



EPA Pollution Prevention Grants Funded in FY22-23

Manual of Step-by-Step Instructions
for Reporting on Grant Progress and
Achievements Over Time



EPA Office of Pollution
Prevention and Toxics
September 2023

About These Reporting Instructions

The EPA’s Pollution Prevention (P2) Program developed this manual of reporting instructions specifically for grantees who were awarded P2 grants and Source Reduction Assistance (SRA) grants funded with EPA’s Fiscal Year (FY) 2022 funds and FY2023 funds. The Manual fully explains the facility information and measures of success that grantees will need to report on over the course of their grants. This document also provides grantees with links to supplementary tools and resources to assist them in their reporting efforts and in communicating their achievements to the EPA, their community, and communities nationwide. Our sincere appreciation goes out to all grantees for whom this manual of reporting instructions is written, recognizing the indispensable role your work plays in the realm of pollution prevention and resource sustainability.

Do these reporting instructions include anything new?

These Reporting Instructions adhere to the reporting requirements of the RFAs for FY2022/FY2023-funded grants and create no new requirements for grants awarded with FY22-23 funds (See the RFA links under “Background”). Since this is the first time that EPA is providing detailed reporting instructions for a specific funding-award cycle of P2 and SRA grants (the FY22/FY23-funded grants), EPA thought it may help in the transition to this specificity to flag where the reporting requirements of FY22/FY23 funded grants differ from those of the FY20/FY21-funded grants and FY18/FY19-funded grants. Table I below shows the requirement differences. EPA thinks it may also help to note that these reporting instructions includes an Appendix on the required measures for the grants. The Appendix covers relevant sections of the P2 Program’s longstanding measurement guidance.

Table I. A reference for grantees with open grants funded before FY2022.

Areas of Difference	Requirements for Grants Funded in FY18-FY21	Requirements for Grants Funded in FY22-FY23
Facility-level reporting requirements	Slight differences. See Section VI.C.3. of the FY20-21 RFAs and the FY18-19 RFAs.	Documented in Section VI.C.3. of the FY22-23 RFAs.
Optional reporting templates	Templates for FY20/21-funded grants and FY22/23-funded grants do a better job of tracking implementation and multiyear performance than the prior template. Avoid the FY18/19 template for any grant funded in FY20 or later.	Links to the templates for grants funded in FY18-19, FY20-21, and FY22-23 are on the EPA P2 website .

Areas of Difference	Requirements for Grants Funded in FY18-FY21	Requirements for Grants Funded in FY22-FY23
Outcome measure change: Some differences for Nonhazardous Materials	<p>No direct measure for nonhazardous material reductions.</p> <p><i>Difference #1:</i> Report the MTCO_{2e} conversion from incidental nonhazardous material reductions (reduced use, reuse, or recycling), using EPA’s WARM tool, if and only if most project implementation is for reducing (i) haz. materials/haz. releases to air/water/land, (ii) water use, and/or (iii) energy use. Don’t report MTCO_{2e} conversions when most project implementation is reducing nonhazardous materials (by any means).</p> <p><i>Difference #2:</i> Never report cost savings from nonhazardous reductions.</p>	<p>No direct measure for nonhazardous material reductions.</p> <p><i>Difference #1:</i> Report the MTCO_{2e} conversion from nonhazardous material reductions when achieved by P2, using EPA’s WARM tool. Never report MTCO_{2e} conversions from recycling or other non-P2 strategies.</p> <p><i>Difference #2:</i> Report cost savings from nonhazardous reductions achieved through P2. Never report cost savings from nonhazardous reductions achieved through recycling and other non-P2 strategies.</p>
Output and outcome measures change: Environmental justice	There are no requirements to break out the output and outcome data for facilities in or adjacent to underserved communities.	There are requirements to break out the subset of output and outcome data for facilities in or adjacent to communities.

Table of Contents

About These Reporting Instructions	ii
Do these reporting instructions include anything new?	ii
I. Background.....	1
II. What is P2 grant reporting all about?	1
III. What facility-level reporting will grantees need to do?	1
IV. How should reporting data elements be organized?.....	3
V. What outcome measures do grantees need to report on?	5
VI. What output measures do grantees need to report on?	5
VII. When do grantees need to submit reports to the EPA?.....	6
VIII. What do grantees need to submit in interim and final reporting?	6
IX. Recommended file naming practices for submissions	6
X. Resources	7

List of Appendices

Appendix A: Outcome Measures and Output Measures	A-1
Appendix B: Training Video and Highlights	B-1

I. Background

Pollution Prevention Grants and Source Reduction Assistance Grants are part of the [Grant Programs for Pollution Prevention](#) managed by EPA's Office of Pollution Prevention and Toxics (OPPT). The Pollution Prevention (P2) Program within OPPT administers these grants. For the FY2022-2023 award cycle, the P2 Program funded the [P2 Grants for P2 technical assistance](#) to business facilities using regular Congressional P2-grant appropriations and [supplemental P2-grant appropriations](#) from the [Infrastructure Investment and Jobs Act, Public Law 117-58, Section 70402](#) (also known as the Bipartisan Infrastructure Law). For the FY2022-2023 award cycle, the EPA P2 Program also used general program funding to award some [Source Reduction Assistance \(SRA\) grants](#) for source reduction (P2) work in the areas of research, investigation, experiments, education, training, studies, and/or demonstration of innovative techniques. This Guide is intended to help recipients of FY22/FY23-funded Pollution Prevention Grants and Source Reduction Assistance Grants comply with the grant reporting requirements set out in their respective Requests for Applications (in Sections I.I, VI.C.3, and Appendix E). These Reporting Instructions create no new requirements and are consistent with the reporting described in the RFAs and the grant terms and conditions.

II. What is P2 grant reporting all about?

Grantee reporting is a vital tool for the Agency to remain informed on the latest pollution prevention practices. Beyond showing compliance with grant terms, effective and efficient use of grant funds, and lessons learned, reporting provides a wealth of valuable data to the P2 Program. It replenishes the stream of P2 practices the Agency can share with others, and increases its capacity to provide enhanced services to interested stakeholders. The P2 Program relies on these grant reporting data to maintain and enhance a robust warehouse of P2 data. The P2 Program is taking steps to enhance the database for wide accessibility so that all P2 providers, businesses, and other organizations will be able to search for P2 practices that have been demonstrated, recommended, and implemented at the facility level, along with their documented benefits to the environment and economy, with the hope that others can relate to and replicate these P2 results at their own facilities.

III. What facility-level reporting will grantees need to do?

EPA requires P2 and SRA grantees to collect and report specific facility-level data on the technical assistance provided to each facility.

- **Why Facility-Level Reporting is Important:** The P2 Program relies on detailed, facility-level information gathered from grant reports to identify P2 best practices, collect case studies and success stories, and populate facility-level experiences in its database repository. Over the next year or so, EPA will deploy Phase 2 of the database development plan, which will enable grantees to enter facility-level grant reporting data directly into the database via a restricted online access channel. In the meantime, the Agency is using facility-level reporting files from grantees to populate the database repository. In Phase 3, the facility-level repository will be made publicly accessible for searching through a dedicated public-facing interface.
- **What Facility-Level Data to Report:** Grantees need to record data elements for each facility that receives technical assistance. Step One is to record basic information on the facility: State, NAICS code, national emphasis area, and whether in or adjacent to an EJ community. If facility names are not provided, the facilities should be numbered. Step Two is to collect and

record the data elements required for the type of technical assistance you are providing. There are four types, listed immediately below. Section IV will describe how to organize the reporting data elements for each of these types.

- (1) **Providing direct technical assistance to individual facilities:** During the grant, grantees need to report each year on the following elements, as based on their annual progress:
- (i) The individual P2 recommendations provided to each facility,
 - (ii) The dates the grantee followed up with each facility,
 - (iii) Which P2 recommendations each facility implemented and in which federal fiscal year (which runs from Oct 1 to Sept 30 of the next calendar year),
 - (iv) The annual environmental outcomes and cost savings achieved for each implemented action, as determined during the follow-up, and
 - (v) For each recommendation not implemented, whether the facility intends to implement within five years or the barriers to implementation.

Grantees will need to update progress on these data elements in their annual and final report submissions. EPA requests, but does not require, reporting of any and all one-time costs incurred for implementing a P2 action. One-time costs give a fuller picture for those interested in replicating an implemented action. If a grantee provides dozens of recommendations, a grantee can choose the main recommendations (those with a chance of being implemented) to document and report on.

- (2) **Conducting leadership or green certification programs:** During the grant, grantees will need to report:
- (i) The P2 actions implemented by each participating facility and the annual environmental outcomes and annual cost savings achieved per action implemented, and
 - (ii) The federal fiscal year they are reporting for.

Note that EPA requests, but does not require, reporting of any and all one-time costs incurred for implementing a P2 action, for the fuller picture this provides to those seeking to replicate an action.

Please note the following leadership and certification tips:

Leadership Programs:

- (a) If collecting performance data from program participants annually, report the data to EPA annually.
- (b) Report to EPA on a federal fiscal year basis (Oct 1 - following Sept 30) even if the leadership program has calendar-year reporting.
- (c) Annotate the reporting narrative and template to clarify the lag time between collecting participant data and reporting to EPA. Example: the grantee “checked the quality of 2022 results data reported by leadership participants and is submitting these data for federal FY2023 P2 Grant reporting.”
- (d) Providing ISO 14001 training for participants does not change a leadership program into a green certification program.

Green Certification Programs:

- (a) For a grantee creating or running a green certification program, such as one for hotels, nail salons, or local businesses, report on this program separately from other activities being conducted under the grant.
 - (b) If collecting data annually on P2 actions and outcomes, report to EPA annually.
 - (c) When providing direct technical assistance to an individual facility, recommending that it apply to a third-party green certification program does not turn that direct technical assistance into a green certification program.
- (3) **Providing training and webinars:** Over the course of the grant, grantees must make a good faith effort to follow up with attendees to learn whether they implemented P2 actions as a result of what they learned at the training. If implementation occurred at a facility, then grantees need to report:
- (i) The date of follow-up with that facility, and
 - (ii) The P2 actions implemented by that facility and the annual environmental outcomes and annual cost savings achieved per action implemented.
 - (iii) Alternatively, if an attendee becomes a client facility for direct technical assistance, then report on the elements for direct technical assistance to individual facilities, as listed in subsection (1) above.
- (4) **Conducting research, investigation, experiments, education, studies, or demonstration of innovative techniques:** Grantees must report on the results of their efforts and any implementation as applicable.
- **Facility-Level Reporting Over Time:** Since the implementation of recommendations from direct technical assistance often occurs over an extended period of time, continued follow-up is valuable for identifying more implemented P2 actions. For grantees **able to do so**, following up with facilities years after recommendations were made can sometimes lead to finding that many recommendations got implemented after the original grant period closed. For this reason, EPA allows a current grantee to report previously unreported implemented recommendations and outcomes discovered during follow-up in the current grant cycle with facilities it assisted under a prior P2 or SRA grant. Grantees would need to use the direct technical assistance model described in (1) above to report previously unreported data for facilities it assisted under a prior grant. As noted in Section IV below, “How to ...” (d), grantees would need to report previously unreported data from facilities assisted under a prior grant in a separate template workbook or equivalent format. Some prior grantees have labeled these facilities as “Follow-Up Facility 1, Follow-Up 2,” etc.

IV. How should reporting data elements be organized?

Grantees need to organize reporting data elements according to the type of work they are conducting. The P2 Program uses the term “project” to refer to a type of grant work. Some grantees will approach grant work by conducting one type of work exclusively, and some will be conducting two or more types of work.

- **Why organizing by work-type (project) is Important:** When the grantees who are conducting two or more projects keep each project dataset self-contained, EPA gains better insights into the achievement of grant objectives and can upload reported datasets more efficiently and accurately to the P2 database repository. Intermixing project datasets interferes

with EPA's ability to attribute results accurately, conduct data quality review of outcome values in a timely way, and upload datasets to the P2 database in a timely way.

- **How to organize data collection and reporting by project:** Good models for organizing data by project are the [two optional Microsoft Excel reporting templates](#) designed for P2 and SRA grant reporting (links at "Grants with FY22-FY23 Funding" on the Grants Reporting screen of EPA's P2 website). The templates help you streamline reporting by automatically aggregating several reporting items – implementation outcomes by year, the subset of outcomes from facilities in or near underserved communities, and values for some required output measures. Be sure to select the templates designed for FY22-23 funded grants.
 - (i) Template 1 provides the reporting elements for direct P2 technical assistance to individual facilities.
 - (ii) Template 2 provides the reporting elements for either leadership and green certification programs or training/outreach that is broadly provided to multiple facilities.

Please note the following Template tips:

- (a) Make use of the very helpful March 2023 PowerPoint presentation on the Templates, including screenshots with key things highlighted, annotated, and circled: [Final - P2 Grant Reporting Refresher - Reporting Templates](#) (prepared by Rob Guillemin, EPA Region 1);
 - (b) **Note** the Sept 2023 features added to the Templates on EPA's P2 website:
 - Both Templates: 75 facility tabs; Aggregation of the outcomes subset from facilities in or adjacent to EJ communities
 - Template 2: a new Amplification Activities Tab; aggregation of amplification activities for output reporting; and, more reporting years (like Template 1)
 - Template 2 also adjusted Rows 20-21, Row 22, and Column B (for P2 action rows) in Facility Tabs
 - (c) Use one Excel workbook per project (workbooks aggregate results and EPA is requesting aggregation per project);
 - (d) Avoid adding tabs or altering anything else (aggregation won't work properly if a template is modified);
 - (e) You may – for direct technical assistance to individual facilities – enter predicted outcome values per recommendation (later you will need to update predicted values with implementation values); and,
 - (f) Use one workbook for current project clients and, if you're able to collect implementation data from prior grant clients, use a second workbook for the prior clients.
- **Organizing data collection and reporting efforts by project over time:** Grantees need to update data annually for each project. One EPA template for a project will last the duration of the grant, and you never need to start a new template for the next year of a grant project. Templates track annual updates and aggregates implementation values by the year reported. (Examples: Recommendation A is implemented in year 1, and recommendation B is implemented in year 2; the template will attribute the outcome values to the correct year. Recommendation A is implemented partly in year 1 and partly in year 2; enter the recommendation again in a new row and attribute year 2 results to the new row, so the template can attribute results to the correct year.) **Please note:** EPA is taking steps to make the optional reporting templates required within the next year or so.

V. What outcome measures do grantees need to report on?

Outcome measures. EPA requires grantees to report annually on four outcome measures. There are three environmental measures and one economic measure. EPA also requires grantees to report on five output measures regarding project workload progress and the success of project and grant deliverables.

- **Why the Environmental and Economic Outcome Measures are Important:** Outcome measures are used by the Program to evaluate and communicate the environmental and economic effectiveness of individual P2 actions implemented at the facility level. Reported values for these measures make the case that P2 practices are worth replicating. They show a tangible impact from a P2 action taken – environmental gains, safer products, safer workplaces, and economic savings for businesses and communities. Reducing the use and release of hazardous or toxic substances is especially valuable when only being achieved through P2, documenting financial benefits gets more facilities interested in undertaking P2 activities, reducing water use is especially valuable in drawdown and drought conditions, and obtaining meaningful contributions to lowering GHG emissions benefits everyone.
- **Understanding and Reporting on the Environmental and Economic Outcome Measures:** See Appendix A for this essential and valuable information. EPA placed the Measures discussion in an Appendix to maintain the readability and flow of the overall Reporting Instructions. EPA highly recommends that grantees approach Appendix A with some dedicated focus to absorb its vital and helpful information. The discussion addresses scope, calculator formulas, and high-quality reporting practices.
- **Measuring Environmental and Economic Impacts Over Time:** Grantees – and EPA – play a role in measuring the environmental and economic impacts of P2 Program grants over time.
 - (a) The grantee follow-up with facilities receiving technical assistance helps document increasing impacts over time. Grantee case studies can discuss the economic impacts of implementing P2 actions over time and calculate return on investment as a driver for P2 implementation.
 - (b) EPA applies a rolling 4-year formula to all P2 and SRA grant results achieved to calculate the fuller environmental and economic impacts of P2 actions over time. This recognizes that P2 results have benefits for multiple years. The P2 Program posts these calculations on its website.

VI. What output measures do grantees need to report on?

Output Measures. EPA requires grantees to report on five output measures on project workload progress and the success of project and grant deliverables.

- **Why the Output Measures are Important:** The P2 Program relies on five required output measures to assess the success of grant deliverables and track the technical assistance provided. The output measures help to communicate the level of effort made, validate that implementation is the basis for outcome values reported, and show the relative distribution of P2 practice implementation across all facilities assisted. The measures help to communicate the volume, breadth, and subject matter of amplification activities conducted by the grantee and the effectiveness of these activities.
- **Reporting on the Output Measures:** Please see Appendix A for this discussion.

- **Measuring Success Over Time:** Grantees need to update their numbers and percentages throughout the reporting process in their annual and final reporting submissions.

VII. When do grantees need to submit reports to the EPA?

Grantees should consult their grant terms and conditions to confirm whether they are expected to submit annual or semi-annual progress reports. Annual reports are due no later than 60 days after the anniversary of the grant, and semi-annual reports are due every 180 days. It is best for P2 Program internal reporting purposes that semi-annual grant reporting periods relate to the Federal Fiscal Year and not the calendar year. When the grant ends, all grantees have 90 days to submit their final technical report.

VIII. What do grantees need to submit in interim and final reporting?

This section covers only the programmatic elements required to be addressed in P2 and SRA grant reporting. No programmatic explanations are needed for standard grant reporting elements such as management of funds, drawdown, or requests for amendments.

Interim Reports. Interim reports are semi-annual and/or annual reports.

- **Semi-Annual Report:** Every-six-month narrative describing project activities, information to help manage them, and milestones for output and outcomes.
- **Annual Report:** This is an annual report or the semi-annual report occurring at the annual interval; semi-annual #2, #4, etc. Contents should include the following.
 - (i) Annual narrative. Grantees who are conducting two or more projects are being requested to break the narrative discussion into clearly labeled projects. Progress to date on output measures should be reported, either in the narrative or in the facility-level template.
 - (ii) A facility-level template (EPA's or equivalent that covers all EPA-required elements) for each project. The template should be filled in with the data collected during the reporting federal fiscal year (Oct 1 – Sept 30) for any and all facility-level reporting elements laid out in Section III above, including follow-up dates and any implementation outcomes achieved in the fiscal-year period of the report. Note: For Project type 4 under Section III above, no facility-level template is required but will be appreciated as applicable.
 - (iii) Any completed deliverables, submitted as attachments. These could be fact sheets, training videos, case studies, etc.
- **Final Technical Report:** This report should summarize the project(s), provide final output and outcomes results, final facility-level reporting, and final deliverables. Should include the final facility-level templates.

IX. Recommended file naming practices for submissions

Although not mandatory, using specific naming conventions for file submissions would greatly help EPA organize grant reports during the P2 Program's national-level review. Figures 1 and 2¹ show the conventions

¹ Figures 1 and 2 developed by EPA Region 1 to assist with the naming conventions.

that EPA prefers. If it's an annual report rather than a semi-annual report, it would be "AnnRep." If grantees want to shorten file names even further, due to the 255-character limit in directory paths in Windows, EPA recommends Ann, SAR (for semi-annual report), T for template, or using only the last five numerals of the grant number.

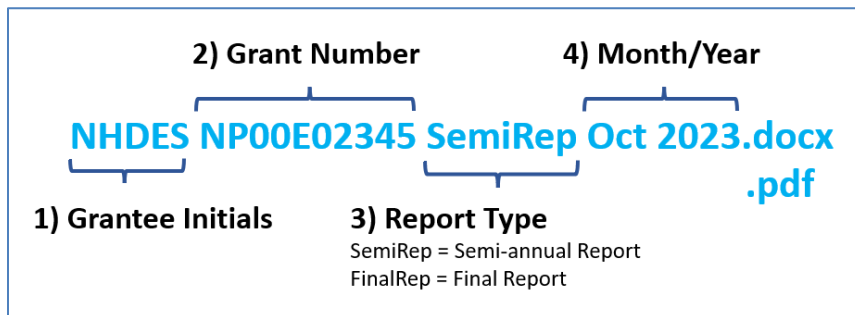


Figure 1: Narrative Naming Convention

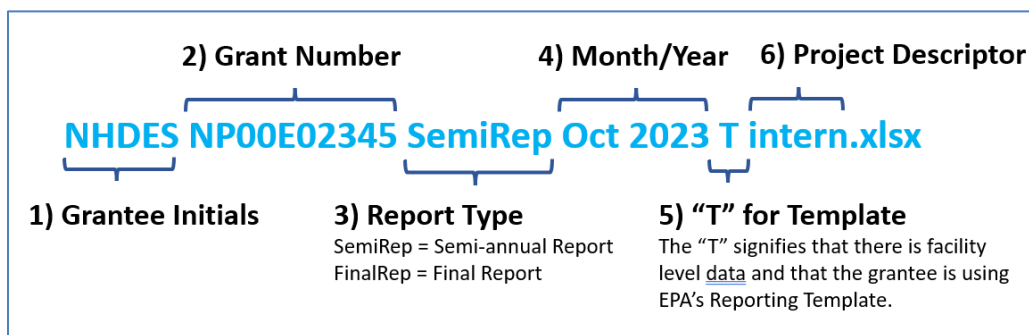


Figure 2: Reporting Template Naming Convention

X. Resources

EPA is here to help:

- The EPA P2 Program's points of contact for grant reporting questions and assistance in completing reporting templates are Kathy Davey, davey.kathy@epa.gov, 202-564-8832, and your Grant Project Officer. You can also send an email to p2hub@epa.gov.
- Appendices A and B have links to the EPA webinar on using reporting templates. Appendix A has the link to the PowerPoint, and Appendix B has the link to the recorded webinar and provides illustrative screenshots.

Appendix A: Outcome Measures and Output Measures

Outcome measures for annual reporting

EPA requires grantees to report on four outcome measures annually, as values for implemented outcomes become verified through follow up or leadership/certification program reporting, for each project anticipated to generate outcomes.

- How to Report on the Three Environmental Outcome Measures:



Reduction in pounds of hazardous materials used and of hazardous substances, pollutants and contaminants released, as a result of implementing P2 actions (with a breakout for the subset of facilities in or adjacent to underserved communities):

For each P2 action implemented, grantees need to quantify and report any positive annual-reduction values in hazardous materials and pollutants achieved by the implementing facility. This measure covers CAA HAPs and criteria pollutants, CWA conventional and water quality criteria pollutants, TRI/SARA pollutants, TSCA-regulated chemicals and chemicals of concern, RCRA hazardous waste, and state-regulated pollutants. You will need to break out and record values separately for reductions in hazardous materials used, reductions in hazardous waste generated, reductions in air emissions released, and reductions in water effluent (pollution) released. EPA's [P2 Calculator for Reductions in Hazardous Substances, Pollutants and Contaminants](#) can assist you in each of these areas; the calculator also has tabs for converting individual hazardous liquids to pounds and for using pound-reduction formulas for specialty solvent remanufacturing.¹

Please note:

- (a) Flag all reporting values for facilities in or adjacent to underserved communities and aggregate them as a subset of total reporting values (EPA's templates flag and aggregate all the EJ-related values automatically);
- (b) Do not report SO_x/NO_x emission reductions from grid electricity management (they are capped by regulation and traded nationally by utilities);
- (c) Report SO_x/NO_x emissions from boilers (which aren't subject to cap and trade requirements);
- (d) When reporting effluent reductions, do not report the water content of the wastewater (see the P2 Calculator for how to calculate water effluent pounds separately from the water content of wastewater);
- (e) Subsection (d) immediately above does not apply to liquid hazardous waste (when reporting liquid hazardous waste, just convert the unit to pounds); and,

¹ The pound-reduction formulas are for facilities relying on the remanufacturing exclusion, same generator exclusion, or transfer-based exclusion under the 2014 Definition of Solid Waste rule (40 CFR § 261.4(a) (23), (24), and (27)), as explained in the Calculator.

- (f) Explain, if simultaneously reporting the same value for reductions in hazardous material use, waste, and air releases for the same implemented P2 action, why it is not double or triple counting.



Reductions in metric tons of carbon dioxide equivalent (MTCO₂e) reduced, as a result of implementing P2 actions (with a breakout for the subset of facilities in or adjacent to underserved communities):

For each P2 action implemented, grantees need to quantify and report any positive annual-reduction values achieved for metric tons of carbon dioxide equivalent (MTCO₂e), EPA’s standard unit for greenhouse gas (GHG) reductions. EPA’s [P2 GHG Reductions Calculator](#) and [EPA’s WARM model](#) provide you the formula conversions from energy, fuel, material, and chemical units to MTCO₂e units for a broad range of action categories with GHG impacts. The P2 GHG Reductions Calculator covers electricity management, green energy purchases, fuel management, fuel/chemical substitutions with lower GHG intensities, water management, and solvent remanufacturing. The WARM model covers reductions in nonhazardous materials.

Please note:

- (a) It’s very important, for EPA quality assurance purposes, that you enter a line-item comment for each action implemented that states the unit being converted to MTCO₂e (kWh for grid electricity, BTUs for fuel, etc.);
- (b) Use kilowatt-hour or megawatt-hour units for grid electricity (do not use BTUs, a fuel unit, because its conversion formula produces very different values than those produced from watt-hour conversion formulas); and,
- (c) Flag all reporting values for facilities in or adjacent to underserved communities and aggregate them as a subset of total reporting values (EPA’s templates flag and aggregate all the EJ-related values automatically).



Reductions in gallons of water used at facilities resulting from implementing P2 actions (with a breakout for the subset of facilities in or adjacent to underserved communities):

For each P2 action implemented, grantees need to quantify and report any positive annual values for water conserved by the implementing facility.

Please note:

- (a) Calculate either gallons of incoming water reduced or gallons of outgoing wastewater reduced, just not both so as to avoid double counting;
- (b) Skip subtracting out pounds of effluent pollution if you are calculating gallons of outgoing wastewater reduced for this water measure (it takes multiple steps to do so and it won’t be detectable at the scale of EPA annual reporting for aggregate P2/SRA grant outcomes, which is usually at the billion-gallon level);
- (c) Report source water conserved for green infrastructure projects; and,
- (d) Flag all reporting values for facilities in or adjacent to underserved communities and aggregate them as a subset of total reporting values (EPA templates flag and aggregate all the EJ-related values automatically).

- **How to Report on the Economic Outcome Measure:**



Dollar savings, including savings from reduced regulatory burden, achieved from reductions in use of hazardous and nonhazardous materials, releases of hazardous substances, pollutants and contaminants, MTCO₂e emissions, and/or water use from implemented P2 actions (with a breakout for the subset of facilities in or adjacent to underserved communities);

For each P2 action implemented, grantees need to quantify and report any annual net cost savings achieved by the implementing facility as a result of that action. EPA's [P2 Cost Savings Calculator](#) provides a broad range of P2-action net cost-saving calculations (which can also be used at the recommendation stage to estimate savings). The Calculator performs some cost offsets and allows users to override unit-cost formulas. It computes savings for: (i) reduced purchases of material inputs, water, fuel, and energy, (ii) reduced fees for hazardous waste, regulated air emissions, and wastewater pre-treatment and treatment, and (iii) reducing other operating and permitting expenses. It calculates net savings on an implementation-forward basis without considering the cost of implementation.

Please note:

- (a) Flag all reporting values for facilities in or adjacent to underserved communities and aggregate them as a subset of total reporting values (EPA's templates flag and aggregate all the EJ-related values automatically); and,
- (b) If an action taken for the purpose of improving productivity (achieving more output from an hour of work) also prevents pollution, identify that P2 action step and record its cost-saving calculation.

- **How To Calculate Annual Values:** For consistent reporting, EPA asks grantees to report annual (12-month) outcome values for implemented P2 actions. EPA requests that outcomes be reported in the year they are achieved, if possible, especially as the end of the grant draws near. When actual values are only available for part of the year, a few calculations can produce 12-month values.

- (i) Grantees can add the actual values for the months implemented (say, June – September 2023) and the anticipated values for the remaining months of the year (Oct 2023-May 2024), based on applying the actual rate of improvement to the facility's Oct 2022-May 2023 performance records.
- (ii) Alternatively, grantees can take the actual rate of improvement (as determined in June-Sept) and apply it to the facility's average performance for the entire prior year.

Output measures for annual reporting

EPA requires grantees to report on five output measures regarding project workload progress and the success of project and grant deliverables.

How to Report on the Outcome Measures: For Output Measures #1 - #3, report at the project level. For Output Measures #4 and #5, report on a project-by-project basis or for the grant as a whole.



Number of facilities provided P2 technical assistance (with a breakout for the subset of facilities in or adjacent to underserved communities):

For a project that provides direct technical assistance to individual facilities, report the number of individual facilities that were provided technical assistance. Break out the subset number of facilities in or adjacent to underserved communities that were provided direct technical assistance.



Percent of facilities provided P2 technical assistance that the grantee follows up with to determine which P2 practices were implemented (should be 100%):

For a project that provides direct technical assistance to individual facilities, report the percentage of facilities provided P2 technical assistance that the grantee followed up with (to learn which P2 recommendations got implemented and the environmental and economic outcomes achieved by each action implemented). 100% follow up is expected; it will be confirmed in EPA's templates by the date(s) entered for follow up.



Percentage of facilities that implement at least one new P2 practice as a result of the technical assistance provided by the grantee (with a breakout percentage for the subset of facilities in or adjacent to underserved communities):

For a project that provides direct technical assistance to individual facilities, report the percentage of facilities that implemented at least one new P2 practice as a result of the technical assistance provided by the grantee. Break out the subset percentage of facilities in or adjacent to underserved communities that implemented at least one new P2 practice as a result of the technical assistance provided by the grantee.



Number of amplification activities that widely share P2 practices and P2 documentation (i.e., training, webinars, roundtables, other outreach) (and the subset number that target underserved communities):

On a project-by-project basis, or for the grant as a whole, report the number of amplification activities that widely share P2 practices and P2 documentation and the subset number of amplification activities that target underserved communities. For each activity, report the topic(s) covered, the number of facilities attending the training or webinar or receiving outreach material such as a video or print materials, and the percentage of participants who reported increased understanding of topics covered, as applicable.



Number of case studies and other P2 documentation products describing specific P2 best practices that are identified, developed, or implemented through the grant.

On a project-by-project basis, or for the grant as a whole, report the number of case studies and other P2 documentation products describing specific P2 best practices that are identified, developed, or implemented through the grant.

• **Optional Project Outputs:** Grantees may also report on optional project outputs such as:

- (1) Number of stakeholder groups involved,
- (2) Number of stakeholder groups involved that represent underserved communities,
- (3) Number of P2 recommendations implemented by facilities,
- (4) Number of innovations and/or best practices developed,
- (5) Types of skills and abilities achieved by training participants,

- (6) Number of people (and number of people in underserved communities) served by outreach,
- (7) Number of outreach materials made available in languages to assist linguistically-isolated communities.

Appendix B: Training Video and Highlights

Appendix B provides grantees a few screenshots from EPA’s recorded March 28, 2023 webinar. The one-hour video leads viewers through the tab instructions and the illustrative “Sample Facility” tab. The video examines Template 1 extensively and then highlights the relatively few differences of Template 2.

Tab 1. “Getting Started” Tab (Review of All Tabs)

The image shows a screenshot of a spreadsheet application with five callout boxes pointing to specific tabs. The tabs are labeled: 1. Getting Started, 2. Grant Project Data, 3. Aggregate Results, 4. Sample Facility, and 5. Facility 1, Facility 2, Facility 3. The callouts provide the following information:

- 1. “Getting Started” tab offers useful information
- 2. “Grant Project Data” tab requires data input about the grant
- 3. “Aggregate Results” tab provides a summary of P2 results for all projects
- 4. “Sample Facility” tab shows an example of a completed Facility worksheet
- 5. “Facility 1-50” tabs require data input. One facility per tab.

Template 1. Please note that Templates 1 and 2 versions on the EPA P2 website have been updated to 75 facility tabs.

Tab 4. "Sample Facility" Worksheet

Y22-23 P2 Grants Template I: Facility Level Reporting for Direct P2 Technical Assistance to Individual Facilities

INSTRUCTIONS

1. Under "Facility Information," enter data in rows 12-22. On Row 12, Enter any EPA program Facility ID or look up the EPA Region Facility ID on <https://www.epa.gov/>.
 2. Under "P2 Actions and Outcomes," enter each P2 recommendation provided to the facility during technical assistance in Column A, one recommendation per row. This may, at your option, enter initial estimates of costs, annual savings and annual reductions per recommendation in Columns B-1.
 3. Once you have followed up with a facility, enter in Row 22 the dates when you followed up with the facility to learn which P2 recommendations it implemented.
 4a. When your follow up confirms a P2 recommendation was implemented, in Column J (check "Y" (yes) it was implemented at this facility) and in Column K select a Federal Fiscal Year from the list. Do not skip 50 years when implementation occurred. In Column B, 1, enter updated cost, savings and outcome values. For calculating GHG and water pollution, see the section in the "Getting Started" Tab on "Calculating Outcomes in the Facility Tabs." In Column L, enter "quantity" information associated with implementation. In Column M, select "Y" if a cost study covers this "recommended action." Please enter Column B-1 values for one unit only in this tab's Total rows and in the Aggregate Results tab only. Row 23 has a button to edit. Column Item "Y," and Column K has a flag for selected. If more than one recommendation get implemented in a second year, add a row for that 2nd year and complete Column B-1.
 4b. When your follow-up confirms that a P2 recommendation has not yet been implemented, enter "N" in Column J. In Column K, enter "Y" if the facility plans to implement the recommendation within the next 5 years. In Column D, if the facility has no plans to implement the recommendation and can tell you why, enter the barrier(s) to implementation identified by the facility (e.g., high cost, not feasible, regulatory barrier, etc.).
 5. The cell will be highlighted yellow if your response is different than the expected input type (e.g., letters instead of numbers). Delete the response and re-enter in the appropriate format to match the instructions.

Grantee and Facility Info

Grant Project Number	Sample Grant Project Number
Facility Information (Only business facilities)	
Facility Name (optional)	xx
EPA Facility ID Number (optional)	xx
Facility Contact (optional)	xx
Facility City (optional)	xx
Facility State (2 letter abbreviation)	xx
EPA Region (found on Facility Sheet)	Region 3
Facility NAICS code (3 digit digit)	13600
NAICS for the facility user (optional)	NAICS - Automotive Manufacturing and Maintenance
Is the facility located in an adjacent to an EJ Community?	Yes
Date P2 Recommendations Provided to facility from (YYYY)	1/1/2022
Capacity of follow up from (YYYY)	6/1/2022

P2 Actions and Outcomes

Use each P2 recommendation provided to the facility on a separate row. Include the date, action, and "quantity" information that is needed to calculate cost, savings and annual reductions, e.g., #1200, #1000, #1000000.

1. You may enter preliminary estimates of costs, annual savings and annual reductions for each Recommended P2 Action (not required). If values are indicated as "Y" (Yes) the recommendation implemented at the facility, the costs, annual savings and annual reductions must be calculated based on the actual implementation of the facility.

2. Include column "quantity" information, e.g., #1200, #1000, #1000000. Do not include the units, unless annual savings and annual reductions.

Recommended P2 Actions	Cost to Implement (\$)	Savings (per year) (\$)	Reductions (per year) (lb/yr)	Reductions (per year) (gal/yr)	Annual Reductions (lb/yr)	Annual Reductions (gal/yr)	Annual Reductions (lb/yr)	Annual Reductions (gal/yr)	Water Use (gpd)	Water Use (gpd)	Was the Recommendation Implemented at this Facility?	When Implemented (Year)	Comments	Cost Study Available (Y/N)	High Cost (Y/N)	What was the barrier to implementation?
01. Reduce water use for cleaning (e.g. coating lines) by using LVP spray nozzles and water tracing.									11000		Y	2022	Water optimization completed.			waiting permit amendment.
02. Reduce paint and solvent use, and thus reduce VOC emissions to water, by installing electrostatic painting equip. & using solvent coating.									1,024		Y	2022	installed 1.2-megawatt solar.			

Results by Fiscal Year

TOTAL IMPLEMENTED	\$0	\$0	0	0	0	0	0	0	1,024	11000						
TOTAL IMPLEMENTED 2019	\$0	\$0	0	0	0	0	0	0	0	0						
TOTAL IMPLEMENTED 2020	\$0	\$0	0	0	0	0	0	0	0	0						
TOTAL IMPLEMENTED 2021	\$0	\$0	0	0	0	0	0	0	0	0						
TOTAL IMPLEMENTED 2022	\$0	\$0	0	0	0	0	0	0	1,024	11000						
TOTAL IMPLEMENTED 2023	\$0	\$0	0	0	0	0	0	0	0	0						

Getting Started Grant Project Data Aggregate Results **Sample Facility** Facility 1 Facility 2 Facility 3

Template I.

Tab 5. "Facility 1"

P2 Actions and Outcomes

Recommended P2 Actions	\$		Annual Reductions						Was the Recommendation Implemented at This Facility? (Yes/No)	Year Implemented (Oct. 1 - Sept.)	Comments	Case Study Developed (Y or No)	If Not Implemented:		
	Cost to Implement (\$)	Savings from P2 Action (\$)	Hazardous Material Input (lbs)	Hazardous Waste (lbs)	Air Emissions (lbs)	Water Pollution (lbs) Select header for help	MTCD _{2e} Emissions (metric tons)	Water Use (gal.)					Plan to within 5 years? (Y or No)	What was the barrier to implementation?	
LED light retrofit in tap room for energy efficiency	\$6,000	\$2,000						62							
5 high efficiency floor hose nozzles for water conservation	\$150	\$30													
Ionized air can and bottle rinser for water efficiency														N	Payback period over 8 years
Less toxic cleaning and sanitizing chemicals for equipment		\$3,000	10,000												
Geothermal technology for wort cooling process		\$15,000												Y	
BarTrack sensor system to reduce foaming in tap room	\$3,500	\$6,700							3,700						
CO2 Capture Device	\$110,000													N	Initial price was too high to finance
Air-side economizers that use outside air for "free cooling"	\$18,000													Y	Wants to wait 2 years before upgrade

Recommended P2 Actions

Annual Reductions

Implementation Info

5

Getting Started | Grant Project Data | Aggregate Results | **Sample Facility** | Facility 1 | Facility 2 | Facility 3

Template 1.

Tab 5. "Facility 1"

P2 Actions and Outcomes: Annual Reductions

P2 Actions and Outcomes	\$		Annual Reductions					
	One-time Cost to Implement (\$)	Annual Savings from P2 Action (\$)	Hazardous Material Input (lbs)	Hazardous Waste (lbs)	Air Emissions (lbs)	Water Pollution (lbs) Select header for help	MTCD _{2e} Emissions (metric tons)	Water Use (gal.)
LED light retrofit in tap room for energy efficiency	\$6,000	\$2,000					62	
5 high efficiency floor hose nozzles for water conservation	\$150	\$30						
Ionized air can and bottle rinser for water efficiency								
Less toxic cleaning and sanitizing chemicals for equipment		\$3,000	10,000					
Geothermal technology for wort cooling process		\$15,000						1,660,000
BarTrack sensor system to reduce foaming in tap room	\$3,500	\$6,700				3,700		
CO2 Capture Device	\$110,000							
Air-side economizers that use outside air for "free cooling"	\$18,000							

Estimated costs and annual reductions may be entered as placeholders but they must be updated in future reports if recommendations are implemented.

5

Getting Started | Grant Project Data | Aggregate Results | **Sample Facility** | Facility 1 | Facility 2 | Facility 3

Template 1