis.

15   Thank you very much.

16   MS. THOMPSON: Thank you for your comment.

17   At this time we have no one else scheduled to

18 speak. If there is anyone who did not register to

19 speak but would like to speak tomorrow, August 26th,

20 during our second day of the hearing, please send an e-

21 mail with your name and phone number to

22 public_hearing@abtassoc.com or call 919-294-7712.

 1   We will now pause to see if anyone else would like

 2   to raise their hand from tomorrow's speaker list.

 3   (No response.)

 4   MS. THOMPSON: Okay. We are now at the end of our

 5   afternoon session.

 6   EPA, are you ready to adjourn the virtual hearing

 7   for today?

 8   MR. OLECHIW: Yes, thank you, Kayla.

 9   First of all, I want to thank all of the speakers

10   for taking the time to participate today. It's very

11   much appreciated.

12   I will ask one more time would anyone else like to

13   speak who cannot speak tomorrow? One more last

14   opportunity to raise your hand.

15   (No response.)

16   MR. OLECHIW: Okay. Good. I will conclude the

17   hearing for now and continue tomorrow at 9:30 a.m.

18   Eastern Time using the Day 2 Zoom Link provided in your

19   preparation e-mail.

20   Again, I want to thank all those who have

21   participated so far and again please remember that

22   we'll be accepting written comments through Monday,

1   September 27th.

2   With that, I conclude this Public Hearing for

3   today and I wish everyone a good evening.

4   Thank you again.

5   (Whereupon, the meeting was adjourned, to

6   reconvene tomorrow morning, Thursday, August 26th,

7   2021, at 9:30 a.m.)

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Reporters Certificate

I, Christine Allen have taken these proceedings and thereafter reduced it to this typewritten transcript under my supervision; that said transcript is a true record of the testimony; that I am neither counsel for, related to, nor employed by any of the partied to the proceeding; and further, that I am not a relative or an employee of any attorney or counsel employed by the parties thereto, or financially or otherwise interested in the outcome of the proceeding, or any action involved therewith.

Witness my signature and seal:

_____

Christine Allen

3:30 15:*2* 238:*22* 258:*7*
3:45 258:*7, 17*
30 34:*11* 40:*9* 115:*17* 126:*2* 176:*3* 293:*22*
30,000 179:*3* 231:*22* 236:*20*
300,000 277:*18*
307(d 12:*19*
30-minute 15:*1*
330 306:*5*
35 197:*9* 240:*16* 249:*5* 250:*11*
350,000 296:*16*
36,600 127:*8*
37 185:*9*
38 281:*19*
39 106:*5*

< 4 >
4 5:*4* 193:*16* 238:*5, 10*
4.6 114:*7*
40 37:*1* 41:*12* 144:*16* 179:*3* 202:*18* 251:*4* 264:*1*
400 102:*18*
400,000 21:*22* 35:*3* 76:*15* 228:*11* 254:*7*
414.1 117:*5*
418.94 117:*7*
41st 224:*7*
42 275:*11*
423 255:*6*
45 34:*11* 67:*18* 251:*4*
450 117:*10*
46 57:*5*
48 94:*11* 127:*22*

< 5 >
5 5:*19* 6:*1* 13:*3* 234:*18* 238:*3, 19, 22*
5,600 251:*1*
5,800 262:*17*
50 34:*16* 48:*6* 53:*12* 66:*15* 75:*21* 81:*3* 159:*17* 172:*3* 175:*11* 202:*3* 281:*12* 282:*13* 284:*6* 298:*6*
50/50 216:*3* 277:*6*
500 246:*16, 18, 20*
51 80:*15*
52 249:*5* 250:*11*
54 91:*12*

550 194:*1*
56 92:*8*
57 91:*20*
574 67:*15*
58,000 227:*6*

< 6 >
6.5 37:*3*
60 39:*8, 11* 281:*11* 291:*22* 294:*21* 296:*15* 302:*17*
61 304:*2*
61-year-old 306:*2*
62 92:*22*
68 92:*7* 284:*13*
6th 282:*5*

< 7 >
70 57:*6* 78:*12* 84:*21*
700 163:*15*
70s 286:*5*
71 91:*20* 92:*6*
72 84:*15*
73 91:*19*
74 84:*10, 18* 296:*13*
75 170:*22*
756 44:*16*
76 92:*22*
7712 229:*18*
78 91:*9* 92:*20*
79-year-old 126:*22*
7th 1:*21*

< 8 >
8,887 114:*8*
8.3 145:*15*
8.5 145:*13, 19*
8.6 262:*15*
80 72:*4, 6* 125:*19* 209:*16*
80,000 280:*11*
800ths 147:*19*
84 92:*7*
86 91:*19*

< 9 >
9 82:*9* 97:*4* 104:*9* 120:*7* 131:*13, 19* 132:*3* 201:*9* 204:*12* 208:*2* 212:*17* 213:*2* 223:*4* 225:*14* 226:*1* 238:*13* 265:*22* 266:*11* 279:*8* 295:*18*
9,000 28:*1*
9.1 19:*6*
9:30 1:*9* 13:*4* 310:*17* 311:*7*

90 95:*10* 163:*19* 224:*8* 255:*19*
900 26:*3*
91 92:*21*
919-294 229:*17*
919-294-7712 15:*22* 16:*3* 36:*8, 12* 60:*2, 5* 81:*19, 22* 101:*9, 12* 119:*20* 120:*1* 134:*11, 15* 152:*8, 11* 170:*6, 9* 193:*11, 14* 212:*8, 11* 229:*14* 238:*16* 245:*5, 8* 259:*10, 13* 287:*13, 16* 300:*12* 309:*22*
92 209:*13*
95 57:*17* 95:*19*
98 91:*13* 176:*3* 192:*17*
99 290:*3*
9News 69:*7*
9th 282:*7*

< A >
a.m 1:*9* 13:*4* 310:*17* 311:*7*
AAFA 204:*22* 205:*1, 6, 7*
Aaron 15:*4*
abatement 292:*19*
abeyance 140:*10*
abilities 122:*12*
ability 61:*12* 70:*4* 78:*19* 122:*10* 181:*21* 196:*9* 240:*16* 277:*11* 300:*5*
able 15:*15* 36:*1* 59:*17* 81:*12* 87:*12* 101:*2* 115:*15* 119:*13* 124:*19* 129:*22* 134:*4* 138:*2* 152:*1* 169:*21* 193:*4* 201:*8* 212:*1* 221:*13, 19* 229:*7* 236:*19* 244:*20* 247:*3* 259:*3* 264:*18, 20* 281:*15, 17* 287:*6* 288:*6* 289:*4* 292:*15* 297:*18* 300:*4* 302:*20* 304:*8*
abnormal 100:*3*
abroad 197:*15*
abrupt 294:*9*
absent 25:*11*
absolute 95:*12* 275:*7*

Absolutely 183:*9* 282:*4*
absorbing 108:*9*
absurd 111:*18*
Abt 7:*9, 16* 14:*13* 133:*6* 258:*15*
abundantly 233:*11*
AC 157:*14*
accelerate 49:*6* 52:*1* 65:*21* 80:*18* 85:*20* 182:*2* 203:*20* 215:*4* 222:*17* 226:*21* 243:*18* 244:*6* 292:*1*
accelerated 51:*5*
accelerating 28:*15* 66:*3* 67:*2* 77:*19* 87:*10*
accept 15:*15* 36:*1* 59:*16* 81:*11* 82:*16* 101:*1* 111:*10* 112:*7* 119:*12* 122:*15* 134:*3* 141:*3* 151:*22* 169:*20* 193:*3* 211:*22* 216:*14* 229:*6* 234:*12, 20* 244:*19* 259:*2, 21* 263:*3* 287:*5* 300:*2*
accepted 111:*20*
accepting 310:*22*
access 8:*20* 42:*19* 57:*12* 70:*16* 151:*3* 265:*5*
accommodations 14:*22*
accompany 110:*6*
accomplice 130:*12*
account 93:*13* 106:*3* 270:*4*
accountable 38:*20* 39:*1* 113:*15* 118:*15*
accounting 25:*11, 15* 63:*17* 105:*9* 156:*11* 257:*18*
accounts 102:*11* 268:*9*
accrue 146:*16*
accurate 91:*3*
accurately 16:*13* 135:*3* 156:*13* 157:*16*
achievable 54:*17*
achieve 10:*16* 21:*16* 24:*12* 48:*5* 52:*2* 58:*14* 59:*11* 60:*22* 61:*15* 75:*8, 14* 85:*4* 142:*6* 155:*18* 166:*3, 16*

167:*2* 168:*10, 11* 175:*5* 191:*13* 194:*10* 200:*5* 215:*4, 6* 216:*11* 228:*6* 243:*10* 257:*1* 265:*15*
achieved 58:*2* 62:*16* 164:*10* 244:*1* 257:*3*
achieves 39:*7*
achieving 21:*9* 46:*14* 111:*14* 141:*14* 158:*2* 167:*16* 172:*3* 190:*6* 257:*20* 265:*11* 298:*13*
acid 262:*17*
acidic 108:*14*
acidification 199:*4*
acknowledge 290:*12*
acknowledged 32:*4* 61:*3* 140:*2* 149:*7* 290:*8*
acknowledges 276:*16*
acknowledging 83:*7* 121:*20* 220:*14*
acronym 147:*2*
Act 9:*18* 11:*12* 12:*19* 18:*11* 31:*16* 45:*16* 46:*13* 50:*2* 52:*7* 68:*6* 80:*11* 83:*22* 84:*4* 90:*2* 111:*6* 123:*11* 163:*21* 164:*8* 168:*18* 187:*10* 217:*4* 222:*5* 224:*14* 237:*7, 8* 242:*19* 255:*12* 274:*22* 276:*11, 12* 278:*14* 291:*3*
acted 113:*7*
Acting 26:*19* 32:*3* 43:*13* 70:*19* 75:*2* 235:*6* 256:*15*
Action 4:*17* 9:*9* 24:*10* 27:*5, 10* 30:*3* 31:*19* 32:*1* 34:*15* 36:*22* 46:*7* 47:*17* 58:*17* 83:*13, 19* 85:*6* 86:*17* 91:*8* 106:*15* 107:*21* 109:*19* 110:*6* 163:*2* 165:*17, 20* 180:*9* 184:*4* 185:*20* 188:*17* 197:*1* 198:*19* 201:*20* 207:*16* 217:*13*

221:*20* 249:*9*
250:*15* 265:*6*
271:*11* 274:*20*
296:*7* 301:*15*
actions 64:*4*, *8*
72:*17* 83:*9* 87:*1*
113:*16* 129:*10*
135:*21* 149:*18*
244:*9* 260:*18*
290:*17*
active 43:*8*
activist 26:*18*
activists 23:*14*
31:*14*
activities 150:*7*
232:*14*
actual 18:*18*
38:*14* 122:*8*
actualize 153:*12*
Acura 239:*21*
acutely 242:*14*
adapting 157:*1*
add 40:*4* 179:*17*
293:*12*
adding 55:*8* 64:*15*
addition 62:*8*
155:*11* 233:*19*
302:*1*, *5* 303:*9*
additional 16:*8*
77:*15* 134:*20*
154:*5* 215:*8*
216:*12*, *21* 236:*14*
278:*11* 290:*5*
Additionally 36:*9*
58:*3* 72:*6* 80:*10*
99:*14* 100:*7*
119:*20* 134:*12*
151:*8* 298:*12*
address 8:*13*
20:*13* 32:*1* 45:*14*
49:*12* 62:*10* 70:*18*
85:*6* 94:*12* 98:*18*
103:*15* 111:*8*
116:*14* 127:*12*
129:*8* 130:*7* 139:*3*
143:*22* 173:*11*
180:*22* 184:*7*
196:*10* 206:*16*
222:*10* 233:*20*
240:*5* 269:*4*
270:*17* 290:*17*
addresses 165:*1*
263:*10* 302:*19*
addressing 21:*11*
71:*20* 107:*15*
139:*17* 154:*14*
206:*8* 207:*9* 210:*1*
234:*5* 276:*6* 281:*7*
292:*13*
adequate 65:*14*

138:*13*
adequately 141:*8*
adjacent 282:*16*
adjourn 310:*6*
adjourned 132:*19*
311:*5*
adjourning 132:*16*
adjustments 14:*21*
administered 143:*5*
administering 7:*17*
Administration
8:*13*, *15* 9:*10* 11:*1*
18:*15* 21:*3*, *21*
27:*9*, *13* 28:*21*
29:*2* 31:*22* 32:*4*,
11 34:*15* 37:*4*
39:*6* 43:*13* 45:*9*,
16 69:*8* 70:*20*
80:*22* 83:*6*, *10*
85:*14* 86:*14* 91:*16*
107:*21* 112:*13*
116:*13*, *17* 121:*8*
135:*17* 147:*8*, *17*,
22 149:*6*, *7*, *16*
151:*14* 154:*2*
158:*17* 161:*1*
164:*8* 198:*6* 204:*2*
210:*6* 214:*21*
218:*6* 220:*13*
224:*12* 226:*14*, *16*
228:*14* 235:*6*
237:*20* 252:*3*
256:*15* 257:*12*
274:*18* 297:*1*
298:*3* 302:*15*
305:*16*
administrations
113:*4* 208:*21*
Administration's
21:*11*, *18* 32:*2*
43:*16* 47:*3* 49:*17*
53:*9* 60:*22* 62:*6*
64:*6* 69:*1* 78:*17*
79:*13* 92:*14* 94:*22*
98:*20* 170:*18*
196:*3* 197:*1*
198:*19* 201:*20*
205:*3* 207:*10*
211:*4* 214:*14*
228:*8* 249:*8*
250:*15* 260:*17*
289:*16* 296:*7*
301:*14*
Administrator 2:*2*
7:*20* 11:*9* 139:*9*
247:*22*
Admiral 63:*4*, *7*
admit 174:*9*
289:*20* 301:*16*
adopt 47:*5* 49:*20*
52:*5* 90:*3* 107:*22*

154:*6* 156:*5* 171:*5*
176:*6* 177:*3*
180:*10* 182:*4*
197:*2* 198:*9*, *20*
201:*21* 216:*21*
230:*5* 239:*7*
242:*19* 249:*9*
250:*16* 276:*13*
278:*10* 296:*8*
adopted 51:*3*
89:*21* 215:*15*
adopting 51:*19*
79:*14* 158:*1*
190:*15* 294:*4*
295:*4* 308:*19*
adoption 49:*7*
53:*14* 58:*16* 62:*17*
156:*3* 181:*14*
182:*20* 192:*17*
231:*3* 239:*9*
240:*10*
adulthood 247:*14*
adults 113:*19*
115:*3* 150:*4*
187:*18*
advance 59:*9* 62:*5*
189:*10* 210:*11*
291:*17*
Advanced 50:*2*
51:*4* 94:*16* 163:*17*
195:*12* 210:*3*, *6*
215:*21* 216:*16*
277:*19*
advances 76:*16*
309:*4*
advancing 84:*19*
advantage 53:*14*
175:*18*
adventure 213:*16*
adventurous
213:*14*
adverse 69:*21*
72:*19* 73:*10*
136:*14*
advise 130:*9*
215:*10*
Advisor 48:*22*
49:*5* 194:*5*
Advisory 135:*13*
138:*11*
advocacy 28:*22*
37:*19* 104:*18*
204:*21* 205:*2*
241:*16* 253:*6*
274:*12*
advocate 43:*7*
60:*16* 67:*21* 75:*3*
109:*15* 186:*13*
217:*17*
advocated 155:*12*

advocates 91:*2*
225:*2* 288:*11*
advocating 27:*1*
216:*12*
Affairs 56:*5*
affect 64:*2* 113:*17*
216:*4*
affiliates 37:*2*
affiliation 14:*8*
16:*15* 20:*1*, *3* 23:*2*
26:*13* 29:*7* 32:*18*
36:*14* 39:*19* 43:*4*
45:*22* 48:*20* 52:*13*
56:*2* 60:*7* 63:*5*
67:*8* 71:*12* 74:*17*
78:*3* 82:*14* 86:*3*
90:*9* 93:*19* 97:*16*
101:*14* 104:*14*
107:*9* 110:*11*
114:*2* 116:*5*
120:*12*, *15* 123:*17*
124:*18* 127:*18*
135:*6* 138:*6* 141:*2*
143:*18* 146:*8*
148:*20* 152:*13*
155:*4* 158:*7*
161:*16* 165:*14*
170:*12* 173:*15*
176:*19* 178:*7*
179:*22* 183:*7*
186:*3* 189:*3*
193:*19* 196:*16*
198:*15* 201:*14*
204:*19* 208:*7*
213:*8* 217:*10*
220:*6* 223:*8* 226:*6*
229:*20* 231:*14*
239:*2* 241:*12*
245:*10* 248:*8*
252:*21* 254:*16*
260:*1* 266:*17*
274:*6* 279:*14*
283:*22* 291:*13*
296:*1* 300:*19*
303:*18* 306:*19*
affirmed 33:*18*
149:*12*
afford 32:*9* 118:*1*
182:*14* 188:*19*
207:*15* 261:*13*
affordable 57:*2*
60:*18* 92:*15*
155:*17* 175:*19*
209:*22* 210:*11*
211:*2*
African 72:*20*
304:*2* 306:*2*
aftereffects 180:*20*
AFTERNOON 4:*5*
15:*2* 106:*20* 133:*1*,
12, *17* 148:*22*

152:*15* 155:*6*
158:*10* 173:*16*
180:*3* 186:*5* 189:*6*
260:*5* 263:*7*
291:*14* 296:*3*
303:*21* 310:*5*
afternoon's 132:*13*
258:*8*
age 61:*3*
agencies 8:*18* 9:*2*
49:*4* 88:*7* 93:*9*
141:*20* 163:*17*
AGENCY 1:*2* 2:*1*
7:*14* 11:*10* 28:*7*
62:*12*, *19* 76:*11*
86:*12* 121:*12*
142:*2* 145:*17*
168:*8* 183:*17*
185:*19* 196:*4*
216:*9* 218:*9* 249:*4*
250:*11* 267:*3*, *6*
Agency's 7:*6*
53:*21* 87:*1* 133:*3*
144:*2* 192:*16*
agenda 8:*17*
aggressive 46:*14*
47:*5* 113:*6* 175:*4*
188:*17* 204:*2*
307:*8*
ago 32:*14* 58:*8*
76:*5* 99:*4* 111:*10*
171:*14* 178:*15*, *16*
184:*15* 197:*6*
202:*3*, *11*, *21* 224:*9*
230:*10* 263:*19*
298:*7*
AGORTSAS 4:*21*
179:*21* 180:*2*, *4*
agree 54:*16*
276:*10*
agreed 51:*12*
84:*16* 139:*18*
171:*14* 274:*16*
282:*1* 289:*3*
agreeing 31:*1*
Agreement 27:*20*
51:*11* 88:*15*
agrees 171:*11*
209:*20*
agricultural 144:*11*
ahead 7:*3* 82:*11*
151:*8* 170:*21*
299:*14*
aim 75:*12*
Air 2:*3*, *5*, *12*, *18*
3:*5*, *6*, *11*, *13*, *14*, *15*
4:*7*, *22* 5:*2*, *18* 6:*4*,
6, *9*, *10*, *11*, *12* 7:*14*,
21 8:*2*, *21* 9:*18*
11:*12* 12:*19* 16:*22*
17:*1*, *2*, *10*, *12*, *15*,

18, 20 21:6, *8*
22:*15* 23:9, *11, 16*
24:*21* 26:8 27:2,
12 30:*11* 32:21
33:7, *11* 34:6, *14*
38:*4, 16* 40:*17, 18*
41:*3, 4, 5* 42:*1, 4*
44:*11, 12* 46:*3*
47:*21* 49:*1, 3* 50:2,
13, 21 57:*10* 58:*1*
59:*11* 62:*11* 67:20,
22 68:*1, 21* 69:5, *6,
7, 16* 70:*3, 16* 71:*1,
16, 20* 72:*11, 13, 18*
73:*12, 20* 74:*1*
83:*2, 12* 86:*6*
87:*19* 89:8 90:*17*
91:*8, 11* 93:3 94:2,
9 97:*18* 98:7, *9, 17*
99:*21* 101:*17, 19*
102:*2, 17* 103:*4, 7,
12, 19* 105:*4, 7, 20*
106:*1, 15* 109:5, *9*
114:*12, 13, 14, 19,
22* 115:*6* 118:*9*
126:*21* 127:*5*
135:*12, 15* 136:*17*
137:*2, 4, 7, 12, 18*
138:*11* 147:*14, 15*
150:*7, 18* 158:*13*
160:*14, 19* 161:*19*
163:*9* 166:*8, 17*
168:*18* 169:*13*
177:*4, 5, 8, 10*
178:*12* 180:*17*
181:*16* 183:*14*
186:*12, 14, 15, 20,
21* 188:*11, 13, 21*
194:*5* 197:*8, 22*
200:*18* 202:*4, 15*
206:*4, 8, 12, 17*
207:*6* 208:*19, 20*
217:*4* 221:*8, 11*
223:*14* 226:*12, 20*
228:*21* 231:*16, 18,
21* 232:*10, 11, 16,
18* 233:*16* 237:*17*
241:*16* 242:*3, 7, 9,
10* 244:*9* 245:22
246:*2, 6* 247:*15, 22*
253:*2* 255:*3, 17*
256:*3, 13* 260:*8, 22*
261:*3, 8, 14* 262:*1,
3* 263:*8, 10* 264:*8,
16* 266:*19, 22*
267:*6, 15, 20*
268:*19* 269:*13*
270:*10* 271:*17, 21*
272:*2, 4, 5, 20*
273:*7, 9, 17, 21*
280:*14, 19* 286:*4, 6*

289:*12* 290:*17*
291:*3* 293:*3, 12*
296:*19* 297:*2, 14,
17* 298:22 301:*3*
303:*8* 304:*3, 16*
aircraft 301:*8, 9*
air-polluting 303:*7*
airways 205:*11*
alarm 307:*8*
alarming 87:*5*
242:*1* 272:*19*
Alaska 205:*16*
Albuquerque
101:*19, 22* 102:*19*
Ale 12:*13, 14*
ALEJANDRA 2:*2*
7:*19*
alert 102:*20*
alerts 221:*12*
242:*7*
algal 275:*19*
aligned 80:*7* 81:*2*
215:*2*
alike 48:*15*
alkaline 299:*3*
alleged 142:*16*
all-electric 282:*3*
allergic 205:*3*
Allergy 5:*9*
204:*21* 206:*10*
alleviate 218:*1*
alley 282:*18*
Alliance 2:*8* 3:*3*
20:*3, 6* 22:*16*
46:*17* 60:*11, 16*
189:*17* 290:*1, 8*
allies 224:*21* 225:*1*
allow 15:*17* 18:*20*
28:*8* 31:*10* 36:*2*
54:*12* 59:*18* 74:*13*
80:*19* 81:*13* 101:*3*
119:*14* 134:*5*
152:*2* 156:*15*
169:*22* 193:*5*
210:*15* 212:*2*
229:*8* 244:*21*
257:*6* 259:*4*
264:*22* 265:*6*
277:*1* 278:*8* 287:*7,
22*
allowed 14:*5*
53:*16* 84:*13*
243:*12*
allowing 14:*17*
113:*20* 139:*13*
291:*6*
ally 130:*11*
ALMETA 3:*6*
71:*11, 14*
ALSON 5:*5*

193:*18, 20, 21*
Alterative 292:*9*
Alternate 24:*12*
34:*22*
Alternative 19:*1, 4,
12, 14* 21:*19, 22*
34:*21* 35:*1, 8*
56:*19* 74:*7, 10*
75:*4* 78:*17* 79:*1*
80:*17* 90:*3* 108:*1,
21* 109:*1* 110:*2*
115:*7* 121:*6* 154:*3,
7, 8, 16* 171:*5, 10,
12, 19* 177:*3* 178:*2*
179:*17* 197:*2*
198:*9, 21* 200:*20*
201:*22* 204:*4*
214:*11* 216:*21*
227:*17* 228:*11*
230:*5* 239:*8, 13*
243:*10, 14, 22*
249:*10* 250:*17*
252:*8* 254:*3* 257:*8,
13* 276:*14, 18*
277:*13* 278:*6, 11*
284:*9* 286:*19*
292:*8* 293:*21*
294:*2, 4, 7* 295:*9*
296:*9* 299:*11*
302:*17* 303:*1*
alternatives 75:*11*
141:*10, 11, 20, 22*
142:*1, 2* 174:*3*
alumni 194:*1*
239:*6*
AMANDA 5:*20*
234:*19, 20* 235:*4*
amazing 183:*10*
Amazon 213:*18*
ambient 106:*1*
208:*20*
ambition 216:*11*
ambitious 22:*18*
52:*7* 69:*9* 75:*5*
76:*9* 99:*2* 104:*1*
185:*20* 188:*15*
253:*17* 262:*4*
271:*14*
amended 211:*12*
America 3:*7* 5:*10,
16* 67:*15* 74:*20*
76:*13* 204:*22*
208:*10, 22* 209:*20*
226:*10* 257:*19*
263:*17* 284:*20*
American 2:*7*
3:*16* 4:*15, 16* 6:*2*
16:*19* 17:*9* 65:*22*
66:*14* 71:*1* 72:*13,
20* 74:*22* 75:*17, 18,
22* 76:*22* 83:*1*

84:*9, 10* 85:*12*
90:*19* 102:*1*
104:*19, 20* 105:*6*
126:*13, 18* 158:*11*
159:*10* 160:*8*
161:*20* 162:*2*
164:*2, 5* 168:*21*
173:*17* 185:*8*
205:*15* 216:*22*
221:*10* 227:*7*
233:*6* 241:*16*
243:*7* 261:*6*
267:*19* 284:*15*
285:*1* 304:*2* 306:*2*
Americans 10:*17*
17:*15* 23:*15* 64:*3,
8* 79:*10* 84:*8* 85:*3*
162:*22* 166:*11*
167:*1* 173:*9*
174:*17* 187:*17*
205:*8, 21, 22* 242:*6*
286:*20* 295:*4*
America's 3:*4*
189:*9* 254:*22*
amount 38:*16*
84:*13*
amounts 199:*6*
ample 51:*1*
amyloidosis 304:*20*
analyses 79:*4, 10*
190:*19*
analysis 18:*22*
25:*20* 88:*6* 109:*12*
121:*12* 138:*11*
139:*8, 14* 140:*1, 5*
143:*12* 154:*8*
171:*10, 22* 172:*15*
214:*19* 277:*17*
293:*20* 294:*12*
Analyst 170:*16*
analyze 108:*3*
analyzed 19:*6*
analyzing 139:*2*
301:*3, 7*
ancestors 128:*4*
ancestral 67:*16*
68:*17*
ANDERSON 3:*14*
97:*14, 17*
ANDREA 2:*15*
43:*2, 6*
anemia 130:*3*
Angeles 177:*6*
235:*4*
ANN 6:*13* 274:*5, 8*
announced 11:*5*
51:*10* 277:*4*
annual 10:*6* 95:*9*
153:*14*
annually 61:*15*
160:*12, 21*

answer 19:*19*
55:*12* 146:*18*
answers 37:*14*
anthozoa 199:*3*
anti 64:*3*
antibiotic 184:*19*
antique 224:*1*
anxiety 239:*12*
240:*7*
anxious 246:*14*
anybody 124:*13*
apart 298:*10*
apologies 248:*14*
250:*2*
apologize 188:*22*
248:*11* 270:*3*
284:*2, 3*
app 232:*17*
apparent 87:*3*
apparently 142:*4*
appear 109:*13*
appears 55:*15*
104:*5* 203:*12*
249:*18* 257:*11*
269:*19* 289:*20*
303:*15*
applaud 80:*22*
214:*13*
applauds 172:*12*
applicable 11:*11*
application 191:*19*
applied 124:*10*
apply 9:*20* 13:*22*
291:*2* 297:*11*
applying 294:*1*
appreciate 13:*7*
14:*17* 31:*21* 34:*14*
56:*13* 89:*18* 93:*15*
132:*11* 149:*16*
158:*14* 160:*22*
183:*3* 189:*12*
214:*2* 258:*9*
274:*12* 276:*10*
288:*4* 291:*9*
appreciated 277:*21*
310:*11*
appreciates 49:*16*
288:*16*
approach 111:*18*
145:*6* 176:*12*
appropriate 11:*10*
51:*7* 90:*1* 141:*17*
approve 58:*21*
291:*3*
approved 57:*16*
approximately
117:*5, 6* 200:*9*
288:*14*
April 9:*9* 48:*9*
Apsaroka 270:*11*

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

Arapaho 127:*21*
Arapahoe 67:*17*
arbitrarily 141:*9*
143:*8*
area 100:*5* 105:*8*
121:*14* 183:*15*
199:*15* 297:*2, 3*
areas 44:*17* 74:*1*
130:*21* 136:*6*
203:*7, 8* 231:*8*
263:*22*
Argonne 155:*20*
arguments 91:*1*
Arizona 102:*19*
array 163:*10*
arrived 263:*17*
296:*11*
ARTHUR 6:*20*
300:*17* 301:*1*
articulate 117:*13*
articulated 208:*22*
ash 87:*4*
Asian 126:*13, 17*
240:*17*
asked 9:*8* 37:*12*
92:*18* 117:*1, 8*
140:*16, 20* 164:*8*
asking 33:*7*
183:*17* 231:*22*
246:*8*
asks 171:*3* 172:*10*
290:*12*
asleep 133:*12*
aspect 308:*4*
aspects 52:*19*
aspiration 75:*8*
191:*16*
aspirations 239:*14*
Assembly 94:*14*
assert 76:*22*
assess 146:*19*
assessed 9:*13*
Assessment 8:*1*
23:*18* 87:*7* 143:*5*
144:*10* 146:*22*
147:*3* 191:*9* 236:*1,*
5, 9 307:*6* 308:*2*
assets 78:*14*
assigned 91:*9*
assistance 288:*3*
Assistant 2:*2* 7:*19*
250:*8*
Associate 90:*12*
226:*9*
associated 112:*20*
169:*13* 206:*21*
Associates 7:*9, 17*
14:*13* 133:*6*
258:*15*
Association 2:*7, 21*
3:*16* 4:*15, 16* 5:*3*

6:*2, 8* 16:*19* 49:*3*
52:*17, 21* 56:*7*
60:*14, 15* 71:*2*
72:*13* 74:*21* 83:*2*
84:*9* 104:*19, 21*
116:*9* 158:*12*
160:*8* 161:*20*
162:*2* 163:*14, 22*
164:*2, 3, 5* 189:*8*
208:*11* 216:*10*
233:*6* 241:*17*
243:*7* 254:*22*
267:*19*
Association's 17:*9*
102:*2* 105:*6*
221:*10* 261:*6*
assume 144:*19*
assumes 191:*10, 12*
277:*7*
assuming 142:*21*
147:*13*
assumption 216:*3*
assumptions
138:*22* 144:*8*
147:*9*
assure 113:*4*
assures 113:*9*
asteroid 298:*17*
Asthma 5:*9* 44:*19,*
21, 22 69:*20* 70:*2,*
8 114:*10, 18* 127:*9*
130:*3* 137:*6* 150:*5*
177:*4, 8, 13* 178:*11*
204:*21* 205:*2, 8, 10,*
13, 14, 18, 20, 22
206:*3, 6, 9* 207:*8*
219:*9* 221:*1*
232:*12, 15* 233:*5, 6,*
8, 10, 16 237:*19*
261:*18* 262:*14*
264:*17* 267:*21*
268:*2* 273:*1, 2*
asthmatic 44:*16*
260:*11*
athlete 34:*2*
athletes 34:*13*
136:*12* 163:*7*
Atlanta 71:*21, 22*
135:*11, 22*
atmosphere 24:*1*
41:*11* 117:*2*
144:*15* 147:*13*
179:*11* 199:*6*
atmospheric
108:*11* 144:*12*
147:*2, 16*
attached 303:*4*
attack 235:*9*
attacks 27:*11*
32:*2* 43:*16* 177:*8*

226:*15* 232:*12*
261:*18* 262:*14*
attainment 168:*17*
attempting 117:*11*
230:*7*
attend 247:*5*
attendee 96:*22*
97:*9* 104:*5* 131:*9*
212:*13, 20* 222:*22*
225:*19* 269:*20*
attendees 15:*11*
55:*16* 82:*6* 120:*3*
133:*21* 201:*5*
204:*9* 207:*20*
225:*10* 238:*21*
265:*19* 266:*7*
279:*4* 287:*18*
295:*14*
attending 12:*8*
attention 231:*10*
244:*13*
Attorney 152:*16*
attractive 156:*2*
attributed 188:*6*
Audio 114:*3, 4, 7,*
8 115:*3* 174:*19*
175:*13* 249:*18*
253:*20*
August 1:*10* 16:*1*
36:*10* 60:*3* 81:*20*
101:*10* 119:*21*
134:*13* 152:*9*
170:*7* 193:*12*
212:*9* 229:*15*
245:*6* 259:*11*
287:*14* 309:*19*
311:*6*
aunties 130:*15*
Australia 236:*16*
authorities 9:*18*
authority 50:*1*
86:*19* 164:*15*
214:*4* 224:*12*
225:*4* 276:*11*
291:*3*
authorized 14:*1*
auto 9:*15* 10:*4, 11*
27:*18* 31:*1, 10*
38:*19* 43:*20* 49:*10*
54:*2* 78:*20* 79:*7, 8*
80:*6, 10, 12* 120:*17*
122:*15* 179:*16*
203:*5* 214:*8* 215:*3*
225:*4* 235:*14*
274:*15* 277:*15*
278:*3, 8* 284:*10*
automaker 75:*17*
automakers 22:*12*
28:*8* 34:*22* 51:*10*
58:*20* 60:*20* 61:*3*
62:*21* 74:*8* 75:*20*

79:*10* 96:*17* 99:*2*
103:*22* 114:*4*
115:*11* 118:*15*
121:*2, 20* 126:*7*
153:*18, 20* 154:*9*
156:*5, 19* 157:*1, 5,*
6, 21 167:*12, 14, 15,*
19 171:*13* 172:*2, 6*
173:*1* 176:*4, 13*
177:*11* 183:*20*
194:*19* 195:*4*
197:*15* 198:*3*
200:*22* 202:*2*
204:*5* 210:*15*
218:*11* 224:*22*
227:*19* 240:*3*
241:*2* 249:*12*
250:*19* 252:*10*
253:*17* 254:*5*
262:*4* 265:*13*
271:*14* 276:*16*
277:*1, 3, 9* 284:*15*
288:*20* 290:*2*
294:*16*
automatically
15:*11* 133:*22*
automobile 58:*12*
88:*3, 10, 19* 284:*21*
302:*3*
automobiles
249:*15* 250:*22*
280:*3*
automotive 43:*19*
75:*22* 182:*5* 203:*1*
235:*11* 248:*20*
290:*1* 297:*12*
299:*7* 308:*22*
availability 191:*11*
215:*1*
available 10:*2*
13:*17* 54:*19* 57:*2*
85:*14* 112:*6*
137:*15* 151:*4, 14*
167:*3* 168:*4*
175:*19* 181:*12, 13*
182:*20* 192:*6*
210:*11* 211:*2*
238:*19* 243:*4, 6*
average 34:*7* 39:*7,*
9 47:*22* 57:*5* 61:*3*
72:*4* 105:*11*
147:*14, 18* 175:*10*
236:*11* 240:*19, 21*
246:*19* 255:*19*
294:*15* 296:*15*
averaged 296:*13*
averages 144:*10*
avoid 83:*16* 96:*16*
115:*11* 136:*3*
165:*5* 237:*6* 257:*6*

293:*12* 308:*6*
avoidable 307:*10*
avoided 89:*21*
162:*11*
avoiding 99:*1*
103:*21* 253:*16*
262:*3, 6* 282:*10*
avoids 183:*19*
Award 249:*6*
250:*12*
aware 10:*18*
140:*6* 186:*18*
242:*15* 265:*5*
280:*7* 285:*13*

< B >
babies 136:*12, 21*
Bachelor 248:*22*
Bachelor's 250:*6*
back 10:*5* 27:*15*
30:*19* 48:*11* 89:*4*
109:*19* 133:*2*
139:*18* 168:*18*
177:*17* 200:*15*
210:*5* 216:*14*
226:*15* 228:*18*
246:*14* 272:*4*
backed 272:*12*
background 180:*6*
back-loaded 122:*21*
backsliding 47:*4*
back-to 272:*3*
backup 178:*18*
backwards 230:*19*
bad 150:*8* 272:*9*
307:*20, 21*
badly 264:*20*
Baker 291:*11*
BAKER-
BRANSTETTER
6:*17* 291:*14, 15*
balanced 91:*3*
Baltimore 106:*16*
bands 240:*18*
bar 241:*7*
barely 298:*5*
barrels 62:*1*
BARRETT 6:*2*
241:*11, 14, 15*
barriers 210:*7*
291:*5*
Barry 265:*18*
base 277:*15* 278:*3*
Based 47:*7* 91:*4*
113:*10* 135:*10*
138:*17* 188:*8*
241:*17*
baseline 144:*18, 19*
145:*17* 216:*1, 4*
baselines 145:*7*
basement 185:*4*

basic 146:*4* 239:*15* 253:*8* 268:*22*
basically 230:*5*
Basin 98:*15*
basis 244:*12* 292:*10*
batteries 66:*8* 167:*22* 262:*9* 299:*3* 303:*6, 11*
Battery 51:*9* 65:*18* 179:*5* 302:*8*
beach 108:*18*
bear 17:*17* 64:*9* 69:*15, 19* 70:*1* 87:*21*
bears 147:*7* 285:*14*
beautiful 101:*21* 197:*18* 253:*22*
becoming 98:*1* 155:*17* 168:*22* 185:*2, 12* 257:*16* 261:*21*
bed 261:*12*
bees 68:*17* 199:*20*
began 202:*8* 285:*6*
beginning 11:*11, 15* 103:*2* 113:*13* 154:*7* 167:*5* 168:*18* 169:*8* 210:*3*
BEGLEY 5:*20* 234:*20, 22* 235:*2, 4*
begun 216:*20* 237:*1*
behalf 2:*1* 7:*13* 23:*13* 33:*6* 37:*1* 44:*4* 60:*12* 74:*3* 78:*8* 98:*3* 104:*20* 158:*11* 186:*11* 193:*21* 205:*6, 7* 231:*21* 269:*13* 288:*11*
behavior 285:*20*
beholden 64:*7*
belief 182:*21*
believe 57:*13* 93:*8* 110:*18* 120:*17* 121:*11, 13* 170:*20* 180:*16* 181:*11, 12* 182:*6* 186:*14* 190:*8, 13* 192:*10* 214:*15* 241:*22* 280:*12* 281:*5* 289:*21* 297:*4, 5* 300:*5* 302:*7* 308:*10*
believes 189:*19* 194:*8* 256:*21*

291:*2*
bells 307:*8*
belongs 31:*18*
beloved 256:*20*
belt 240:*2* 298:*17*
belts 200:*12*
BENDER 4:*16* 161:*15, 18*
beneficial 85:*17* 280:*5* 292:*13*
benefit 55:*4* 76:*17* 99:*4* 109:*21* 142:*16* 148:*2, 12* 157:*2* 181:*15* 195:*20* 206:*18, 20* 214:*13* 281:*6* 283:*16*
benefited 53:*4*
benefiting 159:*2* 290:*22*
benefits 10:*17* 19:*5, 6, 7, 14* 22:*13* 25:*15, 17* 35:*6, 7* 47:*20* 51:*2* 57:*8* 58:*4, 9, 14* 62:*2, 21* 83:*15, 17* 89:*2, 7* 109:*5, 10* 118:*14* 138:*9* 141:*21* 144:*1, 6, 12* 146:*3, 16* 148:*6* 151:*3* 157:*18* 158:*20* 160:*12, 21* 161:*4* 162:*9* 165:*2, 8* 167:*2* 171:*1, 8, 11* 172:*20* 173:*2* 180:*11* 195:*14* 206:*15* 214:*18* 215:*5* 217:*1* 228:*16* 243:*13, 17* 276:*22* 289:*14, 18* 290:*7, 8, 20* 292:*9* 293:*22* 294:*6, 11*
benzene 57:*11* 128:*11* 289:*12*
best 8:*19* 109:*15* 157:*11* 203:*18* 230:*18* 234:*3* 282:*20* 302:*22*
better 21:*22* 23:*9* 35:*7* 45:*18* 108:*20* 142:*20* 164:*9* 172:*8* 178:*22* 180:*15* 181:*4* 228:*10* 248:*15, 16* 250:*1* 272:*21* 283:*15* 286:*1, 4* 302:*17* 309:*4*
betting 286:*20*
beyond 32:*13* 39:*5* 42:*8* 53:*21* 54:*10* 62:*20* 75:*11*

125:*9* 159:*9* 192:*19* 198:*10* 207:*14* 211:*10* 216:*2* 242:*20* 243:*8* 256:*2* 277:*8* 278:*15* 292:*15* 298:*18*
BGA 277:*17*
bias 144:*17*
bicycle 281:*18*
Biden 8:*11* 18:*15* 21:*18* 27:*9* 29:*2* 31:*21* 32:*11* 34:*15* 37:*4* 70:*18* 76:*19* 78:*16* 80:*22* 83:*6* 85:*14* 116:*13* 129:*8* 149:*6, 16* 151:*12, 14* 152:*22* 164:*6* 228:*7* 257:*11* 302:*15* 305:*16*
Biden's 9:*1* 48:*5* 83:*13* 158:*3* 166:*5* 215:*6*
big 30:*5* 74:*7* 117:*21* 122:*18* 157:*5* 261:*4* 292:*18*
bigger 142:*19* 223:*21, 22*
biggest 95:*12* 114:*5* 125:*17* 153:*11* 304:*9*
Bill 8:*7* 77:*7* 115:*13* 196:*20* 224:*17, 19* 225:*1*
BILLINGS 2:*7* 16:*14, 17*
billion 19:*6* 26:*4* 46:*19* 64:*15* 76:*18* 79:*12* 144:*5* 148:*2* 160:*20* 175:*18* 185:*11* 200:*16* 263:*19* 303:*5*
billions 35:*6* 174:*17* 197:*14*
bills 195:*21* 264:*7* 297:*20, 22*
bio-CNG 209:*4*
biofuel 56:*8* 58:*16*
biofuels 211:*14*
Biological 4:*13, 14* 152:*17* 155:*10*
biology 198:*22* 285:*6*
bipartisan 91:*21* 186:*12*
BIPOC 187:*19* 268:*2*
birds 68:*16*

199:*18, 21*
birth 69:*21* 136:*14*
bit 40:*5* 77:*17* 248:*13* 249:*20*
black 17:*1* 40:*21* 69:*14* 205:*15, 21* 206:*2* 233:*9*
BLAIR 3:*4* 63:*4, 7, 8*
blame 302:*13*
blanket 18:*8*
blatant 156:*22*
blend 58:*10, 22*
blends 58:*16, 18* 59:*8* 60:*18* 61:*12, 17, 22* 176:*15* 289:*8, 18* 290:*20* 291:*6*
BLILEY 3:*2* 56:*1, 4*
Block 2:*6* 3:*1, 9* 4:*1, 6* 5:*1, 4, 19* 6:*1* 16:*16* 52:*1* 82:*1, 3* 90:*7* 131:*7* 135:*7* 193:*15, 16* 194:*22* 234:*18* 238:*3, 5, 10, 19, 22*
Bloomberg 257:*10* 278:*16*
blooming 268:*15*
blossoms 268:*15*
Board 3:*11* 86:*7* 89:*8* 138:*11, 12*
BOB 4:*17* 165:*13, 16*
body 34:*12*
bold 28:*4* 36:*22* 85:*18* 185:*19* 222:*15*
boldest 32:*7* 37:*5*
boldness 123:*11*
bonus 294:*18*
book 302:*5*
boost 173:*4* 175:*20* 277:*2*
born 220:*22* 248:*21* 250:*5* 260:*9*
bottle 285:*21*
bottom 85:*3* 249:*22*
bought 179:*2* 200:*6, 9* 301:*20*
boundary 275:*21*
boxed 273:*8*
boyfriend 223:*19* 224:*1*
brain 184:*20*
brains 247:*14*
Branstetter 291:*12*

breadth 53:*19* 162:*17*
break 15:*1, 2* 132:*8, 16*
breakdown 108:*6*
breath 70:*5* 233:*14*
breathe 71:*8* 73:*20* 99:*17* 103:*8, 13* 105:*4* 109:*10* 114:*12* 118:*9* 127:*3* 150:*18* 166:*9, 17* 178:*13* 186:*15* 188:*21* 205:*12* 220:*21* 221:*4, 19* 228:*21* 232:*21* 304:*21*
breathed 114:*13* 247:*4*
breathes 247:*22*
breathing 247:*17* 255:*10* 261:*17* 264:*12* 296:*20* 304:*17*
BREZNY 2:*20* 52:*12, 15*
Brian 173:*14, 16*
brief 17:*22* 59:*13* 81:*8* 120:*16* 258:*3* 274:*21*
briefing 90:*22*
briefly 109:*11*
Brighton 231:*18*
bring 197:*15* 290:*21*
brings 46:*8* 261:*16* 275:*17* 296:*16*
broad 192:*2*
broadband 288:*5*
broader 11:*5* 54:*18* 83:*9* 116:*16* 149:*18* 191:*10, 18*
broadly 109:*16*
broke 25:*4*
broken 130:*20*
bronchiectasis 127:*1*
Brooklyn 29:*14*
Broomfield 98:*3*
brother 150:*4* 251:*9, 10*
brought 10:*21* 40:*4* 41:*2* 167:*16* 308:*22*
brown 17:*1* 40:*21* 202:*13*
brunt 64:*9*
Bucksbaum 8:*8*
budget 195:*22*

budgets 64:*12* 109:*2*
buffered 108:*8*
bugs 95:*15*
build 47:*18* 66:*4* 95:*15* 129:*15* 243:*8* 295:*4*
building 51:*22* 194:*22* 213:*16* 216:*19* 230:*12*
buildings 202:*9* 304:*13*
built 197:*6* 247:*11*
bulk 144:*15*
bumble 199:*20*
bur 207:*6*
burden 17:*18* 64:*14* 69:*15, 22* 87:*22* 185:*12* 205:*14* 206:*17*
burdened 70:*8* 180:*20* 244:*10*
burdens 30:*10* 69:*19*
Bureau 72:*2*
bureaucracy 117:*21*
bureaucratic 143:*11*
burgeoning 48:*3*
Burgfeld 15:*5*
burgfeld.aaron@ep a.gov 15:*5*
burn 145:*9* 237:*3* 268:*21*
burning 23:*19* 87:*18* 102:*19* 292:*16* 304:*15*
bus 126:*7* 219:*10* 231:*2*
buses 39:*13* 46:*20* 85:*1* 94:*18* 118:*8* 126:*20* 232:*6*
business 76:*8* 78:*10* 112:*19* 239:*6*
businesses 78:*12* 80:*21*
busy 137:*7* 246:*19* 247:*11* 297:*12*
butterflies 68:*17*
button 245:*14*
buy 89:*5*
buying 48:*2* 285:*21*
BUZZELLI 3:*21* 116:*3, 6, 7, 8*
B-U-Z-Z-E-L-L-I 116:*8*

< C >

CAFE 175:*7* 196:*7, 8, 9*
CAFE's 143:*4*
calculate 147:*22* 148:*6*
calculated 64:*14* 147:*21*
calculates 147:*11*
calculations 147:*18*
Caldor 307:*15*
Calendar 144:*3*
California 3:*11* 6:*3* 49:*9* 55:*10* 86:*6, 11* 88:*15* 89:*8* 141:*12* 142:*3* 154:*10* 167:*4* 180:*8* 209:*12* 214:*3* 217:*4* 235:*5* 236:*18* 239:*19* 240:*15* 241:*17* 256:*16* 304:*14* 307:*12*
Californians 236:*20* 242:*6*
California's 49:*21* 50:*2* 51:*13, 19* 86:*19* 124:*8* 209:*5* 236:*15* 256:*4*
call 15:*21* 16:*3* 36:*7, 12* 59:*6* 60:*1, 5* 76:*18* 81:*18, 22* 83:*15* 101:*8, 12* 119:*19* 120:*1* 128:*3* 131:*5* 134:*10, 15* 152:*7, 11* 154:*21* 161:*3, 9* 165:*9* 167:*14* 170:*5, 9* 187:*5* 193:*4, 10, 14* 212:*7, 11* 229:*14, 17* 234:*16* 238:*16* 243:*3, 11, 21* 245:*4, 8* 259:*10, 13* 287:*12, 16* 300:*12* 309:*22*
called 15:*16, 19* 36:*2, 5* 59:*17, 21* 76:*12* 81:*12, 16* 97:*3* 101:*2, 6* 119:*17* 134:*4, 8* 145:*13* 146:*21* 151:*12* 152:*1, 5* 169:*21* 170:*3* 193:*8* 202:*13* 204:*12* 212:*1, 5, 16* 223:*3* 225:*13, 22* 229:*7, 11* 238:*12* 244:*20* 245:*2* 259:*3, 7* 265:*22* 266:*9* 277:*22*

279:*7* 287:*6, 10* 307:*4*
calling 27:*7* 107:*14* 119:*13* 158:*19* 162:*6* 164:*6* 201:*8* 208:*1* 230:*4* 278:*18*
calls 142:*12* 273:*3*
Camden 279:*19*
camera 15:*17* 36:*3* 59:*19* 81:*13* 101:*4* 119:*14* 134:*5* 152:*2* 169:*22* 193:*5* 212:*2* 229:*8* 244:*21* 259:*4* 287:*7*
camp 102:*22*
Campaign 26:*20* 83:*2*
campus 282:*17*
cancer 44:*14* 69:*21* 138:*14* 247:*18* 251:*11*
candid 143:*5*
CANTLEY 6:*9* 259:*16* 260:*3, 5, 6*
Canyon 255:*20*
cap 55:*3* 156:*8* 172:*18* 215:*13*
capable 167:*9* 182:*9*
capacity 108:*8*
capital 224:*21*
capitalism 68:*11*
capitol 260:*10* 281:*22*
caps 298:*8*
capture 275:*5*
captured 157:*18*
car 20:*12, 16* 21:*12* 22:*18* 27:*4, 14* 29:*1, 16* 32:*3, 8* 35:*9* 43:*16* 45:*4, 14* 66:*14* 69:*2, 9* 70:*6* 72:*7, 15* 75:*2* 99:*1* 103:*21* 106:*9* 107:*19* 114:*11, 15, 17* 115:*10* 129:*7* 130:*9* 137:*18* 141:*15* 142:*6* 163:*18* 164:*15* 177:*16, 17* 178:*22* 179:*1, 2, 3* 194:*6, 11, 13, 16* 200:*14* 203:*15* 210:*12* 220:*20* 224:*1, 3* 226:*16* 228:*5* 234:*7* 235:*9* 249:*16* 251:*1, 3* 253:*15* 265:*12*

271:*13* 273:*19* 281:*21* 282:*2, 4, 8, 10, 11, 13, 21* 284:*9* 296:*16* 299:*6* 308:*11, 19*
CARA 2:*8* 19:*22* 20:*2*
CARB 55:*8*
Carbon 3:*3* 20:*15* 22:*7* 23:*22* 57:*10* 58:*7* 60:*11, 22* 62:*18* 69:*11* 94:*11* 99:*11* 102:*5* 109:*13, 14, 19, 20* 114:*7, 16* 115:*1* 117:*2* 120:*22* 123:*4* 128:*16* 144:*12* 145:*2, 15* 151:*15* 174:*2, 10* 184:*7* 189:*17* 190:*7* 199:*6* 209:*3, 4, 13* 211:*3, 14* 233:*18* 237:*10* 253:*14* 289:*19* 297:*22* 307:*9*
carbon-based 181:*20* 182:*2*
carbon-free 209:*16*
carbon-neutral 46:*15*
carcinogenic 232:*10*
cardiovascular 163:*11*
cards 146:*2*
care 25:*9* 72:*21* 79:*22* 80:*3* 186:*10*
career 216:*7* 267:*3*
careers 285:*9*
carefully 9:*13*
caregivers 71:*6*
caretaker 126:*22*
caring 20:*22*
Carolee 78:*8*
CAROLYN 4:*19* 176:*18* 177:*1*
carry 156:*16*
Cars 10:*5* 22:*5* 25:*17* 27:*11* 34:*19* 35:*14* 39:*6, 10* 43:*14* 44:*14* 45:*17* 46:*20* 50:*2, 12* 57:*21* 68:*20* 70:*20* 74:*6* 83:*10, 12* 84:*5, 9, 13* 89:*11* 91:*17* 92:*20* 94:*8, 17* 95:*2* 96:*10* 98:*21* 100:*16* 102:*10* 103:*18* 114:*20, 21, 22* 115:*1, 8* 116:*18*

118:*8, 20* 123:*21* 124:*1, 8, 11* 126:*20* 135:*18* 149:*18* 150:*13, 17, 20* 151:*9* 157:*21* 159:*11, 22* 160:*5, 15* 163:*13* 174:*8* 177:*15* 179:*9* 180:*9* 187:*1, 6* 188:*16* 190:*4* 197:*2, 15, 19, 21* 198:*5, 20* 201:*21* 203:*2* 205:*5* 216:*6* 222:*16* 223:*20* 227:*5* 228:*16* 232:*6* 235:*7* 237:*12* 239:*17, 21* 248:*3* 249:*9* 250:*16* 252:*5* 253:*19* 254:*3* 262:*9, 20* 267:*12* 268:*4, 7, 21* 269:*1, 4, 12* 271:*18* 272:*3, 13, 17, 20* 276:*5* 280:*18* 286:*8* 296:*8* 301:*15* 302:*22* 309:*6*
Carson 260:*10* 261:*2*
car-truck 216:*3*
Caruso 212:*20*
CASAC 138:*16, 20* 139:*6, 10, 13, 16, 21* 140:*9*
case 110:*20* 140:*9* 142:*11* 143:*6* 305:*12*
cases 184:*14, 15*
cash 109:*19*
cataclysmic 125:*7*
catastrophe 96:*11*
catastrophic 18:*4* 121:*16* 222:*2*
catch 199:*19*
catching 286:*5*
categories 122:*2, 7*
catering 38:*8*
CAUDILL 6:*18* 204:*8* 295:*22* 296:*3, 4*
causation 138:*17, 19*
cause 114:*19* 129:*22* 137:*4*
caused 103:*5* 125:*7* 185:*5* 199:*21* 202:*15* 255:*3* 263:*19* 264:*15* 268:*13*
causes 17:*3* 91:*11* 103:*18* 114:*18*

205:*11* 232:*11*
253:*19* 265:*5*
268:*18* 275:*1*
causing 73:*17*
102:*17* 138:*14*
179:*13* 184:*5*
197:*13* 232:*12*
298:*15*
caution 65:*16*
cautious 75:*10*
CEI 141:*7* 143:*7*
Celera 101:*13, 16,*
18
CELERAH 3:*15*
cells 167:*22* 299:*3*
celluline 289:*12*
Celsius 147:*12, 19*
307:*18*
Center 2:*4* 4:*13,*
14 6:*13* 7:*22* 40:*2*
147:*1* 152:*17, 18*
155:*9* 274:*10*
281:*20*
centerpiece 8:*16*
centers 80:*1*
central 56:*15*
120:*18* 142:*12*
261:*14*
centuries 145:*10*
Century 66:*9*
144:*22* 145:*13, 20*
175:*6*
CEO 110:*13*
173:*17* 189:*8*
CEO's 123:*8*
cerebri 260:*15*
Ceres 3:*8* 78:*7, 10,*
12 79:*4, 10* 277:*22*
Cert 6:*7*
certainly 94:*8*
certainty 54:*12*
194:*18*
certificate 137:*5*
certification 59:*1*
210:*7* 291:*7*
CFCs 286:*6*
Chacon 4:*4* 104:*4*
127:*17, 20*
chain 66:*13*
chains 65:*18* 66:*1*
167:*21*
Chair 60:*10* 86:*6*
Chairman 63:*11*
138:*20* 139:*7, 21*
140:*12* 189:*16*
challenge 10:*12*
76:*21* 154:*22*
166:*20, 21* 170:*21*
221:*5* 288:*8*
challenges 220:*22*

255:*4* 288:*5*
challenging 306:*13*
champions 43:*9*
chance 14:*18* 67:*3*
76:*8* 123:*10*
153:*12* 267:*9*
283:*14*
Chancellor's 39:*22*
change 8:*22* 17:*8,*
19, 20 18:*2, 3, 14*
19:*15* 20:*20* 21:*1*
23:*10* 32:*12* 33:*5*
37:*1* 40:*9, 13, 15*
42:*3* 43:*10* 45:*7*
46:*9* 50:*5, 16, 21*
69:*13* 70:*4, 11, 19*
71:*20* 72:*19* 73:*1,*
12, 14, 18, 21 75:*22*
77:*5* 79:*2* 83:*19,*
21 84:*1, 3* 85:*6, 11*
87:*8* 93:*13* 95:*5*
96:*4, 8* 98:*17* 99:*7,*
9, 13, 20 102:*7, 12*
103:*14, 19* 107:*4,*
22 113:*4* 117:*22*
118:*10* 119:*3*
120:*20* 121:*10, 16*
125:*7, 20* 128:*18*
129:*8* 130:*7, 18*
144:*5* 146:*22*
147:*4* 148:*3, 4*
149:*9, 12, 19*
150:*19* 151:*13*
152:*21* 153:*6*
160:*1* 162:*19*
163:*4* 164:*20*
165:*1, 6* 169:*13*
181:*1* 183:*22*
184:*1, 5, 11* 185:*12,*
18 187:*9, 16* 190:*1*
197:*12* 198:*2*
199:*1* 200:*2*
207:*14* 209:*20*
210:*2* 221:*15*
222:*1* 227:*8* 234:*4,*
6 235:*21, 22* 236:*2*
237:*16* 242:*2, 16*
246:*3, 7* 251:*14, 15*
253:*20* 255:*3, 7*
265:*8, 15* 267:*16*
268:*11* 270:*4*
271:*9* 273:*18, 21*
275:*1, 9, 15, 17*
276:*3* 277:*11*
285:*20* 292:*13*
293:*5* 297:*1, 5, 7*
298:*15* 308:*3*
309:*3*
changed 31:*20*
76:*3*

changes 125:*7*
146:*17* 148:*9*
195:*2* 200:*13*
203:*8* 275:*18*
292:*2* 294:*9* 297:*1*
298:*4*
changing 113:*10*
136:*9* 202:*19*
219:*1* 230:*14*
292:*12*
Chapter 3:*14*
67:*21* 101:*17*
205:*7*
charge 177:*17*
197:*10*
charged 174:*10*
charging 46:*20*
155:*22* 282:*20, 21*
Charmley 8:*7*
77:*7, 10* 115:*13*
cheap 247:*12*
cheaper 155:*21*
157:*3, 8*
cheat 157:*22*
check 282:*12*
chemical 108:*2*
CHERNAK 6:*7*
266:*5*
cherry 268:*15*
cherry-picked
144:*8*
chest 232:*21*
Cheyenne 67:*17*
127:*21*
chief 296:*6*
child 221:*4*
childhood 95:*8*
233:*6* 268:*2*
children 30:*4*
38:*10, 21* 42:*4*
44:*9, 10, 12, 15, 16,*
22 70:*9* 74:*2, 4*
95:*4, 17* 103:*11*
105:*14* 111:*1*
121:*5* 125:*18, 22*
127:*9* 178:*10*
180:*14* 181:*4*
182:*8* 183:*16*
196:*21* 205:*9, 17*
219:*8* 222:*9*
231:*20* 232:*3, 22*
233:*7, 8, 9, 14, 15,*
17 246:*6* 247:*8, 12,*
17 252:*1* 253:*21*
260:*11* 262:*14, 15*
264:*3, 17* 272:*22*
273:*17* 297:*19*
children's 33:*16*
35:*15* 68:*2* 69:*3*
71:*7* 96:*8* 130:*8*
135:*13* 185:*21*

232:*8* 233:*4* 246:*2,*
10, 15 248:*4* 253:*7*
297:*19*
China 54:*3* 65:*16*
153:*8* 236:*16*
Chinese 66:*1, 7*
chip 117:*21*
chipmunks 199:*21*
choice 38:*6* 237:*5*
295:*9*
choices 75:*3*
109:*6, 22* 217:*19*
281:*16* 292:*1*
choked 130:*16*
choking 34:*1*
choose 148:*14*
163:*8* 183:*18*
choosing 86:*14*
308:*12*
CHRIS 3:*2* 56:*1,*
4 213:*7, 12*
Christ 36:*20*
Christian 36:*19*
Christianity 37:*11*
CHRISTOPHER
4:*18* 170:*10, 15*
chronic 105:*3, 15*
187:*20* 188:*4*
205:*11* 207:*8*
233:*1*
CHUN 4:*3* 5:*21*
124:*16, 22* 239:*1, 4*
Church 36:*19*
306:*22* 307:*1, 3*
circ 176:*4*
circle 240:*14*
Circuit 143:*7*
circulatory 128:*12*
cite 106:*14* 167:*13*
cited 139:*5*
cities 41:*6, 12, 20*
42:*4* 166:*9, 13*
168:*12, 22* 221:*10*
citizen 107:*14*
110:*14* 116:*10*
149:*1* 177:*2* 180:*6*
196:*22* 198:*18*
201:*19* 217:*16*
220:*11* 223:*12*
230:*3* 235:*5*
248:*20* 280:*10*
296:*5* 301:*2* 304:*1*
307:*3*
citizens 72:*18*
93:*10* 185:*8*
218:*17* 256:*10*
city 44:*17* 98:*2*
128:*7* 136:*3, 7, 18*
164:*3* 202:*14*
219:*8* 230:*7*
260:*10, 21* 261:*2, 4*

267:*19* 268:*1*
273:*7* 281:*20*
283:*12*
city's 230:*18*
Civilian 249:*6*
civilization 120:*21*
308:*9*
claimed 138:*15*
claims 138:*9*
140:*16* 143:*11*
286:*18*
clarify 216:*2*
class 116:*21* 199:*3,*
7, 10, 11
classes 246:*13*
classifying 122:*4*
Claudia 222:*21, 22*
Clean 2:*12* 3:*5, 6,*
13, 14, 15 4:*7, 22*
5:*18* 6:*4, 6, 9, 10,*
11, 12 8:*20* 9:*18*
10:*5* 11:*12* 12:*19*
20:*12, 15* 21:*8, 12*
22:*14, 18* 23:*15, 16*
26:*19* 27:*4, 11, 14*
29:*1, 16* 32:*3, 8, 21*
33:*7, 11* 34:*14*
43:*7, 14, 16* 44:*6*
45:*4, 13* 46:*18*
48:*3* 50:*2* 52:*22*
53:*5* 57:*3* 60:*13*
67:*20, 22* 68:*1*
69:*2, 9* 70:*6, 16, 20*
71:*16* 72:*15* 73:*12,*
20 74:*1* 75:*2*
79:*12* 83:*9, 12*
89:*16* 91:*15* 92:*15*
94:*2, 17* 97:*18*
99:*1* 101:*17, 18*
103:*21* 105:*4*
106:*9, 10* 107:*19*
114:*11, 12, 13*
115:*9, 10* 116:*18*
123:*21* 124:*1, 8*
128:*6, 16* 129:*7*
130:*9* 135:*12, 15*
137:*18* 138:*11*
149:*18* 153:*2*
159:*11* 160:*19*
163:*18* 168:*18*
177:*5* 178:*12*
180:*9* 183:*14*
186:*14, 15* 188:*21*
194:*6* 198:*20*
200:*14, 18* 201:*21*
203:*21* 206:*8*
207:*6* 210:*2, 12*
211:*4* 217:*4*
220:*19* 223:*14*
224:*3, 16* 226:*12,*
16 227:*14* 228:*5*

231:*16*, *21* 233:*12* 234:*3*, *7* 235:*7*, *9* 237:*17* 241:*16* 245:*22* 249:*9* 250:*16* 253:2, *12*, *15* 260:*8* 263:*8* 265:*12* 266:*19*, *21* 267:*15* 269:*13* 270:*10* 271:*13* 276:*11* 284:*9* 291:*3* 292:*1* 295:*7* 296:*8* 297:2, *14*, *17* 298:*22* 299:*6*, *11* 301:*15* 302:3, *5* 303:*8* 308:*8*, *11*, *15*, *19*

cleaner 22:*13*, *15* 26:*8* 27:*11* 60:*18* 84:*9* 87:*19* 99:*9* 109:*5*, *9* 150:*20* 151:*4* 158:*13* 163:*13* 164:*15* 175:*11* 177:*4* 190:*4* 197:*1*, *21*, *22* 198:*4*, *8* 225:*4* 244:*9* 252:*6*

Cleaning 33:*3* 69:*12* 72:*16* 85:*8* 99:*11* 102:*5* 162:*18* 164:*22* 206:*14* 267:*14*

cleanly 269:*2*

clear 8:*12* 11:*1* 28:*18* 38:*7* 40:*12* 41:*18* 58:*15* 105:*11*, *13* 107:*5* 141:*19* 194:*9* 196:*6* 224:*13* 233:*11* 236:*2* 275:*1* 278:*4* 295:*9* 308:*3*

clearance 41:*8*

cleared 41:*4*, *5*

clearer 106:*12*

clearly 16:*12* 94:*12* 135:*2* 184:*11* 190:*21*

clergywoman 36:*19*

click 245:*13*, *16*

Climate 4:*17* 8:*14*, *22* 10:*19*, *21* 17:*8*, *19*, *20* 18:2, *3*, *14* 19:*15* 20:*13*, *20* 21:*1* 22:*19* 23:*10*, *12*, *18* 24:*6*, *15* 25:2, *7*, *12*, *14* 26:*7*, *18* 27:*5*, *19* 28:*3* 29:*18*, *20* 30:3, *6*, *10*, *13*, *14*, *18* 31:*3*, *14*, *19* 32:*1*, *5*, *10*, *12* 33:3, *5*, *19*

34:*15*, *16* 35:2, *11*, *13*, *16* 37:*1* 38:*18* 40:*8*, *9*, *13*, *15* 41:*3* 42:*3*, *11* 43:*9* 45:*7* 46:*3*, *9*, *10*, *12*, *17* 48:*13* 49:*13* 50:*5*, *10*, *16*, *20* 54:*13* 62:*6* 69:*13* 70:*4*, *11*, *18*, *21* 71:*20* 72:*19* 73:*1*, *11*, *13*, *14*, *18*, *21* 74:*6* 77:*4* 78:*11*, *19* 79:*2* 80:*20* 81:*2* 83:*7*, *13*, *19*, *21* 84:*1*, *3* 85:*6*, *11*, *15* 87:*8*, *9*, *12* 89:*6* 94:*12*, *20* 95:*4*, *5* 96:*4*, *7*, *11*, *14* 98:*17* 99:*13*, *19* 100:*13* 102:*7*, *11*, *12*, *16* 103:*15*, *18* 107:*4*, *17* 109:*18* 110:*18* 111:*6* 113:*3* 116:*14* 117:*22* 118:*10* 119:*3* 120:*20* 121:*9*, *16* 125:*2*, *7*, *20* 126:*4* 127:*12* 128:*18*, *19* 129:*8* 130:*7*, *18* 136:*9* 144:*5*, *13* 146:*22* 147:*4*, *10* 148:*12* 149:*9*, *12*, *13*, *19* 150:*18* 151:*13* 152:*19*, *20* 153:*1*, *6* 154:*15* 155:*9* 159:*22* 160:*12* 162:*19* 163:*4* 164:*20* 165:*1*, *6*, *17*, *18*, *20* 166:*1* 169:*3*, *13* 170:*21* 171:*1* 172:*9* 173:*11* 181:*1* 183:*21* 184:*1*, *5*, *8*, *11* 185:*12*, *16*, *18* 187:*8*, *9*, *16* 190:*1* 196:*10* 197:*12* 198:*2* 199:*1* 206:*8*, *13* 207:*14* 209:*20* 210:*2* 218:*1*, *14* 219:*1* 220:*14* 221:*15* 222:*1* 224:*4*, *17* 225:*6* 226:*12* 227:*3*, *8*, *16* 228:*2* 230:*6*, *8*, *9* 231:*9*, *20* 233:*20*, *22* 234:*4*, *6* 235:*20*, *22* 236:*2* 237:*16* 242:*1*, *5*, *16* 243:*1*, *20* 244:*10* 246:*3*, *7* 248:*2* 251:*7* 253:*9*,

19 254:*2*, *11* 255:*3*, *7* 256:*14*, *19* 263:*11* 264:*4* 265:*2*, *7*, *15* 267:*16* 268:*9*, *11* 269:*5*, *8*, *11* 270:*17* 271:*8* 273:*18*, *21* 275:*1*, *9*, *14*, *15*, *17* 276:*2*, *6*, *12* 277:*8*, *12*, *14* 278:*9*, *22* 292:*7*, *12*, *13*, *16* 293:*5* 298:*15* 302:*19* 305:*22* 307:*5*, *9* 308:*1*, *3*, *18* 309:*14*

climate-related 195:*15*

climates 219:*16*

climate-sensitive 25:*21*

climb 95:*19*

climbed 264:*1*

close 22:*14* 48:*1* 77:*19* 137:*1* 177:*9* 199:*3* 286:*17* 299:*8*

closely 49:*9* 76:*3*

closer 154:*4* 232:*4* 248:*13* 249:*20*

closes 272:*9* 302:*18*

closest 79:*1*

closing 24:*9* 74:*3* 216:*7* 246:*22* 278:*12* 290:*12*

closures 271:*5*

clothe 251:*22*

Club 2:*10*, *11* 3:*19* 5:*17* 26:*16* 28:*1*, *21* 29:*12* 110:*13* 230:*2*

Club's 26:*19*

CO2 54:*3* 91:*18* 114:*9* 138:*9* 146:*13* 173:*22* 191:*10* 209:*5*

coach 273:*3*

coal 23:*19* 144:*19* 145:*9*, *21*

coalition 28:*22* 60:*14* 78:*11* 146:*13* 173:*17* 186:*12*

Coast 187:*14* 258:*7*

coastal 255:*9*

coasts 108:*17*

coast-to-coast 211:*8*

Code 34:*6* 106:*22* 107:*3* 149:*14*, *21*

154:*20* 257:*14* 307:*5*

collaborated 49:*9*

collapse 199:*12* 200:*2* 218:*22* 219:*1*

collapsing 304:*13*

colleague 155:*12*

colleagues 158:*18* 162:*7*

collected 87:*7*

collective 210:*3* 216:*11*

collectively 78:*14* 215:*14*

college 221:*7*

COLLINS 5:*14* 220:*5*, *8*, *11*

Colomina 43:*3*

color 17:*13* 21:*5* 50:*18* 61:*21* 68:*13* 73:*10* 79:*21* 88:*1* 127:*10*, *13* 233:*7* 237:*18* 256:*11* 292:*14* 295:*1* 298:*13*

Colorado 3:*14* 67:*19*, *21* 69:*4*, *7* 71:*1*, *6* 97:*19* 98:*3* 99:*20*, *22* 100:*7* 128:*3*, *7* 130:*17* 145:*7*

Colorado's 98:*4* 99:*18*

COLORNINA 2:*15*

Columbia 104:*22* 267:*1*

combat 130:*17* 190:*1*

combination 143:*10*

combine 261:*10*

combined 98:*16*

combining 261:*15*

combustion 9:*16* 54:*19* 61:*9* 63:*1* 121:*17* 155:*19* 168:*5* 169:*4*, *11* 191:*6*, *17* 203:*3*, *14* 243:*2* 283:*2* 289:*1* 290:*10*

come 56:*18* 61:*7* 114:*17*, *21* 174:*18* 191:*8* 199:*16* 218:*2* 227:*5* 256:*21* 264:*6* 282:*6* 307:*16*

comes 23:*17* 30:*18* 65:*7* 79:*1* 100:*2* 256:*6*

294:*13*

comfort 203:*7*

coming 112:*15* 145:*10* 148:*1* 227:*13* 232:*6* 262:*12* 284:*2* 298:*9*

Command 63:*10*

Commander-in-Chief 63:*9*

commandment 37:*13*, *17*

commence 122:*19*

commend 75:*2*

comment 12:*6* 19:*21* 22:*22* 26:*11* 29:*5* 32:*16* 33:*13* 35:*18* 39:*17* 42:*14* 45:*20* 48:*18* 52:*11* 55:*13* 59:*12* 62:*4*, *15* 63:*3* 67:*6*, *13* 71:*10* 74:*12*, *15* 78:*1* 81:*7* 86:*1* 90:*6* 93:*17* 96:*20* 100:*19* 104:*3* 107:*7* 110:*8*, *16* 113:*20*, *21* 116:*2* 119:*8* 123:*15* 124:*15* 127:*16* 131:*4* 138:*4* 140:*22* 143:*16* 146:*6* 148:*18* 151:*18* 155:*2* 158:*5* 161:*14* 165:*12* 169:*16* 173:*13* 176:*17* 178:*5* 179:*20* 183:*5* 186:*1* 189:*1* 190:*14* 192:*21* 196:*14* 198:*13* 201:*2* 204:*7* 207:*18* 211:*18* 217:*7* 220:*4* 222:*20* 225:*8* 229:*2* 231:*11* 234:*10* 238:*2* 241:*10* 244:*15* 248:*6* 252:*18* 254:*14*, *19* 257:*22* 258:*2* 263:*1* 265:*17* 269:*17* 274:*4* 279:*2* 283:*19* 287:*1* 288:*1* 291:*10* 295:*12* 299:*13* 303:*14*, *16* 306:*15* 309:*16*

commented 164:*14*

commenting 163:*21*

comments 11:*22* 12:*1*, *6* 13:*12* 16:*9*

18:*1* 20:*4* 28:*2*
52:*18* 89:*19*
120:*15* 132:*12*
134:*21* 143:*22*
189:*14* 192:*13*
208:*21* 252:*13*
291:*8* 299:*15*, *18*
300:*14* 310:*22*
commercial 79:*18*
80:*19* 298:*11*
commercializing
53:*8*
Commission 283:*11*
Commissioner 46:*3*
commit 220:*19*
commitment 27:*21*
45:*12* 49:*17* 83:*13*
153:*12* 154:*10*
167:*1* 274:*17*
309:*7*
commitments 32:*9*
154:*14* 172:*9*
215:*3*
committed 13:*8*
47:*10* 51:*20* 56:*8*
75:*16*, *20* 88:*11*
141:*14*, *15* 166:*6*
167:*14*, *15* 190:*6*
Committee 4:*17*
135:*14*
commodity 63:*21*
common 39:*16*
304:*16*
commonly 199:*4*
Commonwealth
94:*16*
communities 17:*2*
18:*8* 20:*22* 21:*4*, *5*
27:*16* 29:*22* 30:*8*,
9, *21* 33:*21* 38:*21*
40:*21* 43:*12* 44:*1*,
7 47:*1*, *21* 50:*18*
61:*20* 68:*8*, *13*
69:*15*, *17* 70:*1*, *7*
72:*10* 73:*4*, *10*
79:*20* 98:*10* 99:*8*
109:*5* 126:*14*
127:*13* 128:*20*, *22*
129:*1*, *12*, *16* 130:*1*,
5, *12*, *19* 131:*1*
187:*19* 195:*15*, *20*
200:*19* 206:*20*
207:*2* 211:*6*
237:*18* 242:*3*, *13*
244:*10* 253:*21*
255:*5* 256:*12*, *20*
261:*5* 262:*12*, *13*
263:*12* 264:*9*, *18*
265:*4* 268:*2*, *10*
272:*22* 273:*12*, *15*,
21 280:*6* 288:*12*

290:*22* 292:*14*
298:*13* 299:*1*
307:*1* 309:*10*
community 43:*8*
46:*12* 51:*18* 68:*14*
72:*21* 95:*5* 98:*4*
130:*15* 150:*3*, *21*
162:*17* 164:*14*, *21*
185:*1* 206:*10*
220:*20* 221:*9*
222:*14* 241:*7*
268:*18*
community-based
270:*12*
commute 281:*17*,
21
commuted 200:*10*
281:*19*
commuter 202:*16*
commuters 72:*4*, *7*
commuting 282:*9*
companies 66:*14*
79:*2* 80:*1* 88:*19*
90:*4* 262:*10*, *12*
Company 251:*18*
comparable 47:*11*
compare 117:*3*, *8*
compared 57:*5*
146:*15* 200:*8*
262:*14* 294:*4*
307:*20*
compassionate
95:*18*
compelling 175:*3*
compete 66:*4*
competition 46:*22*
203:*12*, *20*
Competitive 4:*8*, *9*,
10, *11* 53:*14* 54:*15*
138:*8* 140:*7* 141:*6*
143:*21* 146:*12*
competitiveness
78:*20* 80:*6* 216:*22*
278:*2*
complaints 122:*11*
complement 53:*2*
complemented
61:*10*
completely 45:*3*
156:*7*
completing 202:*4*
complex 65:*5*
203:*13* 218:*12*
247:*6*
compliance 28:*13*
53:*20* 155:*13*
171:*16* 241:*4*
compliant 294:*17*
complications
136:*13*

comply 51:*12*
153:*20*
component 142:*15*
components 66:*8*
compounds 106:*5*
comprehend 108:*7*
Comprehensive
23:*18* 190:*20*
compression
191:*16*
comprise 174:*13*
compromised 306:*5*
compulsion 53:*2*
computer 178:*9*
248:*18* 249:*20*
concentration
41:*10*, *11* 117:*2*, *4*,
6
concentrations
44:*13* 106:*21*
107:*3* 168:*21*
169:*2* 232:*5*
concept 268:*22*
concern 120:*18*
122:*17* 126:*12*
168:*8* 180:*13*
257:*12*
concerned 18:*17*
31:*9* 44:*3* 75:*4*
99:*19* 126:*17*
178:*11* 186:*9*
196:*22* 197:*12*
219:*13* 227:*2*
235:*20* 242:*15*
275:*8* 304:*1*
305:*20*
concerning 14:*11*
concerns 163:*6*
185:*6* 237:*17*
240:*6* 272:*2*
278:*19* 296:*17*
304:*9*
conclude 175:*22*
310:*16* 311:*2*
concluded 277:*18*
concluding 264:*22*
conclusion 19:*15*
54:*16* 93:*2* 110:*1*
204:*1* 240:*17*
278:*10* 294:*22*
conditional 55:*9*
conditioning
261:*14* 264:*8*
273:*9* 286:*6*
293:*12*
conditions 157:*16*
188:*5* 293:*4*
303:*10* 307:*20*
Condo 218:*22*
condos 218:*22*
conduct 90:*19*

conducted 13:*21*
53:*18*
conducting 12:*18*
Conference 217:*14*
confident 199:*11*
confirmed 51:*6*
confirming 184:*1*
confirms 70:*11*
87:*9*
congested 202:*16*
congestion 72:*2*
94:*8* 136:*2*
Congregation
306:*22* 307:*13*
congregations 37:*2*
Congress 224:*12*
225:*3*
conjunction 58:*10*
connect 288:*7*
connected 15:*18*
36:*4* 59:*20* 81:*15*
101:*5* 119:*16*
134:*7* 152:*4* 170:*2*
193:*7* 212:*4*
229:*10* 245:*1*
259:*6* 287:*9*
Connecticut 304:*10*
connection 72:*22*
73:*11* 115:*17*
connections 242:*15*
connectivity 288:*6*
conscience 36:*22*
219:*20*
consequences
18:*10* 25:*7* 65:*11*
146:*20* 237:*7*, *8*
Conservation 2:*17*
6:*8* 43:*9* 46:*5*
152:*18* 254:*21*
270:*12*
conservatively
64:*14*
consider 11:*11*
56:*20* 58:*3* 64:*12*
109:*13* 113:*1*
140:*3*, *8* 172:*10*
192:*16* 219:*7*
290:*19*
considerable 303:*9*
consideration 54:*9*
59:*9* 89:*18* 173:*22*
174:*7* 274:*3*
289:*20*
considered 25:*16*
109:*14* 121:*8*
136:*8*, *19*
considering 9:*17*
12:*5* 141:*10*, *11*
142:*1* 196:*6* 225:*7*
244:*14*
considers 211:*9*

consistent 11:*11*
21:*17*
consistently 79:*5*
88:*7* 93:*4* 123:*6*
208:*22*
**consistently-
increasing** 135:*20*
Consortium 164:*4*
constantly 117:*18*
constituents 280:*4*
281:*7*
constitute 280:*17*
constrained 196:*12*
constricts 63:*20*
construction 122:*9*
consult 73:*3* 93:*10*
Consultation 3:*12*
90:*13* 93:*7*
consumables
285:*21*
Consumer 4:*18*
48:*1* 63:*17* 109:*3*
115:*2* 170:*16*, *22*
171:*3*
consumers 56:*12*
80:*21* 92:*3* 109:*1*,
7, *18* 148:*14* 156:*2*
157:*2*, *11* 180:*12*
197:*3* 200:*15*
202:*1* 224:*5* 225:*6*
249:*11* 250:*18*
281:*2* 291:*1*
302:*18*
consumption 63:*18*
64:*19* 144:*21*
189:*22*
contact 15:*4*
contain 275:*10*
contained 236:*8*
contains 31:*10*
74:*7*
contamination
305:*4*
contend 98:*14*, *18*
content 91:*1*
continent 18:*9*
contingent 78:*21*
164:*13*
continuation 55:*2*
147:*6*
continue 13:*3*, *5*
25:*1* 30:*13* 31:*12*
43:*18* 51:*9* 55:*6*
56:*17* 61:*6* 63:*14*
68:*10*, *12*, *17* 107:*2*
111:*16* 133:*8*
134:*16* 139:*14*
140:*14* 174:*17*
176:*14* 177:*11*
188:*4* 191:*7*
216:*18* 235:*10*

252:*1* 273:*20*
288:*20* 298:*20*
308:*12* 310:*17*
continued 24:*4*
54:*4*
continues 101:*22*
105:*22* 107:*1*
139:*20, 22* 140:*18*
141:*22*
continuing 61:*7*
76:*4* 89:*9* 144:*21*
Contractor 7:*10,*
16 14:*13* 133:*7*
249:*7* 250:*14*
258:*16*
contribute 160:*15*
168:*15* 169:*6*
208:*19*
contributed 125:*15*
contributes 231:*20*
246:*7*
contributing 24:*19*
149:*9* 150:*10*
153:*6* 177:*19*
187:*9*
contribution
107:*16*
contributions
105:*21* 106:*4*
contributor 17:*8*
24:*6* 40:*15, 16*
50:*9* 125:*17*
206:*12* 293:*6*
control 25:*6* 53:*1*
65:*17* 247:*21*
305:*22*
controlled 44:*19*
controlling 120:*18*
Controls 2:*20*
52:*17*
convened 60:*16*
convenience 297:*3*
convenient 106:*14*
182:*18*
conventional 65:*20*
81:*4* 208:*13*
209:*10* 216:*9*
conversation
109:*18*
convert 302:*21*
convertible 129:*18*
convince 301:*20*
COOK 2:*8* 19:*22*
20:*2* 293:*13*
cool 98:*7* 179:*10*
cooler 261:*16*
COOPER 3:*6* 5:*3*
71:*11, 14, 15* 189:*2,*
5, 7
cooperation 14:*17*

cooperative 95:*17*
CoOptima 190:*20*
coordinate 49:*18*
78:*12*
Coordinated 2:*18*
49:*1*
coordinates 78:*10*
Coordinator 71:*15*
COPD 127:*1, 8*
260:*14*
co-pollutants
126:*10* 168:*12*
copy 124:*4, 5*
coral 199:*4, 7, 10*
cord 184:*20*
corn 57:*4* 60:*15*
175:*10* 289:*19*
corner 242:*2*
Corp 291:*16*
Corporation 301:*6*
corporations
129:*14, 22*
correct 139:*6, 8*
140:*1* 257:*15*
correction 214:*4*
corresponding
176:*4*
corridors 188:*9*
cost 10:*12* 53:*20*
80:*1* 88:*5* 92:*3, 9*
93:*6* 144:*1, 9*
146:*1* 148:*9*
155:*18* 156:*4*
200:*7* 303:*5*
cost-benefit 64:*11*
cost-effective 80:*18*
182:*19* 191:*17*
290:*21*
costing 185:*10*
costly 25:*9* 275:*22*
costs 19:*8* 25:*4,*
10, 13, 21 50:*5*
51:*9* 56:*12* 80:*3, 4,*
21 89:*3, 4* 109:*9*
112:*20* 148:*1, 13*
171:*16* 180:*21, 22*
195:*19* 200:*11, 17*
243:*18* 281:*3*
293:*21* 294:*3*
302:*3* 309:*1, 5*
cough 264:*14*
Council 2:*9* 98:*2*
230:*10* 270:*14*
Counsel 8:*9* 141:*6*
251:*20*
count 222:*14*
counter 64:*19*
counterintuitively
215:*16*
counterparts 45:*1*

counterproductive
28:*15*
counties 17:*12, 14*
44:*10, 12* 105:*8, 11*
166:*10* 231:*1*
counting 71:*6*
271:*10* 283:*17*
countries 75:*15*
240:*18* 307:*7*
country 24:*5, 18*
27:*3, 17* 33:*12*
37:*20* 41:*12, 21*
42:*5* 47:*19* 56:*9*
60:*21* 96:*2* 111:*22*
160:*2* 162:*22*
185:*8* 197:*18*
226:*12* 232:*14*
233:*5* 251:*13*
260:*19* 267:*18*
268:*10* 273:*17*
283:*16* 288:*14*
306:*6*
country's 154:*14*
counts 28:*19* 192:*2*
County 72:*4, 12*
98:*2* 127:*10* 164:*3*
261:*7* 270:*14*
271:*19* 279:*19, 20*
County's 72:*7*
couple 27:*22*
100:*4* 202:*11, 20*
course 40:*6, 15*
88:*14* 202:*13*
214:*4* 243:*1*
257:*15* 285:*11, 18*
court 16:*12* 135:*2*
140:*9* 143:*11*
covenant 39:*2*
cover 151:*7*
coverage 293:*1*
covering 22:*5*
104:*21* 118:*20*
151:*9* 159:*13*
187:*6*
covers 214:*6*
COVID 41:*1, 4, 9*
96:*6* 128:*13* 130:*4*
260:*13* 264:*13*
COVID-19 69:*22*
188:*12* 219:*9*
295:*1*
coworkers 202:*13*
Cox 139:*7, 22*
140:*12*
CPO 240:*10*
CR 170:*17* 171:*11,*
20 172:*10, 12, 17*
crash 142:*20*
crawl 202:*16*
create 17:*5* 43:*14*
44:*5* 48:*3, 16* 77:*1*

180:*19* 235:*7*
249:*15* 250:*22*
272:*1* 299:*8*
created 76:*16*
183:*1*
creates 114:*8*
creating 166:*6*
185:*11*
creation 216:*19*
278:*1*
credence 286:*17*
credible 86:*16*
Credit 55:*3* 83:*16*
155:*14* 156:*7, 10,*
17 157:*10, 15*
162:*9* 172:*18*
215:*9, 13, 17*
218:*12*
crediting 19:*13*
243:*11*
credits 18:*18, 20*
55:*9* 59:*3* 66:*20*
156:*16, 20* 157:*4,*
17 171:*7* 172:*11,*
22 173:*4* 215:*11,*
21 257:*6* 294:*18*
298:*1*
credit's 156:*21*
CREET 176:*7*
Cricket 219:*20*
crisis 8:*14* 10:*19*
20:*13* 22:*19* 24:*15*
29:*18* 30:*6, 11, 13,*
18 33:*19* 35:*16*
38:*18* 46:*10* 48:*13*
49:*13* 50:*10* 87:*9*
94:*12* 96:*5* 103:*15*
110:*18, 22* 111:*6, 7*
113:*3, 16* 119:*4*
127:*13* 149:*13*
153:*1, 3* 184:*8*
187:*8* 206:*9* 218:*1,*
14 225:*6* 227:*16*
228:*2* 230:*6, 8*
231:*20* 233:*20, 21*
242:*5* 243:*1, 4*
263:*11* 265:*2*
269:*5* 276:*6, 13*
277:*12* 302:*19*
309:*14*
criteria 52:*3*
62:*10* 141:*17*
208:*18* 289:*11*
critical 20:*16* 21:*8*
23:*17* 24:*14* 27:*19*
40:*13* 48:*12* 51:*22*
84:*5* 85:*20* 86:*9*
107:*17* 149:*5*
162:*5* 186:*10*
187:*4* 190:*13*
194:*17* 220:*9*

222:*17* 237:*11*
274:*14* 277:*16*
308:*14*
crucial 158:*2*
270:*20*
CRUZ 2:*11* 29:*6,*
9, 11
culture 203:*17*
cumulative 125:*16*
145:*1, 6* 209:*21*
curb 73:*17* 184:*4*
227:*15* 280:*3*
307:*8*
curbing 236:*7*
cure 205:*13*
current 11:*22*
28:*6, 10* 57:*1* 65:*2,*
11 82:*6* 112:*12*
147:*6, 17* 157:*18*
159:*20* 171:*22*
183:*1* 195:*9* 218:*6*
251:*3* 289:*3* 291:*2*
currently 16:*5*
25:*18* 55:*15* 96:*22*
98:*11* 113:*2*
116:*20* 120:*3*
131:*9* 134:*17*
140:*9* 201:*4*
212:*13* 222:*22*
225:*10, 19* 234:*3*
238:*21* 258:*17*
260:*9, 20* 262:*16*
265:*19* 266:*6*
269:*19* 279:*4, 17*
287:*18* 295:*14*
300:*13* 308:*17*
309:*2*
customers 239:*13*
cut 34:*18* 94:*19*
166:*2* 173:*22*
227:*6*
cuts 18:*5* 20:*18*
222:*3* 293:*18*
cutting 25:*1* 60:*22*
73:*20* 255:*18*
cyanide 128:*11*
cycle 176:*7*

< D >
D.C 1:*22* 26:*21*
34:*4, 8, 10* 143:*7*
150:*12* 224:*7*
266:*21* 267:*17, 21*
268:*11* 269:*14*
dads 71:*6, 18* 74:*3*
246:*1*
daily 10:*20* 34:*4*
46:*10* 72:*7* 240:*16*
244:*12* 274:*20*
275:*6*
Dallas 202:*3, 8*

damage 26:5 197:*14* 219:*1* 227:*8*

damages 25:*12* 185:*11* 263:*20*

dangerous 24:2, *8, 20* 27:*11* 103:*13* 165:*2* 180:*19* 273:*13*

dangerously 34:*7*

dangers 199:*1*

DANIEL 5:*11* 208:*6, 9*

dared 203:*15*

darkened 87:*4*

DASCHLE 3:*3* 60:6, *9, 10* 189:*16*

data 25:*5* 26:*1* 55:*7* 57:*4* 77:*11* 86:*15* 87:*6* 90:*15* 121:*9* 140:*1* 209:*4* 216:*2*

date 240:*20*

dated 76:*6*

daughter 94:*3, 5* 95:*11, 20* 103:*1*

daughters 264:*1, 3*

DAVIDSON 5:*6* 196:*15, 18, 20*

day 9:*2* 34:*6* 62:*1* 72:*5* 87:*3* 102:*22* 103:*3* 106:*15* 149:*21* 182:*21* 205:*10* 221:*13, 18* 222:*7* 224:*7* 226:*9* 232:*19* 233:*21* 246:*12, 19* 247:*18* 262:*17* 282:*21* 299:*15* 309:*20* 310:*18*

days 8:*10* 13:*20* 27:*2* 34:*6, 8, 11* 95:*9* 96:*3* 103:*6* 105:*12* 163:*9* 169:*1* 177:*7* 178:*18* 232:*13, 18* 233:*3* 260:*22* 261:8, *12, 19* 302:*12*

daytime 246:*17*

deadline 18:*1* 98:*13*

deadly 18:*7* 153:*8* 177:*19* 280:*19*

deal 128:*7* 141:*8* 230:*8* 304:*5* 306:*3*

dealer 224:*2*

dealerships 121:*2*

dealing 180:*17*

death 61:*19* 114:*19* 128:*14* 130:*4* 137:*4* 177:*9, 16* 206:*2*

deaths 26:*3* 45:*3* 205:*19* 302:*11*

DEBI 6:*7* 266:*5*

decade 10:*8* 30:5, *16* 32:*14* 34:*9* 58:*8* 75:*17* 76:*14* 88:*6* 95:*6* 153:*19* 167:*8* 171:*14* 178:*3* 203:*6* 228:*3*

decades 49:*8* 56:*18* 122:*2* 123:*2* 125:*9* 145:*21* 174:*18* 191:*8* 224:*9* 236:*6* 264:*6*

decarbonization 208:*11*

decarbonize 208:*17*

decarbonizes 56:*10*

decarbonizing 175:*7*

December 137:*3*

decide 111:*10* 219:*21*

decided 264:*3* 304:*7* 306:*8*

decidedly 121:*5*

deciding 93:*13*

decipher 276:*19*

decision 99:*8* 112:*19* 140:*4* 143:*11* 157:*7* 196:*1, 3* 270:*20*

decisions 68:*12* 73:*5* 219:*6* 239:*13* 273:*5*

decisively 94:*13* 103:*16* 184:*8* 269:*5*

declared 106:*15*

decline 51:*9*

declining 84:*14* 171:*15*

decreased 157:*2*

decried 284:*18*

dedicated 165:*20* 208:*11* 253:*6*

deemed 14:*2*

deep 31:*18* 248:*20*

deepening 149:*13*

deeply 31:*9* 62:*3* 72:*21*

defend 29:*1* 138:*2*

Defense 2:*9*

defies 148:*6*

define 128:*21*

degradation 43:*10* 129:*2* 199:*2*

degraded 68:*16* 199:*21*

degrades 68:*21* 103:*19* 246:*6*

degree 97:*22* 147:*12, 19* 148:*4* 236:*12* 292:*17* 301:*12* 307:*18*

degrees 95:*10, 19* 147:*10, 19* 224:*8* 236:*10, 12, 13* 249:*1* 250:*7* 307:*21, 22*

Delaware 104:*22* 106:*18*

delay 22:*13* 85:*13* 110:*5* 151:*16* 159:*21* 207:*15* 308:*14*

delayed 216:*15* 236:*7*

Delaying 153:*21*

delays 214:*20*

deleterious 247:*15*

deliver 26:*8* 27:*8* 29:*16* 57:*13* 144:*5* 172:*20* 173:*2* 180:*11* 192:*8* 197:*3* 201:*22* 242:*21* 249:*10* 250:*17* 289:*4*

delivered 189:*15*

delivers 292:*3*

delivery 85:*1* 87:*18* 213:*18, 21*

delta 294:*2*

demand 54:*5* 61:*22* 64:*17* 80:*7* 89:*16* 216:*5*

demanded 122:*20*

demands 24:*10* 153:*1*

democracy 93:*9*

Democrats 91:*14, 20* 92:*7, 22*

demonstrated 111:*4, 13* 188:*10*

demonstrates 123:*4* 143:*4*

demonstrating 89:*20*

DENNIS 3:*4* 63:*4, 7*

Denver 98:*11*

Department 2:*16* 46:*4* 137:*11* 176:*6* 184:*12* 190:*20*

departments 261:*4*

depend 54:*11* 247:*22*

dependence 63:*12, 19* 64:9, *20* 65:*11* 66:*5* 92:*13* 198:*1* 282:*22*

depends 175:*7* 177:*12* 278:*22*

deplorable 157:*7*

deploy 46:*22* 167:*2*

deployed 289:*6*

deployment 28:*16* 54:*18* 80:*18* 192:*3* 211:*2* 214:*15* 295:*7*

depths 219:*19*

Deputy 2:*2* 7:*19* 46:*3* 291:*15*

derive 22:*8* 122:*16*

derived 144:*13* 209:*11, 18*

descendants 68:*5*

descent 262:*15*

describe 117:*11*

described 138:*20* 149:*14*

describes 154:*3*

describing 265:*2*

deserve 158:*13* 233:*14* 234:*7* 297:*14*

deserves 186:*15* 188:*21*

design 47:*7* 73:*6* 112:*4*

designed 43:*22* 130:*21* 235:*18*

desire 105:*4*

desperately 85:*16* 119:*1* 224:*4*

despite 31:*2* 92:*12* 105:*17* 148:*12* 153:*18* 230:*18*

destabilization 23:*21*

destroy 195:*21*

destroying 18:*8*

destruction 18:*5* 222:*2*

detailed 17:*22* 52:*18* 189:*14* 236:*5* 275:*14* 291:*8*

details 34:*20* 90:*22* 236:*2*

detection 301:*7*

determinations 138:*17*

determine 138:*19* 147:*5*

Detroit 187:*12* 248:*21* 249:*1*

250:5, *7* 276:*2* 284:*16, 18, 22*

devastating 29:*21* 111:*12* 197:*14* 275:*2* 276:*1*

devastation 68:*15* 77:*4* 304:*11*

develop 11:*5* 12:*4*

developed 88:*4* 89:*12* 124:*6* 147:*1*

developing 124:*1* 167:*7* 181:*7* 206:*5* 216:*16* 232:*8* 247:*14* 290:*18*

Development 60:*13* 65:*21* 66:*3* 88:*8* 112:*4* 189:*10*

DEVIN 4:*8*

Devon 138:*5, 7*

diabetes 69:*20* 150:*4*

diagnosis 206:*7*

diagram 303:*4*

dial 208:*2* 212:*17* 213:*2* 265:*22*

dialing 82:*9* 97:*3* 104:*9* 120:*7* 131:*13, 19* 132:*3* 201:*9* 204:*12* 223:*4* 225:*13, 22* 238:*13* 266:*10* 279:*8* 295:*18*

DIANA 3:*10* 82:*13, 21*

D-I-A-N-A 82:*22*

die 17:*3* 44:*22* 126:*1* 199:*14, 18* 205:*9, 22* 233:*8, 9*

died 251:*10* 295:*2*

diesel 219:*10*

diesel-powered 118:*8* 150:*17*

differ 90:*20*

difference 38:*15* 150:*21* 173:*9* 182:*7* 210:*3* 286:*11* 292:*18* 308:*7*

differences 142:*21*

different 55:*17* 64:*1* 82:*7* 97:*1, 10* 104:*7* 120:*4* 128:*8* 131:*10, 17* 132:*1* 154:*2* 201:*6* 204:*10* 207:*21* 212:*14, 22* 223:*1* 225:*11, 20* 240:*15* 265:*20* 266:*8* 269:*21* 279:*5* 287:*19* 295:*15*

difficult 25:*10*
108:*7* 180:*16*, *18*,
19 249:*18* 264:*9*
difficulties 15:*20*
36:*6* 59:*22* 81:*17*
101:*7* 119:*18*
134:*9* 152:*6* 170:*4*
193:*9* 212:*6*
229:*12* 238:*14*
245:*3* 259:*8*
264:*12* 287:*11*
300:*11*
difficulty 300:*10*
digital 74:*12* 180:*7*
diminish 214:*17*
diminishing 111:*19*
dioxide 24:*1*
115:*1* 117:*2* 137:*7*
144:*12* 145:*2*, *15*
dioxides 41:*10*
dire 185:*18*
direct 40:*1* 70:*4*
73:*11* 160:*16*
163:*6* 191:*16*
219:*9*
directed 9:*2*
159:*12*
direction 8:*12*, *19*
20:*10* 69:*10* 83:*11*
88:*13* 95:*3* 103:*17*
118:*4* 149:*17*
150:*11*, *12* 195:*2*
214:*11* 220:*17*
270:*17* 305:*15*
directly 72:*10*
89:*3* 108:*9* 232:*7*
295:*2*
Director 2:*4* 8:*1*
26:*19* 52:*16* 63:*8*
74:*20* 78:*9* 83:*1*
104:*17* 204:*21*
213:*12* 241:*15*
274:*9* 291:*15*
dirty 24:*4* 103:*4*
169:*13* 232:*9*
265:*10*
disappear 111:*21*
disappointed 28:*6*
62:*3*
disaster 292:*16*
disasters 31:*3*
125:*21* 180:*22*
181:*2* 253:*9* 276:*1*
disastrous 112:*19*
153:*15* 170:*18*
Disciples 36:*19*
discount 294:*1*, *7*
discriminates 17:*1*
discuss 146:*14*
discussed 218:*5*
discussion 192:*10*

disease 69:*20*
105:*3*, *15* 130:*4*
136:*22* 150:*4*
160:*18* 161:*22*
184:*14* 205:*3*, *11*
219:*15* 232:*15*
237:*19*
diseases 187:*20*
207:*8*
dismal 277:*5*
dismantle 130:*21*
disparate 73:*10*
disparities 130:*3*
136:*16* 205:*21*
dispatch 18:*15*
displace 213:*21*
displaced 125:*20*
181:*1* 209:*10*
display 25:*8* 242:*5*
displayed 16:*5*
134:*17* 259:*14*
disproportionate
17:*18* 69:*15* 87:*22*
130:*2* 211:*1*
263:*10*
disproportionately
21:*5* 38:*22* 40:*20*
50:*21* 61:*20* 70:*1*
79:*20* 125:*19*
128:*19* 136:*9*
205:*15*, *17* 207:*3*
232:*3*
disproportionately-
impacted 128:*22*
129:*12*, *16* 130:*12*,
19
disregarded 122:*14*
disrupting 27:*20*
30:*15*
disruption 66:*17*
230:*6* 302:*6*
disruptions 64:*1*
distinguish 138:*22*
distributed 14:*19*
District 104:*22*
266:*22* 279:*17*, *18*
diverse 28:*22*
31:*13* 37:*9* 65:*7*
diversify 56:*9*
diversions 113:*10*
Diversity 4:*13*, *14*
54:*22* 152:*17*
155:*10*
Division 8:*1*
DIY 273:*7*
DJ 98:*15*
DOCKET 1:*7*
10:*3* 16:*9* 33:*13*
42:*18* 134:*21*
doctors 31:*15*

document 128:*1*
documented 205:*20*
documents 10:*1*
doing 112:*22*
118:*2*, *13* 309:*12*
dollars 109:*2*
domain 124:*10*
domestic 53:*13*
65:*7*, *14*, *21* 66:*7*,
13
domestically
175:*18* 198:*4*
dominant 56:*17*
209:*9*, *11*
dominate 191:*7*
277:*6*
dominated 66:*6*
Donald 27:*10*
doors 246:*22*
double 28:*8* 31:*11*
75:*6*
double-counting
215:*19*
doubt 113:*13*
276:*13*
Douglas 261:*7*
279:*19*
downgraded 98:*14*
downplayed 142:*4*
downside 294:*4*
downsizing 142:*10*,
16
Downtown 71:*21*
272:*11*
dozen 46:*16*
dozens 33:*10*
164:*17*
DR 4:*7* 23:*4*
135:*8*, *10*
draft 223:*16*
289:*16*
drag 194:*20*
dragged 239:*22*
drain 185:*3*
dramatic 214:*5*
230:*13* 294:*14*
dramatically 163:*1*
drastically 125:*12*
dreadful 307:*16*
Dream 291:*16*
drilling 68:*18*
179:*12*
drinking 275:*11*
drive 56:*11* 80:*8*
89:*5* 118:*9*, *22*
122:*10* 148:*9*
150:*18* 151:*10*
159:*22* 161:*7*
162:*3* 165:*9*
182:*20* 188:*1*
261:*2* 282:*5*

297:*11* 298:*22*
302:*4* 305:*5*
308:*20*
driven 157:*12*
driver 56:*15* 79:*19*
drivers 45:*6*
57:*12* 74:*21*, *22*
89:*4*
driver's 281:*18*
drives 239:*13*
driveway 108:*22*
driving 23:*20*
38:*18* 72:*8*, *9*
106:*7* 156:*2*
197:*17* 216:*18*
302:*2*
drop 41:*13* 153:*14*
drop-off 272:*18*
dropped 41:*11*
121:*13* 234:*16*
drought 24:*20*
34:*1* 38:*12* 50:*6*
100:*1* 102:*13*
153:*7* 187:*15*
199:*15* 237:*4*
271:*8*
droughts 251:*8*
255:*9*
dual 255:*2*
due 70:*3* 103:*8*
137:*6* 149:*22*
181:*1* 185:*4*
221:*14* 236:*19*
242:*3*, *11* 253:*10*,
12 255:*7* 260:*16*
264:*7*, *10*, *19* 265:*2*
275:*22* 285:*15*
304:*20*
DUGAN 6:*15*
279:*3* 283:*20*
284:*1*, *4*
duration 14:*4* 25:*3*
Duty 2:*4* 9:*22*
61:*14* 62:*12* 68:*21*
86:*10* 94:*19*
162:*14*, *15* 183:*19*
213:*20*
dwindling 68:*16*
dying 219:*8*
Dylan 220:*22*
221:*7*

< E >
E15 57:*16*, *18*
58:*18*
E3 289:*15* 291:*6*
E30 58:*8* 59:*1*
290:*14*
E85 57:*22* 58:*18*
eager 309:*11*

earlier 10:*22* 11:*9*
33:*18* 40:*19* 83:*20*
131:*6* 137:*20*
149:*10* 163:*22*
189:*15* 221:*22*
252:*7* 268:*16*
304:*5*
early 53:*14* 65:*16*,
17 203:*4* 236:*10*
247:*14* 295:*2*
earned 105:*10*
Earth 39:*22*
178:*12*
earthquakes
179:*13* 222:*8*
earth-shattering
112:*14*
easier 99:*18*
114:*12* 171:*17*
220:*21* 293:*19*
easily 72:*15* 95:*21*
East 106:*18* 258:*6*
Eastern 13:*4*
132:*17* 238:*22*
258:*17* 310:*18*
easy 117:*20* 202:*9*
214:*5* 240:*22*
Eco 67:*21* 263:*9*
ecological 199:*1*,
12 200:*2*
economic 35:*7*
43:*11* 50:*4* 62:*2*
63:*13* 65:*10* 79:*4*
121:*1* 125:*1*
195:*19* 214:*12*, *18*
215:*5* 216:*15*
217:*1* 240:*9* 281:*3*,
13 290:*19* 295:*3*
economical 240:*22*
economically
109:*21* 121:*15*
180:*20* 181:*8*, *17*
economics 182:*14*
239:*11*, *12*
economies 277:*16*
economists 109:*14*
economy 22:*16*
45:*11* 46:*15* 53:*4*
61:*2*, *8* 63:*16*, *20*
66:*9* 79:*7* 84:*18*
126:*6* 127:*11*
166:*6* 167:*12*, *18*
168:*1*, *11* 173:*5*
181:*20* 182:*3*
189:*19* 190:*10*, *16*
191:*13* 200:*3*
214:*8* 271:*10*
277:*5* 308:*15*, *21*
ecosystem 108:*5*,
11 109:*10*

ecosystems 152:*20* 199:*13* 256:*1* 283:7
edge 271:*19*
edges 72:*3*
EDITH 5:*13* 217:*8, 13*
educate 137:*13* 251:*22*
education 96:*5, 8*
effect 118:*12* 142:*13, 17* 145:*12* 147:*21* 148:8, *11* 251:*6* 297:*4*
effective 64:*19* 107:*22* 155:*16*
effectively 47:*15*
effectiveness 28:*14* 172:*12*
effects 10:*19* 21:*1* 23:*9* 50:*20* 91:*12* 108:*10* 110:*21* 138:*14* 146:*14* 147:*5* 187:*11* 222:*6* 224:*10* 247:*16* 263:*10* 268:*11* 293:*4*
efficiency 53:*1* 90:*18* 92:*5, 16, 19* 93:*2, 14* 105:*18* 120:*17* 188:*15* 190:*22* 191:*4* 192:*8* 214:*14* 218:*7* 220:*1* 222:*16* 223:*22* 224:*18* 225:*3* 227:*22* 230:*12* 280:*2* 281:*8* 289:*10*
efficient 22:*15* 45:*18* 58:*5* 65:*20* 80:*8, 15* 114:*22* 115:*9* 126:*8* 190:*4, 5* 198:*9* 228:*17* 237:*13* 252:*6* 286:*9* 297:*12* 302:*22*
efficient/less-carbon-intensive 109:*22*
effort 99:*5* 172:*13*
efforts 23:*15* 52:*1* 67:*2* 84:*18* 116:*17* 170:*17* 230:*18* 307:*8*
egregious 144:*17*
EH&E 57:*4*
eight 75:*8* 91:*13* 145:*21* 251:*22*
eight-hour 106:*21*

eight-year-old 102:*22*
either 117:*17* 122:*5* 123:*6, 9* 166:*11* 168:*10* 197:*11*
Elders 4:*17* 38:*21* 165:*17, 19, 20*
elected 31:*15* 280:*10* 281:*5*
electric 19:*2* 22:*1* 28:*16* 31:*3, 5* 35:*3* 39:*10, 12* 48:*2* 49:*7* 52:*2* 53:*2* 65:*6, 17, 22* 66:*22* 74:*21* 75:*12, 14* 84:*21* 94:*17, 18* 106:*11* 109:*6* 114:*20* 122:*17* 126:*8* 145:*3* 155:*16* 160:*10, 20* 161:*11* 172:*13* 174:*9, 12* 176:*11* 178:*22* 182:*17* 184:*10* 195:*19* 196:*7* 197:*10, 15, 19* 200:*5, 6* 209:*8* 213:*16, 18, 21* 214:*1* 226:*21* 228:*11* 237:*13* 264:*7* 277:*3* 281:*9, 12* 283:*3* 302:*21* 303:*2* 309:*1, 5*
Electrical 301:*12*
electricity 65:*6* 156:*12* 174:*7* 177:*18* 178:*19* 197:*10* 200:*8*
electrification 51:*21* 65:*9* 78:*22* 80:*9* 171:*16* 172:*1, 4, 15* 216:*18* 244:*5* 288:*21*
electrified 9:*16* 53:*2* 54:*20* 66:*10* 184:*9*
electrify 51:*10* 76:*19*
electronically 13:*17*
elementary 272:*12*
elements 214:*22* 215:*14*
elicited 91:*18*
eliminate 65:*10* 112:*7* 113:*8* 114:*3* 140:*17* 197:*3* 200:*21* 202:*1* 215:*8* 249:*11* 250:*18*
eliminated 172:*16* 187:*10* 210:*10*

eliminating 87:*17* 165:*2* 204:*4*
elimination 169:*6*
ELIZABETH 4:*3* 5:*18* 97:*8* 124:*16, 22* 131:*16* 231:*12, 15, 17*
Elon 301:*17*
eloquent 304:*5*
ELPC 274:*10* 275:*8, 13* 277:*17*
else's 123:*7*
e-mail 15:*21* 16:*2* 36:*7, 11* 60:*1, 4* 81:*18, 21* 101:*8, 11* 119:*19, 22* 134:*10, 14* 152:*7, 10* 170:*5, 8* 193:*10, 13* 212:*7, 10* 229:*13, 16* 238:*15* 245:*4, 7* 259:*9, 12* 287:*12, 15* 310:*19*
embarks 11:*18*
embrace 99:*9* 283:*3*
emergencies 34:*10*
emergency 18:*2, 14* 19:*9, 16* 24:*17* 34:*5* 44:*21* 84:*3* 95:*22* 105:*16* 151:*13* 154:*15* 162:*19* 164:*20* 173:*11* 187:*22* 206:*1* 207:*15* 270:*17*
emission 11:*2* 18:*16, 18, 20* 21:*16* 22:*8* 24:*13* 28:*11, 12, 19* 39:*13* 46:*14, 19* 47:*10* 48:*7, 10* 49:*11, 14, 21* 51:*4, 13, 19* 52:*5, 16* 53:*1, 10* 55:*5* 64:*22* 66:*20* 84:*17* 85:*21* 86:*10, 20* 88:*12* 89:*10* 102:*9* 106:*2* 109:*8* 118:*22* 144:*4, 18* 145:*19* 151:*11* 154:*18* 157:*9* 159:*18* 161:*8* 162:*4, 6* 165:*7* 166:*6, 19* 167:*5, 8, 9, 12, 17* 168:*11* 169:*10* 177:*15* 222:*18* 228:*6* 233:*12* 242:*21* 243:*12, 19* 244:*7* 257:*2, 20* 262:*20* 281:*12* 283:*15*

288:*18* 289:*10* 292:*19* 294:*11, 15*
EMISSIONS 1:*6* 2:*20* 7:*8* 8:*21* 9:*7, 11, 20* 10:*6, 15* 11:*4, 13, 14* 12:*17* 17:*5* 18:*6* 20:*19* 22:*3, 11* 25:*2* 27:*20* 29:*17* 33:*8* 35:*5, 10* 38:*17* 39:*8* 44:*1, 2, 7, 14* 46:*7* 47:*1* 48:*12* 49:*20* 50:*9, 11* 52:*3* 57:*1, 5, 14, 19* 58:*1* 61:*1, 13, 18* 62:*9, 11* 71:*4* 79:*15, 17, 19* 80:*2* 84:*6, 12, 13* 85:*2, 7* 87:*2, 14* 89:*14, 22* 91:*18* 95:*1* 96:*10, 13, 18* 98:*21* 100:*12, 15* 105:*17* 106:*6* 107:*17* 109:*16* 110:*4* 111:*17* 113:*9* 114:*6, 20, 22* 115:*4, 7* 118:*7, 14, 17* 120:*22* 123:*4* 125:*11, 13, 16* 126:*9, 21* 127:*7* 133:*5* 135:*21* 145:*2, 6, 15, 17* 150:*16* 153:*15, 21* 154:*12* 155:*14* 156:*11, 13* 157:*3, 17, 19* 158:*3, 21* 159:*1, 12* 162:*18* 164:*7, 9* 166:*3, 4, 16, 22* 168:*14, 15* 169:*5, 7, 14* 172:*21* 173:*22* 174:*5, 12* 175:*5, 11, 15, 16, 21* 176:*8* 179:*8, 16* 182:*6* 183:*19* 185:*15* 186:*19* 187:*9* 188:*1, 8* 190:*3, 11, 17* 191:*2, 5* 192:*8* 194:*10, 15, 17* 195:*13* 200:*1* 206:*16* 208:*19* 210:*2* 211:*9, 11, 16* 214:*7* 215:*20* 217:*17* 218:*8* 219:*11, 22* 222:*4, 13* 223:*17* 224:*13* 225:*4* 226:*20* 227:*4, 5, 6, 20* 228:*9, 13* 230:*16* 231:*6* 235:*19* 236:*7, 8* 237:*11* 241:*20* 242:*18*

246:*9* 254:*9, 10* 257:*19* 258:*20* 260:*18* 263:*15* 267:*11* 269:*7* 274:*19* 276:*7* 280:*1, 16, 18* 281:*6, 16* 283:*1, 5* 284:*9, 14* 285:*15* 289:*1, 6, 11* 290:*14, 18* 292:*5* 293:*9, 16, 18, 19* 294:*13, 21* 298:*2* 302:*16*
emissions-related 79:*22* 80:*3*
emit 91:*17* 114:*20* 115:*1* 280:*19* 303:*1*
emitter 186:*19* 257:*17*
emitting 293:*7* 307:*7*
emotions 117:*12*
emphasize 84:*8*
emphasizing 28:*2*
employ 79:*9*
employed 76:*15*
employee 249:*5* 250:*11* 267:*3*
employment 237:*3*
enable 62:*20* 76:*22* 192:*10*
enact 37:*5* 200:*3* 286:*19* 297:*16*
enacted 150:*20*
encourage 15:*17* 16:*7* 19:*11* 36:*3* 42:*10, 11* 55:*6* 58:*15, 17* 59:*19* 73:*3* 81:*14* 84:*20* 86:*21* 93:*12* 101:*4* 111:*16* 119:*15* 134:*6, 19* 152:*3* 159:*19* 170:*1* 188:*17* 193:*5* 212:*3, 15* 225:*21* 229:*9* 238:*15* 244:*22* 259:*5* 269:*21* 283:*2* 287:*8* 295:*6* 300:*11*
encouraged 290:*5*
encouraging 281:*8*
endanger 143:*1* 275:*4*
endangering 24:*17*
endangerment 129:*3*
ended 117:*14*
endorse 189:*15* 214:*11*

endured 264:*6*
energetic 94:*3*
Energy 3:2, *4*
41:*13* 46:*3* 56:*6, 7,*
9, 10, 11 65:*5* 77:*1*
78:*11* 92:*15*
121:*12* 129:*18*
143:*20* 144:*20*
145:*17* 146:*11*
153:*2* 160:*11*
176:*6* 179:*1, 8*
197:*9* 203:*21*
209:*7* 224:*13, 16*
268:*21* 286:*8*
301:*19* 302:*7, 13,*
21 303:*10* 308:*8,*
15
Energy's 58:*6*
190:*20*
enforce 14:*3* 240:*5*
enforceable 27:*18*
129:*4*
engagement 11:*19*
83:*1*
engine 53:*1* 58:*11*
61:*9* 155:*19* 168:*5*
169:*4, 12* 176:*5*
190:*11* 191:*3, 15,*
17 192:*7* 200:*13*
203:*14* 289:*1, 9*
engineer 97:*21*
178:*9* 194:*4* 249:*4*
engineering 47:*7*
180:*7* 249:*1, 2, 3, 7*
250:*8, 9, 10, 13*
285:*9* 301:*12*
engineers 284:*16*
285:*1*
engines 54:*19*
58:*5* 63:*1* 87:*10*
111:*18, 20* 174:*1*
175:*21* 190:*9*
191:*7, 12, 21* 192:*3*
203:*3* 283:*2*
290:*10*
English 265:*1*
enhanced 61:*10*
enlistment 202:*4*
enormous 31:*2*
148:*13*
enormously 108:*9*
enrolled 116:*20*
ensure 8:*14, 20*
9:*4* 21:*15* 39:*12*
43:*20, 22* 45:*5*
54:*14* 65:*14* 66:*19*
91:*2* 114:*11*
118:*16* 126:*7*
140:*8* 159:*16*
164:*9* 167:*11*
168:*3* 172:*19*

192:*4* 198:*11*
211:*12* 222:*12*
226:*19* 235:*12, 18*
241:*6, 8* 243:*11, 22*
252:*9* 292:*2*
ensures 151:*2*
ensuring 13:*9*
81:*3, 4* 161:*4*
216:*22* 228:*20*
entered 117:*3*
124:*2, 6* 227:*9*
Enterprise 4:*8, 9,*
10, 11 138:*8* 140:*7*
141:*6* 143:*21*
146:*12*
entire 51:*21* 63:*16*
130:*14, 15* 199:*3, 7*
242:*13* 251:*17*
entirely 88:*12*
303:*7*
entrenched 224:*22*
Environment 5:*16*
8:*20* 9:*5* 20:*9*
68:*3* 71:*8* 146:*12*
180:*19* 188:*7, 18*
194:*3* 199:*22*
203:*9* 214:*8*
226:*10* 241:*3*
247:*7, 20* 253:*11*
270:*8* 281:*2*
284:*19*
ENVIRONMENTA
L 1:*2* 2:*1, 17* 5:*5*
6:*13* 7:*6, 14* 8:*14*
9:*7* 11:*10* 21:*4*
23:*7* 29:*13* 31:*14*
32:*1* 43:*8, 10*
45:*13* 46:*4* 50:*4*
53:*7* 54:*22* 57:*8*
62:*7* 68:*9* 70:*19*
72:*22* 73:*4* 83:*14*
86:*12* 104:*18*
116:*21* 125:*1*
126:*14* 129:*9*
130:*14* 133:*2*
135:*11* 143:*20*
149:*5, 19* 151:*3*
180:*11* 183:*17*
184:*13* 185:*19*
193:*22* 207:*5*
214:*12, 17* 215:*5*
216:*15* 217:*1*
218:*9* 221:*21*
223:*12* 226:*11*
233:*13* 237:*17*
253:*7* 256:*12*
265:*11* 267:*2*
270:*14* 274:*10, 11*
285:*7, 10* 289:*17*
290:*6* 295:*3*
298:*14* 309:*8*

environmentally-
sustainable 56:*21*
Environments 2:*8*
20:*3, 7* 22:*17*
206:*19*
EPA 7:2, *10, 12*
8:*12* 9:*8, 13, 18*
11:*1, 18* 12:*1*
18:*12, 19* 19:*4, 11,*
16 20:*11* 21:*10, 13,*
19, 21 22:*4, 17*
23:*5, 8, 10* 24:*11*
25:*19* 26:*6* 27:*7*
28:*3, 5* 29:*15, 21*
31:*16* 33:*7* 34:*17*
37:*5* 42:*15, 16*
43:*14* 45:*3, 11*
46:*6* 47:*2, 4, 12, 17*
48:*4* 49:*10* 51:*3, 6*
52:*4* 53:*18* 55:*6*
58:*14, 17, 19, 21*
59:*2, 4, 6* 62:*4*
64:*12* 65:*1, 19*
66:*18* 73:*3, 6* 74:*4,*
11 75:*2* 76:*21*
79:*14* 80:*22* 88:*16*
89:*2, 10* 90:*2* 96:*9*
98:*13, 22* 102:*8*
103:*20* 107:*22*
112:*10* 113:*5*
115:*5, 14* 118:*11,*
13, 15, 18 120:*19,*
22 121:*11, 19*
122:*18* 123:*10*
124:*1, 4, 6, 11, 12*
126:*6* 129:*6* 132:*7*
133:*7, 10* 135:*17*
137:*10, 15, 21*
138:*9, 12, 14* 139:*3,*
7, 9, 12, 16, 19, 20
140:*2, 3, 7, 10, 14,*
16, 18, 20 141:*9*
142:*1, 4, 12* 144:*3*
146:*19* 147:*8*
151:*6, 8* 154:*3, 6,*
15, 21 155:*12*
156:*7, 15* 157:*10,*
15 158:*14, 19*
159:*4, 12, 19* 161:*5*
162:*7* 163:*14*
164:*14* 171:*3*
172:*10* 174:*4*
176:*1* 180:*10*
182:*4* 191:*12*
194:*1, 2, 15* 196:*11*
197:*2* 198:*20*
201:*21* 211:*9*
213:*19* 215:*7*
216:*1, 20* 217:*3*
222:*11* 223:*14*
227:*17* 228:*10*

230:*4* 231:*22*
233:*19* 234:*7*
235:*7* 239:*7, 9*
242:*18* 243:*3, 7, 11,*
17, 21 244:*3* 246:*8*
248:*1* 249:*9*
250:*16* 253:*14*
254:*1, 4* 256:*17*
257:*5* 258:*3*
259:*17* 262:*2*
265:*11* 269:*3, 14*
270:*6* 271:*12*
275:*5* 276:*4, 5, 10,*
13, 16, 21 277:*7, 12*
278:*4, 10, 14*
279:*21, 22* 283:*9*
284:*14* 289:*3, 13,*
20 290:*12, 19*
291:*2, 21* 296:*8*
298:*2* 305:*6* 306:*4*
308:*10* 309:*12*
310:*6*
EPA-HQ-OAR
16:*9* 134:*21*
EPA-HQ-OAR-
2021-0208 1:*7*
EPA-HQ-OAR-
2021-02-08 13:*18*
EPA's 7:*20* 8:*2, 8*
10:*2* 12:*16* 13:*8*
14:*19* 18:*22* 26:*1*
31:*6* 34:*20* 47:*15,*
16 49:*17* 52:*20*
54:*7* 55:*2* 56:*13*
62:*8* 76:*8* 89:*18*
135:*13* 138:*16*
140:*10* 141:*7*
143:*22* 153:*11, 17*
154:*8* 162:*5*
170:*17* 171:*10, 21*
172:*12, 14* 186:*22*
189:*13* 190:*8*
191:*9, 15* 192:*7*
194:*5, 8* 195:*8*
196:*1* 200:*20*
207:*8* 211:*12*
214:*2* 242:*9*
257:*12* 258:*15, 18*
267:*5, 10* 269:*10*
270:*15* 275:*3*
281:*9* 288:*17*
292:*7, 9* 293:*20*
294:*1* 295:*9*
308:*16* 309:*7*
epidemiological
138:*18*
epidemiologist 23:*8*
episode 143:*13*
episodes 264:*14*
EPN 194:*8, 21*
196:*1*

equally-compelling
175:*9*
equilibrium 147:*10*
equipment 89:*15*
equitable 71:*19*
151:*2* 309:*13*
equity 73:*1* 165:*8*
292:*7*
equivalent 57:*20*
199:*8, 9* 209:*6*
ER 26:*4*
erode 28:*13*
erosion 304:*12*
error 91:*5* 139:*8*
147:*17* 289:*22*
errors 139:*4, 6, 7,*
10, 21, 22 140:*1, 12,*
17, 19
escalating 24:*16*
251:*7*
escape 18:*10*
especially 72:*22*
79:*8* 89:*4* 107:*12*
111:*12, 19* 129:*14*
136:*11* 137:*19*
138:*1* 142:*14*
187:*18* 188:*2*
191:*5* 195:*14*
205:*16* 206:*10*
207:*7* 230:*13*
242:*2* 247:*13*
256:*10* 261:*5*
262:*11, 13* 264:*8*
273:*15* 292:*13, 19*
essential 87:*15*
228:*4, 20* 265:*11*
292:*6* 293:*19*
essentially 121:*18*
171:*12* 196:*3*
establish 11:*13*
29:*3* 39:*6* 59:*4*
75:*12* 159:*12*
176:*1, 12* 192:*18*
194:*9* 195:*1* 244:*3*
297:*6*
established 46:*12*
53:*7* 211:*6* 296:*19*
297:*8*
establishes 46:*13*
establishing 48:*5*
80:*1* 94:*16* 167:*4*
estate 108:*17*
estimate 142:*12, 15*
144:*1* 146:*3*
estimated 25:*18,*
20 139:*1* 145:*2*
227:*6* 272:*22*
282:*8*
estimates 19:*4*
144:*3, 9, 13* 146:*1*

148:*9*
estimating 157:*19*
etcetera 197:*13*
222:*8* 285:*14*
e-technology 309:*4*
ethanol 56:*22*
57:*2, 4, 9* 58:*22*
59:*7* 60:*17* 61:*12,*
17 173:*18* 174:*3,*
21 175:*10, 19*
176:*3, 8* 189:*9, 11*
190:*7* 289:*8, 9, 18,*
19 290:*20* 291:*5*
ethanol-based
190:*21*
Ethanol's 57:*8*
ethnic 206:*11*
207:*4*
Europe 54:*3* 153:*8*
European 240:*17*
EV 65:*22* 66:*4, 13*
74:*22* 75:*6, 9* 81:*3*
99:*5* 129:*11*
156:*18* 157:*3*
174:*16* 194:*19*
200:*7* 214:*15*
216:*4* 262:*8, 9*
282:*19*
EVA 197:*11*
evacuate 251:*9*
307:*15*
evacuated 236:*21*
275:*22*
evading 122:*1*
evaluate 140:*16*
Evaluation 51:*8*
EVAN 3:*12* 55:*14,*
15 90:*8, 10*
EVE 5:*16* 226:*5, 8*
evening 247:*5*
311:*3*
event 242:*14*
events 25:*21* 26:*2*
160:*4* 185:*2, 10*
187:*14* 195:*16*
234:*1* 251:*7*
268:*14*
eventually 208:*14*
ever-increasing
236:*15*
everybody 182:*11,*
14 306:*12*
every-day 227:*5*
239:*17*
everyone's 14:*17*
73:*19* 132:*11*
evidence 10:*4*
13:*22* 46:*8* 138:*13*
139:*5* 145:*20*
174:*20*

evidenced 187:*12*
evolve 167:*18*
evolving 13:*9*
EV-only 213:*15*
EVs 66:*15* 75:*21*
99:*9* 112:*16*
155:*17, 21* 156:*1, 3,*
4, 6, 8, 12 175:*5*
215:*1* 239:*20*
240:*10, 22*
exacerbate 50:*16*
232:*11*
exacerbated 253:*9*
267:*22*
exacerbates 219:*1*
exacerbating 24:*20*
exactly 42:*1*
example 99:*5*
106:*14* 239:*19*
293:*11*
examples 187:*15*
exceed 10:*10* 19:*7*
44:*13* 220:*1*
243:*18*
exceeds 127:*12*
excellent 40:*3*
42:*22*
excess 19:*12*
108:*10* 145:*2*
303:*9*
excessive 160:*1*
234:*1* 298:*10*
exclusively 47:*13,*
14 138:*18*
Executive 8:*11, 18*
9:*1, 8* 11:*8* 21:*18*
49:*18* 52:*16* 74:*20*
125:*1* 151:*12*
159:*10* 166:*5*
exercised 50:*1*
exercise-induced
150:*5*
exhaust 114:*15*
232:*9*
exist 140:*2*
existential 87:*15*
119:*4* 120:*19*
existing 47:*6*
54:*18* 62:*22*
146:*15, 20* 156:*20*
160:*18* 195:*11*
210:*16* 278:*5*
290:*9* 291:*5*
294:*19*
exists 211:*7*
expand 14:*6* 55:*6*
112:*5* 195:*11*
expanded 210:*8,*
11 211:*2*
expanding 157:*14*

expansion 172:*17*
216:*4* 226:*21*
expect 13:*19*
expectations 203:*17*
expected 16:*5*
50:*16* 106:*22*
107:*1* 134:*17*
146:*16* 149:*21*
227:*13* 236:*9*
expecting 259:*14*
expedite 240:*10*
expenses 240:*2*
expensive 179:*14*
experience 24:*3*
108:*4* 124:*8*
178:*21* 271:*21*
272:*7* 308:*5*
experienced 69:*5*
99:*20* 184:*21*
185:*9* 227:*10*
253:*9*
experiencing 30:*6*
33:*20* 38:*13*
162:*21* 264:*12*
265:*3* 268:*11*
300:*10*
expertise 121:*14*
experts 138:*12*
140:*15, 19* 275:*14*
expire 156:*10, 22*
expired 215:*10*
explain 103:*3*
explained 175:*6*
explains 145:*8*
exploit 277:*9*
explored 58:*12*
exposed 21:*6*
126:*18* 163:*7*
232:*9* 247:*8* 293:*3*
exposes 63:*19*
exposure 21:*6*
45:*2* 139:*1, 4, 8*
188:*7, 11* 206:*4*
exposures 168:*16*
246:*18* 247:*1, 15*
express 83:*5*
expressed 21:*3*
257:*12*
expressing 192:*16*
extend 145:*14*
extended 107:*1*
extending 11:*16*
156:*21* 215:*10, 17,*
21
extension 215:*20*
extensions 66:*19*
215:*9*
Extensive 88:*6*
extensively 194:*6*

extra 22:*1* 35:*3*
173:*3* 200:*8*
228:*11* 254:*7*
extraction 68:*12*
206:*22*
extractive 68:*11*
128:*10* 129:*14*
extreme 38:*12*
96:*3* 153:*7* 160:*3*
185:*10* 187:*14*
195:*16* 199:*15*
222:*7* 234:*1* 242:*6,*
14 251:*7, 8, 13*
273:*10* 293:*11*
307:*19*
extremely 83:*22*
203:*13* 221:*3*
264:*7*
extremes 180:*18*

< F >
fabulous 282:*4*
face 87:*9* 105:*19*
117:*19* 232:*20*
faced 110:*18*
111:*5* 113:*3, 12*
242:*6*
faces 93:*11*
facilitate 49:*6*
facilitating 14:*14*
facing 30:*10* 96:*5*
100:*3* 218:*14*
fact 10:*9* 94:*10*
106:*14* 108:*4*
111:*20* 121:*11*
141:*15* 153:*18*
154:*6* 163:*2*
164:*18* 167:*7*
168:*20* 195:*10*
205:*20* 272:*1*
factor 206:*5*
factoring 172:*6*
factors 64:*1, 17*
65:*4* 140:*4*
Fahrenheit 236:*12*
fail 277:*2* 297:*7*
failed 138:*13*
156:*12* 203:*13*
failing 17:*14*
72:*12* 102:*1*
105:*10*
fails 141:*7* 166:*15*
190:*8* 191:*20*
275:*5*
failure 62:*4*
138:*22*
fair 125:*13*
faith 36:*22* 37:*3, 9,*
20 217:*17* 307:*1*
309:*11*

faith-based 125:*3*
falling 304:*13*
falls 154:*13*
205:*14* 281:*9*
false 302:*14*
families 45:*5, 18*
96:*2* 102:*15*
127:*14* 181:*1*
184:*16* 185:*13, 17*
239:*18* 253:*21*
261:*11* 262:*13*
271:*1, 17* 273:*9, 11,*
12 307:*14*
family 29:*22*
56:*11* 69:*4* 130:*15*
150:*2, 22* 185:*2*
195:*22* 197:*18*
232:*14* 260:*10*
261:*13* 270:*22*
271:*16* 288:*11*
304:*10, 11, 13*
307:*13*
famous 268:*15*
fan 240:*2*
fans 273:*8*
far 19:*7* 31:*7*
89:*3* 108:*3* 128:*13*
145:*2* 170:*21*
233:*2* 243:*18*
251:*4* 256:*18*
257:*13* 293:*19*
295:*1* 310:*21*
farce 122:*3*
farm 298:*11*
Farmers 6:*16*
60:*13* 219:*13*
271:*8* 288:*10, 11,*
14
farming 122:*9*
farms 56:*11*
fast 181:*14*
faster 35:*3* 203:*21*
227:*13* 237:*8*
fastest 137:*22*
fatal 136:*11*
fatalities 142:*14*
father 126:*22*
127:*1* 251:*17*
father's 127:*7*
favor 65:*1* 176:*11*
219:*21* 263:*13*
fear 232:*20*
feasible 47:*5* 51:*7*
52:*6* 90:*1* 154:*9*
293:*9*
feature 55:*18*
201:*7*
features 255:*13*
February 107:*18*
302:*10*

feckless 123:*3*
148:*16*
federal 8:*18* 10:*2*
25:*5* 45:*4* 48:*14*
49:*14* 50:*15* 51:*15*
69:*9* 76:*11* 84:*11,*
19, 22 86:*12* 88:*18*
89:*20* 90:*20* 93:*14*
95:*1* 98:*22* 102:*9*
103:*21* 163:2, *17*
178:*1* 200:*14*
203:*10* 208:*20*
214:*6* 220:*1*
228:*18* 239:*15*
249:5, *13* 250:*11,*
20 252:*7* 253:*15*
262:2, *10* 265:*12*
267:*11* 271:*13*
274:*9* 280:7, *13*
281:*6* 297:*15*
308:*11*
feed 251:*22*
feel 181:*10* 187:*4*
188:*20* 285:*17*
300:*15*
feet 194:*20*
239:*22* 246:*16, 18*
FEHSENFELD
3:*12* 55:*14* 90:*8,*
10
fell 133:*12*
Fellow 143:*20*
146:*11, 13* 155:*8*
felt 68:*10* 110:*22*
117:*10* 185:*7*
fertilization 144:*12*
fewer 22:*2* 35:*5*
79:*5* 154:*16*
228:*13* 283:*5*
286:*6* 302:*21*
fiancé 260:*12*
field 67:*20* 71:*15*
97:*18* 183:*13*
194:*19* 239:*16*
245:*22* 266:*21*
284:*7*
fight 31:*17* 33:*5*
69:*13* 70:*19* 71:*18*
72:*18* 99:*13* 102:*7*
129:*9* 231:*9* 234:*4,*
6 267:*16* 284:*10*
fighting 43:*9* 45:*7*
68:*1* 219:*3*
figure 252:*14*
filings 89:*19*
FILIPPELLI 2:*14*
39:*18, 21, 22* 42:*19*
filled 223:*20*
filling 298:*12*
filters 273:*8*

final 12:*4* 28:*18*
62:*20* 66:*18*
139:*11* 158:*22*
192:*15* 243:*13*
278:*22* 292:*10*
finalize 18:*12*
19:*17* 24:*11* 26:*6*
33:*7* 34:*17* 35:*13*
48:*4* 74:*4* 83:*18*
85:*17* 86:*21* 96:*9*
100:*14* 118:*11*
151:*6* 158:*19*
159:*19* 161:*3*
171:*4* 207:*12*
222:*11* 242:*19*
246:*8* 248:*2*
269:*15*
finalized 21:*20*
195:*8*
finalizing 28:*4*
162:*12* 188:*14*
290:*18*
finally 59:*6* 61:*22*
62:*19* 173:*3*
176:*10* 196:*1*
211:*9* 216:*1* 241:*6*
financial 26:*4*
80:*20* 112:*18*
121:*3* 185:*12*
find 91:*7* 108:*6*
113:*14*
findings 84:*15*
finds 143:*2*
fine 247:*2*
finished 14:*10*
fire 286:*6* 307:*14,*
15, 16
fires 38:*12* 197:*13*
236:*16* 237:*4*
251:*10* 304:*15*
307:*12*
firmly 256:*21*
first 8:*10* 9:*2*
15:*7* 16:*14* 18:*2*
21:*10* 37:*16* 58:*7*
59:*1* 79:*15* 82:*4*
83:*5* 95:*12* 102:*22*
115:*17* 129:*17*
130:*22* 131:2, *8*
135:*4* 137:*3* 141:*9*
168:*10* 174:*9*
182:*21* 186:*8*
200:*6* 206:*17*
215:*7* 224:*9*
226:*15* 234:*19*
235:*22* 246:*12*
249:*16* 251:*1*
259:*16* 264:*12*
274:*21* 284:*14*
290:*16* 292:*5*
296:*12* 299:*18*

304:*3* 306:*22*
310:*9*
firsthand 256:*8*
267:*4*
fish 271:*5* 305:*4*
fit 112:*5*
five 46:*16, 21*
47:*9* 59:*4* 97:*21*
105:*12* 141:*13, 15*
167:*13* 191:*1*
196:*8* 199:*18*
200:*18* 206:*1*
296:*12* 299:*18*
301:*4*
five-year-old 111:*2*
fix 123:*8* 292:*16*
303:*2*
fixed 139:*11*
flag 242:*7*
flagged 72:*12*
flanked 272:*19*
flash 227:*10*
flee 236:*18*
fleet 39:*7* 48:*22*
51:*21* 52:*3* 57:*1,*
18 58:*18* 62:*12*
172:*2* 190:*18*
194:*14, 16* 210:*13*
216:2, *3, 4* 281:*13*
290:*7*
fleets 51:*11, 14*
flex 57:*22* 59:*3*
flexibilities 215:*8*
216:*21* 276:*20*
277:1, *10*
flexibility 58:*20*
89:*1* 210:*15*
216:*13* 288:*5*
flexible 176:*14*
flood 218:*20* 237:*4*
flooding 24:*22*
30:*2* 50:*6* 153:*8*
185:*4* 227:*11*
236:*16* 251:*13*
253:*10* 255:*9*
275:*18* 276:*2*
floodplains 292:*20*
floods 18:*7* 34:*1*
187:*12* 197:*13*
234:*2* 268:*13*
285:*13*
floors 202:*10*
Florida 91:*22*
92:*13* 217:*14*
218:20, *21* 296:*12*
304:*12*
Florida's 219:*14*
flourish 56:*19*
flouts 146:*3*
flowing 304:*16*
flushed 130:*16*

FLYNN 2:*18*
48:*19, 21*
focus 10:*21* 97:*22*
283:*1* 292:*4*
focused 20:*8*
focuses 49:*12*
foisted 148:*13*
folks 278:*17, 19*
follow 118:*19*
181:*5* 243:*15*
followed 175:*9*
239:*9* 301:*4*
following 31:*22*
45:*12* 215:*7*
240:*12* 241:*19*
foolhardy 111:*11*
football 34:*3*
Foothills 307:*11*
footprint 190:*7*
Force 2:*12* 3:5, *6,*
13, 14, 15 4:7, *22*
5:*18* 6:4, *6, 9, 10,*
11, 12 32:*21* 33:*7,*
11 34:*14* 67:*20*
68:*1* 71:*16* 94:*2*
97:*18* 101:*17, 19*
121:*19* 135:*12, 15*
156:*3* 183:*14*
202:*4* 231:*16, 21*
245:*22* 253:*2*
260:*8* 263:*9*
266:*19, 22* 270:*10*
284:*22* 285:*1*
301:*3*
forced 140:*8*
148:*16* 185:*3*
forceful 129:*4*
Force's 269:*13*
forcible 129:*19*
forcing 145:*13*
Ford 249:*2* 250:*9*
251:*18, 21*
forecast 106:*19*
107:*1* 150:*1*
282:*12*
forefront 51:*18*
285:*2*
foreign 63:*20*
262:*11* 301:*3*
foremost 186:*8*
forest 197:*12*
forever 213:*14*
form 68:*10*
129:*13* 157:*2*
210:*9* 221:*15*
252:*13*
Formal 13:*22*
formation 106:7,
20 168:*16* 169:*6*

former 23:*8* 40:*4*
139:*21* 239:*21*
279:*16* 285:*8*
forms 128:*8*
fort 303:*22*
forth 256:*17*
fortitude 297:*4*
fortunate 281:*15*
Fortunately 127:*3*
221:*5*
forum 12:*20*
forward 11:*19, 21*
12:*5* 22:*18* 59:*10*
62:*14* 69:*8* 75:*20*
82:*1* 85:*18* 89:*9*
124:*4* 132:*12*
133:*16* 156:*16*
158:*15* 188:*14*
192:*20* 216:*19*
217:*3* 222:*15*
256:*22* 299:*10*
forward-looking
107:*19*
fossil 23:*19* 24:*4*
111:*18* 145:*3*
152:*21* 166:*18*
189:*22* 203:*2*
209:*11* 236:*7*
244:*11* 282:*22*
285:*15* 292:*16*
303:*7* 307:*17*
308:*7* 309:2, *6*
found 17:*10, 13*
18:*3* 26:*1* 44:*8*
57:*18* 79:*10* 83:*21*
88:*7* 115:*2* 121:*17*
123:*22* 126:*17*
138:*12* 143:7, *9*
160:9, *19* 222:*1*
235:*14*
Foundation 5:*9*
47:3, *17* 88:*17*
195:*1* 204:*22*
243:8, *15*
foundations 87:*1*
founded 63:*11*
205:*1* 288:*13*
founding 189:*18*
four 17:*11* 57:*21*
59:*2* 68:*4* 75:*7*
77:*13, 20* 125:*14*
144:*19* 230:*17*
263:*19, 21*
fracking 179:*13*
fraction 292:*17*
frames 218:*5*
Framework 51:*11*
55:*10* 88:*15, 19*
141:*12, 13* 142:*3*
154:*11* 215:*2*

FRANCISCO 6:*14*
279:*12*, *15*
free 64:*4* 273:*7*
300:*15* 303:*7*
freedom 221:*17*
freeway 44:*18*
272:*9*
freeways 195:*17*
freight 85:*1*
French 185:*3*
frequency 25:*3*
frequent 185:*2*
frequently 73:*3*
136:*7*
freshwater 275:*10*
298:*9*
Fresno 256:*3*
friends 29:*22*
95:*13* 184:*21*
237:*2* 256:*9*
Frisbees 95:*16*
front 20:*21* 30:*1*
38:*21* 73:*4* 98:*4*, *9*,
11 99:*18*
frontline 211:*5*
fronts 206:*17*
207:*3*
froze 92:*16*
frustrating 123:*2*
fudged 143:*12*
fuel 20:*17* 23:*19*
45:*11* 48:*1* 56:*12*,
21 57:*3*, *22* 58:*8*
59:*3*, *10* 60:*19*
61:*8* 62:*13* 65:*7*
80:*4*, *13*, *14*, *21*
87:*19* 90:*17* 92:*4*,
16, *19* 93:*2*, *14*
109:*21* 114:*21*
126:*6* 127:*11*
145:*3* 152:*21*
167:*22* 173:*5*, *20*
174:*1*, *21* 176:*2*, *4*,
14 188:*15* 189:*19*,
22 190:*10*, *16*, *22*
191:*13* 192:*1*, *4*, *8*,
17 195:*18* 197:*19*
200:*3* 209:*7*, *10*, *12*,
13, *14*, *15*, *17*
210:*17*, *18* 219:*10*
222:*15* 224:*18*
225:*3* 227:*22*
236:*7* 244:*11*
277:*5* 280:*2*
285:*15* 290:*5*, *21*
291:*7* 293:*20*
294:*3* 299:*2* 303:*7*
308:*7* 309:*2*
fuel-based 111:*18*
fuel-burning
166:*18* 203:*2*

fuel-efficient 65:*12*
80:*19* 115:*1*
122:*12*, *16*
fueling 24:*16*
125:*7*
Fuels 5:*3* 24:*4*
56:*16*, *17* 58:*4*, *7*,
20 60:*13*, *14*, *17*
61:*6*, *11* 62:*5*, *18*,
22 105:*18* 174:*15*,
18 175:*7* 176:*9*
189:*8*, *11*, *21* 190:*5*,
9, *16*, *22* 191:*6*, *22*
192:*5*, *10* 208:*13*
282:*22* 289:*7*, *15*,
21 290:*11*, *13*
292:*16* 307:*17*
fuel-saving 278:*7*
full 16:*8* 53:*2*
112:*1*, *8* 134:*20*
175:*17* 242:*5*
244:*5* 270:*11*
297:*15*
full-sized 157:*4*
fully 76:*1*, *10*
106:*5* 186:*21*
188:*13* 209:*7*
289:*6* 296:*7*
fully-leased 128:*10*
Fulton 72:*3*, *6*, *11*
function 127:*5*
199:*13*
fund 94:*18*
Fundamentally
180:*13*
funds 111:*17*
further 15:*3* 24:*7*
29:*2* 47:*17* 54:*9*
87:*6* 109:*21*
154:*16* 161:*5*
172:*10* 187:*5*
257:*5*, *9* 269:*4*
280:*2*
Furthermore 84:*7*
156:*15* 171:*15*
Future 3:*4* 11:*18*
25:*4* 26:*9* 30:*3*
33:*16* 34:*13* 35:*15*
38:*11* 48:*16* 53:*11*
57:*1*, *15* 59:*5*
61:*16* 69:*3* 70:*15*
73:*16* 77:*4* 78:*20*
85:*5*, *12*, *18* 89:*13*
96:*8* 109:*8* 111:*3*
113:*4*, *10* 124:*10*
128:*6* 129:*5*, *17*
130:*8*, *10* 151:*5*
154:*1* 159:*6*, *20*
160:*7* 161:*12*
162:*6*, *13* 165:*10*
175:*15* 178:*11*

180:*14* 183:*12*
184:*3* 185:*21*
192:*9*, *18* 195:*11*
196:*11* 203:*21*
217:*20* 219:*6*
227:*2* 228:*21*
233:*22* 246:*11*
253:*20* 271:*11*
274:*1* 296:*22*
308:*7*, *8*, *9*
futures 248:*4*

< G >
GABRIAL 2:*14*
Gabriel 39:*18*, *21*
GAGE 5:*11* 208:*6*,
9
Gainesville 296:*11*
gaining 294:*20*
gains 191:*4* 192:*8*
216:*15* 281:*1*
GALLAGHER 6:*5*
248:*7*, *10*, *15*, *17*, *19*
250:*3* 252:*12*, *14*,
17
GALLGHER
249:*21*
gallon 173:*6*
179:*4* 251:*2*, *5*
296:*13*, *15*
gallons 174:*18*
175:*18*
games 232:*13*
233:*3* 247:*6* 273:*4*
garage 282:*18*
GARCIA 2:*10*
26:*12*, *15*, *17*
Gary 251:*9*
GAS 1:*6* 7:*8*
8:*21* 9:*6*, *11*, *19*
10:*6*, *14* 11:*14*
12:*17* 17:*17* 18:*6*
20:*19* 22:*2* 23:*20*
28:*8* 33:*8* 35:*5*
38:*17* 39:*8* 46:*7*
53:*16*, *22* 54:*8*
55:*4* 56:*22* 61:*13*
62:*9* 64:*22* 66:*20*
73:*21* 84:*6* 85:*7*,
19 86:*10*, *20* 87:*14*
89:*22* 92:*4*, *10*
95:*1* 96:*10* 98:*15*,
20 100:*15* 102:*9*
107:*17* 114:*6*
115:*4*, *7* 118:*7*, *17*
125:*11*, *16* 126:*9*
133:*4* 135:*20*
144:*4* 150:*16*
154:*11* 158:*16*
160:*5* 161:*2*
162:*18* 164:*9*

166:*3* 168:*15*
170:*19* 174:*5*, *12*
175:*11*, *20* 176:*8*
177:*20* 183:*19*
186:*19*, *22* 188:*15*
189:*20* 190:*3*, *11*,
17 191:*2* 200:*1*, *10*,
16 205:*4* 208:*10*,
14 209:*1*, *9*, *11*, *15*,
17 210:*7*, *8*, *14*
213:*20* 214:*7*
222:*3*, *13*, *15*
223:*17* 228:*8*, *13*
230:*12*, *13*, *22*
231:*6* 240:*2*
241:*20* 242:*18*
246:*9* 254:*9* 257:*2*
258:*20* 260:*18*
263:*15* 267:*11*
276:*7* 277:*8* 280:*1*,
18 288:*18* 289:*1*, *5*
292:*5*
gaseous 208:*13*
gases 61:*9* 79:*3*
105:*22* 114:*21*
144:*1* 160:*13*
165:*5* 197:*5* 247:*2*
253:*11* 255:*8*
257:*17* 268:*8*
275:*3*
gas-guzzling 31:*11*
277:*10*
Gas-Induced
146:*22* 147:*4*
gasoline 10:*13*
57:*6* 61:*18* 114:*16*
118:*8* 150:*17*
175:*12* 195:*21*
200:*9* 219:*10*
251:*2*, *5* 268:*21*
277:*1*
gasoline-powered
114:*21* 175:*21*
237:*12*
gasping 297:*18*
gas-powered
177:*17*
gasps 232:*21*
Gateway 270:*13*
gateways 239:*17*
geared 195:*7*
gender 298:*16*
gender-based 126:*1*
General 8:*9* 94:*14*
141:*6* 149:*14*
251:*20*
generally 108:*14*
117:*9* 203:*7*
generate 79:*5*
generated 174:*8*

177:*18*
generates 308:*17*
generation 30:*4*
76:*16* 85:*13* 111:*4*
156:*12* 282:*13*
generations 30:*7*
77:*4* 113:*17*
121:*19* 128:*6*
129:*5*, *17* 130:*10*
183:*12* 218:*2*
256:*21*
generation's 70:*15*
genocide 68:*5*
gentlemen 298:*16*
GEOFF 5:*3* 189:*2*,
7
GEORGE 4:*21*
92:*17* 116:*19*
179:*21* 180:*4*
Georgia 71:*15*, *17*
Georgian 73:*7*
Georgians 73:*9*
Georgia's 74:*3*
germane 192:*14*
getting 99:*17*
203:*20* 211:*4*
221:*11* 223:*21*
237:*6* 286:*4*, *7*, *8*
304:*4*
GHG 50:*11* 51:*2*,
13, *16* 52:*3*, *5* 57:*4*,
14, *19* 58:*1* 111:*14*
113:*8* 194:*12*
196:*2* 208:*16*
211:*9* 289:*10*, *17*
290:*10*, *14*
GHGs 50:*8*
Gibsonia 246:*4*
gift 38:*3*
girl 137:*5*
give 14:*18* 58:*20*
88:*16* 120:*15*
224:*3* 267:*10*
273:*7* 286:*17*
give-away 157:*5*
173:*1*
give-aways 22:*12*
227:*19*
given 38:*2* 39:*2*
75:*3* 109:*14* 148:*2*
154:*9* 174:*1*
214:*22* 242:*17*
277:*3* 294:*9*
giving 90:*11*
110:*15* 173:*3*
267:*9*
Glacier 255:*14*
glaciers 255:*13*
298:*8*
glad 102:*8* 304:*8*

glitch 114:*3, 4, 7, 8*
115:*3* 174:*19*
175:*13* 253:*20*
global 40:*14* 42:*3,*
11 44:*1* 63:*18*
64:*13* 73:*17* 80:*5,*
7 125:*8* 146:*15*
147:*11, 18* 184:*5*
218:*19* 224:*9*
226:*20* 235:*19*
236:*9, 11* 239:*14*
240:*6* 241:*7* 294:*9*
298:*5* 307:*21*
globally 54:*14*
globe 153:*7* 160:*2*
GM 111:*11*
go 7:*3* 15:*9* 29:*2,*
19 31:*7* 32:*13*
35:*8* 75:*11* 82:*11*
133:*20* 170:*20*
177:*7, 17, 21*
178:*18* 228:*17*
236:*16* 242:*20*
243:*8* 256:*18*
257:*9, 13* 269:*4*
282:*5* 285:*1* 289:*7*
293:*17* 298:*16, 17*
305:*1, 2*
goal 35:*10* 48:*6*
53:*9* 76:*9* 113:*8*
135:*19* 145:*9*
159:*17* 167:*16*
172:*3* 175:*6, 16*
190:*2* 194:*14*
208:*15* 211:*4*
228:*8* 292:*3*
goals 9:*4, 6* 54:*22*
60:*22* 78:*19* 79:*1*
80:*20* 81:*2* 99:*3*
104:*1* 112:*13*
154:*2* 158:*3*
167:*17* 214:*21*
215:*4* 253:*18*
256:*19* 265:*14*
271:*15* 292:*7*
295:*10*
God 37:*15, 22*
38:*2* 39:*3, 15*
goes 66:*22* 147:*22*
187:*15*
going 40:*3* 65:*6*
76:*6* 90:*15* 112:*11*
124:*3* 130:*17*
179:*12, 13* 186:*16*
221:*19* 230:*19*
232:*19* 238:*20*
287:*21* 297:*20*
298:*19* 304:*7, 11*
305:*20* 306:*8*
Good 7:*5, 13*
16:*17* 20:*2* 23:*4*

26:*17* 32:*8, 20*
39:*16* 46:*2* 48:*21*
52:*15* 60:*9* 63:*7*
71:*14* 74:*19* 78:*5*
82:*21* 83:*12* 86:*5*
104:*15* 105:*5*
116:*7* 128:*4*
148:*22* 152:*15*
155:*6* 156:*11*
158:*10* 173:*16*
179:*10, 19* 180:*3*
186:*5* 189:*5* 207:*9*
239:*4* 257:*8* 260:*5*
263:*7* 271:*20*
291:*14* 296:*3*
303:*21* 310:*16*
311:*3*
good-paying 77:*2*
Gospel 37:*12*
Government 48:*14*
73:*8* 76:*11* 84:*11,*
19, 22 91:*8, 10*
92:*19* 93:*9, 11*
113:*2* 123:*8*
203:*10* 262:*10*
273:*7* 280:*8, 13*
governments 48:*15*
219:*3*
government's
294:*12*
Governor 302:*12*
Governors 48:*8*
Gracias 265:*16*
grade 72:*12* 95:*12*
grades 17:*15*
102:*1* 105:*10*
267:*19*
gradually 111:*8*
graduate 198:*22*
gram 278:*12*
grams 154:*5*
171:*7, 21* 173:*3*
209:*5* 215:*14*
276:*14* 294:*16*
grandchildren
38:*10* 165:*21, 22*
166:*9* 178:*10*
180:*14* 181:*5*
296:*20* 298:*4*
303:*8*
grandkids 166:*13,*
17
grandson 111:*2*
grant 38:*19* 39:*15*
94:*18*
graphs 230:*11*
grasp 268:*21*
grassroots 29:*13*
288:*10*
grateful 149:*4*
270:*5*

grave 87:*11*
217:*22*
greases 298:*19*
Great 77:*22*
115:*20* 137:*10*
151:*1* 197:*19*
259:*20* 275:*9, 15,*
20 277:*16* 302:*2*
304:*5* 306:*3*
greater 58:*1*
108:*3* 141:*21*
142:*11* 171:*11*
174:*20* 180:*11*
201:*22* 211:*13*
224:*3* 225:*3*
230:*17* 243:*16*
249:*10* 250:*17*
289:*10*
greatest 37:*14, 16*
43:*22* 127:*4* 138:*9*
226:*19* 235:*18*
255:*4* 309:*9*
greatly 172:*13*
208:*18* 214:*2*
greed 157:*13*
green 56:*10*
291:*16, 18*
GREENHOUSE
1:*6* 7:*8* 8:*21* 9:*6,*
11, 19 10:*6, 14*
11:*14* 12:*17* 18:*6*
20:*18* 22:*2* 33:*8*
35:*5* 38:*17* 39:*8*
46:*7* 53:*16, 22*
54:*8* 55:*4* 56:*22*
61:*9, 13* 62:*9*
64:*22* 66:*20* 73:*20*
79:*3* 84:*6* 85:*7, 19*
86:*10, 19* 87:*2, 14*
89:*22* 95:*1* 96:*10*
98:*20* 100:*15*
102:*9* 105:*22*
107:*16* 108:*10*
114:*5* 115:*3, 7*
118:*7, 17* 125:*11,*
16 126:*9* 133:*4*
135:*20* 144:*1, 4*
146:*22* 147:*3*
150:*16* 154:*11*
158:*16* 160:*5, 13*
161:*2* 162:*18*
164:*9* 165:*4* 166:*3*
168:*14* 170:*19*
174:*5, 12, 22* 175:*8,*
11, 20 176:*7*
183:*19* 186:*19, 22*
188:*15* 189:*20*
190:*3, 11, 17* 191:*1*
197:*5* 200:*1* 205:*4*
213:*20* 214:*7*
222:*3, 13, 15*

223:*17* 228:*8, 13*
230:*12, 13, 22*
231:*6* 241:*20*
242:*18* 246:*9*
253:*10* 254:*9*
255:*8* 257:*2, 17*
258:*19* 260:*18*
262:*19* 263:*15*
267:*11* 268:*8*
275:*3* 276:*7* 280:*1,*
18 288:*18* 289:*1, 5*
292:*5* 302:*16*
GreenLatinos 2:*15*
43:*7*
Greetings 258:*14*
GREG 4:*14* 155:*3,*
8
GREGORY 6:*18*
204:*8* 295:*22*
296:*4*
Greta 286:*11*
grew 53:*20* 94:*6*
97:*19* 250:*5* 261:*7*
grid 174:*6*
grim 73:*15* 184:*2*
grocery 282:*5*
ground 66:*11*
98:*12* 99:*16*
179:*11* 232:*4*
267:*17, 22* 268:*4, 8*
groundwater
298:*10*
Group 144:*7*
175:*3* 193:*22*
206:*3* 234:*17*
270:*12* 301:*6*
groups 28:*22*
105:*14* 136:*19*
149:*22* 150:*2*
205:*17* 226:*11*
grow 56:*10*
Growers 60:*15*
growing 30:*4*
89:*16* 95:*10*
150:*13* 177:*6*
244:*7* 253:*8* 264:*2*
grown 126:*13*
Growth 3:*2* 56:*6,*
7 58:*6* 79:*6*
171:*16* 185:*5*
275:*19* 281:*13*
guess 249:*21*
guidance 9:*3*
39:*16*
guide 48:*9*
guidelines 182:*5*
gutted 297:*9*
guzzlers 28:*9*
guzzling 277:*8*

< H >
habitat 264:*5*
haggling 123:*3*
Hague 308:*1*
HAINES 3:*18*
107:*8, 11, 13*
half 38:*8* 61:*1*
77:*18* 91:*17* 148:*5*
153:*9* 166:*2* 258:*5*
hand 55:*18* 82:*7,*
9 97:*2, 3, 11* 104:*7,*
9 120:*5, 7* 131:*11,*
13, 17, 19 132:*2, 3*
143:*13* 201:*7, 8*
204:*11, 12* 208:*1, 2*
212:*15, 17, 22*
213:*3* 223:*2, 4*
225:*12, 13, 21, 22*
238:*5, 11, 13*
265:*21* 266:*1, 9, 10*
269:*22* 270:*1*
279:*6* 284:*4*
287:*20, 21* 295:*17,*
18 299:*19, 21*
300:*15, 17* 306:*18*
310:*2, 14*
handful 105:*8*
hand-in-hand
289:*7*
handout 156:*22*
hanging 122:*18*
happen 66:*12*
112:*9* 113:*14*
118:*1*
happened 80:*13*
happening 108:*18*
168:*22* 264:*4*
happens 272:*5, 18*
happy 19:*19*
55:*12* 116:*16*
238:*6* 239:*21*
hard 34:*12* 95:*21*
117:*11* 136:*3*
202:*19* 205:*12*
231:*7* 261:*11*
276:*19* 304:*22*
305:*18*
harder 112:*17*
209:*21*
hardware 273:*6*
harm 34:*12* 50:*14*
129:*13* 130:*1*
172:*13*
harmed 21:*6*
130:*2* 131:*2*
harmful 20:*15*
23:*9* 25:*2* 27:*17*
72:*9* 208:*18*
243:*16* 267:*5*
275:*15*

Trustpoint.One | Alderson.
www.trustpoint.one
www.aldersonreporting.com
800.FOR.DEPO
(800.367.3376)

harming 61:*19* 217:*20*

harms 26:2 61:*20* 162:*10* 231:*19* 232:2 255:*21*

HARNED 4:*14* 155:*3, 6, 8*

HARTO 4:*18* 170:*10, 13, 15*

Harvard 175:*10* 188:*10*

Hase 225:*18*

haste 207:*12, 13*

hastening 301:*18*

hate 222:*8*

HAUPTMAN 5:*18* 97:*8* 131:*16* 231:*12, 15, 17*

havoc 130:*5*

Hawaii 239:*5*

hazardous 44:*12* 163:*9* 242:*10*

hazards 25:2, *4, 7*

haze 202:*14* 255:*18* 264:*19*

hazy 264:*10* 271:*4*

head 147:*15*

headline 218:*21*

Health 5:2 8:*13, 20* 9:*5* 10:*16* 16:*22* 18:2, *14* 19:*9, 15* 20:*3, 7, 9, 13* 21:2 22:*20* 23:*10, 11, 12* 24:*16* 25:*10, 21* 26:2 27:*6* 28:*3* 33:*16* 34:*12* 35:*15* 38:*17* 40:2, *5* 41:*20* 43:*11* 47:*20* 50:*4, 14* 61:*19* 62:*6* 68:*1, 9, 22* 69:*3, 18, 19, 22* 70:*17* 72:*10* 73:*1, 12, 19* 79:*22* 80:*3* 83:*16, 17* 84:*3* 85:*8, 12, 17* 87:*11* 89:*7* 91:*12* 95:*3* 96:*8* 98:*1* 102:*15, 20* 103:*20* 104:*18* 105:*5* 116:*19, 22* 118:*14* 126:*11* 127:*14* 129:2 135:*12, 13* 136:*15, 20* 137:*11, 12, 15, 20* 138:*1* 141:*18* 149:*5* 150:*7* 151:*3, 13* 158:*12, 20* 159:2, *5* 160:*16, 21* 161:*4, 22* 162:*9, 10, 17, 19* 163:*6, 11, 12, 15, 18, 20* 164:*1, 2, 3, 4, 7,*

14, 17, 20, 21 165:2, *5, 8* 180:*17* 185:*5, 21* 186:*12, 13, 20, 21* 187:*17, 22* 188:*13, 18* 190:*1* 194:2 195:*13* 206:*15* 207:*13, 15* 220:*22* 231:*19* 242:*1, 16* 243:*17, 20* 244:*12* 246:2, *10* 248:*4* 253:*7* 255:*21* 256:*9* 268:*18* 270:*7* 275:*4* 280:*5* 281:*1, 14* 283:*6* 285:*4* 286:*16* 292:*11, 22* 293:*3* 295:*6*

healthier 22:*16* 26:*9* 160:*7* 161:*12* 177:*22* 244:*9*

health-protective 19:*14* 159:*9*

health-related 25:*13*

Healthy 2:8 22:*17* 23:*16* 68:2 71:*8* 83:2 161:*19* 186:*15* 188:*21* 226:*12* 247:*21* 305:*22* 306:*12*

hear 12:2 13:*10* 31:*12* 33:*10* 67:*11* 77:*8* 82:*18* 93:*21* 102:*8* 115:*15, 19, 20* 123:*19, 20* 124:*5, 19, 20* 131:*6* 132:*13* 163:*3, 6, 10* 235:*1* 245:*17, 18* 249:*18* 260:*3*

heard 13:*6* 31:*12* 33:*17* 162:*4, 7* 224:*6* 304:*5, 6*

HEARING 1:*4* 7:*7, 16, 18* 8:*5, 6* 9:*22* 12:*3, 9, 12, 14, 18, 19* 13:*4, 7, 16, 19, 21* 14:*22* 15:*4, 7, 10* 23:*6* 39:*14* 104:*15* 110:*7* 132:*17, 18* 133:*3, 9, 16, 20* 135:*16* 258:*18* 267:*8* 274:*15* 291:*20* 309:*20* 310:*6, 17* 311:*2*

hearings 74:*14*

heart 37:*15* 69:*20* 105:*15* 130:*4* 136:*22* 150:*4* 188:*5* 260:*15*

304:*20* 305:*12*

heartened 291:*21*

hearts 232:*8* 305:*11*

heat 24:*20* 30:*1* 33:*22* 34:*5, 10* 38:*11* 50:*6* 70:*3* 96:*3* 102:*14, 16* 103:*1, 2* 107:*1* 108:*10, 13* 136:*8, 11* 153:*8* 160:*1* 187:*14* 199:*18* 227:*9* 234:*2* 236:*14* 242:*6* 251:*8* 255:*8* 261:*10, 17, 20* 264:*19* 268:*12* 273:*10* 293:*11, 13*

heater 178:*16, 19*

heat-related 95:*22* 136:*10, 12* 271:*5*

heats 261:*15*

heavier 142:*19*

heavily 126:*20, 21* 157:*7* 210:*22*

heavily-congested 246:*20*

heavy 68:*20* 94:*18* 162:*14* 246:*16* 268:*14* 272:*10*

heavy-duty 85:*19* 92:*5* 118:*21* 160:*10* 161:*7* 244:*7*

hegemony 284:*21*

held 113:*15* 140:*10*

hello 29:*9* 39:*21* 67:*10* 82:*18* 93:*21* 120:*14* 124:*22* 135:*8* 138:*7* 141:*5* 152:*15* 165:*16* 226:*8* 234:*22* 235:2 245:*17, 20* 252:*22*

help 7:*17* 26:*8* 35:*14* 45:*14* 60:*21* 80:2 99:*15* 115:*6* 129:*11* 165:*22* 166:*8, 14* 215:*4* 237:*16, 17* 246:*22* 248:*3* 273:*12* 285:2, *3* 305:*14* 306:*4, 5*

helped 88:*15* 128:*21* 224:*16* 283:*11*

helpful 77:*16*

helping 14:*14* 56:*9* 159:*22*

helpless 285:*17*

helps 114:*12*

HENDERSHOT 2:*13* 36:*13, 16, 17*

Herald 219:*16*

hereditary 304:*20*

Hescox 295:*13*

HEWES 3:*15*

Hi 20:2 97:*17* 110:*12* 161:*18* 178:*8* 186:*5* 198:*17* 208:*9* 229:*22* 231:*15* 274:*8*

Hidalgo 222:*21*

High 3:*3* 24:*1* 57:*13* 58:*9* 60:*11, 16* 61:*12* 65:*14* 91:*10* 98:*8* 105:*12* 114:*10* 162:2 177:*11* 189:*17* 190:*21* 191:*15* 195:*16* 202:*8* 205:*17* 232:*5* 240:*1* 247:*9* 261:*10, 15* 264:*8* 268:2 284:*6* 285:*12* 286:*13* 289:*20* 290:*10*

high-compression 58:*11* 191:*11, 12, 21* 192:*3*

high-end 145:*13*

higher 25:*18* 55:*3* 58:*7, 20* 60:*17* 61:*17* 62:*21* 80:2 174:*3* 198:*10* 199:*5* 203:*18* 224:*8* 233:*7* 237:*19* 240:*5* 289:*9, 18* 292:*8* 293:*22* 294:*6* 309:*2*

higher-octane 176:*15* 191:*22* 291:*4*

higher-octane/low 62:*17*

higher-octane/low-carbon 62:*5*

highest 184:*14* 198:*6* 206:*2* 219:*22* 246:*17* 262:*11* 267:*17* 293:*6, 15*

highlight 162:*16*

high-octane 58:*22* 62:*13* 192:*4, 5, 10, 17* 289:*7* 290:*5*

high-octane/low-carbon 58:*4, 16*

61:*11* 190:*15* 289:*14* 290:*13, 21*

highway 106:*3* 142:*19* 289:*15*

highways 69:*17* 136:2 206:*18* 223:*20*

hill 282:*7*

hire 285:*1*

hired 284:*16*

Hispanic 205:*15*

historic 8:*15* 68:*8* 173:*8*

historical 34:*7*

history 99:*21* 123:*12* 137:*3* 143:*4* 260:*22* 284:*9* 297:*20*

hit 77:*12* 96:*17* 125:*21* 236:*9*

hits 154:*3*

hitting 103:*2*

hobby 202:*7*

HOCHBERG 4:*13* 152:*12, 15, 16*

hold 118:*15* 141:*22* 221:*2* 262:*7, 10* 280:*13* 286:*12* 301:*12*

holding 13:*7* 39:*14* 166:*10* 267:*8*

hole 286:*7*

home 41:*15* 105:*8* 127:*4* 185:*5* 197:*6, 7* 199:*16* 218:*20* 233:*3* 236:*19, 21, 22* 240:*9* 247:*20* 251:*10* 282:*7* 284:*2* 307:*13*

homelands 127:*21* 128:*2*

homes 182:*12* 237:2 242:*12* 273:*8* 293:2 298:*9*

Homestead 219:*13*

Honda 296:*11*

Honestly 128:*17* 129:*19* 130:*17*

honesty 129:*7*

hope 99:*16* 119:*4* 143:*13* 188:*20* 222:*14* 252:*1* 286:*10* 306:*11*

hopeful 307:*6*

horrific 263:*18*

horrors 41:*1*

horsepower 173:6, *7*

hospital 177:*7* 187:*21* 304:*19*

left 54:*1* 282:*8*
left-hand 245:*14*
legacy 240:*4*
legal 89:*19* 155:*8*
196:*6* 274:*12*
legislating 241:*3*
legislation 94:*15*
297:*15* 299:*9*
Legislative 274:*9*
281:*22*
legislature 107:*18*
282:*9*
length 16:*9* 134:*21*
lenient 142:*3*
less-efficient 308:*12*
lessen 246:*22*
lest 106:*12*
lethal 18:*10* 143:*6*
letter 163:*14* 164:*5*
letters 274:*17*
letting 179:*19*
level 13:*2* 44:*14*
50:*6* 76:*20* 85:*6*
98:*12* 99:*16* 117:*5,
6* 141:*13* 145:*16*
171:*17* 194:*18*
219:*3, 14* 239:*16*
243:*22* 255:*9*
267:*18, 22* 268:*4*
levels 17:*12* 23:*22*
24:*21* 34:*17* 39:*5*
45:*9* 50:*17* 69:*6*
98:*8* 105:*12*
121:*16* 142:*7*
195:*17* 244:*1*
267:*5* 268:*14*
285:*14* 289:*9*
291:*4*
leveraged 181:*10*
levers 243:*5*
LEVIN 3:*7* 74:*16,
19* 77:*7, 9, 17*
LEVISON 5:*15*
223:*7, 10, 11*
LEWIS 4:*10*
143:*17, 19*
Lexus 239:*21*
Liaison 217:*13*
LIANE 3:*11* 82:*5*
86:*2, 5*
license 281:*19*
lick 231:*8*
lie 245:*6*
life 48:*1* 66:*19*
87:*12* 95:*13*
108:*13* 113:*18*
127:*7* 129:*2*
130:*14* 176:*7*
177:*4, 12, 15*
199:*14* 221:*7, 13*
251:*18* 253:*5*

264:*13* 271:*10*
308:*4*
lifeblood 63:*15*
life-cycle 191:*1*
lifetime 108:*12*
111:*1* 200:*17*
215:*10* 224:*10*
247:*16*
lifetimes 156:*21*
Light 2:*4, 13* 9:*21*
11:*14* 22:*5* 35:*14*
36:*18* 37:*8* 41:*16*
61:*13* 62:*11* 74:*6*
85:*19* 86:*9* 89:*11*
95:*2* 96:*11* 98:*21*
100:*16* 102:*10*
118:*20* 121:*9*
122:*4* 124:*11*
135:*19* 151:*9*
159:*13* 160:*6, 10*
162:*13* 183:*18*
187:*1, 6* 188:*16*
194:*11* 205:*5*
213:*19* 222:*16*
248:*3* 254:*3*
262:*20* 267:*12*
269:*12* 276:*5*
277:*5* 307:*2*
LIGHT-DUTY 1:*6*
7:*8, 22* 9:*10* 11:*6*
12:*16* 26:*6* 33:*9*
39:*7, 10* 41:*17*
45:*17* 49:*14* 50:*8,
12* 51:*19, 21* 52:*6*
54:*8* 105:*21* 113:*9*
115:*9* 133:*4*
158:*16* 161:*2, 6*
170:*19* 173:*19*
174:*13* 190:*17*
191:*7* 208:*16*
228:*17* 241:*20*
244:*5* 246:*9, 20*
252:*5* 255:*3*
258:*19* 263:*14*
280:*2, 22* 283:*5*
288:*17* 290:*3, 14*
293:*7* 296:*18*
298:*2*
lighter 142:*20*
lightly 267:*7*
lights 230:*14*
282:*6*
likelihood 24:*8*
143:*8*
Likewise 157:*4*
LILLA 5:*12*
LIMAYE 2:*9*
23:*1, 4*
limit 14:*9* 16:*6*
24:*7* 74:*6* 134:*18*

150:*6* 172:*13*
254:*2* 269:*11*
limitations 196:*12*
limited 159:*8*
196:*9* 218:*8*
limiting 125:*8*
172:*11* 265:*10*
limits 14:*3* 35:*14*
43:*15* 108:*12*
156:*9* 196:*6*
226:*17* 235:*8*
248:*3* 255:*17*
269:*4*
Lincoln 251:*1, 3*
line 22:*9* 38:*21*
64:*21* 73:*4* 76:*9*
85:*3* 162:*20*
167:*16* 214:*13, 15*
228:*7* 276:*21*
lined 272:*3*
lines 20:*21* 30:*1*
line-up 14:*14*
link 188:*11*
277:*22* 310:*18*
linked 276:*2*
liquid 56:*16* 57:*3*
61:*6* 173:*20*
174:*15, 18, 20*
175:*7* 190:*16*
191:*6*
list 14:*19* 55:*14,
15, 22* 82:*4, 5, 12*
96:*21, 22* 97:*7, 9,
13* 104:*4, 5, 12*
120:*2, 3, 10* 123:*16*
131:*8, 10, 15, 22*
187:*15* 201:*3, 4*
204:*9* 208:*5*
212:*12, 19* 213:*6*
221:*10* 225:*17*
238:*5* 241:*19*
265:*19* 266:*4, 14*
277:*20* 279:*4*
310:*2*
listed 55:*17* 96:*22*
97:*8* 98:*12* 104:*5*
137:*4* 201:*4*
207:*20* 212:*13, 20*
222:*22* 225:*10, 19*
238:*21* 265:*19*
266:*6* 269:*19*
279:*4* 287:*18*
295:*14*
listened 301:*18*
literally 44:*14*
103:*12* 121:*4*
lithium 262:*8, 16*
299:*3*
little 40:*5* 65:*13*
77:*17* 130:*8*
141:*16* 203:*6*

219:*20* 248:*13*
249:*20* 272:*7*
277:*11* 296:*16*
livability 70:*16*
livable 31:*18*
165:*21* 227:*2*
228:*21*
live 17:*11, 14, 16*
29:*14* 34:*4* 44:*10,
12, 18* 67:*16* 73:*22*
87:*12, 20* 94:*5*
128:*7, 12* 136:*18*
150:*10* 177:*22*
183:*15* 196:*20*
221:*13* 227:*8*
230:*4* 231:*17*
246:*4* 263:*7*
270:*10* 282:*17*
292:*20*
lived 71:*22*
126:*14* 177:*4*
253:*5*
liver 304:*21*
305:*11, 13*
lives 70:*6* 84:*4*
85:*8* 121:*4* 161:*21*
173:*9* 187:*17*
197:*14* 227:*7*
242:*12* 260:*9*
271:*9* 292:*1*
304:*10*
living 29:*18* 33:*18*
37:*22* 70:*2* 127:*8,
9* 137:*7* 149:*1*
187:*20* 232:*4*
256:*3, 11* 268:*5, 12*
270:*18* 282:*15*
307:*11*
Livingston 271:*18*
272:*8*
LIZ 4:*15* 158:*6, 10*
lobby 122:*22*
lobbyists 285:*1*
local 163:*20*
164:*16* 185:*1*
219:*2, 12* 271:*22*
273:*6, 12*
locally 40:*17*
268:*19*
located 53:*6*
69:*17* 98:*4* 246:*4,
15* 247:*7*
locations 283:*10*
lock 196:*4*
lockdown 41:*15*
locked 38:*10*
locks 32:*9*
lofty 239:*14*
logic 148:*6*
Logistics 7:*2*

15:*10* 133:*21*
London 137:*8*
Long 68:*6* 92:*4,
10* 94:*7* 197:*19*
219:*7* 236:*7*
241:*19*
longer 11:*5* 76:*1*
102:*13* 106:*11*
112:*10* 145:*19*
166:*20* 177:*19*
209:*21* 215:*18*
257:*21* 261:*22*
286:*5* 297:*21*
306:*10*
longer-term 11:*18*
62:*10* 154:*1*
long-hauler 260:*14*
longstanding 86:*14*
long-term 54:*11*
64:*17* 184:*19*
188:*11* 196:*10*
299:*3*
long-time 286:*16*
look 11:*19, 21*
12:*5* 22:*10* 42:*3*
59:*10* 62:*14* 89:*8*
111:*1* 117:*1*
121:*11* 128:*5*
130:*13* 181:*22*
192:*20* 211:*10*
217:*3* 282:*1*
looking 132:*12*
133:*16* 305:*14*
looks 7:*3* 234:*15*
loomed 202:*14*
loophole 28:*11, 13*
loopholes 18:*18*
19:*13, 17* 28:*7*
31:*9* 34:*22* 38:*19*
74:*8* 83:*16* 96:*17*
99:*1* 103:*22* 110:*3*
114:*4* 154:*17*
155:*13* 158:*1, 22*
162:*9* 171:*8*
183:*20* 197:*4*
198:*11* 200:*21*
202:*1* 204:*5*
218:*12* 227:*19*
240:*3* 243:*12*
249:*11* 250:*19*
252:*9* 253:*16*
254:*5* 257:*6* 262:*3,
6* 278:*7, 13* 286:*17*
294:*18* 299:*9*
302:*18*
looser 157:*9*
Lord 37:*14*
Los 177:*6* 235:*4*
lose 71:*3* 79:*8, 11*
199:*7* 231:*9* 237:*2*
255:*12*

losing 96:*2* 199:*3,* *8* 293:*16*
loss 80:*12* 302:*11*
lost 86:*18* 153:*15* 199:*10* 242:*12, 13* 263:*21* 264:*5* 274:*17, 19* 284:*21* 307:*13*
lot 14:*16* 121:*14* 150:*2* 186:*17* 197:*17* 221:*8, 12, 16* 224:*20* 231:*8* 285:*9* 303:*11*
loud 28:*18*
Louis 178:*14*
love 37:*14, 17, 22* 38:*2, 3* 179:*7* 305:*4*
Low 3:*3* 49:*10* 60:*11* 64:*8* 65:*8, 15* 69:*14* 136:*14* 142:*14* 174:*10* 189:*17* 209:*12* 248:*12*
low-carbon 57:*13* 189:*11*
low-carbon/high-octane 174:*21*
low-cost 57:*13* 191:*4*
low-emission 78:*22*
lower 80:*3* 88:*5* 109:*9* 114:*22* 115:*7* 122:*15* 174:*2* 179:*2* 195:*18* 245:*14* 281:*3* 283:*6* 293:*17*
lower-income 40:*20*
lowering 38:*15, 17* 80:*4*
lowest 209:*6*
low-income 17:*2* 21:*5* 50:*18* 68:*13* 79:*20* 88:*1* 187:*19* 195:*20* 207:*3* 256:*11* 261:*13* 262:*12* 292:*21*
low-mileage 177:*17*
lows 87:*5*
low-to 239:*17*
low-wealth 264:*9* 268:*1* 298:*12*
LUCIA 6:*6* 252:*19, 22*
luck 179:*19*
Lukens 226:*8*
LUKENS-DAY 5:*16* 226:*5, 8*
lunch 15:*1* 132:*8, 16, 19*

Lung 2:*7* 3:*16* 4:*15, 16* 6:*2* 16:*19* 17:*9* 41:*10* 71:*2* 72:*13* 83:*2* 84:*9* 102:*1* 104:*19, 21* 105:*3, 6, 15* 116:*9* 127:*4* 136:*22* 158:*11, 12* 160:*8, 18* 161:*20, 21, 22* 162:*2* 163:*6, 14, 22* 188:*5* 221:*10* 233:*6* 241:*16* 243:*7* 251:*11* 261:*6* 267:*19*
lungs 130:*8* 232:*8* 247:*4, 13, 17*
Lyme 184:*14*
LYNCH 4:*22* 183:*6, 9, 13*

< M >
machine 304:*20*
Machinist 6:*19* 296:*6*
Madres 67:*21* 263:*9*
MAGGICC 147:*3, 5, 9, 11*
MAGGICC-calculated 148:*3*
mail 300:*12* 309:*21*
main 137:*17* 181:*3* 209:*2* 272:*11* 292:*4*
maintain 155:*21*
maintained 296:*19*
maintaining 215:*13*
maintenance 177:*20* 195:*18* 200:*11, 16* 240:*1*
majestic 98:*5*
major 10:*22* 16:*22* 41:*9, 12* 50:*12* 78:*12* 79:*4, 18* 80:*1* 105:*22* 111:*22* 185:*1, 4, 5* 195:*19* 253:*11* 268:*4, 7* 302:*6, 10*
majorities 93:*5*
majority 54:*16* 89:*5* 91:*7* 92:*20* 93:*4* 105:*11* 227:*4* 240:*7* 256:*6* 257:*18*
make-believe 95:*14*
makers 141:*15* 142:*6*
making 13:*9* 14:*8* 17:*19, 20* 60:*21* 88:*11* 107:*4*

109:*21* 112:*17* 151:*4* 156:*1* 174:*22* 175:*17* 184:*11* 196:*9* 198:*8* 205:*12* 207:*4* 214:*10* 220:*19* 228:*16* 230:*21* 240:*22* 252:*5* 273:*5*
male 304:*2* 306:*3*
mammals 199:*9*
man 76:*13*
managed 297:*11*
Management 2:*19* 49:*2* 78:*15*
Manager 78:*6* 94:*2* 245:*22* 249:*4* 250:*10* 254:*21*
mandate 169:*10* 241:*2*
mandated 210:*22* 284:*14, 20*
mandates 203:*11*
manipulated 218:*13*
mankind 297:*10*
mantra 285:*21* 286:*3*
manufacturer 157:*12* 203:*15* 213:*15*
Manufacturers 2:*20* 38:*19* 47:*8, 9, 12* 51:*12* 52:*16, 22* 58:*13* 88:*3, 10, 21* 111:*13, 16* 112:*14* 122:*4, 10, 15, 22* 141:*14* 142:*8* 156:*15* 195:*6* 210:*20* 211:*13* 216:*20* 235:*15* 239:*22* 257:*6* 278:*8*
manufactures 31:*11*
manufacturing 38:*9* 54:*3* 277:*15* 278:*3*
MARCI 6:*14* 279:*12, 15*
margin 91:*5*
marginal 292:*18*
margins 122:*16*
Maria 225:*18*
Marine 6:*18* 108:*13* 199:*7*
MARIO 4:*10*
MARK 5:*21* 6:*8* 8:*8* 154:*4* 239:*1, 4* 254:*15, 20*
markedly 41:*4*

market 47:*10* 53:*18* 63:*22* 64:*4* 65:*22* 66:*4, 6* 75:*7, 9, 13, 15, 21* 80:*7, 12* 106:*11* 156:*6* 157:*8* 167:*20* 195:*10* 197:*16* 203:*12* 215:*1* 216:*2* 226:*22* 277:*3, 6*
marketed 173:*4*
marketplace 192:*6*
markets 65:*18* 216:*16*
Marlo 143:*17, 19*
Marpillero 43:*2*
MARPILLERO-COLOMINA 43:*5, 6*
MARPILLIERO 2:*15*
Mars 298:*17*
Marshall 239:*5*
Mary 207:*19, 20, 21* 234:*11, 15*
Maryland 104:*22* 107:*20* 149:*2* 303:*22*
Maryland's 90:*14*
masculine 122:*6*
masks 305:*21*
Mason 92:*17*
mass 142:*5, 7, 13, 17*
Massachusetts 284:*5*
massive 145:*6* 173:*1*
Master 248:*22*
Master's 116:*19* 250:*6* 301:*12*
match 29:*17*
matches 171:*12*
Mate 6:*19* 296:*6*
maternal 136:*16*
Mathews 207:*19* 234:*11*
matter 49:*16* 50:*13* 103:*5, 9* 114:*18* 137:*6* 138:*14* 160:*15* 177:*15* 182:*14* 211:*11* 264:*15*
matters 270:*21* 292:*17*
Matthew 37:*12*
mature 211:*6*
MAUREEN 6:*15* 279:*3* 283:*20* 284:*4*

maximize 18:*16* 19:*16* 26:*7* 83:*15* 118:*13* 161:*4* 162:*8* 228:*16* 240:*4* 290:*6*
maximizes 158:*20*
maximizing 19:*9* 24:*14*
maximum 106:*21* 301:*7*
Mayor 279:*16*
Mayor's 230:*9*
McElfish 225:*9*
mean 128:*14* 142:*9* 281:*1*
meaningful 20:*16* 22:*10* 59:*11* 83:*10* 174:*11* 196:*4*
meaningfully 175:*20* 221:*20*
means 45:*8* 55:*5* 57:*2* 73:*19* 96:*14* 128:*5* 129:*1* 148:*12* 162:*12* 182:*11* 190:*16* 241:*5* 292:*12* 293:*1, 11*
measurement 139:*4*
measures 38:*8* 64:*18* 137:*2* 153:*9* 206:*16* 230:*8* 280:*5*
measuring 28:*12*
MECA 52:*21* 53:*8* 54:*7* 55:*2*
mechanical 97:*21*
medical 25:*9* 163:*12, 15, 20* 164:*1, 4, 17* 180:*21* 281:*20*
medication 306:*4*
medicine 285:*9*
medium 244:*7*
medium-duty 11:*15* 159:*13*
meet 10:*11* 22:*19* 27:*19* 47:*8* 50:*2* 53:*9* 54:*13* 58:*20* 78:*19* 80:*20* 88:*2, 8* 89:*12, 15* 99:*2* 103:*22* 112:*13* 119:*5* 153:*1* 154:*14* 159:*16* 166:*2* 167:*22* 170:*21* 172:*8* 192:*9* 195:*5, 11* 210:*15* 211:*3* 235:*15* 253:*17* 256:*19* 262:*4* 265:*13* 271:*14* 277:*13* 292:*6*

meeting 27:*20*
50:*15* 54:*22* 95:*13*
110:*4* 141:*16*
167:*9* 171:*17*
175:*6* 179:*18*
195:*7* 202:*21*
212:*16* 223:*3*
230:*10* 266:*10*
279:*7* 311:*5*
meets 109:*11*
mega 209:*6*
MELANIE 3:*21*
116:*3, 7*
M-E-L-A-N-I-E
116:*8*
melting 298:*8*
member 68:*15*
72:*21* 98:*2* 135:*12*
189:*18* 223:*12*
270:*10*
members 14:*11*
15:*3* 23:*14* 28:*1*
33:6, *11* 49:5, *8*
51:*17* 53:*8* 54:*11*
60:*12* 68:*14* 71:*17*
78:*13* 80:*19* 125:*4*
138:*16* 139:*16*
190:*5* 208:*15*
226:*11* 231:*22*
257:*11* 267:*9*
268:*18* 269:*14*
membrane 299:*2*
men 125:*22*
mental 163:*11*
mention 140:*13*
191:*20*
mentioned 95:*11*
137:*20* 182:*18*
220:*16*
mere 105:*8* 148:*3*
MEREDITH 3:*18*
107:8, *13*
merely 174:*5*
Meritorious 249:*6*
250:*12*
MESNIKOFF 6:*13*
274:5, *8*
messages 110:*5*
met 166:*21* 278:*5*
293:*10*
methane 114:*16*
method 54:*21*
288:*15*
Methodist 4:*3*
5:*13* 125:*2* 217:*15*
methodological
144:*17* 146:*2*
methods 26:*1*
157:*19*

metric 22:*2* 35:*5*
61:*14* 114:*7*
228:*13* 254:*8*
Metro 71:*22* 98:*11*
Mexico 101:*17, 19,
21* 102:*12* 196:*20*
Mexico's 102:*15*
MI 5:*2* 186:*11, 12,
21* 188:*13*
Miami 219:*8*
Miami-Herald
218:*21*
MICHAEL 2:*4*
MICHAELS 4:*11*
146:7, *10, 11*
MICHELLE 6:*12*
269:*18, 19* 270:*9*
Michigan 5:*18*
186:*14* 205:*7*
231:*16, 18, 22*
233:4, *15* 277:*20*
Michiganders
234:*6*
microphone
245:*16* 248:*13*
249:*21*
mid 175:*5*
mid=section 147:*15*
Mid-Atlantic 3:*17*
104:*21* 105:*19*
106:8, *16*
Mid-Atlantic's
106:*4*
mid-century
175:*16* 190:*3*
middle-income
239:*18*
mid-level 58:*10, 22*
289:*8* 290:*20*
291:*5*
midst 187:*8*
264:*20*
midterm 53:*19*
Midwest 275:*9, 14*
277:*17* 278:*3*
298:*10*
Midwest's 274:*11*
Mike 7:*22* 8:*4*
12:*11*
mild 114:*10*
260:*14*
mildew 185:*4*
mile 154:*5* 171:7,
21 173:*3* 191:*2*
215:*14* 276:*14*
278:*12* 294:*16*
Mileage 62:*16*
67:*1* 122:*1, 20*
197:*19*
miles 72:*5* 102:*18,
21* 150:*10, 13*

173:*5* 179:*3*
199:*16* 202:*10, 12*
251:2, *4* 255:*19*
272:*4, 13* 282:*8*
296:*13, 15, 16*
mile-to-mile 211:*11*
military 64:*12*
million 17:*10* 22:*2*
23:*14* 24:*2* 33:*6*
35:*5* 37:*3* 46:*21*
57:*20, 21* 61:*14*
62:*1* 70:7, *9* 71:*18*
74:*22* 105:*9* 117:5,
7, 10 127:*10*
160:*12* 166:*11*
168:*4* 173:*19*
205:8, *9* 228:*13*
246:*1* 254:*8*
263:*21* 272:*22*
275:*11* 306:*6*
millions 57:*22*
77:*2* 89:*21* 105:2,
4 158:*12* 162:*22*
232:*13* 305:*9*
MILTON 6:*21*
303:*15, 20*
Milwaukee 220:*12*
221:*9*
MINAULT 5:*17*
120:*2* 131:*22*
229:*19, 22* 230:*2*
mind 37:*16*
minds 203:*18*
mine 42:*5* 70:*7*
185:*17* 261:*11*
273:*9*
minerals 65:*18*
66:*8*
minimal 66:*16*
minimize 19:*17*
263:*5*
minimum 19:*11*
58:*19* 108:*1, 21*
121:*9* 176:*1* 195:*1*
243:*9*
mining 68:*18*
Minnesota 124:*1, 3,
7, 11, 13*
minor 111:*7*
minorities 206:*11*
minority 207:*4*
minus 91:*6*
minutes 14:*9, 15*
16:*7* 134:*19* 258:6,
11
mirage 144:*6*
misplaced 122:*6*
missed 190:*13*
232:*13* 289:*22*
missiles 301:*10*

missing 25:*16*
167:*1*
mission 36:*21*
76:*14* 161:*21*
189:*10* 213:*13*
270:*7* 281:*10*
mistake 123:*9*
mistaken 138:*21*
mistakes 131:*1*
Mitch 295:*13*
MITCHELL 6:*21*
303:*15, 20* 306:*16*
mitigate 44:*6*
277:*11* 298:*14*
Mitigating 50:*9*
120:*19*
mix 56:*11, 14*
209:*1* 216:*3*
MKZ 251:*3*
Mobile 2:*3* 7:*20*
mobility 293:*16*
mobilize 36:*21*
Modaco 255:*10*
mode 72:*9*
MODEL 1:*5* 7:*7*
9:*20* 11:*15, 16*
12:*1* 18:*13* 19:*18*
21:*15* 51:*13* 52:*6*
54:*9* 76:*7* 91:*18*
100:*16* 133:*4*
135:*19* 146:*21*
147:*3* 151:*7*
156:*10, 16, 17*
159:8, *14* 161:*6*
164:*12* 167:*6*
169:*9* 176:*7*
183:*18* 208:*16*
258:*19* 262:*21*
267:*12* 276:*11, 15*
278:*12, 15* 288:*18*
294:*14* 301:*21*
models 144:*11, 14*
187:*2*
Moderator 306:*22*
modest 142:*7, 8*
Mold 185:*4*
MOLLY 2:*12*
5:*14* 32:*17, 20*
220:*5, 11*
mom 72:*20* 97:*21*
98:*1* 266:*22*
moment 23:*17*
24:*10* 29:*2* 38:*6*
48:*12* 173:*8*
217:*19* 276:*9*
277:*14*
Moms 2:*12* 3:*5, 6,
13, 14, 15* 4:*7, 22*
5:*18* 6:*4, 6, 9, 10,
11, 12* 32:*21* 33:*7,
11* 34:*14* 35:*7*

67:*20* 68:*1* 71:6,
15, 18 74:*3* 94:*2*
97:*18* 101:*17, 18*
135:*12, 15* 183:*14*
231:*16, 21* 245:*22*
246:*1* 253:*2* 260:*7*
263:*8* 266:*19, 21*
269:*13* 270:*10*
Monday 310:*22*
money 45:*6* 92:*10*
177:*20* 224:*5*
225:*6* 297:*21*
299:*10*
monoxide 57:*10*
114:*8, 16*
Montana 270:*11*
271:*1, 3, 17*
Montana's 271:*8*
month 10:*22* 11:*9*
33:*18* 73:*12* 83:*20*
149:*10* 164:*13*
200:*8, 9* 221:*22*
months 41:*9*
100:*4* 160:*3*
227:*11* 261:*1*
271:*3* 304:*19*
moon 76:*13*
297:*10*
MOORE 6:*22*
299:*21* 306:*18, 21*
moral 125:*12*
308:*13*
Moran 8:*7* 42:*15,
22*
morning 7:*5, 13*
16:*17, 21* 20:*2*
23:*4* 26:*17* 32:*20*
46:*2* 48:*21* 52:*15*
60:*9* 63:*7* 71:*14*
74:*19* 78:*5* 82:*21*
86:*5* 104:*15*
106:*20* 116:*7*
132:*6, 11* 202:*14*
224:*6* 239:*4*
277:*21* 311:*6*
morning's 133:*16*
136:*17*
morrow 303:*17*
Morse 265:*18*
mortality 136:*16*
138:*17* 188:*12*
mother 26:*18*
68:*4* 112:*3* 126:*12*
221:*3* 232:*20*
247:*20* 270:*9*
mothers 31:*13*
motion 169:*10*
motivation 181:*3*
motor 17:*4* 50:*11*
87:*10* 209:*7, 9, 13,
15, 17* 211:*14*

249:*3* 250:*9*
251:*18*
Mountain 253:*5*
mountains 98:*5, 9*
103:*10*
mounting 50:*7*
mounts 274:*20*
move 21:*13* 22:*18*
55:*21* 69:*8* 80:*14*
82:*1, 11* 85:*18*
88:*11* 89:*10* 97:*6*
104:*11* 112:*16*
120:*9* 131:*21*
151:*8* 159:*19*
171:*4* 188:*14*
193:*15* 201:*11*
204:*15* 208:*4*
213:*5* 221:*17*
222:*15* 223:*6*
225:*16* 226:*3*
234:*16* 244:*3*
256:*21* 266:*3, 13*
279:*10* 293:*1*
295:*20* 299:*10*
308:*14*
moved 202:*3*
movement 31:*13,*
17
moving 57:*18*
75:*20* 94:*13*
103:*16* 158:*15*
162:*13* 184:*8*
217:*3* 269:*5*
MPM 256:*5*
much-needed
150:*21*
multiple 28:*12*
62:*2* 95:*8* 155:*19*
216:*8* 242:*11*
multiplier 156:*8*
210:*9* 215:*17, 18,*
22
multipliers 28:*17*
156:*8, 12* 172:*11,*
14 176:*11* 210:*9*
multi-pollutant
11:*13* 159:*12*
multistate 49:*6*
multiyear 47:*7*
mumbo-jumbo
143:*12*
municipalities
231:*1*
Musk 301:*17*
muted 15:*11*
133:*21*
Mutual 301:*5*
myriad 117:*11*

< N >
nail 186:*7*

name 7:*9* 16:*15*
20:*1* 23:2 26:*13,*
17 29:*7, 11* 32:*18*
36:*11, 14, 16* 39:*19*
43:*3, 6* 45:22
48:*20* 52:*13* 55:*17*
56:2, *4* 60:*4, 7, 9*
63:*5, 7* 67:*8, 16*
71:*12, 14* 74:*17*
78:*3, 5* 81:*21* 82:*7,*
14, 21 86:*3, 5* 90:*8,*
10 93:*19* 94:*1*
97:*1, 10, 15, 17*
101:*11, 14, 16, 18*
104:*7, 14* 107:*9, 13*
110:*10, 12* 114:*1*
116:*4, 7* 119:22
120:*4, 12, 14*
123:*17* 124:*17, 22*
127:*18* 131:*11, 15,*
17 132:*1* 133:*6*
135:*5* 138:*6, 7*
141:*2* 143:*18*
146:*8* 148:*20, 22*
152:*10, 13, 15*
155:*4, 8* 158:*7, 10*
161:*16, 18* 165:*14,*
16 170:*8, 11, 15*
173:*15, 16* 176:*19*
177:*1* 178:*7, 8*
179:22 180:*4, 5*
183:*7, 13* 186:*3, 5*
189:*3, 7* 193:*13, 18,*
21 196:*16, 20*
198:*15, 17* 201:*6,*
14, 18 204:*10, 18*
207:22 208:*7*
212:*10, 14, 22*
213:*8, 12* 217:*9*
218:*13* 220:*6*
223:*1, 8, 11* 225:*11,*
20 226:*6, 8* 229:*16,*
20 231:*13, 17*
235:*4* 239:*2*
241:*12, 15* 245:*7,*
10, 20 252:*20, 22*
254:*16, 20* 260:*1, 6*
265:*20* 266:*8, 17,*
18 269:*21* 270:*4,*
13 274:*6, 8* 279:*5,*
13 283:*21* 284:*4*
287:*20* 288:*9*
291:*13* 295:*16*
296:*1* 300:*19*
301:*1* 303:*18, 20*
306:*19, 21* 309:*21*
names 14:*7*
name's 48:*21*
143:*19* 270:*9*
296:*4*

namesake 255:*13*
nano-fiber 299:*2*
narrow 83:*22*
nation 27:*19*
30:*21* 39:*9* 48:*11*
72:*2* 84:*16* 119:*1*
136:*1* 151:*11*
159:*16* 160:*10*
161:*12* 163:*16*
165:*4* 184:*14*
190:*2* 218:*15*
242:*2* 247:*11*
256:*5, 13* 257:*17*
National 6:*8, 16*
16:*18* 20:*7* 37:*4*
39:*4* 47:*4* 51:*1, 3,*
14, 22 54:*13* 58:*12*
60:*13, 15* 62:*2*
63:*8, 13* 65:*10*
74:*20* 76:*14* 82:22
91:*3* 96:*9* 100:*15*
147:*1, 16* 152:*18*
155:*20* 161:*19*
163:*19* 164:*1, 2, 16*
205:*6* 208:*10*
226:*10* 245:22
249:*4* 250:*10*
254:*21* 255:*1, 5, 6,*
13, 14, 15, 16, 18
256:*19* 262:*19*
271:*19* 272:*3*
288:*10* 289:*15*
nationally 71:*18*
nations 64:*5* 66:*6*
67:*17* 73:*13* 236:*6*
nation's 17:*7*
29:*12, 20* 30:*17*
46:*13* 56:*11, 13*
63:*12* 73:*2* 164:22
218:*3* 233:*17*
nationwide 44:*8*
57:*19* 84:*20* 161:*7*
162:*3* 165:*6*
209:*12*
Native 205:*16*
262:*13*
Natural 2:*9*
125:*21* 191:*16*
208:*10, 14, 22*
209:*9, 10, 15, 17*
210:*7, 8, 14*
Navajo 68:*7*
naval 251:*18*
NBG 208:*21*
near 17:*16* 44:*18*
87:*20* 175:*1*
194:*10* 206:*18*
247:*7, 11*
nearby 255:*15*
nearly 32:*13*
44:*11* 57:*21* 58:*8*

75:*5* 78:*14* 148:*2*
173:*19* 231:*21*
255:*6* 277:*18*
290:*3*
near-term 35:*10*
96:*14* 100:*12*
185:*15* 254:*11*
269:*8*
nebulizer 221:*2*
nebulizers 233:*4*
necessarily 117:*17*
142:*9*
necessary 21:*10*
88:*4, 22* 118:22
159:*7* 167:*19*
168:*12* 191:*13*
192:*9* 214:22
242:22 249:*14*
250:*21* 297:*6*
Necessity 112:*3*
274:*14*
need 18:*10* 22:*15*
25:*9* 28:*2* 32:*7*
33:*19* 35:*9* 44:*4*
49:*12* 53:*6* 58:*6*
65:*12* 82:*16* 83:*11,*
19 85:*16* 86:*17*
87:*2* 88:*21* 106:*9,*
13 107:*5, 20*
108:*19* 111:*5, 6*
112:*10* 113:*6*
118:*2* 119:*2*
120:*21* 128:*16*
129:*6, 7, 12, 15*
130:*7, 19, 21* 137:*1*
141:*3* 150:*6*
154:*11* 159:*8*
165:22 166:*2, 8, 14*
167:*10* 177:*5, 11,*
21 179:*4, 6* 182:*9,*
19 187:*9, 22* 190:*3*
197:*15, 18* 203:*19*
204:*3* 218:*7*
223:22 224:*5*
232:*16* 233:*16, 19*
234:*12, 20* 240:*5*
241:*2* 245:*13*
248:*13* 259:*21*
261:*20* 262:*18*
263:*3* 269:*1*
271:*14* 273:*12, 16*
274:22 286:*1, 12,*
13, 16, 21 287:22
293:*12, 17* 298:*19*
300:*2* 308:*6*
needed 19:*10*
21:*12* 47:*4* 48:*15*
53:*9* 84:*5* 89:*1*
118:*5* 137:*19*
153:*13* 154:*14*
167:*21* 195:*1*

215:*19* 243:*20*
264:*20* 292:*2*
294:*20*
needlessly 14:*3*
needs 76:*1, 3*
112:*21* 113:*5*
129:*9* 151:*11*
154:*21* 165:*4*
166:22 168:*1*
203:*17* 210:*16*
293:*10*
negative 91:*11*
175:*14* 209:*5*
253:*10* 283:*6*
negotiations 224:*19*
neighbor 37:*18*
38:*1, 4* 107:*20*
neighborhood
95:*14* 282:*16*
neighborhoods
240:*15* 264:*9*
292:*21*
neighbors 29:22
96:*1* 184:*21* 256:*9*
282:*17*
neither 94:*20*
122:*7*
nerve 184:*21*
nervous 138:*14*
NESCOM 49:*3, 8,*
16 52:*4*
NESCOM's 49:*22*
51:*17*
net 19:*5, 6* 25:*17*
53:*10* 61:*1* 144:*1*
146:*3* 147:*11*
148:*1* 171:*11*
175:*5, 14, 16* 190:*2,*
6 194:*15* 228:*8*
292:*8* 293:*22*
294:*6*
Network 5:*5* 37:*4,*
8 78:*11, 13* 165:*18*
193:22 226:*10*
neutrals 298:*16*
Nevada 254:*20*
260:*20* 261:*8, 20*
262:*16, 18*
Nevadan 260:*9*
Nevadans 262:*7*
never 99:*7* 161:*9*
177:*16* 251:*11*
296:*14*
Nevers 213:*7, 10,*
12
New 2:*16* 11:*13*
13:*8* 25:*5* 27:*14*
30:*21* 35:*9* 39:*10,*
12 43:*18* 46:*4, 6, 8,*
11, 16, 18 48:*5, 8*
53:*17* 58:*11* 62:*11,*

198:*12* 201:*16* 204:*6* 206:*15* 213:*10* 217:*12* 220:*9* 225:*5* 226:*13* 229:*1* 235:*3* 237:*6, 22* 245:*21* 252:*11* 253:*2* 254:*18* 257:*22* 258:*8* 260:*7* 263:*13* 266:*20* 274:*13* 279:*22* 288:*2, 16* 289:*22* 291:*9, 19* 293:*8* 300:*21* 303:*3* 310:*14*
opposed 303:*17*
optimal 47:*6*
optimization 53:*15*
optimize 62:*21*
optimized 176:*15*
option 35:*2, 7* 74:*5* 156:*2* 176:*4* 179:*7* 183:*18* 214:*12* 254:*4, 7* 269:*15* 294:*8*
options 34:*20* 53:*20* 56:*21* 210:*2* 214:*1* 254:*1* 269:*10* 273:*10*
oral 12:*15, 21* 13:*10* 14:*5, 8*
Orange 34:*6* 106:*22* 107:*3* 136:*18* 149:*21* 261:*19*
ordained 36:*18*
Order 9:*1, 8* 11:*8* 14:*20* 16:*5* 18:*13* 21:*18* 44:*6* 55:*3* 56:*10* 85:*7* 100:*11* 113:*4* 118:*15* 134:*17* 151:*12* 159:*10* 166:*5* 173:*21* 178:*19* 185:*14, 17* 200:*5* 234:*13, 21* 242:*22* 246:*10* 254:*9* 259:*14, 22* 263:*4* 266:*1* 269:*6* 288:*1* 297:*16* 300:*3*
ordered 139:*11* 178:*21*
Orders 8:*11, 18* 9:*3* 49:*18*
organic 106:*4*
organization 20:*8, 11* 29:*13* 44:*4* 63:*11* 67:*4* 90:*16* 125:*4* 152:*19* 190:*6* 205:*2* 246:*1* 274:*12* 288:*10*

organizations 163:*12, 20* 164:*1, 17, 18* 223:*13*
organizer 67:*20* 97:*18* 101:*19* 183:*14* 253:*1* 260:*7* 263:*8* 266:*21* 268:*17*
organizers 31:*13*
organizing 23:*5* 120:*18*
organs 293:*13*
original 53:*16* 122:*8* 171:*1, 13* 195:*7*
originally 29:*14* 43:*21* 235:*17* 300:*14*
OTAQ 8:*3, 8*
outcomes 69:*21* 136:*14* 205:*18* 307:*9*
outdoor 101:*22* 206:*19* 219:*17* 232:*13* 247:*5*
outdoors 95:*16* 103:*13* 232:*18* 264:*19*
outer 72:*3*
outlet 179:*5*
outlined 243:*10, 22*
outlines 121:*13*
Outreach 83:*1*
outside 34:*3* 95:*13* 103:*4, 8* 163:*9* 225:*3* 271:*4*
outsized 107:*16*
outweigh 89:*3*
Overall 91:*7* 168:*1*
overarching 175:*16*
overburdened 47:*1, 21*
overcome 224:*22*
overestimate 156:*14*
overheats 95:*21*
overlap 31:*17*
override 121:*1*
oversampled 91:*22*
overstate 27:*3*
owned 296:*14*
Owners 3:*19* 10:*13* 110:*13* 282:*3*
ownership 296:*12*
oxide 114:*16*
oxides 106:*6*
oxygen 108:*15*
ozone 17:*5* 24:*21* 34:*6* 47:*19* 50:*13, 15, 17* 71:*2* 98:*12*

99:*15, 16, 17* 102:*1* 103:*8* 105:*10, 12* 106:*7, 16, 20* 107:*3* 137:*6* 160:*15* 166:*12* 168:*16, 21* 169:*6* 221:*11, 15* 256:*6* 261:*19* 267:*18, 20, 22* 268:*5* 286:*7*

< P >
p.m 13:*3* 15:*2* 132:*17* 238:*22* 258:*17*
PA 184:*16*
pace 51:*5* 53:*19*
Pacific 63:*10* 153:*9* 251:*19*
package 76:*18* 166:*15*
pain 25:*8* 184:*19, 21*
painfully 285:*12, 13* 305:*20*
painting 73:*15*
paints 184:*2*
paired 191:*3*
Palmer 128:*7*
pandemic 188:*3* 264:*21* 295:*1* 304:*18*
pander 218:*11*
panel 8:*6* 14:*11* 18:*3* 42:*16* 70:*10* 73:*13* 83:*21* 87:*8* 104:*16* 108:*19* 139:*18* 143:*7, 9* 149:*11* 183:*21* 222:*1* 235:*22* 249:*19* 265:*15*
panelist 35:*21* 55:*19* 59:*15* 81:*10* 82:*17* 100:*22* 119:*11* 134:*2* 141:*4* 151:*21* 169:*19* 193:*2* 211:*21* 229:*5* 234:*12, 21* 244:*18* 259:*1, 22* 263:*4* 270:*2* 287:*4* 299:*20, 22* 300:*3, 16* 303:*16*
panelists 15:*14* 304:*5* 306:*11*
panels 177:*18* 182:*13, 15* 197:*8* 302:*1*
paper 159:*1* 219:*12*
parent 94:*2* 96:*7*

parents 33:*15* 163:*8* 233:*2* 272:*17* 273:*4*
Paris 27:*20*
parity 155:*18*
Park 149:*2* 255:*6, 14, 15, 16, 22* 270:*14* 271:*20* 272:*3* 282:*18*
Parks 6:*8* 254:*21* 255:*1, 5, 13, 18*
part 20:*6* 37:*3* 84:*18* 90:*13* 102:*2* 107:*2* 109:*17* 116:*17* 120:*21* 136:*17* 160:*6* 177:*21* 192:*18* 203:*8* 209:*1* 235:*22* 253:*11* 262:*1* 268:*17* 271:*9* 285:*15* 304:*14* 307:*2, 17* 309:*5*
participants 44:*17*
participate 135:*16* 310:*10*
participated 310:*21*
participating 12:*3*
participation 74:*13*
particle 17:*6* 18:*9*
particles 247:*2*
particular 136:*6* 138:*13* 305:*13* 306:*6*
particularly 47:*21* 50:*20* 60:*17* 80:*14* 88:*17* 160:*17* 206:*9* 268:*1*
particulate 50:*13* 61:*18* 103:*5, 9* 114:*18* 128:*8* 137:*6* 160:*15* 166:*12* 168:*16* 264:*15*
particulates 102:*20*
parties 12:*15* 121:*3*
partner 299:*7*
partners 89:*9*
parts 79:*8* 117:*5, 7, 10* 136:*7* 268:*1*
pass 161:*9*
passed 94:*15* 98:*13* 107:*18* 224:*14, 17*
passenger 48:*6* 84:*12* 89:*11* 95:*2* 96:*10* 100:*16* 102:*10* 135:*18* 159:*17* 187:*1* 205:*5* 257:*17*

262:*20* 267:*12* 280:*21* 283:*4* 292:*6* 294:*13*
Passing 127:*6*
passion 253:*5*
passionate 186:*9*
passive 197:*7*
PATE 4:*20* 178:*6, 8*
path 18:*4* 25:*1* 31:*8* 71:*4* 96:*12* 100:*11* 113:*5* 121:*20* 154:*18* 161:*12* 166:*15, 16* 167:*7, 12* 168:*7* 185:*14* 200:*2* 222:*2* 244:*5* 254:*10* 257:*19* 269:*6* 281:*11*
pathway 47:*16* 145:*19* 241:*4* 243:*19*
pathways 190:*15*
patient 205:*2*
patients 137:*13* 158:*12* 163:*4* 188:*4*
PATRICE 6:*4* 245:*9, 20*
PATRICIA 4:*2* 123:*16*
PATRICK 4:*11* 146:*7, 11*
patterns 100:*3*
PAUL 2:*7* 16:*14, 17*
pause 310:*1*
pay 89:*3* 297:*21* 298:*1*
paying 64:*16* 278:*9*
payments 109:*19*
peak 76:*15* 169:*1* 282:*10*
pediatric 127:*9*
pediatrician 135:*10*
peer-reviewed 25:*20*
Pelosi 224:*15, 21* 225:*2*
penalties 112:*18* 113:*12*
penalty 112:*22*
penetrate 247:*3*
penetration 75:*9*
Pennsylvania 3:*19* 105:*1* 110:*13* 183:*14* 184:*11, 12* 185:*9* 246:*5*
Pennsylvania's 185:*13*

people 13:*14* 17:*3, 11, 13, 16* 22:*16* 24:*17* 30:*3* 31:*13* 36:*21* 37:*3, 9, 20* 41:*15, 16* 69:*19* 70:*7* 76:*15* 87:*21* 88:*1* 89:*5* 105:*2, 9, 13, 14, 16* 125:*20* 127:*8, 10* 143:*9* 150:*2* 152:*20* 187:*19* 205:*9, 10* 221:*8, 16, 17* 240:*14* 263:*19* 275:*12* 292:*14, 20* 293:*1, 2, 12* 295:*1* 297:*3, 5* 298:*13* 306:*5*

people-powered 31:*20*

people's 25:*8* 38:*16* 61:*19* 67:*22* 68:*8* 264:*7* 285:*4* 286:*15* 293:*13*

percent 21:*16* 31:*5* 34:*16* 35:*9* 39:*8, 11* 41:*12* 48:*6* 57:*5, 6, 17* 59:*8* 63:*17* 66:*15* 71:*4* 72:*6* 75:*7, 9, 12, 14, 21* 77:*13, 18, 20* 80:*15* 81:*3* 84:*10, 16, 18, 21* 91:*6, 9, 12, 13, 19, 20* 92:*7, 8, 21, 22* 93:*1* 94:*11* 96:*13, 18* 100:*11* 102:*11* 106:*3, 5* 111:*14* 114:*6* 125:*14, 16, 20* 126:*2* 142:*13* 153:*14* 154:*18* 159:*17* 168:*2* 170:*22* 172:*1, 3* 174:*13* 175:*11* 176:*3* 185:*14* 191:*1, 2* 194:*10* 197:*9* 209:*13, 16, 19* 228:*6* 254:*10* 257:*20* 262:*7, 13, 15* 268:*9* 269:*7* 275:*10* 281:*11, 12* 282:*14* 290:*3* 291:*22* 293:*22* 294:*1, 6, 7, 21* 302:*17* 305:*9*

percentage 308:*18*

perfect 209:*22* 252:*16*

Performance-based 54:*21*

performing-vehicle

57:*14*

perfunctory 121:*8*

period 12:*7* 111:*8*

permanent 297:*7*

permitting 74:*12*

persistent 264:*14*

person 16:*6* 134:*18* 139:*17* 186:*9* 227:*1*

personal 122:*6* 182:*10* 281:*16* 301:*16*

personally 162:*20* 272:*15* 281:*15*

persons 12:*20* 256:*11*

perspective 37:*11*

perspectives 216:*8* 244:*14*

pertaining 116:*21*

pests 219:*15*

petitions 89:*19*

petroleum 65:*11* 174:*2* 206:*22* 298:*19, 20*

Ph.D 23:*7*

phenomenon 95:*7*

Philadelphia 106:*18* 227:*9*

Phoenix 178:*14*

phone 36:*11* 55:*17* 60:*4* 81:*21* 82:*8* 97:*4* 101:*11* 104:*8* 119:*22* 120:*6* 131:*12, 18* 132:*3* 152:*10* 170:*8* 193:*7, 13* 201:*9* 204:*13* 208:*2* 212:*10* 213:*2* 221:*12* 223:*4* 225:*14* 226:*1* 229:*16* 245:*7* 265:*22* 287:*15, 21* 288:*1* 295:*17* 309:*21*

phones 15:*19* 36:*5* 59:*21* 81:*16* 101:*6* 119:*17* 134:*8* 152:*5* 170:*3* 193:*8* 212:*5* 229:*11* 245:*2* 259:*7* 287:*10*

physicians 137:*12* 163:*3*

pickup 150:*17* 157:*6, 10* 272:*17*

pickups 157:*4*

picture 65:*5* 73:*15* 184:*3* 284:*13*

Pilkey 145:*8*

pilots 202:*6*

Pittsburgh 106:*18* 183:*15*

Piute 262:*17*

pivotal 276:*8*

place 9:*12* 113:*6* 166:*13* 172:*18* 177:*22* 263:*16* 271:*21* 293:*14*

placed 226:*16*

places 102:*18* 237:*3* 255:*20* 272:*17*

plan 11:*7* 15:*1* 25:*18* 92:*15* 108:*20* 302:*18*

planet 18:*4* 23:*16, 21* 31:*18* 38:*11* 48:*15* 108:*5* 113:*18* 125:*8* 126:*10* 165:*21* 181:*4, 15* 186:*9* 199:*9* 218:*4* 222:*9* 268:*16* 285:*4* 298:*5* 307:*18*

planet's 286:*15*

planet-warming 218:*8*

planning 10:*7* 276:*17*

plans 11:*5* 51:*10* 172:*7* 195:*7, 11* 277:*4*

plants 53:*6* 91:*15*

plausible 145:*19*

play 56:*17, 22* 71:*8* 87:*14, 20* 95:*14* 96:*3* 103:*3* 174:*11, 22* 224:*20* 232:*17* 252:*1* 264:*18, 20* 271:*4* 273:*4*

playground 95:*14, 18* 272:*18, 19*

playing 34:*3* 95:*16* 163:*9* 194:*18* 239:*16* 297:*13*

plays 95:*20*

plea 64:*6*

Please 14:*19* 15:*4, 20* 16:*1, 12, 14* 19:*22* 35:*13* 36:*6, 11* 48:*19* 55:*18* 59:*22* 60:*3* 74:*7* 81:*17, 20* 85:*16* 100:*14* 101:*7, 10* 104:*7, 13* 107:*9* 110:*10* 114:*1* 115:*8, 9* 116:*4*

119:*18, 22* 120:*12* 124:*17* 130:*13* 134:*9, 14* 135:*2, 5* 138:*5* 141:*1* 143:*17* 152:*6, 9* 155:*4* 158:*7* 161:*16* 165:*14* 170:*4, 7, 11* 173:*14* 176:*19* 177:*3* 178:*1, 6* 179:*22* 183:*7* 186:*3* 189:*3* 193:*9, 12, 18* 196:*16* 198:*15* 201:*14* 204:*18* 208:*7* 212:*6, 9* 213:*8* 217:*9* 218:*13* 220:*6* 223:*8* 226:*6* 229:*13, 16, 20* 231:*13* 239:*2* 241:*12* 245:*3, 6* 248:*2, 8* 252:*20* 254:*16* 258:*1* 259:*9, 12* 260:*1* 266:*8, 16* 274:*6* 279:*13* 283:*1, 21* 284:*22* 285:*5* 286:*2, 16, 21* 287:*11, 14* 291:*12* 296:*1* 299:*19* 300:*18* 303:*18* 306:*19* 309:*20* 310:*21*

pleased 28:*5* 60:*12* 88:*14* 178:*17* 241:*18*

pleasure 302:*2*

pledged 34:*16* 302:*15*

Plug 3:*7* 74:*20* 282:*9, 12*

plugging 174:*6* 179:*5*

plug-in 177:*16* 197:*11*

plugs 200:*12*

plunder 298:*20*

plus 74:*22* 91:*6* 161:*6* 239:*15, 17* 252:*9* 304:*19*

PM 126:*18* 138:*10* 280:*19*

pneumonia 219:*9*

pocketbook 239:*15*

pockets 109:*2*

point 28:*17* 84:*1, 8* 110:*19* 117:*9* 167:*13* 230:*19* 257:*8* 270:*20* 292:*15*

pointed 145:*4* 186:*16*

points 17:*22* 18:*22* 24:*8* 40:*4* 274:*21* 292:*5*

poisoned 304:*21*

poisons 232:*10*

polar 285:*14*

policies 9:*3* 46:*18* 47:*2* 84:*20* 85:*4* 146:*21* 162:*3*

Policy 4:*17* 6:*13* 8:*17* 16:*18* 48:*22* 49:*5* 51:*18* 57:*12* 58:*15* 63:*20* 66:*8* 68:*7* 78:*11* 90:*14, 20* 93:*8* 104:*18* 107:*17* 109:*12, 15* 117:*20* 121:*9, 19* 143:*20* 145:*9* 165:*17* 170:*16* 194:*5* 213:*12* 217:*19* 274:*10* 291:*16*

policymakers 218:*16*

political 85:*3* 113:*1, 11* 123:*12* 224:*21*

politics 117:*21* 219:*4* 297:*13*

poll 84:*10, 15*

polling 90:*16*

polls 90:*21*

pollutant 44:*13* 62:*11* 160:*13* 247:*1*

pollutants 50:*14* 137:*7* 160:*14* 168:*15* 243:*16* 280:*19* 289:*11*

pollute 38:*4* 118:*9* 150:*18*

polluted 114:*14* 126:*21* 256:*5*

polluting 126:*5* 213:*22* 286:*9*

pollution 16:*22* 17:*1, 2, 6, 12, 15, 18, 19* 18:*9* 19:*2, 9, 16* 20:*15, 17* 21:*6, 7, 8* 22:*7* 23:*10, 11, 19* 24:*6, 14, 21* 25:*14* 26:*7* 27:*17* 30:*10, 11, 15, 17* 31:*1* 32:*5, 10* 33:*3, 4* 34:*16, 18* 35:*1, 3, 11, 14* 37:*6* 38:*16* 40:*17, 18* 43:*15* 44:*2* 45:*6, 15* 47:*19, 22* 50:*22*

68:*20* 69:*11, 12, 16, 20* 70:*21* 71:2, *20* 72:*17* 73:*17, 21* 74:*6, 9* 83:8 85:*9, 15* 87:*10, 17, 22* 90:*17* 91:8, *11* 93:*3* 94:*9, 11, 13, 16, 20* 96:*15* 98:8, *15, 16, 17, 18* 99:*3, 6, 11, 12, 14, 16* 100:*10, 13* 102:*3, 5, 6, 11, 17* 103:*16, 18* 104:*1* 105:*20* 106:*1* 114:*19, 22* 115:6 116:*14* 126:*19* 127:5 128:8, *16, 17* 135:*18* 136:*4* 137:*4, 13, 18* 149:8 151:*15* 152:*21* 159:*22* 160:*16* 165:*3* 177:8, *20* 180:*17* 181:*16* 184:*4, 7, 9* 185:*16* 186:*20* 188:*11* 195:*16* 197:*4* 202:*15* 206:*4, 12, 13, 17, 19, 21* 220:*15* 221:*11* 224:*4* 226:*17, 20* 231:*18* 232:*1, 2, 6, 11, 16* 233:*18* 234:*5* 235:8 246:*2, 6, 18* 247:*13, 15* 248:*3* 249:*15* 250:*22* 253:*14, 17, 19* 254:*2, 6, 11* 255:*3, 17* 256:*6, 9, 13* 261:*22* 262:*1* 263:*10* 265:*4, 8, 10, 14* 267:*6, 14, 18, 20, 22* 268:*5, 9, 19, 22* 269:*3, 6, 8, 11* 270:*21* 271:*15, 17, 22* 272:*1, 4, 7, 16, 20* 273:*14, 18, 21* 277:8 280:*3, 14, 21* 281:7 291:*17, 22* 292:8 293:*3* 295:*5* 298:*1* 299:*1* 303:*1* 305:*3, 8* 307:*9* 308:*18, 21* 309:*8, 12*
pollution-free 85:*5*
pollution-reducing 262:*5*
pollution's 108:*9*
Pool's 282:*11*
poor 44:*11* 115:*17* 205:*18* 206:*4* 208:*19* 217:*21*

218:*1* 219:*7* 232:*11* 242:*3*
popular 84:*7*
population 105:*10* 125:*15* 166:*10* 305:*10*
populations 20:*22* 40:*19* 50:*19* 73:*2* 160:*17* 188:*19* 199:*17* 205:*16* 206:*18* 207:*4, 7*
portfolio 56:*9*
portion 61:*5*
portions 50:*15* 103:*11*
pose 105:*13* 255:*4*
posed 141:*20* 242:*1*
poses 85:*11* 187:*16* 275:*9*
position 10:*4* 93:8 257:*10*
positions 113:*3*
positive 87:*16* 251:*5*
possibility 110:*4* 142:*22*
possible 18:*6* 20:*12, 19* 21:*15* 29:*3, 16* 30:*15* 32:*7* 33:8 34:*18* 35:*12, 13* 43:*15* 45:*4, 11* 46:*6* 49:*14* 65:*3, 13* 66:*12* 74:*5* 79:*15* 83:*11* 85:*9, 17* 96:*9, 16* 98:*22* 100:*14, 15* 103:*20* 106:*9, 12* 107:*4* 111:*14* 115:*6* 118:*12, 13* 126:*6* 145:*10* 161:*11* 162:8 164:*7* 166:*19* 173:*11* 181:*15* 185:*17* 187:*10* 198:*7* 200:*4* 203:*18* 204:*3* 208:*18* 217:*18* 220:*19* 222:*4* 228:*15* 232:*2* 235:8 237:*16, 21* 240:*6* 241:*20* 246:8 247:*21* 248:*2, 14* 252:*4* 253:*15* 254:*12* 256:*22* 262:*2, 19* 265:*12* 269:*2, 9, 15* 271:*13, 15* 290:*6* 308:*11, 19*

post 13:*19*
post-2026 194:*9*
post-22100 145:*1*
post-Model 52:*8*
potential 140:*5* 165:*7* 172:*22* 190:*14* 290:*13* 293:*15* 294:*20*
Potomac 253:*8*
pounded 260:*20*
pounds 251:*1*
poverty 291:*17*
Power 2:*13* 36:*18* 37:8 54:*20* 66:*9* 87:*19* 91:*15* 92:*15* 145:*3* 173:*4* 174:*10* 184:*10* 283:*14* 299:*5* 302:*10, 11* 303:*2, 11* 305:*7* 307:*2*
powered 160:*11*
powerful 219:*5* 243:*5* 251:*15*
powering 174:*1, 7*
practicality 156:*4*
practice 159:*2* 273:*4*
practices 34:*5* 89:*17* 247:*6*
precautions 150:*6*
precedence 123:*12*
precursor 99:*15* 106:*7*
predict 307:*18*
predicted 88:*5*
pre-existing 293:*3*
preferences 122:*11*
preferred 21:*19* 34:*21* 42:8 227:*17* 254:*3*
pregnancy 136:*13*
premature 61:*19* 114:*19* 192:*1*
prematurity 136:*14*
Prep 6:*7*
preparation 310:*19*
prepare 153:*19*
prepared 307:*6*
preparing 66:*18*
present 13:*15* 19:*5* 52:*9* 90:*15* 217:*20* 219:*5* 288:*16* 293:8
presentation 14:*10*
presentations 12:*21*
presented 289:*13*
presenting 139:*2* 275:*19*
presents 157:*20*
preserve 255:*1* 256:*20*

President 8:*11* 9:*1* 16:*18* 27:*9* 29:*11* 31:*21* 32:*13* 36:*17* 48:*5* 56:*5* 70:*18* 76:*12, 19* 83:*6, 13* 116:*13* 129:8 149:*6* 151:*12* 152:*22* 158:*2* 159:*11* 161:*19* 164:*6* 166:*5* 167:*17* 189:*7* 208:*9* 215:*6* 239:*5* 288:*9*
President's 153:*12* 159:*17* 172:*3* 215:*4*
presiding 8:*4* 12:*12* 14:*1*
press 15:*3*
pressure 59:*7*
pretty 221:8 271:*6, 20*
prevent 45:*2* 191:*22* 200:*2*
preventable 137:*20*
preventing 161:*22*
previous 9:*9* 21:*11* 28:*21* 32:*2* 43:*16* 86:*14* 89:*19* 149:*6* 158:*17* 170:*17* 196:*3* 207:*9* 208:*21* 210:*6* 226:*16* 231:*2* 242:*20* 257:*3*
previously 227:*13* 285:*19* 289:*3*
previously-earned 66:*20*
price 63:*21, 22* 64:*15* 65:8 80:*11* 109:*14, 20* 195:*21* 200:*16* 278:*9*
prices 64:*2, 8, 10* 65:*15* 80:*13* 179:*2*
primary 33:*15* 106:*7* 168:8 171:*3* 239:*11* 263:*16*
principles 86:*15*
prior 14:8 15:*14* 18:*1* 28:*10* 35:*21* 47:*3* 59:*16* 81:*10* 100:*9* 101:*1* 119:*11* 134:*2* 151:*21* 154:*9* 211:*21* 229:*5* 244:*18* 259:*1* 287:*4*
priorities 27:8 125:*3*

prioritize 161:*5* 204:*3*
prioritizing 9:*7* 34:*15*
priority 21:*3, 9* 63:*13* 91:*10* 162:*2* 194:8
private 107:*14* 110:*14* 116:*10* 149:*1* 177:*2* 180:*6* 198:*18* 201:*19* 217:*16* 220:*11* 223:*12* 230:*3* 235:*5* 280:*10* 296:*5* 299:*6* 301:*2* 304:*1* 307:*3*
privilege 216:*7*
privileged 230:*9*
probability 91:*3*
probably 110:*22*
problem 105:*19* 108:*18* 123:*7, 9* 150:*10* 166:*14* 168:*17, 19* 169:*7* 302:*10, 13* 305:*3*
problematic 98:*7*
problems 138:*10* 139:*11, 17* 140:*5, 8, 14* 169:*12* 177:*14*
procedure 145:*12* 146:*19*
proceed 238:*3, 18* 259:*17, 18*
proceeded 139:*13*
proceedings 16:*13* 135:*3*
process 13:*1* 47:8 55:*9* 64:*11* 66:*21* 86:*16* 124:*2, 3* 159:*20* 192:*12* 235:*14* 268:*20*
processes 108:*3*
produce 47:*13* 85:*2* 144:8 157:8 211:*13* 262:*16* 290:*2*
produced 40:*11* 175:*19* 192:*5* 298:*6*
producer 112:*1*
producers 56:*8*
produces 197:*9* 203:*1*
producing 176:*14* 262:*9* 308:*12*
product 195:*6*
production 41:*14* 59:*3* 64:*7* 65:*14* 66:*14, 15* 87:*18* 156:*18* 157:*7, 12* 167:*22* 172:*7*

189:*10* 210:*8, 17,*
19 288:*15* 309:*3*
products 112:*21*
195:*10, 12* 207:*1*
professionals
163:*16* 164:*3, 18*
186:*13*
Professor 39:*21, 22*
117:*1, 8* 145:*8*
profit 122:*16*
profits 218:*13*
219:*5* 240:*4*
profound 25:*7*
308:*16*
Program 3:*12*
10:*5, 11* 18:*17*
19:*8* 51:*3* 55:*3, 7*
90:*12* 93:*7* 94:*17*
112:*5* 117:*3*
157:*21* 190:*21*
209:*13* 210:*17, 18*
213:*20* 214:*6*
215:*15, 19* 216:*8*
254:*21* 263:*9*
274:*16* 278:*21*
294:*19*
programs 189:*21*
210:*16* 215:*9*
283:*13*
progress 9:*15*
22:*13* 31:*2* 86:*18*
88:*16, 20* 90:*4*
175:*17*
progressed 228:*3*
progressing 231:*8*
progression 227:*15*
project 10:*11*
94:*2* 144:*14*
projected 34:*9, 10*
145:*7, 16* 155:*18*
projections 53:*21*
promised 27:*10*
70:*18* 129:*8*
214:*17* 217:*1*
promises 31:*22*
promising 289:*4*
promote 43:*18*
49:*10* 55:*18* 85:*15*
122:*5* 151:*15*
235:*10* 238:*6*
270:*2* 299:*20*
300:*15, 18*
promoted 15:*13*
35:*21* 59:*15* 81:*10*
82:*17* 100:*22*
119:*11* 134:*2*
141:*4* 151:*21*
169:*19* 193:*2*
211:*21* 229:*5*
244:*18* 259:*1*
287:*4*

promoting 9:*4*
21:*4* 156:*18*
299:*22*
promulgate 194:*16*
196:*8*
pronouncing 180:*5*
propagating 157:*12*
properly 199:*13*
property 292:*22*
prophesies 122:*13*
proposal 11:2, *22*
20:*10* 22:*10* 23:*17*
24:*13* 27:*22* 28:*10*
31:*10* 33:*13* 34:*20*
37:*7* 47:*15, 18*
58:*8* 69:*1* 75:*19*
76:*3, 6* 78:*17* 83:*9*
86:*11, 18, 21* 88:*18*
89:*6* 90:*2* 91:*1, 16*
92:*2* 94:*22* 95:*2*
98:*20* 103:*17*
116:*16* 118:*4*
129:*19* 135:*18*
141:*7* 149:*18*
153:*17* 154:*3, 13,*
16, 22 162:*5*
170:*20* 171:*22*
174:*19* 186:*22*
188:*14* 190:*8, 13*
191:*15, 20* 195:*9*
205:*4* 207:*5, 9*
214:*3, 6, 10* 254:*1*
256:*17* 258:*1, 20*
260:*17* 267:*10*
269:*10* 270:*16*
288:*17* 289:*21*
290:*16* 292:*9*
294:2, *5*
proposals 90:*20,*
22 112:*12* 129:*6*
147:*8* 290:*19*
proposal's 144:*4*
propose 11:*7* 52:*7*
62:*13* 85:*16*
proposed 9:*19, 21*
10:*9, 15* 12:*16*
25:*15* 27:*7* 30:*22*
31:*7* 47:*12* 49:*18*
58:*21* 59:2 60:*20*
61:*15* 62:*15* 65:*1,*
19 88:*3, 20* 89:*1*
140:*11* 142:*6*
144:2 146:*3, 14, 17,*
20 147:*7* 148:*10*
156:*8* 162:*8*
189:*13* 191:*10*
192:2 194:*21*
195:*5* 200:*21*
204:*4* 210:*5*
214:*11, 21* 223:*15*
226:*18* 234:*8*

257:*13* 258:*10*
278:*4* 280:*22*
proposing 102:*9*
111:*11*
Pros 6:*7*
prosperity 280:*6*
295:*4*
protect 8:*13, 19*
20:*12* 22:*19* 27:*16*
28:*3* 35:*15* 38:*2*
44:*1* 48:*15* 64:*13*
69:*3* 77:*3* 85:*7*
105:*5* 126:*10*
127:*7, 13, 14* 131:*1*
137:*14, 22* 150:*7,*
22 152:*20* 159:*5*
163:*18* 164:*7*
185:*17, 20* 194:*2*
218:*1, 2, 3* 232:*22*
233:*17* 243:*20*
246:*2, 10* 248:*4*
254:*22* 256:*10, 19*
270:*7* 271:*11*
273:*11, 13, 16, 20*
274:*1* 284:*19*
285:*3* 286:*15*
295:*5* 296:*21*
protected 297:*14*
protecting 45:*5*
73:*19* 74:*1* 97:*22*
128:*6* 130:*7* 267:*5*
PROTECTION
1:*2* 2:*1* 5:*5* 7:*6,*
14 9:*5* 11:*10*
30:*20* 46:*13* 69:*2*
86:*12* 133:*3*
135:*13* 142:*20*
183:*17* 184:*13*
185:*19* 193:*22*
218:*9*
protections 129:*5,*
20 130:*1* 149:*5*
281:*14*
Protective 19:*1*
70:*6* 137:*8* 159:*15*
207:*14*
proud 251:*21*
282:*3* 305:*16*
prove 110:*17*
proved 302:*14*
proven 54:*21*
provide 12:*9*
13:*10* 16:*8* 17:*22*
19:*1* 20:*4* 47:*2, 22*
55:*4* 57:*6* 58:*15*
59:*7* 73:*5* 77:*15*
89:*1* 90:*21* 134:*20*
138:*13* 165:*7*
172:*5* 176:*3*
181:*22* 182:*1*
238:*12* 239:*17*

243:*14* 275:*11*
299:*1* 302:*7* 303:*8*
provided 46:*9*
47:*16* 53:*13* 166:*1*
251:*21* 310:*18*
provides 12:*20*
89:*6* 142:*19* 154:*6*
157:*1* 165:*1*
176:*13* 239:*19*
providing 20:*16*
47:*16, 20* 67:*13*
157:*10* 194:*17*
210:*13* 240:*9*
281:*2* 289:*10*
provision 156:*9*
225:*1* 241:*22*
provisions 214:*16,*
20 224:*18, 20*
297:*14*
proximity 188:*8*
PRUITT 4:*12*
148:*19, 22* 149:*1*
pseudo-tumor
260:*15*
Psychological 164:*5*
pubic_hearing@abt
assoc.com 119:*19*
publc_hearing@abt
assoc.com 81:*18*
PUBLIC 1:*4* 3:*12*
7:*6, 16, 18* 8:*13, 20*
9:*5* 10:*3, 16* 11:*19*
12:*6, 8* 13:*7, 11*
15:*10* 16:*4, 18, 22*
20:*13* 23:*6* 24:*16*
25:*11* 26:*1* 27:*5*
28:*3* 33:*13* 41:*20*
42:*18* 47:*20* 50:*4,*
14 62:*6* 67:*13*
73:*19* 74:*12, 14*
77:*14* 84:*3* 86:*16*
89:*7, 16* 90:*13, 14,*
19 93:*5, 7, 10, 13*
97:*22* 102:*19*
104:*18* 116:*19*
124:*9* 132:*18*
133:*3, 8* 134:*16*
136:*20* 149:*5*
151:*2* 159:*2, 5*
163:*18* 164:*2, 7*
186:*20* 187:*17, 22*
188:*18* 190:*1, 14*
195:*13* 206:*15*
207:*15* 242:*1, 16*
248:*20* 256:*20*
258:*18* 267:*5, 9*
274:*11* 275:*4*
280:*14* 281:*1, 14*
299:*6* 311:*2*
public_hearing@abt
.assoc.com 152:*11*

170:*5* 193:*14*
245:*8*
public_hearing@abt
assoc.com 15:*21*
16:*2* 36:*7, 12* 60:*1,*
5 81:*22* 101:*8, 12*
120:*1* 134:*10, 14*
152:*7* 170:*9*
193:*10* 212:*7, 11*
229:*13, 17* 245:*4*
259:*9, 12* 287:*12,*
16 300:*12* 309:*22*
public_hearing@abt
associ.com 238:*15*
publicly 88:*11*
public's 90:*17*
published 41:*6*
Puerto 29:*14*
pull 249:*19*
pump 45:*6*
purchase 148:*15*
239:*10* 297:*18*
301:*22* 309:*1, 4*
purchased 99:*6*
200:*17* 240:*11*
296:*10*
purchaser 122:*11*
Purchasing 251:*20*
purpose 12:*14*
122:*8* 156:*18*
169:*9* 218:*5*
purposes 176:*5*
pursue 19:*11*
214:*19*
push 112:*17* 187:*4*
pushing 162:*3*
274:*17*
put 21:*22* 30:*19*
39:*9* 54:*2* 75:*13*
96:*17* 102:*19*
113:*6* 190:*9*
200:*15* 228:*11*
254:*7* 256:*17*
265:*13* 296:*15*
297:*10* 302:*15*
308:*1*
puts 153:*22* 162:2
209:*4* 308:*3*
putting 35:*3*
42:*17* 48:*11* 99:2
103:*22* 172:*1, 8, 18*
176:*10* 253:*16*
262:*4*

< Q >
quadruple 307:*21*
quaint 76:*7*
qualified 239:*20*
Quality 2:*5* 8:2
17:*21* 41:*3* 42:2
44:*11* 49:*4* 50:*13*

59:*11* 68:*21* 69:*5,
6* 70:*3* 72:*11*, *18*
98:*9* 99:*22* 103:*7,
19* 106:*15* 113:*17*
129:*2* 136:*17*
137:*2* 150:*7*
166:*17* 174:*20*
177:*10* 194:*6*
206:*4* 208:*19*
221:*8*, *11* 232:*11,
18* 233:*16* 242:*4*, *7,
10* 246:*7* 256:*4*
260:*22* 261:*3*
271:*21* 272:*2*
286:*4* 304:*3*
quantify 25:*10*
quasi-military
122:*5*
Queens 126:*15*
127:*10*
question 37:*13*
77:*10* 195:*4*
questionably
142:*14*
questions 14:*11*
15:*4* 19:*20* 55:*12*
172:*17* 192:*20*
quick 77:*10*
100:*20* 238:*9*, *12,
20* 302:*3*, *13*
quickly 10:*5* 24:*8*
30:*15* 52:*7* 74:*5*
75:*2* 85:*18* 86:*21*
90:*2* 118:*11*, *12*
158:*14* 159:*19*
171:*4* 187:*10*
188:*13* 208:*17*
217:*3* 244:*3* 254:*2*
255:*12* 256:*16*
269:*11* 293:*9*
302:*14*
quiet 302:*3*
quite 40:*13* 167:*9*
249:*18* 250:*3*
quo 203:*16*
251:*16* 294:*22*
quote 34:*21*
Quoting 19:*7*
106:*19* 143:*10*

< R >
R1T 213:*17*, *19*
racial 27:*5* 31:*19*
206:*10* 207:*4*
292:*7*, *11*
radars 301:7, *10*
Radiation 2:*3*
7:*15*, *21*
radical 129:*10*
radius 240:*8*

rain 95:*9* 185:*1*, *6*
268:*14*
rainfall 24:*22*
34:*1* 227:*11* 234:*1*
raise 82:7, *8* 93:*6*
97:*2*, *3*, *11* 104:7, *8*
120:*5*, *6* 131:*11*, *13,
17*, *19* 132:*2*, *3*
166:*13* 201:*6*, *8*
204:*11*, *12* 207:22
208:*2* 212:*15*, *17,
22* 213:*2* 223:*2*, *3*
225:*12*, *13*, *21*, *22*
238:*5*, *11*, *13*
265:*21* 266:*1*, *8*, *10*
269:*21* 279:*6*
287:*20* 295:*16*, *18*
299:*6* 300:*15*
310:*2*, *14*
raised 14:*12*
55:*18* 139:*18*
248:*21* 250:*6*
260:*9* 283:*4*
299:*22* 300:*17*
306:*17*
raising 70:*13*
270:*1* 287:*21*
299:*19*
rallying 163:*13*
RAMON 2:*11*
29:*6*, *11*
ramping 168:*2*
ranchers 288:*11*
RANDOLPH 3:*11*
82:*5* 86:*2*, *5*, *6*
Range 98:*5*, *9*, *11*
99:*18* 106:22
136:*19* 141:*9*
155:22 176:*2*
192:*17* 197:*20*
239:*11* 240:*7*, *13*
288:*15* 301:*7*
309:*4*
ranging 240:*18*
rapid 23:*20* 51:*20*
70:*12* 73:*15* 78:*21*
109:*16* 125:*10*
184:*2* 236:*3* 243:*1*
rapid-charging
299:*4*
rapidly 30:*14*
51:*4* 53:*17* 88:*11*
126:*8* 144:*20*
228:*3* 237:*13*
rapidly-growing
214:22
rarely 100:*6* 203:*9*
RASTO 2:*20*
52:*12*, *15*
rate 203:22 268:*2*
294:*1*, *7*

rates 47:*11*
205:*18* 206:*2*
233:*5*, *6* 237:*19*
267:*18* 294:*15*
rating 176:*2*
Ratings 267:*20*
ratio 58:*11*
191:*11*, *21* 192:*3*
rational 294:*8*
RAUCH 2:*12*
32:*17*, *20*
RCP 145:*13*, *15*, *19*
reach 25:*3* 35:*10*
75:*21* 76:*7* 106:22
125:*9* 175:*14*
190:*2* 194:*14*
294:*21* 295:*10*
307:*21*
reached 108:*11*
214:*16*
reaches 307:22
reaching 61:*1*
reaction 269:*1*
read 40:*10* 42:*20*
126:*16* 219:*12*, *16*
263:*6*
readily 247:*3*
readily-available
57:*7*
reading 12:*5*
reads 218:*21*
ready 7:*11* 47:*8*
67:*4* 88:*2* 99:*8*
132:*7* 133:*8*
191:*18* 259:*17*, *18,
22* 266:*16* 283:*21*
300:*18* 310:*6*
real 18:*16* 19:*13*
21:*1* 29:*16* 64:*15*
108:*17* 118:*16*
120:*15* 157:*1*
244:*1* 288:*8*
realities 76:*4*
reality 10:*20*
25:*17* 30:*5* 98:*17*
113:*1* 121:*21*
247:*1*
realization 108:*6*
realize 133:*11*
realized 217:*2*
290:*9*
realizing 79:*1*
really 40:*20* 76:*9*
121:*1*, *11*, *20*, *22*
122:*12*, *17* 123:*4,
10* 128:*5* 179:*10*
180:*5* 181:*3*
202:*15* 221:*1*
230:*15* 243:*5*, *8*, *9,
18* 270:*21*

real-world 157:*16*
171:*8* 172:*20*
173:*2* 222:*12*
242:*21* 243:*13*
257:*7*
reaped 292:*17*
reason 11:*4* 25:*13*
141:*12* 142:*2*
154:*6* 211:*13*
218:*9* 230:*20*
reasonable 10:*12*
14:*3* 110:*19*
173:*21*
reasons 52:*4* 62:*3*
209:*2* 239:*11*
271:*12* 301:*16*
reauthorizing
217:*4*
rebate 94:*17*
rebuild 84:*18*
88:*17* 130:22
recall 95:*7*
receive 12:*6*, *15*
15:*12* 35:*20* 59:*14*
81:*9* 100:*21*
101:*22* 119:*10*
134:*1* 151:*20*
169:*18* 192:*13*
193:*1* 211:*20*
229:*4* 244:*17*
258:*22* 287:*3*
received 230:*11*
receiving 249:*6*
250:*12*
recess 132:*7*
258:*3*, *5*, *13*
recharge 179:*4*
recharging 179:*6*
recipients 305:*11*
reclaim 77:*3*
recognition 62:*8*
71:*19*
recognize 14:*16*
90:*4* 107:*15*
110:*19* 111:*5*
190:*9* 282:*15*
298:*5*
recognized 76:*1*
89:*2* 117:*9* 218:*6*
recognizes 289:*17*
Recognizing 46:*11*
99:*4* 113:*2* 116:*14*
recommend 66:*18*
215:*6*, *17*, *21* 216:*1*
recommendations
139:*13* 175:22
recommended 48:*9*
reconfirming 70:*12*
reconsider 140:*12*
169:*8*

reconsideration
54:7 89:*20*
reconsidering
140:*11*
reconsiders 43:*15*
235:*8*
reconvene 258:*4*,
10 311:*6*
record 9:*13*, *17*
14:*2*, *6* 16:*13*, *15*
20:*1* 23:*3* 25:*5*
26:*14* 29:*8* 32:*19*
36:*15* 39:*20* 42:*18*
43:*4* 46:*1* 48:*20*
52:*14* 56:*3* 60:*8*
63:*6* 67:*9* 71:*13*
74:*18* 78:*4* 82:*15*
86:*4* 90:*9* 93:*20*
97:*16* 101:*15*
104:*14* 107:*10*
110:*11* 114:*2*
116:*5* 120:*13*
123:*18* 124:*18*
127:*19* 135:*3*, *6*
138:*6* 141:*2*
143:*18* 146:*9*
148:*21* 152:*14*
153:*6* 155:*5* 158:*8*
161:*17* 165:*15*
167:*13* 170:*12*
173:*15* 176:*20*
178:*7* 180:*1* 183:*8*
186:*4*, *21* 189:*4*
193:*19* 196:*17*
198:*16* 201:*15*
204:*19* 208:*8*
213:*9* 217:*10*
220:*7* 223:*9* 226:*7*
229:*21* 231:*14*
239:*3* 241:*13*
245:*11* 248:*9*
252:*21* 254:*17*
260:*2* 261:*10*, *14*
266:*17* 274:*7*
279:*14* 283:22
291:*13* 296:*2*
300:*20* 303:*19*
306:*20*
recordbreaking
236:*14*
record-breaking
268:*12*
recorded 13:*16*
202:*5*
recording 13:*19*
115:*20*
recover 51:*2*
86:*17* 170:22
recovered 263:*18*
recovering 127:*4*
recycling 283:*12*

Red 149:*14* 154:*21* 242:7 257:*14* 261:*8* 307:*5*
red-line 292:*20*
reduce 8:*21* 18:*18* 19:*13* 22:7, *12* 27:*2* 35:*2* 37:*6* 46:7 47:*19* 57:*14*, *19* 61:*9*, *13*, *18*, *22* 63:*12* 64:*18* 79:*16* 80:*21* 85:7 91:*8*, *11* 93:*3* 98:*20* 99:*5*, *16* 100:*10* 120:*22* 125:*13* 126:*9*, *10* 127:*6* 135:*18* 154:*11* 165:*4* 168:*14* 172:*11* 175:*20* 182:*6* 189:*22* 191:*1* 197:*4* 206:*16* 215:7 243:*12* 249:*15* 250:*22* 260:*18* 270:*21* 281:*16* 288:*22* 290:*14* 293:*9*, *15* 302:*16* 304:*7* 305:*8* 306:*8* 309:*12*
reduced 53:*21* 174:*5* 200:*16* 206:*18* 289:*19*
reduces 57:*4*, *10* 115:*3* 292:*8*
reducing 9:*6* 48:*11* 49:*19* 56:*22* 62:*9* 79:*3* 87:*17* 89:*14* 94:*15* 99:*14* 111:*17* 135:*20* 174:*11* 190:*17* 200:*1* 208:*18* 283:*1* 289:*5*, *11* 291:*22* 294:*11*
reduction 19:*2* 31:*1* 34:*16* 35:*1* 41:*13*, *14* 51:*13* 74:*9* 99:*3* 104:*1* 110:*4* 111:*14* 142:*7* 226:*19* 227:*20* 235:*18* 253:*18* 254:*6* 265:*14* 271:*15* 278:*11* 281:*12* 294:*21*
reductions 10:*6*, *14* 11:*4* 18:*17*, *19*, *21* 19:*9*, *16* 20:*17* 22:*11* 24:*13*, *14* 25:*14* 26:7 29:*17* 43:*22* 47:*11* 50:*10* 52:*2* 55:*5* 57:*6*

58:*1* 81:*4* 85:*15* 109:*16* 118:*14*, *17* 125:*10* 142:*5* 144:*5* 151:*15* 155:*15* 156:*14* 158:*21* 159:*1* 164:*10* 168:*11* 174:*22* 191:*5* 192:*9* 199:*17* 206:*21* 215:*20* 222:*13* 224:*4* 230:*12*, *13*, *17*, *22* 242:*21* 243:*13*, *16* 257:*2*, *7* 274:*19* 276:*7* 289:*10* 290:*10*
re-elected 282:*2*
re-establish 59:*3*
REEVES 5:*12* 212:*12*
referenced 42:*17*
refined 203:*6*
refinement 206:*22*
refineries 17:*17* 87:*21* 195:*17*
reflect 76:*3* 88:*13* 117:*10* 156:*13* 157:*16* 216:*5* 242:*22*
reflected 49:*17*
reflective 22:*6*
refueling 211:*7*
refuse 139:*22*
refused 284:*16*
regard 284:*21* 301:*21*
regarding 12:*16* 116:*17* 192:*13* 283:*9* 289:*14*
region 150:*12* 185:*7* 275:*16*, *21* 282:*11*, *12*, *13*
regional 49:*3*
regions 54:*3* 256:*5*
region's 105:*10*
Register 10:*2* 124:*3*, *7* 309:*18*
registered 13:*1*, *14* 14:*20* 15:*22* 20:*6* 36:*9* 60:*2* 81:*19* 91:*5* 101:*9* 119:*20* 134:*12* 152:*8* 170:*6* 186:*11* 193:*11* 212:*8* 229:*14* 245:*5* 259:*10* 287:*13*
registration 13:*1*
regretted 99:*8*
regular 179:*5* 185:*8*
regularly 272:*8*

regulate 74:*5* 280:*14*
regulated 129:*22* 213:*19*
regulating 214:*7* 231:*6*
regulation 109:*11* 148:*1*, *7*, *16* 214:*4* 251:*5* 284:*18* 286:*2*
regulations 9:*3* 11:*6* 19:*18* 27:*18* 47:*5* 78:*18* 129:*4*, *21* 163:*18* 211:*12* 249:*13* 250:*20* 283:*9* 296:*9* 297:*2*
regulation's 146:*14*
regulations.gov 13:*18* 16:*10* 134:*22*
regulatory 54:*11* 56:*5* 109:*12* 190:*15* 194:*9*, *18* 215:*2* 260:*17* 290:*17* 291:*5*
Rein 171:*7*
reinforce 88:*15*
reinstate 28:*10* 32:*12* 110:*1* 170:*18* 178:*1* 252:*7*
reinstated 210:*10*
reinstatement 121:*7*
reinstating 226:*17* 228:*1*
reiterate 40:*3* 59:*6*
reject 74:*7*
rejoining 258:*18*
related 45:*15* 70:*3* 72:*10* 73:*5* 122:*7* 180:*17* 295:*2*
relations 123:*8*
relationship 141:*22*
relatively 13:*8*
relaxed 86:*13*
released 33:*17* 84:*10* 160:*8*, *14* 175:*3* 236:*1*
relevant 52:*20*
reliability 203:*8*
reliance 24:*4* 66:*7*
relied 139:*5*
relief 244:*10*
relies 100:*7* 144:*13*
relieved 149:*4*
religious 37:*9*
relocated 178:*14*
reluctance 156:*5*
rely 61:*6* 174:*17* 286:*1*, *16*, *21*

relying 139:*3* 192:*7* 285:*4*
remain 54:*14* 56:*8* 64:*7* 307:*9*
remainder 159:*3*
remaining 250:*13* 298:*20*
remains 43:*20* 88:*2* 99:*22* 235:*12*
remarks 133:*14* 160:*22* 176:*1* 189:*15* 277:*21*
remember 94:*7* 218:*13* 274:*14* 284:*12* 310:*21*
REMILIEN 3:*20* 113:*22* 115:*13*
REMILION 114:*3* 116:*1*
remind 67:*14* 108:*19* 117:*18*
reminder 13:*11* 15:*10* 22:*14* 35:*19* 59:*13* 81:*8* 82:*16* 100:*20* 119:*9* 133:*21* 141:*3* 151:*19* 169:*17* 192:*22* 211:*19* 213:*1* 229:*3* 238:*9*, *12* 244:*16* 258:*21* 259:*20* 263:*3* 275:*3* 287:*2* 300:*2*, *13*
reminders 46:*10*
remote 74:*13* 272:*5*
remotely 107:*12*
Removal 68:*6* 298:*11*
remove 19:*12* 155:*13* 179:*17* 291:*4*
removed 139:*16* 210:*7*
Removing 140:*16* 158:*1*
rems 114:*8*
RENE 5:*8* 201:*13*, *18*
Renee 4:*4* 104:*4*, *5* 127:*17*, *20*
Renewable 5:*3* 60:*14* 160:*11* 189:*8*, *11*, *21* 208:*13*, *22* 209:*8*, *14*, *18* 210:*14*, *17*, *18* 286:*8* 302:*13*, *21*
renewed 49:*17*
Reno 260:*21*

261:*1*, *8*
Reno's 260:*22*
repair 185:*5* 195:*21*
reparations 129:*13*
repeat 17:*20*
repeated 143:*14*
Repeatedly 284:*18*
repetitious 14:*3*
replace 86:*12* 166:*18* 168:*4* 174:*2*, *19* 200:*12*
replacement 92:*14* 169:*11* 211:*4*
replacing 169:*4* 187:*2*
report 10:*22* 17:*10*, *13* 30:*12* 33:*17*, *20* 38:*7* 40:*6* 69:*7* 71:*1* 72:*14* 83:*20* 87:*7* 102:*2* 105:*7* 125:*6* 126:*17* 149:*14* 154:*20* 160:*8*, *19* 175:*3*, *9* 183:*22* 184:*2* 205:*21* 221:*22* 235:*21* 257:*15* 261:*6* 274:*22* 275:*13* 294:*10* 307:*4*, *6*
reported 73:*14* 135:*22* 257:*10* 260:*21*
reporter 16:*12* 135:*2*
Reports 4:*18* 70:*10* 109:*3* 115:*2* 125:*19* 170:*16* 171:*3* 184:*13* 261:*3*
report's 307:*8*
represent 74:*21* 243:*5* 279:*17*
representation 68:*11*
representative 281:*5*
represented 80:*17* 164:*19*
representing 47:*9* 105:*2* 165:*19*
represents 141:*13* 153:*11* 206:*14* 288:*13* 290:*2*
reprieve 293:*14*
Republicans 91:*13*, *21* 92:*8* 93:*1*, *5*
request 14:*7* 62:*4*, *14* 140:*10* 223:*14*
requested 139:*15*
requesting 21:*13*

require 42:*6*
50:*10* 58:*19* 91:*17*
167:*10* 191:*22*
192:*4* 200:*13*
224:*13* 276:*6*
291:*4*
required 22:*7*
requirement
194:*10*
requirements 88:*9*
172:*19* 191:*14*
requires 39:*11*
166:*17* 222:*6*
240:*1* 303:*10*
requiring 84:*22*
requisite 81:*4*
rerouted 272:*10*
research 28:*14*
40:*21* 87:*6* 90:*12*
145:*3* 147:*2* 176:*2*
188:*10* 190:*20*
301:*5*
researched 57:*9*
resemblance 147:*7*
reserves 145:*3*
reservoirs 87:*4*
reshape 56:*13*
reside 127:*20*
303:*22*
residence 263:*16*
resident 26:*20*
69:*4* 266:*22* 288:*4*
residents 27:*3*
126:*18*, *19* 136:*21*
242:*11* 288:*6*
resilience 8:*22*
resiliency 293:*2*
resistance 224:*22*
resource 68:*12*
Resources 2:*9*
3:*11* 55:*7* 86:*7*
89:*8* 111:*17*
273:*16* 298:*21*
respect 176:*7*
respected 90:*16*
respiratory 69:*21*
128:*12* 130:*3*
177:*14* 207:*8*
237:*19*
respond 18:*15*
53:*6* 243:*4* 307:*7*
respondents 90:*21*
92:*18*
responding 62:*14*
response 22:*7*
55:*20* 82:*10* 97:*5*,
12 104:*10* 120:*8*
131:*14*, *20* 132:*4*
201:*10* 204:*14*
208:*3* 212:*18*
213:*4* 223:*5*

225:*15* 226:*2*
234:*14* 238:*8*, *17*
241:*22* 245:*12*
266:*2*, *12* 279:*9*
295:*19* 300:*8*
310:*3*, *15*
responsibility
33:*15* 39:*1* 125:*12*
140:*3* 159:*4*
217:*22* 267:*7*
280:*13*
responsible 30:*9*
94:*10*
rest 232:*4* 297:*18*
restaurants 272:*14*
Reston 94:*5* 95:*6*
restore 39:*4* 47:*15*
51:*2* 86:*19* 214:*3*
256:*16*
restoring 45:*8*
200:*18*
restricted 141:*9*
rests 142:*15*
result 11:*3* 19:*4*
22:*1* 30:*22* 64:*21*
118:*16* 145:*1*
157:*6* 159:*1*
171:*11*, *22* 185:*6*
214:*20* 219:*10*
222:*12* 228:*12*
254:*8* 274:*18*
284:*20*
resulted 41:*19*
resulting 35:*4*
232:*12*
results 111:*12*
144:*10*
resume 132:*17*
133:*20*
rethink 70:*15*
302:*6* 303:*4*
Retired 4:*20* 6:*18*
178:*9* 202:*11*
203:*14* 251:*19*
296:*5* 301:*2*
return 117:*9*
145:*21* 153:*13*, *17*
236:*19*, *22*
returns 86:*22*
111:*19*
reusable 285:*20*
REV 36:*16*
Reverend 36:*16*
reverse 27:*10*
47:*3* 170:*17*
reversing 32:*2*
161:*1* 196:*2* 198:*2*
review 9:*2*, *9*
53:*19* 115:*21*
139:*14* 140:*20*
145:*4* 235:*14*

reviewed 9:*13*
91:*2* 139:*10*
revise 39:*4* 288:*17*
REVISED 1:*5* 7:*7*
9:*19* 11:*2* 65:*19*
133:*3* 258:*18*
263:*14*
revising 65:*2*
revision 52:*20*
Revisions 12:*16*
reviving 215:*11*
revolution 153:*2*
236:*13*
revolutionary
129:*10*
reward 210:*16*, *19*
rewarded 276:*18*
rewards 210:*18*
RFA 189:*8*, *17*, *19*
RFS 59:*4* 210:*17*
Rhodium 175:*3*, *6*
rich 251:*15* 297:*17*
Rico 29:*14*
riddled 227:*18*
RIEMENSCHNEID
ER 5:*9* 204:*17*, *20*
right 20:*10* 23:*15*
25:*8* 29:*18*, *21*
30:*7* 38:*13* 41:*5*
42:*12* 68:*2* 69:*10*
71:*7* 77:*18* 83:*11*
95:*3* 97:*6* 103:*17*
118:*4* 122:*18*
123:*11* 136:*5*
149:*17* 153:*2*
162:*21* 163:*4*
175:*17* 191:*3*
198:*7* 211:*5*
214:*10* 220:*16*
233:*22* 235:*2*
236:*20* 241:*3*
250:*3* 269:*2*
270:*16*, *18* 271:*7*
272:*9*, *10*, *11*
284:*19* 286:*14*
304:*3*, *9*, *15*, *17*
305:*2*, *19* 306:*1*
rightly 307:*4*
Rights 67:*22*
rigorous 235:*13*
rise 50:*6* 160:*3*
202:*9* 218:*21*
219:*3*, *14* 255:*9*
294:*10*
risen 236:*11*
rising 102:*16*
168:*20* 169:*2*
209:*18* 268:*13*
285:*14*
risk 44:*14* 79:*3*
95:*21* 136:*13*, *22*

195:*15* 206:*5*
242:*3*, *8* 255:*6*
308:*3*
risks 66:*5* 105:*13*,
15 142:*5* 157:*19*
242:*1* 292:*11*
294:*9* 308:*5*
River 253:*8* 272:*6*
307:*14*
rivers 223:*20*
271:*6* 286:*5*
Rivian 213:*13*, *15*
216:*10*
RNG 209:*3*, *9*, *10*
210:*16* 211:*3*, *7*
road 18:*19* 19:*3*
22:*1* 35:*4* 57:*21*,
22 88:*8* 112:*12*
160:*19* 162:*5*
168:*5* 174:*14*
211:*5* 213:*22*
223:*19* 228:*12*
246:*16*, *19* 254:*8*
277:*7* 305:*2*
roads 74:*22*
126:*20* 173:*20*
roadway 137:*7*
246:*21* 247:*7*
roadways 17:*16*
87:*20* 247:*11*
ROB 6:*16* 287:*17*
288:*9*
Robin 8:*7* 42:*15*
robust 22:*7* 64:*22*
66:*13* 106:*21*
164:*13*
Rocky 98:*8*
Roger 145:*8*
role 35:*21* 56:*17*,
21 59:*15* 62:*4*
81:*10* 87:*15*
100:*22* 119:*11*
134:*2* 151:*21*
169:*19* 174:*11*, *21*
192:*13* 193:*2*
196:*4* 211:*21*
229:*5* 241:*6*
244:*18* 252:*2*
256:*2* 259:*1* 267:*5*
287:*4*
roll 210:*5* 226:*15*
rollback 158:*15*
161:*1* 170:*18*
195:*6* 196:*5* 214:*5*
rollbacks 21:*11*
149:*4* 207:*10*
RON 176:*3* 192:*18*
Ronn 78:*8*
roof 299:*5* 302:*1*

Room 1:*20* 44:*21*
95:*22* 113:*19*
206:*2* 294:*14*
rooms 105:*16*
rope 95:*15*
ROSE 6:*8* 254:*15*,
18, *20*
roughly 61:*4* 62:*1*
75:*6* 147:*13*
round 21:*14* 81:*2*
244:*4*
row 15:*13*
rule 12:*4* 13:*20*
19:*17* 21:*14*, *22*
24:*11* 25:*15* 27:*8*
28:*4*, *14*, *18* 29:*3*,
20 30:22 31:*7*
32:*9* 48:*4* 49:*18*
51:*16* 60:*20* 61:*15*
62:*15*, *20* 66:*18*
79:*13* 86:*22* 92:*16*
112:*11* 118:*11*, *14*
140:*11*, *12* 144:*2*
146:*3* 151:*6*
153:*11*, *16*, *22*
158:*19* 159:*7*, *20*
162:*8*, *10*, *12*
163:*21* 166:*15*
168:*7*, *10* 169:*8*
171:*9* 172:*12*
187:*3* 189:*13*
192:*2*, *15* 194:*9*
195:*2*, *8* 200:*21*
207:*12* 222:*11*
223:*16* 228:*10*
258:*10* 278:*20*
290:*18* 292:*2*, *10*
298:*3*
rulemaking 10:*1*
11:*12* 18:*12* 30:*19*
62:*10*, *13* 64:*11*
86:*15* 139:*20*
141:*19* 165:*10*
171:*4* 192:*12*, *14*,
18 196:*2* 210:*5*
rulemakings
196:*11*
Rules 13:*22* 32:*4*
48:*5*, *9* 65:*2* 73:*6*,
9 113:*6* 124:*1*, *5*,
10 153:*19* 196:*8*
243:*13*, *15* 257:*3*
297:*16* 308:*16*
rule's 138:*9*
155:*14*
ruling 204:*4*
run 92:*4*, *11*
173:*20* 176:*15*
179:*1*, *8* 269:*1*
runaway 255:*8*

running 109:9 257:15 270:12
runoff 275:19
runs 178:17
rural 73:22 128:14 130:6 136:6 261:4, 6 262:12 263:7 271:18 288:4, 5, 6, 12 290:22
rush 233:2
rushed 127:2
Russia 64:5
rusty 199:19

< S >
Sacramento 241:17
sacred 39:1
sacrificed 68:18
sadly 153:10
Safe 51:16 63:11 64:13 65:1 66:1 67:4 68:2 71:8 73:20 78:18 141:19 153:16 163:21 166:9, 13, 17 168:13 187:2 207:6 228:20 232:17 273:4
safeguard 23:15 33:15 129:19
safeguards 281:6
safely 280:14
safer 26:8 251:4 278:22 285:5 286:2, 17, 21
safety 98:1 122:7 129:3 141:8, 18, 21 142:4, 11, 13, 16, 17, 19 143:6 203:9 249:14 250:21 289:16
sale 48:10
sales 21:17 31:6 35:9 71:5 75:6 79:12 80:16 81:3 96:13 100:12 121:17 122:1, 16 154:18 157:3, 6 167:5, 10, 11, 19 168:2, 3 174:16 175:4 185:15 194:11, 13 210:9 228:7 257:21
salesman 296:5
saltwater 219:13
SAM 4:9 141:1, 5
samples 91:4
San 256:4
sand 304:12
Sandia 103:10

SANDRA 3:20 113:22
sat 231:1
satisfies 141:17
satisfy 122:5
satisfying 301:22
save 70:6 84:4 85:8 92:3 161:21 200:15 218:4 224:5 225:6 292:1 299:10
saved 157:20
saves 115:8 302:18
saving 45:6 92:10 177:20
savings 10:13 20:17 25:13, 16 48:1 147:11 153:22 154:5 156:13 172:22 180:12 197:3 200:11 201:22 249:10 250:17 281:4 293:20 294:3 299:1
saw 41:18 103:1
saying 112:5 183:11 227:12 304:6
says 141:16
scalable 210:12
scale 22:19 108:22 176:11
scales 108:3 144:19
Scarborough 91:4
scared 285:16, 17
scary 221:3
scenarios 107:4 144:18, 19 145:1, 18 175:4 236:8
schedule 109:20 299:14
scheduled 12:22 132:8 164:10 299:16 300:14 309:17
scheme 122:18
schemes 83:16 162:10 218:12
School 6:15 90:14 94:18 95:13 96:3 114:10 231:2 232:13 239:5 246:12, 14, 22 247:6, 9 272:12 284:2, 6 285:12
schools 246:15 247:11 272:14, 16
science 8:19 23:11, 22 58:9 86:15, 22

183:22 284:6 285:7, 8, 10 297:2, 4, 5
Sciences 40:1
scientific 58:13 138:11 140:15, 19 146:4
scientist 23:8, 12 267:2 308:1
scientists 10:21 40:8, 12 109:15 126:17 166:1 227:12 275:14 307:5, 18
scope 192:11 275:5
SCOTT 4:13, 15 152:12, 16 158:6, 9, 10
screamed 284:15
screen 15:13 16:6 35:20 59:14 81:9 100:21 119:10 134:1, 18 151:20 169:18 193:1 211:20 229:4 244:17 245:15 249:22 258:22 259:15 263:6 287:3
screwed 285:22
Scrutiny 218:22
sea 50:6 218:21 219:3, 14 255:9 268:13 285:14 304:12
Seaman 176:18, 21 177:1
Searing 33:22
season 236:16, 22 307:16
seasons 102:14
Seba 302:5
second 37:17 108:1 197:2 198:9, 20 200:7 201:21 206:20 221:6 230:5 249:10 250:16 276:4 279:17 284:8 285:18 286:19 292:7 296:9, 11 309:20
Secondly 18:16 142:4 215:16
seconds 115:17
Secretary 149:13
Section 12:19 50:1 217:5
sector 20:14 21:7, 8 24:5 33:2 48:3

56:18 63:15 64:18 65:9 66:11 69:11 79:11 94:10 98:15 99:10 102:4 118:6 126:5 128:9, 15 149:8 150:15 161:11 184:6 186:18 188:2 206:14 208:12, 17 211:10 223:16 231:19 234:5 242:17 244:5 253:13 257:16 276:8 277:19 293:7 308:17
sectors 41:17 89:14 98:19 188:2 293:19
secure 26:8
Securing 3:4
security 62:2 63:13 65:10 224:14 249:4 250:10
Sedan 251:3
see 28:5, 7 33:14 79:2, 15 96:22 97:8 103:10 116:16 130:19 131:9 159:9 187:20 197:17 199:11 201:4 202:9 204:9 207:20 219:4 222:22 224:10 232:17 233:21 234:22 250:5 261:5 264:4 266:6 272:19 287:21 291:21 297:1 299:21 300:17 304:10, 12 305:20 310:1
seeing 21:1 82:5 163:3 187:11 222:6 233:22 275:6
seek 39:16 240:3
seeking 116:14, 19
SEEMAN 4:19
seen 31:4 68:15 77:19 95:8 102:16 160:2 168:20 199:15, 16, 17, 18, 19, 20 200:11 202:17 216:10 227:7 232:20 249:13 250:20 256:8 297:9
segment 215:1

segments 244:8
segregation 69:16
seize 173:10
selection 121:6 144:18
self-fulfilling 122:13
selfish 111:3
selling 122:12 198:4
semis 272:13
Senate 6:14 279:18
SENATOR 3:3 6:14 60:6, 9 123:22 189:16 279:12, 15 280:11
send 15:21 16:2 36:7, 11 60:1, 4 81:18, 21 101:8, 10 105:16 119:19, 22 134:10, 14 152:7, 10 170:5, 8 193:10, 13 212:7, 10 229:13, 16 245:4, 7 259:9, 12 283:8 287:12, 15 309:20
Sending 157:17 246:14
Senior 16:18 48:22 56:5 78:9 90:12 143:19 146:11, 13 170:15 194:4 213:12 241:15
seniors 105:14 136:22
sense 42:3 112:8 228:4
sensible 86:9
sensitive 94:3 105:13 136:19 149:22 150:2
sensitivity 144:13 147:10
sent 28:2 164:5
sentence 128:14
separate 196:2
separately 276:12
September 12:7 13:12 91:9 160:9 261:22 311:1
Sequoia 255:15
Sequoias 255:15
series 8:11
serious 18:5 98:12 100:10 105:19 187:16 222:3 272:2
seriousness 46:9

serve 49:*4* 63:*8* 98:*1* 104:*17* 125:*1* 165:*17* 166:*22* 288:*9* 306:*21*
served 156:*18* 283:*11* 301:*2*
service 105:*7* 249:*6* 250:*12*
Services 137:*11, 16* 240:*4*
serving 20:*21* 157:*11* 280:*11*
SESSION 4:*5* 13:*3* 132:*6, 13* 133:*1, 12, 16* 281:*22* 310:*5*
set 8:*12* 9:*19* 11:*6, 18* 15:*7* 18:*13* 20:*11* 21:*13* 22:*4* 27:*15, 17* 28:*22* 29:*15* 32:*13* 39:*5* 45:*3, 9* 63:*21* 98:*22* 100:*11* 103:*20* 110:*2* 115:*5* 118:*18* 123:*5* 137:*21* 151:*8* 154:*17* 156:*10, 21* 161:*11* 162:*13* 164:*6, 11, 15* 168:*3* 177:*11* 178:*2* 185:*14* 187:*5* 198:*6, 10* 203:*17, 22* 204:*2* 207:*13* 227:*22* 228:*14* 237:*20* 243:*1, 9, 21* 244:*4* 252:*3, 8* 253:*14* 254:*9* 257:*19* 265:*12* 269:*6* 271:*12* 308:*10*
Seth 8:*8*
sets 121:*7* 276:*21*
setting 69:*9* 84:*11* 92:*19* 113:*8* 120:*17* 151:*1* 159:*5, 15* 160:*5* 161:*5* 169:*9* 171:*18* 173:*10* 196:*7* 200:*14* 237:*15* 241:*7, 19* 269:*3* 278:*14* 280:*8*
seven 49:*22* 71:*22* 153:*14* 263:*21* 294:*1, 7*
seven-year-old 126:*13*
severe 24:*19* 40:*18* 41:*10* 95:*7* 98:*14* 99:*22* 105:*15* 112:*18*

113:*12* 137:*5* 153:*7* 184:*18* 187:*14* 237:*8* 264:*14*
severely 255:*17*
shade 264:*5*
SHAINA 3:*5* 67:*7, 16*
SHANN 6:*17*
Shannon 291:*11, 15*
shaped 245:*15*
shaping 153:*5*
share 66:*7* 75:*8, 13, 15, 21* 77:*13, 21* 80:*13* 89:*7* 106:*5* 125:*13* 180:*13* 182:*10* 189:*12* 220:*18* 278:*18* 304:*8*
shared 27:*8* 257:*11* 280:*14*
sharing 55:*7*
sharpening 42:*7*
sharper 10:*21*
shelf 54:*2* 66:*19*
shelters 95:*15*
Shepherdstown 253:*4*
SHEVELEW 3:*19* 110:*9, 12*
shift 66:*10* 67:*2* 78:*22* 126:*8* 157:*7* 233:*12* 237:*13*
shifting 122:*1*
ship 277:*10*
shock 40:*7*
shocked 230:*15*
short 17:*21* 106:*10* 154:*13* 159:*3* 216:*13* 227:*6* 292:*4*
shortly 15:*14* 35:*21* 59:*15* 81:*10* 100:*22* 119:*11* 134:*2* 151:*21* 169:*19* 193:*2* 211:*21* 229:*5* 244:*18* 259:*1* 287:*4*
short-term 184:*18*
Shoshone 262:*18*
shot 301:*10*
shoulder 219:*21*
show 10:*1* 79:*5* 108:*16* 155:*20* 190:*21*
showed 44:*17* 57:*4* 230:*16*
shower 178:*20*

showing 75:*18* 84:*10* 108:*5* 230:*11*
shown 76:*19* 171:*15* 181:*8* 246:*17* 284:*9*
shows 23:*18* 28:*14* 40:*22* 41:*7* 64:*7* 171:*10* 242:*10* 303:*4*
shrinking 296:*21*
shut 277:*12*
shutdown 41:*18*
shutdowns 41:*4, 9*
sick 295:*2*
side 64:*18* 245:*14*
sides 272:*19*
sidewalks 272:*14*
Sierra 2:*10, 11* 5:*17* 26:*15, 19* 28:*1, 21* 29:*12* 230:*2* 254:*20*
signal 62:*19* 109:*7*
signed 163:*15*
significant 10:*16* 19:*5* 20:*18* 35:*6* 41:*19* 42:*6* 50:*14* 60:*21* 79:*3* 84:*17* 105:*21* 153:*21* 174:*22* 206:*5* 210:*14* 218:*18* 275:*19* 281:*1* 288:*8* 289:*5*
significantly 44:*18* 80:*20* 126:*9* 143:*1* 173:*21* 189:*22* 215:*15* 233:*7* 255:*21* 277:*2*
signs 282:*6*
similar 10:*6* 92:*6* 261:*3*
Similarly 92:*4* 155:*22*
simple 146:*18* 215:*2* 273:*19*
simply 75:*9* 117:*22* 148:*6*
simultaneously 80:*4*
single 72:*8* 153:*11* 209:*22* 285:*10*
sit 216:*14* 230:*9* 248:*13*
site 262:*16*
sits 272:*5, 8*
situation 183:*1* 222:*5*
six 59:*5* 70:*9* 95:*11* 205:*9* 272:*22* 274:*22*

Sixth 87:*7* 227:*9* 235:*22*
six-year-old 94:*3*
size 157:*9* 288:*15*
sized 142:*5*
Sizer 6:*15*
sizing 142:*9*
skies 77:*3* 87:*3* 101:*21* 103:*9* 264:*10* 271:*4* 304:*16*
skipped 238:*4*
skyrocket 25:*6*
slash 84:*5*
slashes 30:*14*
slashing 27:*19*
slated 218:*19*
sleight 143:*12*
slide 230:*15*
slight 14:*21*
slightly 154:*4* 195:*9* 299:*14*
Slope 100:*1*
slow 24:*7* 66:*21* 156:*3*
slower 237:*6*
slowest 157:*1*
slowing 198:*2*
slowly 16:*12* 135:*2* 272:*13*
sluggish 202:*16*
small 149:*17* 271:*18*
smaller 142:*20* 143:*1* 232:*3* 286:*7*
smell 114:*13*
smelled 114:*15*
SMITH 6:*20* 300:*17, 21* 301:*1*
smog 17:*5* 24:*21* 105:*11* 106:*16*
smoke 24:*22* 102:*20* 103:*4, 8* 163:*8* 255:*10* 260:*21* 261:*9, 15, 21* 273:*10*
smoked 251:*11*
smoke-filled 271:*4*
smorgasbord 276:*20* 277:*13*
snowpack 100:*8*
snowstorms 268:*13*
SNYDER 2:*16* 45:*21* 46:*2*
soar 95:*10*
sobering 10:*19* 149:*11*
so-called 95:*8* 211:*15* 256:*16* 276:*20*
soccer 233:*3* 273:*2*

social 43:*11* 143:*22* 144:*9* 146:*1* 148:*1* 217:*13* 233:*13*
societal 243:*17*
Society 164:*4*
society's 283:*6*
software 112:*4*
soil 70:*17*
solar 177:*18* 178:*15, 19* 179:*1, 8* 182:*12, 15* 197:*8* 209:*8* 299:*5* 302:*1, 8* 303:*6, 11*
solar-powered 299:*4*
sold 48:*6* 85:*1* 290:*3*
solely 20:*8*
solicit 190:*14*
solid 47:*2, 17*
solidifying 280:*1* 283:*15*
solution 59:*7* 160:*6* 209:*3* 210:*1, 12*
solutions 42:*9* 55:*1* 57:*14* 59:*10* 71:*19* 290:*6* 291:*17* 295:*8* 309:*13*
solve 166:*14* 169:*7* 209:*22*
solved 168:*19* 169:*3*
solvents 298:*19*
somewhat 91:*10*
son 34:*2* 150:*5* 220:*22* 232:*15, 17* 233:*15* 247:*18, 22* 260:*12* 273:*1*
sons 246:*12, 14*
son's 34:*12* 232:*20*
soon 18:*6* 20:*19* 35:*12* 66:*12* 106:*12* 161:*11* 166:*19* 222:*4* 236:*10* 240:*6* 252:*14* 271:*15* 290:*6* 301:*20* 309:*5*
sooner 84:*4* 109:*6* 190:*7* 211:*6*
Sorry 82:*20* 133:*11* 186:*7* 210:*18* 245:*19* 249:*17*
sorts 68:*19*
soul 37:*15* 219:*19*
sound 88:*17*

source 17:5 20:14 33:2 50:8, 12 60:18 65:8 69:11 94:9 102:4 105:22 114:5 118:6 128:15 137:18 144:20 150:15 169:5 184:6 194:12 206:13 209:7, 12 223:17 227:3 233:17 237:10 242:18 253:13 303:2
Sources 2:3 7:20 174:11 184:10 209:11, 14, 18 244:11 268:4, 8 280:17
South 106:17 218:20 219:14
Southern 180:7
Southwest 102:13 103:2 184:16 270:11 282:11 301:4
Southwestern 246:5
sovereignty 218:3
space 112:6 128:4
spaces 101:22 128:6, 13 282:18
Spanish 264:22 265:1, 9
spark 200:12
speak 14:18, 20 15:22 16:1, 12, 20 30:3 36:9, 10 37:1, 10 39:15 52:19 55:11 60:2, 3 81:19, 20 83:3 90:5, 11 93:16 101:9, 10, 20 116:9, 11 119:6, 21 126:12 132:11 134:12, 13 138:2 149:3 152:8, 9 170:6, 7 176:22 183:4 193:11, 12 198:12 212:8, 9 217:12 220:9 229:15 242:9 245:5, 6 259:10, 11 268:17 287:13, 14 299:16 309:18, 19 310:13
Speaker 2:6 3:1, 9 4:1, 6 5:1, 4, 19 6:1 14:10 16:11, 14, 16 19:22 23:1 26:12 29:6 32:17 36:13 39:18 43:2

45:21 48:19 52:12 55:14, 22 56:1 60:6 63:4 67:7 71:11 74:16 78:2 82:1, 3, 4, 12, 13 86:2 90:7 93:18 96:21 97:7, 13 101:13 104:4, 11, 13 107:8 110:9 113:22 116:3 120:2, 10, 11 123:16 124:16 127:17 131:6, 8, 22 135:1, 2, 4, 7 138:5 141:1 143:17 146:7 148:19 152:12 155:3 158:6 161:15 165:13 170:10 173:14 176:18 178:6 179:21 183:6 186:2 189:2 193:15, 16, 17 196:15 198:14 201:3, 12, 13 204:8, 16, 17 207:19 208:5, 6 212:12, 19 213:5, 7 217:8 220:5 222:21 223:6, 7 224:15, 21 225:2, 9, 16, 18 226:4, 5 229:19 231:2, 12 234:11, 17, 18, 19 238:3, 5, 10, 19, 22 239:1 241:11 245:9 248:7 252:19 254:15 259:15, 16 263:2 265:18 266:3, 5, 13, 15 269:18 274:5 279:3, 11, 12 283:20 287:17 291:11 295:13, 21, 22 306:17 310:2
speakers 13:5 14:4, 5, 7, 14 15:7, 18 36:4 40:4 59:20 81:15 101:5 119:16 131:5 133:17 134:7 152:4 167:6 170:2 193:7 212:4 229:10 238:21 245:1 258:9 259:6 270:19 287:9 310:9
Speaker's 224:15
speaking 15:12, 14 16:5 23:13 33:14 35:19, 22 59:13, 16

60:10 71:21 81:8, 11 98:3 100:20 101:1 104:20 119:9, 12 133:22 134:3, 17 151:19, 22 158:11 169:17, 20 186:11 192:22 193:3, 21 205:6 211:19, 22 229:3, 6 230:3 241:18 244:16, 19 258:21 259:2, 14 265:1 284:5 287:2, 5 304:6 307:2
special 179:6
specialize 135:11
species 199:3, 11
specific 52:19 85:4
specifically 21:14 39:3 215:9 275:8
specious 286:18
spectrum 85:4 297:15
speech 306:8
speed 27:13 202:19
spend 103:11 159:3 219:3
spending 163:13
spent 27:1 64:13 112:3 251:17 256:2 271:3 284:12
spew 232:10
spewing 277:8
sphere 50:17
spike 64:10 80:13 230:16
spikes 63:22 80:11 195:21
spiking 24:20
spinal 184:20
Spirit 4:4 128:2
spiritofthesun.org 130:13
spoke 133:15
spoken 167:6
sponsored 275:13
sports 247:6
spout 110:17
sprawl 136:1
spread 89:13
spur 66:12 278:6 281:13 299:1 308:21
spurring 228:5
squander 225:5
squarely 281:9
SRC 301:6
ST 5:8 178:14 201:13, 16, 18

stable 57:12 65:8, 15 195:18
staff 33:11 74:11 152:16 196:4 267:6
staff's 54:16
staggering 33:22
stakeholder 11:20
stakeholders 12:3 216:12
stall 96:11 122:22 277:1
stance 231:5
stand 71:3 79:8
standard 21:20 39:6 58:19 62:13 90:21 141:16, 17 143:9 146:19 147:9, 13 166:12 171:6, 19, 21 183:19 189:21 197:7 209:13 227:18 283:4
STANDARDS 1:6 7:8 8:1 9:11, 20, 21 10:9, 10, 16 11:2, 13, 19, 22 12:17 18:13 20:12, 16 21:12, 14 22:5, 6, 11, 18 26:7 27:2, 4, 14, 16 28:6 29:1, 16, 19 30:20 32:3, 8, 13 33:8 34:18 35:11 37:5, 21 38:15 39:4 42:2, 7 43:17, 18, 21 44:6, 11 45:2, 4, 8, 10, 11, 14 47:9, 16 49:14, 21 50:3, 16 51:2, 6, 16, 20, 22 52:5, 8, 20 53:7, 13, 16, 22 54:4, 5, 8, 9, 21 58:21 65:1, 19 67:1 69:2, 9 70:6, 16 72:16 75:3, 12 76:2 78:21 79:5, 6, 9, 15 80:2, 5, 8, 10, 11, 17 81:2 83:12, 16 84:5, 7, 12 85:10, 19 86:10, 13, 20 87:3, 14, 16 88:3, 12 89:1, 3, 10, 12, 21 90:18 92:5, 16, 19 93:3, 14 95:1 96:10, 14 99:1 100:13, 15 102:10 103:21 105:18 106:10 107:19 110:2 114:11 115:6, 10, 11 118:16, 19, 21

120:18 121:4, 7 122:1, 3, 19 123:1, 6 126:6 127:6, 11, 12 129:7, 19 130:9 133:5 137:8, 19, 22 142:7 146:4, 16 147:6, 21 148:10 150:20 151:1, 9 153:14, 18, 21 154:1, 4, 17 155:12 157:9 158:2, 16, 22 159:6, 7, 9, 13, 15, 20 160:5 161:2, 3, 6, 7 162:13, 14 164:7, 11, 16 170:19 171:2, 13 172:7 173:11 175:8 177:11, 15 178:1 179:16, 18 180:10 185:16 187:1, 6 188:15 189:20 191:10 192:9, 19 194:7, 16, 22 195:3, 5, 8, 11 196:7 198:7, 10 200:3, 14, 22 203:22 204:3 205:4 207:14 208:16, 20 214:3 216:13 217:18 219:22 220:2, 20 222:12, 16 223:15 224:3 226:16, 18 227:22 228:1, 4, 15, 18 232:1 233:12, 16, 19 234:3, 7 235:9, 10, 13, 16, 17 237:15, 21 240:3, 5 241:21 242:19, 20 243:4, 9, 21 244:4, 6 246:9 252:4, 8, 10 253:12, 15 254:11 256:17, 22 257:1 258:20 262:3, 11, 20 263:15 265:13 267:11 269:8 271:13 273:19 275:7 276:5, 17 278:1, 5, 14, 18, 22 280:1, 9, 21 281:11 283:15 284:15 286:13 288:18 292:6 294:17, 19 295:5 296:18 297:8 298:22 299:7, 8, 11 308:11, 20
standing 232:5
stands 67:4 76:6

Star 82:*9* 97:*4* 104:*9* 120:*7* 131:*13, 19* 132:*3* 201:*9* 204:*12* 208:*2* 212:*17* 213:*2* 223:*4* 225:*13* 226:*1* 238:*13* 265:*22* 266:*10* 279:*8* 295:*18*
stark 236:*2*
starkest 149:*12*
start 15:*6* 129:*17* 168:*7* 175:*17* 203:*20* 207:*9, 11* 221:*20* 228:*1*
started 7:*4, 12* 34:*4* 95:*12* 133:*10* 230:*10* 241:*1*
starting 13:*4* 128:*22* 132:*13* 231:*3* 257:*8* 308:*5*
startlingly 38:*7*
State 2:*16* 6:*14* 14:*7* 16:*15* 17:*9* 19:*22* 23:*2* 26:*13* 29:*7* 32:*18* 36:*14* 37:*1* 39:*19* 43:*3* 45:*22* 46:*4* 47:*2* 48:*14, 20* 49:*3* 52:*1, 13* 56:*2* 60:*7* 63:*5* 67:*8, 18* 71:*1, 12* 72:*13* 73:*7* 74:*17* 78:*3* 82:*14* 86:*3* 90:*8* 93:*19* 94:*21* 97:*15* 99:*22* 101:*14* 102:*2* 103:*5* 104:*14* 105:*7* 107:*9, 18* 110:*10* 114:*1* 116:*4* 120:*12* 123:*17, 21, 22* 124:*3, 17* 125:*4* 127:*18* 135:*5* 138:*6* 141:*1* 143:*18* 146:*8* 148:*20* 152:*13* 155:*4* 158:*7* 161:*16* 163:*17, 19* 164:*15, 16* 165:*14* 170:*11* 173:*15* 176:*19* 178:*6* 179:*22* 183:*7, 22* 184:*13* 185:*10* 186:*3* 189:*3* 193:*18* 196:*16* 198:*15* 201:*14* 204:*18* 208:*7* 213:*8* 214:*4* 217:*9* 219:*2* 220:*6* 222:*9* 223:*8* 226:*6, 10*

229:*20* 231:*13* 239:*2, 15* 241:*12* 245:*10* 246:*16* 248:*8* 252:*20* 253:*5, 22* 254:*16* 260:*1* 266:*16* 267:*20* 274:*6* 279:*13* 280:*10, 12* 283:*21* 291:*12, 21* 296:*1* 300:*19* 303:*18* 306:*19*
stated 40:*19* 42:*8* 47:*12* 172:*3* 214:*21* 270:*19* 290:*1*
statement 192:*16* 289:*17*
Statements 7:*2* 14:*2, 4, 5, 8*
STATES 1:*1* 2:*18* 7:*5* 17:*4, 11* 30:*12* 46:*17* 48:*8* 49:*1, 10, 19, 20, 22* 61:*4* 66:*5* 70:*8* 75:*15* 91:*22* 107:*20, 21* 118:*7* 141:*10* 142:*6* 150:*16* 166:*7* 168:*6* 169:*12* 205:*14* 209:*17* 217:*5* 230:*21* 237:*11* 242:*11* 243:*17* 264:*11* 277:*17, 20* 278:*3* 280:*18* 290:*4* 293:*7* 297:*10* 308:*14*
state's 99:*21* 260:*10* 281:*22*
stating 186:*17*
stations 179:*6* 299:*4*
statistical 139:*6, 21* 140:*17* 143:*12*
statistics 110:*17* 233:*11*
status 203:*16* 251:*16* 294:*22*
statutorily-required 138:*12*
statutory 196:*12*
staving 87:*15*
stay 95:*20* 137:*1* 305:*22*
stays 306:*12*
steadfast 48:*13*
steadily 156:*1*
STEIN 6:*10* 263:*2, 5, 7*
STEITZ 3:*22* 120:*11, 14*

step 20:*10* 21:*8, 10* 69:*10* 70:*21* 76:*8, 9* 83:*10* 84:*5* 95:*3* 103:*17* 118:*4* 149:*17* 158:*2* 159:*7* 162:*5* 220:*16* 270:*16* 273:*19*
STEPHANIE 6:*11* 266:*15, 16, 18*
steps 28:*5* 79:*16* 81:*1* 168:*10* 174:*2* 226:*15* 231:*3*
STEWART 3:*16* 104:*13, 15, 17*
stillbirths 136:*15*
stolen 67:*14*
stood 79:*11*
stop 203:*19* 282:*6*
storage 299:*3*
store 273:*6* 282:*5*
storm 75:*18* 263:*18* 275:*17*
storms 95:*7, 9* 96:*3* 197:*13* 222:*7* 234:*1*
story 220:*18* 239:*12* 247:*10* 278:*16*
stranding 66:*16*
strategies 46:*22*
strategy 168:*9*
Street 1:*21* 230:*14* 272:*11* 282:*5, 7, 19*
strengthen 27:*7* 28:*6* 69:*2* 71:*4* 95:*1* 102:*9* 129:*6* 154:*15* 205:*4* 258:*1* 267:*11* 277:*13* 278:*10, 21*
strengthened 30:*19* 281:*11*
Strengthening 159:*10* 273:*19* 280:*21* 281:*8*
stresses 108:*13*
stricter 27:*1* 294:*19*
strictest 219:*21*
strides 230:*22*
strike 14:*1*
stringency 19:*12* 62:*16* 141:*13* 154:*17* 155:*11* 171:*6, 12, 17, 20* 172:*5* 243:*10* 244:*1* 276:*15*
stringent 9:*19* 10:*10* 24:*12* 37:*6* 44:*5* 52:*5* 53:*12*

65:*2* 67:*1* 86:*9* 87:*2, 14* 88:*3* 90:*3* 141:*11, 20, 21* 179:*16* 180:*10* 182:*4* 195:*3, 9* 216:*13* 231:*5* 243:*15* 244:*4* 296:*9*
stroke 103:*1* 136:*11* 199:*19* 293:*13*
strong 10:*3* 20:*15* 21:*15, 20* 24:*10* 25:*17* 27:*4, 16* 30:*20* 31:*17* 35:*11* 45:*2* 51:*1, 22* 54:*2* 58:*15* 59:*4* 71:*17* 73:*16* 74:*9* 78:*21* 80:*7, 10* 84:*4* 96:*16* 100:*13* 109:*7* 121:*3* 160:*5* 161:*5* 162:*8* 163:*2, 17* 170:*19* 171:*18* 184:*3* 185:*16* 188:*14* 195:*1* 200:*14* 215:*11* 227:*18, 20* 230:*8* 233:*12, 19* 234:*3* 254:*12* 269:*9* 275:*7* 276:*4* 277:*15* 280:*1* 292:*5* 295:*5* 297:*8* 298:*22* 299:*8*
stronger 18:*13* 22:*4* 35:*2* 45:*10, 13* 79:*6* 80:*17* 84:*12* 92:*19* 110:*3* 114:*11* 115:*10* 118:*19, 21* 142:*18* 150:*20* 151:*9* 154:*4* 158:*1* 159:*6* 162:*13, 14* 164:*11, 15* 172:*7, 18* 177:*14* 178:*2* 187:*6* 200:*22* 223:*15* 224:*3* 226:*19* 228:*2, 19* 252:*8* 261:*3* 262:*2* 276:*17* 278:*1, 6, 18, 20* 281:*5*
strongest 20:*12* 29:*3, 16, 20* 30:*12* 32:*7, 12* 33:*8* 34:*18* 35:*13* 37:*5, 21* 43:*14* 45:*4, 11* 46:*6* 49:*13* 74:*4* 79:*14* 83:*11* 85:*9* 96:*9* 98:*22* 100:*14* 103:*20* 106:*9* 115:*5* 126:*6* 127:*6, 11* 137:*18, 21*

164:*6* 173:*10* 183:*18* 200:*3* 204:*2* 217:*17* 220:*19* 228:*15* 232:*1* 234:*7* 235:*7* 237:*15, 21* 241:*20* 243:*14* 246:*8* 248:*2* 252:*4* 253:*15* 254:*4* 256:*22* 262:*19* 265:*12* 269:*15* 271:*13* 308:*11, 19*
strongly 20:*11* 79:*14* 81:*1* 172:*10* 194:*8, 21* 249:*8* 257:*9* 267:*10* 296:*8* 301:*14, 17* 302:*7*
struggling 290:*22*
student 163:*7* 250:*8*
students 285:*8, 12, 13, 22* 286:*12*
studies 40:*10* 138:*18* 139:*3* 155:*19* 190:*19* 246:*17* 289:*13*
study 40:*16* 41:*6* 42:*17, 20* 44:*8, 16* 57:*18*
studying 40:*8*
stuff 240:*16* 285:*10*
style 203:*7*
subject 9:*22* 63:*22* 64:*3* 219:*17*
Submarine 6:*18*
submarines 296:*6*
submit 12:*20* 13:*12* 52:*18* 142:*17* 291:*8* 306:*9*
submits 141:*7*
submitted 164:*14*
submitting 33:*12* 58:*7* 189:*14* 252:*13*
subsequent 113:*16*
subsequently 178:*15*
subsidized 210:*22*
substantial 10:*14* 47:*20* 50:*10* 52:*2* 276:*7*
substantially 61:*17* 62:*9* 80:*3* 100:*9*
suburb 178:*14*
suburban 73:*22*
succeed 297:*16*
success 241:*8*

Tennessee 18:*7*
187:*13* 230:*4*
231:*4*
tens 17:*3* 105:*3*
tentative 14:*20*
term 11:*6* 51:*8*
106:*10, 11* 112:*11*
153:*3* 175:*1*
216:*14*
terms 24:*3* 108:*22*
149:*12*
terrible 33:*22*
232:*19*
terrified 111:*2*
117:*15*
terrifying 119:*3*
307:*12*
territory 24:*2*
262:*18*
Tesla 3:*19* 75:*17*
110:*13* 240:*12*
301:*21* 302:*3*
Tesla's 203:*14*
test 157:*22*
tested 264:*13*
testified 280:*16*
testifiers 258:*9*
testify 15:*16, 19*
26:*22* 29:*10* 32:*15,*
22 36:*2, 5* 45:*19*
59:*18, 21* 78:*16*
81:*12, 16* 86:*8*
94:*4* 96:*19* 97:*20*
101:*3, 6* 107:*12*
115:*12* 119:*13, 17*
134:*4, 8* 135:*9*
152:*1, 5* 155:*7*
158:*4* 169:*21*
170:*3, 14* 173:*18*
178:*4* 180:*4*
183:*10* 193:*4, 8*
196:*19* 201:*17*
204:*6* 212:*1, 5*
213:*11* 226:*13*
229:*1, 7, 11* 235:*3*
237:*22* 244:*20*
245:*2, 21* 252:*11*
253:*3* 254:*13*
259:*3, 7* 260:*7*
263:*13* 266:*20*
274:*13* 279:*22*
287:*6, 10* 300:*22*
303:*3*
testifying 78:*8*
149:*1* 164:*19*
177:*1* 178:*13*
223:*11* 239:*7*
255:*2* 270:*15*
271:*16* 278:*17*
280:*6* 301:*16*
testimonies 132:*12*

testimony 12:*10,*
15 13:*10, 15* 14:*9,*
12, 15 16:*4, 7, 8*
37:*19* 49:*12* 52:*10*
63:*10* 67:*3* 74:*13*
77:*11, 14* 110:*7*
115:*15, 19, 22*
131:*6* 134:*16, 19,*
20 230:*1* 234:*9*
238:*7* 288:*17*
testing 157:*15, 18*
176:*5*
Texas 91:*22* 92:*12*
202:*3* 302:*11*
303:*5* 308:*1*
thank 7:*16* 12:*8, 9,*
13 15:*8* 16:*20*
19:*19, 21* 20:*4*
21:*10* 22:*21, 22*
23:*5* 26:*10, 11, 22*
27:*13* 29:*4, 5, 9, 10*
32:*15, 16, 22* 35:*17,*
18 36:*16* 39:*14, 16,*
17 42:*13, 14, 21, 22*
43:*1, 5, 13* 45:*19,*
20 48:*17, 18* 52:*9,*
11 55:*11, 13* 59:*9,*
12 63:*2, 3* 67:*3, 5,*
6, 12 71:*9, 10*
74:*11, 15* 77:*6, 16,*
22 78:*5* 81:*6, 7*
83:*3* 85:*22* 86:*1, 8*
90:*5, 6, 11* 93:*15,*
17 94:*4* 96:*19, 20*
97:*19* 100:*18, 19*
101:*19* 104:*2, 3, 15*
107:*6, 7, 11* 110:*7,*
8, 15 113:*20, 21*
115:*12, 14* 116:*1, 2,*
6, 11, 13 119:*6, 8*
123:*14, 15* 124:*14,*
15, 21 127:*15, 16*
131:*3, 4* 132:*10, 15*
133:*15, 18, 19*
135:*8, 15* 138:*3, 4*
140:*21, 22* 143:*15,*
16 146:*5, 6, 10*
148:*17, 18* 149:*2*
151:*17, 18* 155:*1, 2,*
6 158:*4, 5, 9*
161:*13, 14, 22*
165:*11, 12* 169:*15,*
16 170:*13* 173:*12,*
13, 18 176:*16, 17,*
21 178:*4, 5* 179:*19,*
20 180:*2, 3, 4*
183:*3, 5, 9* 185:*22*
186:*1* 188:*22*
189:*1, 5* 192:*20, 21*
193:*20* 196:*13, 14,*
18 198:*12, 13*

201:*1, 2, 16* 204:*6,*
7 207:*17, 18*
211:*17, 18* 213:*10*
217:*6, 7, 11* 220:*3,*
4, 8, 13 222:*19, 20*
223:*10* 225:*7, 8*
226:*13, 14* 229:*1, 2*
231:*10, 11* 234:*9,*
10 235:*3, 6* 237:*22*
238:*2* 241:*9, 10, 14*
244:*13, 15* 245:*19,*
20 248:*5, 6* 252:*11,*
16, 18 253:*2*
254:*13, 14, 18*
256:*15* 257:*22*
258:*2, 8, 12* 259:*18*
260:*6* 262:*22*
263:*1, 5, 13* 265:*17*
266:*20* 267:*8*
269:*16, 17* 270:*3, 5,*
8 274:*2, 4* 279:*1, 2*
283:*8, 18, 19* 284:*1*
286:*22* 287:*1*
288:*2* 291:*10, 19*
295:*11, 12* 299:*12,*
13 300:*21* 303:*3,*
13, 14 306:*11, 14,*
15, 16 309:*15, 16*
310:*8, 9, 20* 311:*4*
thankful 246:*13*
309:*7*
Thanks 56:*4*
82:*20* 83:*5* 96:*4*
197:*8* 225:*2*
229:*22* 265:*16*
279:*21*
thereof 120:*22*
thick 103:*9*
thing 151:*1* 153:*2*
198:*7* 241:*3*
284:*19* 286:*14*
306:*1*
things 33:*4* 69:*13*
99:*12* 102:*6*
114:*17* 122:*18*
128:*18* 183:*11*
186:*17* 202:*18*
237:*6* 267:*15*
286:*3* 305:*21*
think 41:*1* 42:*6*
112:*2* 117:*12, 13,*
18 179:*7, 10*
224:*10* 303:*12*
thinking 64:*21*
Third 18:*22* 63:*8*
103:*3* 260:*11*
277:*15*
THOMPSON 7:*3,*
9 15:*8* 19:*21*
22:*22* 26:*11* 29:*5*
32:*16* 35:*18* 39:*17*

42:*14* 43:*1* 45:*20*
48:*18* 52:*11* 55:*13,*
21 59:*12* 63:*3*
67:*6, 11* 71:*10*
74:*15* 77:*22* 81:*7*
82:*4, 11, 19* 86:*1*
90:*6* 93:*17, 22*
96:*20* 97:*6, 13*
100:*19* 104:*3, 11*
107:*7* 110:*8*
113:*21* 116:*2*
119:*8* 120:*9*
123:*15, 20* 124:*15,*
20 127:*16* 131:*4,*
15, 21 132:*5, 15*
133:*2, 6, 19* 138:*4*
140:*22* 143:*16*
146:*6* 148:*18*
151:*18* 155:*2*
158:*5* 161:*14*
165:*12* 169:*16*
173:*13* 176:*17*
178:*5* 179:*20*
183:*5* 186:*1, 7*
189:*1* 192:*21*
193:*17* 196:*14*
198:*13* 201:*2, 11*
204:*7, 15* 207:*18*
208:*4* 211:*18*
212:*19* 213:*5*
217:*7* 220:*4*
222:*20* 223:*6*
225:*8, 16* 226:*3*
229:*2* 231:*11*
234:*10, 15, 19*
235:*1* 238:*2, 9, 18*
241:*10* 244:*15*
245:*13, 18* 248:*6,*
11, 16 249:*17*
250:*2* 252:*18*
254:*14* 258:*2, 14,*
15 259:*20* 260:*4*
263:*1* 265:*17*
266:*3, 13* 269:*17*
274:*4* 279:*2, 10*
283:*19* 287:*1*
291:*10* 295:*12, 20*
299:*13* 300:*9*
303:*14* 306:*15, 17*
309:*16* 310:*4*
thought 202:*20*
thoughtful 183:*11*
thoughts 189:*13*
thousand 296:*21*
thousands 17:*3*
33:*12* 53:*4* 72:*7*
307:*1*
threat 16:*22* 87:*9,*
11 127:*4* 143:*3*
275:*8, 20*

threaten 102:*14*
301:*8*
threatened 285:*14*
298:*9*
threatening 96:*12*
threatens 68:*21*
103:*19* 244:*12*
threats 85:*11*
87:*16* 120:*19*
187:*16* 255:*2*
275:*22* 301:*3*
three 14:*9, 15*
16:*7* 17:*22* 23:*14*
44:*9* 49:*8* 58:*21*
77:*18* 99:*20* 122:*2*
123:*2* 134:*19*
144:*10, 14* 171:*3*
175:*22* 178:*10, 17*
182:*12, 13* 202:*12*
205:*21* 209:*1*
236:*6* 264:*2* 268:*3*
270:*10* 273:*1*
274:*21* 277:*19*
294:*6, 16* 298:*18*
304:*19* 305:*9*
307:*22*
thrive 180:*15, 16,*
18, 19
thrives 219:*15*
thriving 22:*16*
181:*7*
throw 95:*15*
thumb 176:*10*
Thunberg 286:*11*
Thursday 107:*2*
311:*6*
tier 106:*6*
tight 195:*22* 197:*8*
tighten 54:*4*
186:*22* 298:*2*
tightens 232:*21*
tighter 154:*17*
till 258:*6*
time 10:*18* 12:*22*
13:*14* 14:*16* 15:*14*
17:*21* 24:*7* 31:*16*
32:*11* 35:*22* 38:*6,*
8 40:*13* 55:*19, 22*
59:*16* 76:*7* 81:*6,*
11 82:*1* 83:*22*
84:*14* 85:*13, 22*
88:*21* 93:*15* 97:*2,*
11 98:*7* 101:*1, 20*
104:*2, 6, 7* 111:*8*
113:*18* 117:*11, 12*
119:*12* 120:*5*
122:*22* 131:*5, 11,*
18, 21 132:*10, 17*
134:*3* 137:*3* 139:*9*
150:*14* 151:*16, 22*
153:*9, 15* 156:*19*

159:*3* 161:*13*
162:*1, 16* 168:*4*
169:*20* 172:*6*
173:*12* 183:*3*
187:*10* 193:*3*
194:*1, 18* 195:*5*
196:*9* 201:*7* 204:*9*
207:*17, 19, 22*
211:*22* 212:*15, 21*
213:*1* 216:*14*
217:*6* 218:*11*
221:*19* 223:*2*
224:*15* 225:*12, 21*
229:*6* 234:*16*
238:*1, 7, 11, 22*
244:*13, 19* 251:*21*
254:*13* 257:*15*
258:*3, 17* 259:*2*
261:*16* 264:*13*
265:*7, 21* 266:*9*
269:*16, 22* 270:*2, 5,*
12 273:*16* 274:*2,*
17 278:*21* 279:*6*
284:*12, 14* 285:*18,*
19 286:*22* 287:*5,*
19 292:*4* 295:*15,*
16 296:*14* 297:*7, 9*
299:*14* 300:*1, 7*
305:*13, 17* 306:*7,*
11, 13 309:*17*
310:*10, 12, 18*
timeline 137:*22*
times 30:*2* 44:*9*
76:*2* 79:*9* 125:*22*
144:*14* 147:*20*
205:*21* 206:*1*
230:*17* 233:*9*
265:*4* 282:*10*
tipping 24:*8*
270:*20*
tire 296:*5*
tired 130:*16*
today 7:*18, 22* 8:*7*
11:*21* 12:*2, 10*
13:*15* 14:*18, 20*
15:*2, 12* 20:*5*
23:*13* 25:*16* 26:*22*
29:*10, 15* 31:*12*
33:*1, 10* 34:*6*
35:*19* 36:*17* 39:*15*
44:*3* 52:*19* 55:*11,*
17 57:*16* 58:*1*
59:*13* 60:*10* 67:*13*
68:*10* 71:*21* 75:*1*
78:*8, 16* 81:*8* 83:*4*
88:*8* 90:*5, 15* 94:*4*
96:*15* 97:*20*
100:*20* 101:*20*
104:*2, 16, 20*
106:*15* 108:*20*
110:*14* 111:*15*

113:*17* 116:*9, 12*
119:*7, 9* 133:*22*
138:*2* 148:*15*
149:*3, 21* 151:*19*
158:*11, 18* 159:*4*
160:*22* 162:*1, 16,*
20 164:*19* 165:*19*
168:*6* 169:*17*
170:*14* 173:*20*
174:*14* 175:*19*
176:*22* 178:*4, 13*
179:*19* 180:*4, 6, 13*
183:*10* 187:*5*
189:*13, 16* 191:*18*
192:*22* 195:*10*
196:*19, 21* 198:*12,*
18 201:*17* 204:*6*
208:*1* 209:*14*
211:*19* 212:*16*
213:*11* 217:*12, 16*
218:*6* 219:*12*
220:*9, 16, 18* 223:*3*
224:*6* 226:*9* 227:*1*
228:*21* 229:*3*
230:*1, 3* 234:*9*
235:*5* 239:*7*
241:*18* 242:*5, 9*
244:*16* 245:*21*
246:*7, 12* 253:*3*
254:*13* 255:*2*
257:*10* 258:*21*
259:*22* 266:*10, 20*
267:*8* 268:*12*
269:*16* 270:*5, 15,*
21 274:*3, 13, 21*
277:*6* 278:*16, 17*
279:*7, 22* 280:*6, 16*
284:*5, 13* 287:*2*
288:*13* 290:*15*
291:*9* 296:*4*
299:*17* 301:*1*
303:*17* 304:*1, 8*
305:*6* 306:*2, 9*
308:*5, 6* 310:*7, 10*
311:*3*
today's 7:*15* 8:*4*
9:*22* 12:*12* 13:*3*
15:*4, 10* 39:*9* 57:*4,*
17 58:*18* 76:*4*
188:*14* 297:*22*
298:*1* 307:*20*
toddler 26:*18*
221:*2*
told 92:*9* 103:*7*
175:*13*
toll 26:*4*
TOM 3:*3* 60:*6, 9*
189:*16* 251:*10*
TOMCIK 6:*4*
245:*9, 17, 19, 20*

tomorrow 12:*2, 10*
13:*4, 5, 15* 14:*21*
16:*1* 33:*10* 36:*10*
60:*3* 81:*20* 101:*10*
119:*21* 134:*13*
148:*16* 152:*9*
164:*19* 170:*7*
193:*12* 212:*9*
228:*22* 229:*15*
245:*6* 259:*11*
287:*14* 299:*16*
300:*14* 304:*7*
309:*19* 310:*13, 17*
311:*6*
tomorrow's 76:*22*
297:*21, 22* 310:*2*
tonnage 257:*1*
tons 22:*2* 35:*5*
57:*20* 61:*15* 89:*22*
114:*7* 228:*13*
254:*9* 262:*17*
Tony 302:*5*
tool 29:*20* 32:*12*
234:*4*
toolbox 234:*4*
tools 85:*15* 151:*14*
222:*10* 243:*3*
265:*5*
top 22:*9* 24:*6*
96:*5* 108:*14* 194:*8*
214:*13, 15* 221:*15*
249:*22* 276:*21*
277:*20* 307:*7*
topic 90:*22*
116:*12* 220:*10*
tops 261:*19*
tornado 100:*6*
tornadoes 100:*4*
251:*12*
torrential 263:*18*
total 19:*7* 26:*4*
257:*1* 302:*11*
touch 109:*11*
touched 100:*5*
tough 221:*1*
232:*19*
toughen 154:*21*
tougher 233:*16*
town 246:*4*
271:*18* 272:*7, 14*
towns 41:*6, 21*
272:*8*
toxic 30:*11* 62:*11*
247:*15* 304:*4*
toxicity 305:*3, 8*
toxics 50:*13* 57:*10*
58:*2* 289:*12*
track 10:*5* 25:*10*
27:*15* 30:*19* 48:*11*
75:*6, 14* 96:*17*
99:*2* 103:*22*

106:*10* 159:*16*
200:*15* 253:*17*
262:*4* 265:*13*
271:*14* 302:*16*
tractors 92:*6*
trade 208:*11* 216:*9*
trading 66:*5*
tradition 37:*11*
traditional 240:*1*
traditions 37:*10*
traffic 72:*1* 94:*7*
136:*2, 4* 137:*17*
141:*8, 21* 143:*6*
150:*9, 12* 202:*16*
246:*18* 247:*1*
272:*10, 12* 282:*6*
289:*15*
trafficked 126:*20*
246:*16*
trafficking 126:*3*
tragic 275:*5*
tragically 304:*4*
train 137:*11*
trained 23:*7*
training 108:*2*
267:*2*
trains 34:*3* 54:*20*
trajectory 39:*9*
145:*13* 172:*8*
175:*14*
transcript 13:*16*
transform 194:*16*
transformation
181:*18, 19*
transformational
76:*20*
transformative
129:*15*
transition 22:*8*
46:*18* 48:*10* 52:*1*
84:*20* 85:*20*
111:*11* 112:*1, 9, 19*
118:*22* 129:*16*
151:*10* 160:*20*
161:*8* 162:*4* 165:*6,*
9 182:*2* 222:*17*
243:*2* 301:*18*
303:*5*
transitioning 53:*10*
112:*20* 160:*9*
161:*10*
transmission 240:*2*
transplant 305:*10*
transplanted
305:*11*
Transportation 2:*5*
8:*2* 17:*7* 20:*14*
21:*7* 24:*5* 26:*20*
27:*17* 30:*17* 32:*6*
33:*2* 40:*14, 18*
41:*14* 43:*7* 45:*14*

48:*12, 22* 50:*7*
51:*18* 53:*10* 56:*12,*
14, 18 60:*19* 63:*15,*
19 64:*18* 65:*5, 9*
66:*11, 22* 69:*10*
70:*22* 72:*3, 9*
76:*19* 77:*1* 78:*6, 9*
79:*16, 19, 22* 83:*8*
85:*5, 9* 89:*16*
94:*10* 99:*10* 102:*4*
114:*5* 116:*15*
118:*6* 126:*4* 128:*9,*
15 149:*8* 150:*15*
161:*10* 165:*5*
176:*8* 182:*5* 184:*6*
186:*18* 188:*2, 7, 9*
191:*8* 194:*5, 12*
206:*14, 22* 208:*12,*
17 211:*10* 220:*15*
223:*16* 227:*3*
230:*16, 20* 231:*7, 9,*
19 234:*5* 237:*10*
242:*17* 244:*11*
253:*13* 257:*16*
268:*8* 276:*8* 292:*1*
293:*15, 18* 295:*7*
303:*1* 308:*18*
**Transportation-
related** 105:*20*
210:*1*
transportation's
107:*16*
traps 98:*8*
travel 72:*7* 127:*22*
246:*20*
traveled 102:*20*
150:*14*
traveling 72:*4*
travesty 308:*13*
treasured 255:*22*
treat 192:*12* 230:*5*
treated 206:*1*
treating 28:*11*
treatment 184:*19*
treatments 221:*3*
Tree 255:*15*
Trees 255:*14*
263:*21* 264:*1*
tremendous 122:*10*
trend 76:*4, 9*
157:*12*
trends 157:*5*
171:*15*
tribal 68:*15*
tribes 67:*15, 18*
127:*22*
triggers 261:*17*
trillion 78:*14*
trip 95:*22* 223:*19*
282:*7*

triple 184:*15*
tripping 283:*12*
trips 108:*18*
 197:*17*
trivial 122:*17*
trophic 50:*17*
tropical 144:*15*
truck 41:*17*
 157:*10* 194:*11*
 213:*17* 215:*11*
 272:*10* 277:*5*
trucks 22:*5* 35:*14*
 39:*7, 10, 12* 45:*18*
 46:*20* 50:*12* 68:*20*
 74:*6* 84:*13* 85:*1*
 89:*11* 91:*17* 92:*5,*
 20 94:*8* 95:*2*
 96:*11* 98:*21*
 100:*16* 102:*10*
 115:*9* 118:*8, 20*
 122:*4* 124:*11*
 135:*19* 150:*18*
 151:*10* 159:*11*
 160:*6* 187:*1, 7*
 188:*16* 203:*2*
 205:*5* 211:*3* 216:*5*
 222:*16* 223:*21*
 227:*5* 228:*17*
 232:*6* 237:*12*
 246:*20* 248:*3*
 252:*5* 254:*3*
 262:*20* 267:*12*
 269:*12* 271:*18*
 272:*13* 276:*5*
 277:*10* 280:*19, 22*
 283:*5* 309:*6*
true 75:*18* 129:*4,*
 15 139:*1* 203:*21*
 292:*19*
truly 8:*15* 32:*8*
 83:*12* 119:*3*
 292:*15*
Trump 79:*13*
 92:*14* 274:*18*
Trump's 27:*10*
Truth 175:*13*
try 247:*20* 248:*17*
 300:*7*
trying 73:*8*
 284:*13* 304:*18*
tumors 199:*21*
tune-up 240:*2*
turbines 303:*12*
turn 7:*11* 12:*11*
 15:*17* 16:*11* 36:*3*
 48:*4* 59:*18* 81:*13*
 101:*3* 119:*14*
 133:*10* 134:*5*
 135:*1* 152:*2*
 169:*22* 193:*5*
 194:*13* 212:*2*

229:*8* 244:*21*
 259:*4, 15* 261:*16*
 287:*7* 300:*6*
turned 97:*22*
 221:*6* 264:*15*
twice 44:*20, 22*
 126:*18* 145:*16*
 233:*8* 307:*19*
twist 40:*5*
two 24:*1* 41:*9*
 46:*16* 58:*19* 74:*22*
 88:*6* 91:*6* 100:*4*
 125:*9* 144:*11*
 173:*5* 174:*13*
 178:*10, 17* 183:*15*
 199:*16, 20* 202:*12*
 206:*17* 220:*20*
 236:*12, 13* 239:*11*
 246:*5, 12* 260:*11*
 261:*11* 264:*2*
 271:*3* 292:*4*
 298:*18* 305:*9*
 307:*21*
two-hour 247:*5*
two-thirds 63:*18*
type 288:*15*
types 68:*7* 111:*20*
 197:*21*
typically 268:*20*

< U >
U.S 7:*10* 20:*15*
 21:*16* 25:*22* 33:*3*
 41:*6* 43:*20* 47:*10*
 50:*8* 53:*6, 13* 54:*2,*
 13 63:*10* 64:*12*
 65:*6* 67:*2* 69:*12*
 72:*2* 77:*12* 78:*20*
 79:*7* 80:*6, 12* 85:*2*
 86:*11* 88:*16* 89:*2,*
 10, 18 90:*2* 99:*11*
 102:*5, 11* 115:*3*
 125:*5, 12, 15* 126:*5*
 128:*16* 133:*7*
 137:*9, 10* 165:*18*
 172:*2, 8* 173:*20*
 184:*7* 186:*22*
 194:*12, 14* 202:*4*
 206:*13* 213:*15*
 216:*19* 223:*18*
 227:*4* 228:*6*
 235:*12* 242:*18*
 243:*7, 11, 21* 244:*3*
 253:*14* 271:*14*
 275:*6* 299:*5* 301:*8*
 302:*16*
U.S.'s 78:*19*
UBERUAGA 6:*12*
 269:*18* 270:*3, 9*
Ulla 212:*12*
ultimate 208:*15*

Ultimately 37:*19*
 38:*20* 65:*10*
 117:*14* 129:*3, 15*
 156:*13* 169:*10*
 198:*2* 218:*3*
ultrafine 247:*2*
ultra-low 211:*13*
UN 33:*19* 83:*21*
 125:*19* 149:*13*
 221:*22*
UN"s 149:*11*
unable 127:*3*
 131:*6* 297:*6* 300:*6*
unanticipated
 195:*20*
unavoidable 20:*20*
 84:*2*
uncharted 24:*2*
uncontrollable
 137:*5*
underestimated
 294:*12*
underinsured
 292:*22*
underlying 188:*5*
undermine 18:*20*
 35:*1* 74:*8* 80:*5*
 110:*3* 155:*14*
 171:*8* 227:*20*
 254:*6* 274:*18*
undermined 22:*11*
 122:*3*
undermines 110:*5*
 276:*20* 277:*11*
underscore 265:*9*
understand 23:*9*
 72:*15* 137:*12*
 267:*6* 268:*20*
 270:*22*
understanding
 99:*7* 130:*22*
understands 290:*16*
understated 214:*9*
understatement
 153:*4*
undertake 196:*1*
underwriting 63:*16*
undetectable
 148:*11, 12*
undoing 158:*15*
unequivocal 33:*19*
unfortunately 31:*6*
 136:*20* 190:*8*
 218:*16* 239:*10*
 247:*10* 260:*14*
 282:*21*
unhealthy 17:*12*
 18:*9* 27:*2* 103:*8*
 136:*19* 149:*22*
 242:*10*
uninsured 292:*22*

unintelligible
 114:*14*
Union 6:*16* 60:*13*
 126:*17* 288:*10*
unique 247:*10*
unite 74:*1*
UNITED 1:*1* 4:*3*
 5:*13* 7:*5* 17:*4, 11*
 61:*4* 66:*5* 68:*1*
 70:*8* 73:*13* 118:*7*
 125:*2* 150:*16*
 166:*7* 168:*6*
 169:*12* 205:*14*
 209:*17* 217:*14*
 230:*21* 237:*11*
 246:*1* 264:*11*
 280:*18* 290:*4*
 293:*7* 297:*10*
 308:*14*
units 255:*6*
unity 71:*7*
University 2:*14*
 40:*1* 90:*13* 92:*17*
 116:*20* 145:*7*
 188:*10* 249:*1*
 250:*7* 281:*18, 20*
 282:*16* 301:*13*
unjustified 51:*15*
unmute 15:*16, 18*
 23:*2* 26:*13* 29:*7*
 32:*18* 36:*2, 4, 14*
 39:*19* 43:*3* 45:*22*
 52:*13* 56:*2* 59:*17,*
 20 60:*7* 63:*5* 67:*8*
 71:*12* 74:*17* 78:*3*
 81:*12, 15* 82:*14*
 86:*3* 90:*8* 93:*19*
 97:*15* 101:*2, 5, 14*
 107:*9* 110:*10*
 114:*1* 116:*4*
 119:*13, 16* 120:*12*
 123:*17* 124:*17*
 127:*18* 134:*4, 7*
 135:*5* 146:*8*
 148:*20* 152:*1, 4, 13*
 155:*4* 158:*7*
 161:*16* 165:*14*
 169:*21* 170:*2, 11*
 176:*19* 179:*22*
 183:*7* 186:*3* 189:*3*
 193:*4, 7, 18* 196:*16*
 198:*15* 201:*14*
 204:*18* 208:*7*
 212:*1, 4* 213:*8*
 217:*9* 220:*6* 223:*8*
 226:*6* 229:*7, 10, 20*
 231:*13* 234:*13, 21*
 239:*2* 241:*12*
 244:*20* 245:*1, 10,*
 13, 14 248:*8*
 252:*20* 254:*16*

259:*3, 6, 22* 260:*1*
 263:*4* 266:*16*
 274:*6* 279:*13*
 283:*21* 287:*6, 9*
 291:*12* 296:*1*
 300:*4, 6, 19* 303:*17*
 306:*19*
unmuted 288:*1*
unmuting 300:*7*
unnecessary 22:*12*
 45:*3* 89:*22* 114:*4*
 202:*1* 204:*5*
 249:*11* 250:*18*
 257:*5*
unprecedented
 24:*10* 34:*1* 85:*11*
 108:*6*
unpredictable 64:*3*
unquote 34:*21*
unseasonable 150:*1*
unstable 66:*6*
unstated 138:*21*
unsurprising
 126:*16*
untangled 199:*14*
untested 138:*21*
unverified 138:*21*
unwarranted
 156:*22* 173:*7*
unwilling 148:*13*
 286:*13, 14*
update 157:*15*
 216:*1* 256:*17*
updating 78:*17*
upper 202:*10*
upstream 206:*21*
Urban 40:*2, 19*
 44:*17* 73:*22*
 128:*13* 130:*6*
 136:*1, 8* 166:*10*
 195:*17* 263:*22*
urge 29:*15* 43:*14,*
 21 45:*16* 58:*14*
 62:*12* 69:*8* 75:*11*
 81:*1* 107:*22* 110:*1*
 115:*5* 123:*10*
 137:*21* 161:*5*
 162:*7* 173:*10*
 179:*15* 180:*9*
 182:*4* 192:*12*
 197:*2* 198:*6, 9, 20*
 201:*21* 204:*1*
 215:*7, 13* 226:*18*
 228:*14, 17* 230:*4*
 231:*5* 235:*7, 17*
 237:*20* 239:*7*
 249:*9* 250:*16*
 252:*3, 7* 257:*9*
 269:*14* 271:*12*
 278:*19* 296:*8*
urged 280:*4*

urgency 10:*19*
29:*17* 46:*11* 110:*5*
112:*8* 188:2*0*
222:*5* 242:*22*
270:*22* 274:*19*, *22*
275:*7*
urgent 18:*10*
24:*15* 44:*4* 49:*12*
83:*20* 86:*17*
135:*21* 153:*1*, *3*
218:*7* 233:*20*
270:*17*
urgently 137:*19*
164:*8* 165:*4*
243:*19* 305:*18*
urges 20:*11* 26:*6*
52:*4* 243:*7*
urging 22:*4*, *17*
37:*4* 163:*16*
USA 241:*6*
usage 264:*8*
USC 239:*5*
Use 2:*19* 8:*19*
13:*9* 43:*22* 47:*6*
49:*1* 55:*18* 57:*7*, *9*
58:*17* 61:*11* 62:*12*
65:*13* 85:*14* 91:*3*
109:*18* 129:*21*
139:*7*, *22* 142:*8*, *10*
143:*22* 147:*5*
151:*14* 156:*7*, *20*
162:*16* 174:*15*
189:*11* 191:*18*
197:*9* 201:*6*
208:*12* 233:*4*
235:*18* 243:*3*
282:*10* 285:*2*
289:*7* 290:2*0*
297:*21* 307:*17*
uselessly 219:*3*
usher 243:*16*
usual 76:*8*
Usually 285:*6*
Ute 67:*17* 127:*21*
utilities 230:*21*
utilize 191:*21*
283:*14*

< V >
VALENTINE 6:*6*
252:*19*, *22* 253:*1*
Valley 256:*4*
valleys 272:*6*
valuable 96:*2*
252:*2*
valuation 26:*1*
value 19:*5* 251:*17*
values 139:*1*, *2*
146:*2*

Van 82:*13*, *18*, *20*,
21 213:*18*, *21*
215:*17*
V-A-N 82:*22*
VANESSA 4:*22*
183:*6*, *13*
vanity 122:*6*
vans 85:*1* 92:*5*
118:*9* 211:*3*
vapor 59:*7*
vapors 247:*3*
variables 139:*8*, *22*
varied 210:*16*
211:*7*
various 9:*17* 215:*9*
vast 108:*8* 257:*18*
vastly 87:*21*
Vegas 261:*8*
VEHICLE 1:*6*
7:*8* 9:*10* 10:*13*
21:*17* 26:*6* 27:*1*
28:*11*, *19*, *20* 37:*6*,
21 38:*14* 43:*15*
44:*6* 45:*5* 47:*1*
48:*2*, *3* 49:*7*, *19*
51:*4*, *14*, *19* 52:*22*
57:*1*, *17* 58:*18*, *22*
61:*4*, *8* 62:*12*
65:*17*, *22* 66:*15*
69:*12* 71:*5* 72:*16*
74:*21* 75:*13*, *14*
78:*21* 79:*12* 80:*2*,
16 86:*10*, *20* 87:*10*
92:*10* 94:*17* 96:*13*
98:*16* 99:*11*
100:*12* 102:*3*, *5*
106:*11* 109:*4*
112:*14* 115:*8*
121:*17*, *18* 122:*21*
128:*17* 133:*4*
142:*19* 147:*6*
148:*10* 150:*13*
154:*18* 155:*22*
157:*16* 161:*7*
167:*9* 170:*19*
172:*14* 174:*4*
185:*15* 190:*18*
197:*11* 200:*6*, *10*
206:*16* 210:*8*, *14*,
19, *20* 217:*17*
218:*7*, *8* 219:*10*, *22*
224:*13* 226:*17*, *21*
227:*22* 228:*6*
232:*1* 235:*8* 240:*4*
244:*8* 246:*6*
253:*12* 255:*7*, *17*
256:*8* 257:*20*
258:*19* 261:*22*
263:*14* 267:*14*
277:*2*, *3*, *19* 280:*16*
281:*3*, *6*, *7*, *8*, *9*, *12*,

13, *16* 283:*15*
288:*18*, *20*, *22*
289:*9* 290:*4*, *17*
294:*13* 296:*18*
308:*20*
vehicles 9:*22* 11:*6*,
15 17:*4* 18:*19*
19:*2* 22:*1*, *8*, *15*
28:*12*, *16* 31:*3*, *6*,
11 33:*9* 35:*4*
39:*10* 41:*16* 46:*8*,
18 48:*2*, *6*, *10*
49:*11*, *15* 50:*8*, *11*
51:*16* 52:*2*, *6*
53:*15* 54:*19* 56:*16*
57:*17*, *22* 59:*4*
61:*5*, *10*, *14* 65:*13*,
20 68:*21* 72:*8*
78:*22* 79:*18* 80:*9*,
15, *19* 81:*4* 84:*17*,
21 85:*20*, *21* 87:*18*
88:*12*, *22* 89:*6*, *15*
92:*3*, *6* 93:*6* 94:*13*,
19 99:*9* 103:*16*
105:*18*, *21* 106:*3*
109:*6*, *8* 113:*9*
118:*21* 119:*1*
122:*5*, *8*, *12*, *17*
126:*8*, *9* 142:*5*, *22*
143:*2* 148:*14*
151:*11* 155:*16*, *19*
157:*3*, *8* 158:*16*
159:*13*, *18* 160:*10*,
20 161:*2*, *8*, *11*
162:*4*, *14*, *15*, *18*
164:*22* 165:*7*
166:*18*, *19*, *22*
167:*5*, *8*, *20* 168:*3*,
5, *14* 169:*4*, *5*, *14*
173:*20* 174:*6*, *10*,
12, *13* 176:*11*, *14*
182:*16*, *17* 184:*9*
187:*2* 194:*17*
195:*13*, *19* 196:*7*
198:*8* 200:*5*, *7*, *17*
208:*10* 211:*5*, *14*,
15 213:*16*, *22*
215:*18* 216:*17*
222:*18* 223:*21*
228:*12* 232:*9*
233:*13* 237:*14*
246:*10*, *19* 254:*7*
255:*4* 256:*7*
257:*18* 262:*5*, *8*
265:*10* 269:*6*, *7*
271:*22* 272:*1*, *8*, *16*
277:*5*, *7* 280:*2*, *22*
283:*3*, *4* 289:*2*
290:*3*, *14* 292:*6*
293:*8* 294:*15*

305:*5* 308:*12*
309:*1*, *2*, *5*
vehicular 265:*3*
vein 118:*3*
verbal 16:*6* 134:*18*
verifiable 55:*4*
verification 172:*21*
veritable 276:*19*
version 139:*12*
versus 147:*6*
206:*3* 261:*4*
284:*13* 302:*22*
308:*8*
vertebrates 199:*10*
Vice 16:*18* 56:*5*
161:*19*
video 300:*7*
Vienna 107:*14*
view 41:*2*
views 90:*17* 93:*12*
225:*7*
VIJAY 2:*9* 23:*1*, *4*
violation 166:*11*
169:*1*
violations 68:*7*
violence 126:*1*
Virginia 94:*6*, *11*,
14, *19* 105:*1*
106:*17* 107:*14*, *15*
253:*1*, *4*, *22*
Virtual 1:*12* 7:*6*,
18 132:*17*, *18*
133:*8* 202:*21*
310:*6*
virtually 13:*8*
virtue 39:*2*
virus 260:*16*
visibility 202:*6*, *11*
255:*18*, *19*
visible 272:*5*
vision 76:*20* 214:*2*,
14, *19* 215:*6*
visionary 76:*21*
visit 44:*20* 136:*7*
visitors 255:*22*
visits 26:*4*
vital 56:*20* 66:*3*,
21 67:*1* 119:*7*
241:*22*
vivid 25:*8*
VLEET 3:*10*
82:*13*, *18*, *20*, *21*
V-L-E-E-T 82:*22*
voice 73:*8* 189:*9*
219:*20* 254:*22*
voices 183:*11*
volatile 63:*21*
106:*4*
volume 122:*2*
248:*12*
volumes 59:*5*

voluntarily 51:*12*
203:*10*
volunteering 194:*1*
VON 3:*10*
vote 73:*8*
voted 305:*17*
voters 84:*11*, *16*,
19, *21* 91:*5*, *9*, *19*
92:*21*
votes 297:*6*
vowed 152:*22*
vulnerable 50:2*0*
73:*2* 126:*1* 136:*21*
138:*1* 160:*17*
187:*18* 188:*18*
195:*14* 207:*7*
273:*15*, *17* 292:*20*
293:*4* 295:*6* 309:*9*

< W >
wait 38:*18* 209:*21*
234:*6*
Waiver 217:*4*
256:*16*
wakeup 154:*21*
Walk 68:*6* 178:*12*
wallowing 203:*19*
want 17:*21* 22:*14*
23:*5* 29:*19* 35:*8*
67:*14* 84:*8* 95:*21*
96:*9* 109:*7*, *9*, *20*
115:*14*, *18* 130:*11*
135:*15* 158:*14*
159:*3* 178:*12*
180:*15* 181:*3*
182:*10* 197:*18*
226:*12* 251:*15*
258:*7* 261:*12*
267:*8* 270:*21*
273:*22* 283:*8*
305:*1* 310:*9*, *20*
wanted 132:*9*
220:*18*
wants 124:*12*
War 251:*19*
warm 178:*20*
warmed 307:*17*
warmer 108:*14*
219:*16* 298:*6*
warming 24:*7*
44:*1* 108:*11* 125:*8*
144:*15* 147:*11*
169:*3* 199:*5*
218:*19* 224:*9*
226:*20* 235:*19*
236:*5*, *9*, *14* 237:*3*
239:*14* 240:*6*
298:*5* 307:*22*
warms 268:*16*
warmth 150:*1*

warnings 70:*13*
136:*20* 242:*7*
warns 125:*8*
Washington 1:*22*
26:*21* 106:*17*
116:*20* 224:*7*
266:*21* 267:*17*
268:*10* 269:*14*
303:*22* 304:*14*
waste 38:*8* 238:*1*
wasteful 308:*13*
watch 100:*6*
232:*16*
watched 224:*19*
251:*7*
watching 202:*6*
271:*2*
water 23:*16* 38:*5*
67:*22* 70:*17* 100:*2,*
8 178:*16, 19* 199:*5*
219:*14* 275:*11, 18*
285:*21* 302:*12*
waters 108:*14*
275:*21* 305:*4*
WATKINS 4:*8*
138:*5, 7*
wave 103:*2* 153:*8*
227:*9*
waver 113:*5*
waves 24:*20* 30:*1*
33:*22* 38:*11* 50:*6*
102:*14* 108:*14*
234:*2* 236:*14*
255:*8* 268:*13*
way 30:*8, 13* 39:*3*
49:*19* 93:*3* 113:*14*
121:*15* 130:*8*
175:*19* 179:*18*
200:*1* 218:*18*
249:*19* 271:*10*
285:*19*
ways 137:*13*
251:*14*
weak 79:*5* 80:*5*
weaken 9:*10*
122:*22* 215:*15*
weakened 79:*9*
weakening 51:*15*
53:*22*
weakens 215:*19*
weaker 171:*19*
299:*9*
wealth 68:*9*
292:*11*
weapon 64:*19*
weapons 301:*4*
wear 305:*21*
weather 38:*12*
100:*3* 160:*3*
180:*18* 185:*10*
195:*16* 202:*5, 6*

232:*17* 234:*1*
272:*10* 307:*19*
weatherman 202:*5*
weather-related
276:*1*
web 199:*13*
Webb 201:*3*
Webcast 1:*12*
webinar 231:*2*
website 10:*2*
13:*18, 20* 242:*9*
Wednesday 1:*10*
week 34:*5* 40:*7*
221:*6* 227:*10*
281:*19*
weekend 187:*13*
223:*20*
weeks 28:*1* 103:*6*
127:*2* 255:*11*
WEID 5:*2* 186:*2,*
5, 6, 8
weighed 251:*1*
weighs 251:*3*
weight 136:*15*
welcome 7:*5, 15*
133:*2* 252:*17*
303:*17* 306:*18*
welcomes 12:*1*
86:*11*
welfare 275:*4*
well 30:*11* 44:*19,*
20 55:*8* 56:*15*
57:*15* 58:*12* 59:*5*
65:*8, 13* 88:*19*
90:*16* 92:*13* 98:*6*
102:*14* 105:*14*
116:*12* 142:*10*
144:*21* 145:*14*
162:*14* 172:*2*
179:*17* 180:*5*
186:*18* 189:*5*
192:*11* 195:*16*
224:*5* 231:*3* 244:*6*
255:*21* 263:*9*
269:*1* 277:*8* 283:*2*
289:*11, 18* 291:*4*
305:*5* 306:*12*
well-being 30:*4*
68:*9* 277:*16*
well-designed
189:*19*
well-to-wheel
211:*11*
went 239:*22*
264:*13* 296:*14*
we're 22:*4* 29:*18*
30:*6* 31:*9* 34:*9*
63:*16* 75:*4* 77:*17*
96:*5, 15* 110:*18*
115:*15* 119:*4*
133:*16* 136:*1*

162:*6* 179:*12*
180:*20* 182:*9*
186:*18* 208:*10*
231:*3, 7* 233:*22*
261:*10* 265:*2*
285:*4, 22* 286:*6, 7*
297:*12* 298:*18*
304:*17* 305:*2, 3, 14*
308:*4*
West 18:*8* 105:*1*
106:*19* 253:*1, 4, 22*
Western 100:*1*
180:*7* 187:*14*
242:*11* 264:*11*
We've 34:*5* 94:*7*
95:*6, 8* 102:*16*
103:*6* 111:*19*
160:*2* 181:*8* 182:*8,*
17 183:*1* 227:*7, 9*
236:*14* 271:*3*
282:*3*
wheel 133:*13*
white 17:*15* 44:*10*
45:*1* 126:*19*
205:*22* 233:*10*
278:*19*
whites 44:*21*
WHYTE 4:*7*
96:*21* 131:*8* 135:*4,*
8, 10
wider 109:*10*
widespread 23:*20*
62:*17* 70:*12* 73:*14*
184:*1* 236:*3*
wife 196:*21*
197:*17* 296:*10, 12*
301:*20*
wildfire 24:*21*
87:*4* 102:*13* 163:*7*
199:*16* 236:*15, 20*
242:*8* 260:*21*
261:*9, 15, 21*
275:*22*
wildfires 18:*7*
24:*19* 30:*2* 33:*22*
50:*7* 70:*3* 96:*4*
99:*21* 102:*17, 19*
103:*5* 153:*7* 160:*4*
187:*13* 222:*8*
242:*12* 251:*8*
255:*10* 264:*11*
285:*13*
wildlife 152:*20*
199:*17* 255:*22*
264:*5*
wildly-inflated
144:*9*
WILLIAM 5:*6*
6:*2* 196:*15* 241:*11*
willing 119:*5*

willpower 181:*21*
182:*1, 9*
win 198:*4*
wind 95:*7* 209:*8*
282:*12, 13* 299:*4*
302:*8* 303:*6, 12*
window 24:*6* 41:*2*
83:*22* 237:*5*
windows 137:*1*
246:*22*
windy 236:*22*
wins 197:*22* 198:*1*
winter 100:*7*
winters 298:*6*
win-win 197:*21*
Wisconsin 220:*12*
wisdom 39:*15*
219:*19*
wish 13:*10* 265:*9*
311:*3*
witness 188:*4*
witnessed 188:*4*
witnessing 73:*7*
woman 72:*20*
217:*16*
Women 4:*3* 5:*13*
125:*2, 18, 21*
127:*13* 128:*1*
206:*2* 217:*15*
women's 125:*4*
wonder 106:*13*
word 117:*13*
146:*18* 175:*2*
words 142:*18*
174:*16* 192:*2*
230:*18* 265:*9*
work 11:*12* 23:*9*
37:*20* 56:*13* 59:*2*
65:*4* 72:*5* 73:*22*
87:*20* 89:*9* 94:*19*
104:*16* 116:*8*
119:*7* 122:*8*
137:*15* 140:*20*
145:*5* 189:*20*
200:*10* 203:*19*
211:*3* 221:*20*
224:*18, 20* 230:*2*
240:*8* 244:*6* 252:*4*
253:*6* 270:*4, 6, 11,*
22 273:*13* 282:*20*
291:*16* 309:*11*
worked 23:*11*
27:*14* 29:*1* 123:*22*
137:*10* 180:*7*
194:*6* 202:*8*
224:*15* 249:*2*
250:*8* 305:*17*
workers 219:*17*
workforce 66:*17*
working 59:*10*
90:*3* 91:*11* 117:*20*

130:*14, 20* 144:*7*
202:*8* 228:*15*
237:*21* 251:*18*
256:*3* 280:*12*
works 151:*2*
152:*19* 277:*17*
world 18:*16* 19:*13*
29:*17* 30:*14* 40:*7*
41:*5* 75:*18* 87:*6*
118:*17* 119:*1*
137:*3* 145:*8, 20*
149:*10* 154:*21*
177:*21* 180:*15*
181:*7* 182:*7*
202:*17* 213:*13*
218:*2, 15* 244:*2*
251:*14, 19* 275:*7*
291:*18*
world's 52:*21*
56:*7* 63:*16* 73:*16*
125:*14* 144:*20*
166:*1* 184:*3* 262:*8*
275:*10* 283:*16*
worldwide 63:*22*
65:*6, 15* 109:*17*
199:*12*
worried 96:*7*
247:*16* 271:*2, 7*
297:*17*
worry 221:*4*
worrying 194:*19*
221:*18*
worse 17:*19, 21*
138:*16* 163:*2*
168:*22* 232:*15*
237:*6, 7* 265:*3*
304:*4*
worsen 25:*2* 30:*14*
worsened 188:*6*
worsening 70:*3*
136:*15*
worsens 114:*18*
worst 20:*19* 30:*17*
69:*5* 72:*1* 84:*1*
99:*20* 110:*21*
136:*1* 165:*5*
221:*11* 233:*5*
260:*22* 307:*9*
308:*6*
wreaked 130:*5*
writing 14:*6*
52:*18* 189:*14*
306:*9*
written 13:*12*
16:*8* 17:*22* 42:*2*
115:*18, 22* 134:*20*
192:*13* 252:*13*
291:*8* 310:*22*
wrote 163:*14*
Wysor 8:*7*

< X >
xylene 289:*12*

< Y >
Yale 92:*17*
Yeah 284:*5*
YEAR 1:*5* 7:*7*
 11:*7*, *15*, *16* 12:*1*
 17:*3* 18:*12*, *13*
 19:*18* 21:*15* 25:*5*,
 22 34:*8*, *9*, *11* 46:*8*
 51:*14* 52:*8* 54:*9*
 61:*16* 62:*16* 64:*15*
 75:*7* 76:*7* 77:*13*,
 20 83:*18* 94:*14*
 99:*20* 100:*16*
 105:*12* 122:*21*
 128:*21* 133:*4*
 145:*14* 147:*12*
 151:*6* 156:*10*, *16*
 158:*19* 161:*3*
 162:*12* 163:*22*
 164:*12* 167:*6*
 169:*9* 199:*19*
 205:*10* 207:*12*
 208:*16* 209:*10*
 221:*7* 222:*11*
 227:*7*, *8* 230:*10*
 239:*11* 240:*11*, *18*
 242:*19* 258:*19*
 263:*14*, *18* 264:*6*
 276:*11*, *15* 277:*9*
 278:*12*, *15* 282:*3*
 286:*3* 294:*14*
 296:*10*
year-long 44:*16*
yearly 261:*21*
year-over-year
 214:*13*
Years 9:*20* 24:*2*
 27:*1* 37:*22* 40:*9*
 46:*16*, *21* 51:*17*
 52:*6* 53:*12*, *18*
 61:*5*, *6* 63:*14*
 70:*14* 71:*22* 76:*5*
 89:*13* 99:*4* 100:*9*
 105:*17* 111:*10*
 112:*4*, *9*, *15* 113:*18*
 123:*5* 135:*19*
 144:*3*, *16* 145:*22*
 151:*7* 156:*17*
 159:*8*, *14* 161:*6*
 163:*13* 178:*15*, *16*
 181:*9* 182:*12*
 183:*2* 184:*15*
 194:*13* 196:*8*
 197:*6* 199:*18*, *20*
 200:*18* 202:*3*, *11*,
 18, *20* 203:*13*
 227:*21* 240:*11*

 247:*9* 249:*5*, *7*
 250:*11*, *13* 256:*3*
 262:*21* 264:*1*
 267:*3*, *12* 274:*19*
 281:*17*, *21* 284:*6*
 288:*19* 296:*12*, *21*
 298:*7*, *18* 301:*2*, *4*,
 5, *11* 303:*5* 304:*2*
year's 195:*6*
 261:*5* 307:*12*, *16*
Yellowstone
 270:*13* 271:*19*
 272:*2*
yesterday 187:*11*
 219:*16* 231:*1*
yield 160:*20*
 243:*17*
yielding 91:*5*
YOLANDA 4:*7*
 96:*21* 131:*8*, *9*
 135:*4*, *10*
York 2:*16* 30:*21*
 46:*4*, *6*, *11*, *16*, *19*
 48:*8* 126:*15*, *19*
young 95:*16*
 137:*5* 177:*13*
 227:*1* 247:*4* 271:*6*
youngest 247:*18*
youth 125:*18*
YUHNKE 4:*17*
 165:*13*, *16*

< Z >
zero 21:*16* 22:*8*
 28:*11*, *12*, *19* 35:*9*
 39:*13* 46:*19* 48:*7*,
 10 49:*11* 51:*3*
 53:*10* 61:*1* 71:*4*
 84:*17* 85:*2*, *21*
 86:*20* 88:*12* 89:*10*
 94:*13* 96:*13*, *18*
 100:*11* 103:*16*
 109:*7* 118:*22*
 151:*11* 154:*18*
 159:*18* 161:*8*
 162:*4*, *6* 165:*7*
 166:*3*, *6*, *16*, *18*, *22*
 167:*5*, *8*, *9*, *12*, *17*
 168:*10*, *14* 169:*10*
 175:*5*, *14*, *16* 179:*7*
 184:*8*, *9* 185:*14*
 190:*2*, *6* 194:*10*, *15*,
 17 195:*13* 209:*3*
 211:*3*, *15* 222:*17*
 228:*6*, *8* 233:*12*
 243:*19* 244:*7*
 254:*10* 257:*20*
 269:*5*, *7* 303:*1*
ZEVs 47:*13*
 112:*21*

ZEWADSKI-
BRICKER 5:*13*
 217:*8*, *11*, *13*
zones 69:*18*
Zoom 202:*22*
 310:*18*