



## It Takes a Benchmarking Village

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# Agenda

- Benchmarking & BPS
- New DOE Funded Project
- Regional Cohorts
- Project Spotlight – WV
- Resources



## About ClearlyEnergy

ClearlyEnergy works at the nexus of public policy and software solutions using data-driven analytics and reporting to facilitate the energy transition.



### **ClearlyEnergy for Homes**

Home energy cost, consumption and greenhouse gas modeling, labeling, and finance



### **ClearlyEnergy for Buildings**

Data driven building analytics and reporting to facilitate the energy transition



### **ClearlyEnergy Targeted Assistance**

Targeted energy efficiency projects, software development, and policy implementation support



### **ClearlyEnergy for Climate Finance**

Help lenders measure the GHG footprint of loan portfolios, including residential mortgages and commercial building loans

## Building Benchmarking



Measuring a building's energy efficiency by comparing its energy use to similar buildings

# Building Performance Standards

## *Outcome-based policy*

What?



Policies to improve performance of existing buildings

How?



Performance requirements mandate efficiency or emissions improvements over time

Who?



**(Currently)** Existing large commercial and multifamily buildings

Where?



Towns, cities, states, Federal government, and private organizations



# Why Building Performance Standards



## Environmental

- Gives jurisdictions information about your building stock
- Reduces GHG emissions
- Reduces energy consumption



## Equity

- Reduces discrepancy in building performance between low- and high-income neighborhoods
- Reduces energy burden



## Health and Performance

- Reduces health issues linked to fossil fuel pollutants
- Improves indoor air quality and occupant comfort
- Increases productivity in offices



## Job Creation

- Increases demand for well-paying building and electrification services
- Creates market signals for efficient products and building retrofits

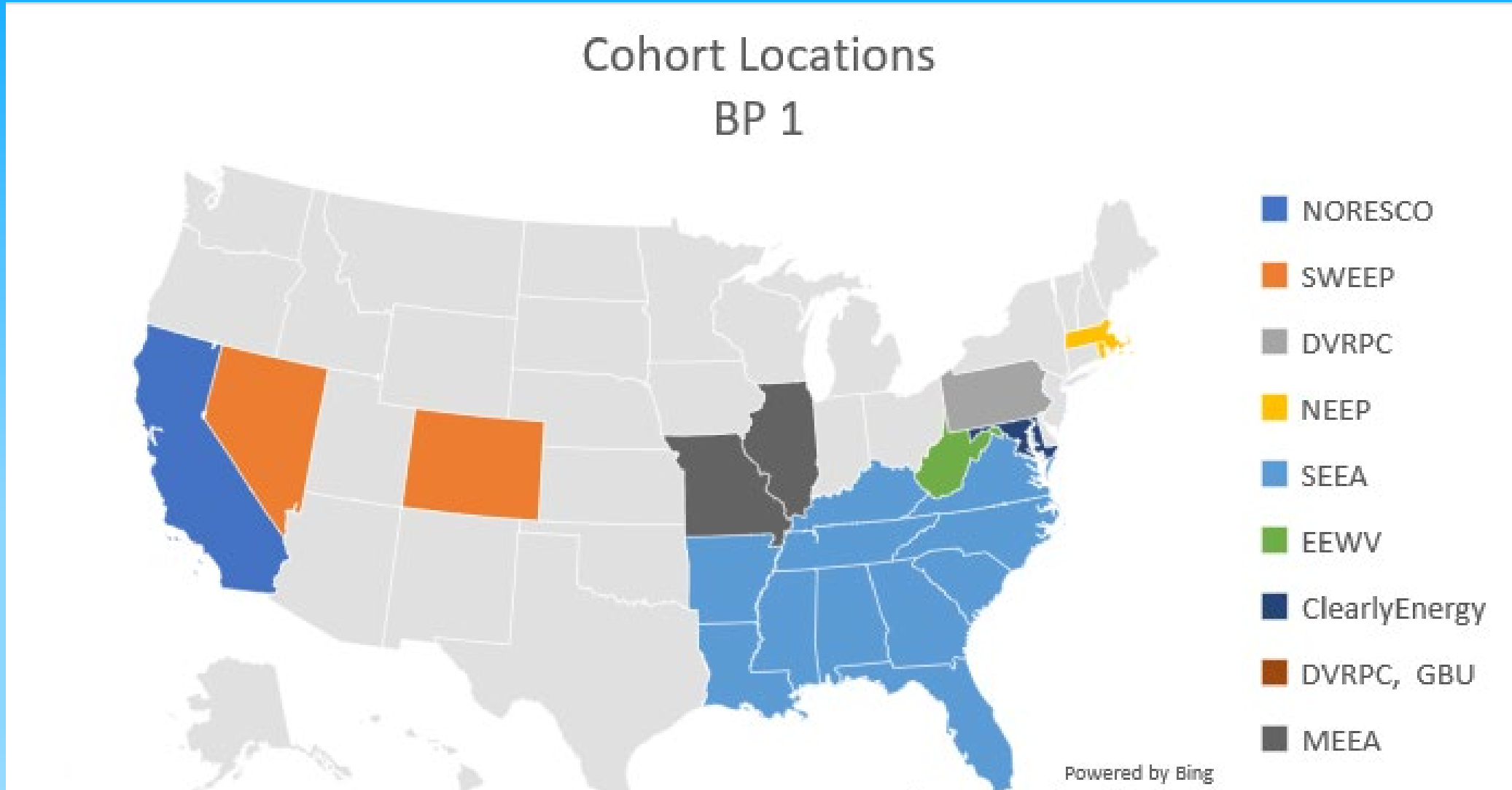
# Designing & Implementing Building Performance Standards in Small, Rural, and Justice40 Communities

- **Technical Assistance**
  - Increase administrative capacity
  - Engage stakeholders
  - Support local job growth
    - Shared Energy Analysis
    - BPS Circuit Rider
- **Peer-to-Peer Exchange**
  - Engage with other communities to help inform efforts, identify needs
- **Innovative Funding Models**
  - Utility Attribution BPS
- **Software Access**
  - Access to the BEAM (or SEED) platform to help implement the policy



*This Project is supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the Building Technologies Office - DE-FOA-0002813 - Bipartisan Infrastructure Law Resilient and Efficient Codes Implementation*

# Cohort Locations\*







## WV Cohort Benchmarking Project 2024

Leading by example towards innovative energy and economic transitions

# Powerful potentials

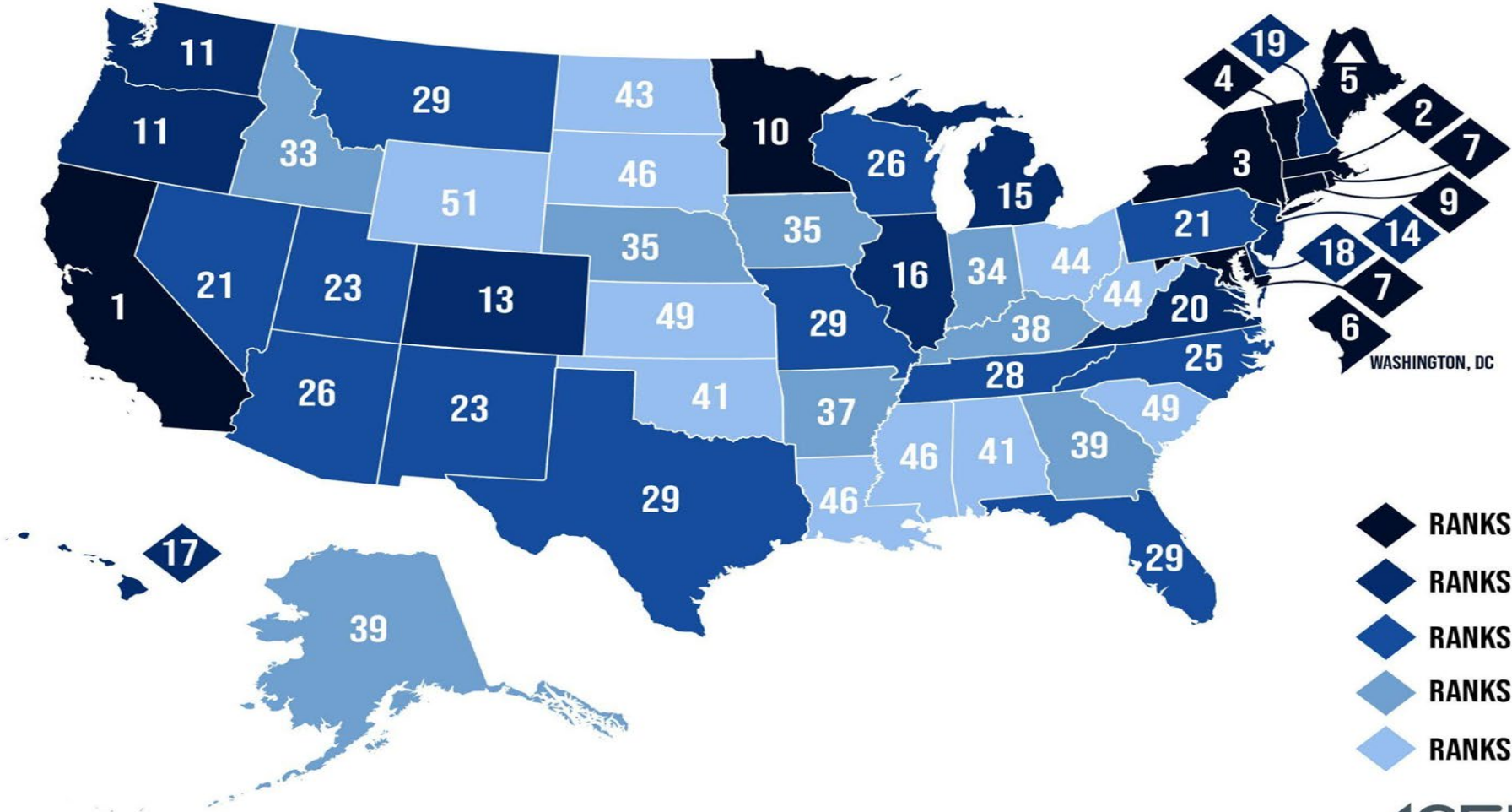


# Why West Virginia?

Great Need  
Great Potential  
Time is Right



# THE 2022 STATE ENERGY EFFICIENCY SCORECARD



- ◆ RANKS 1-10
- ◆ RANKS 11-20
- ◆ RANKS 21-30
- ◆ RANKS 31-40
- ◆ RANKS 41-51

**ACEEE**  
Smart Energy. Clean Planet. Better Lives.



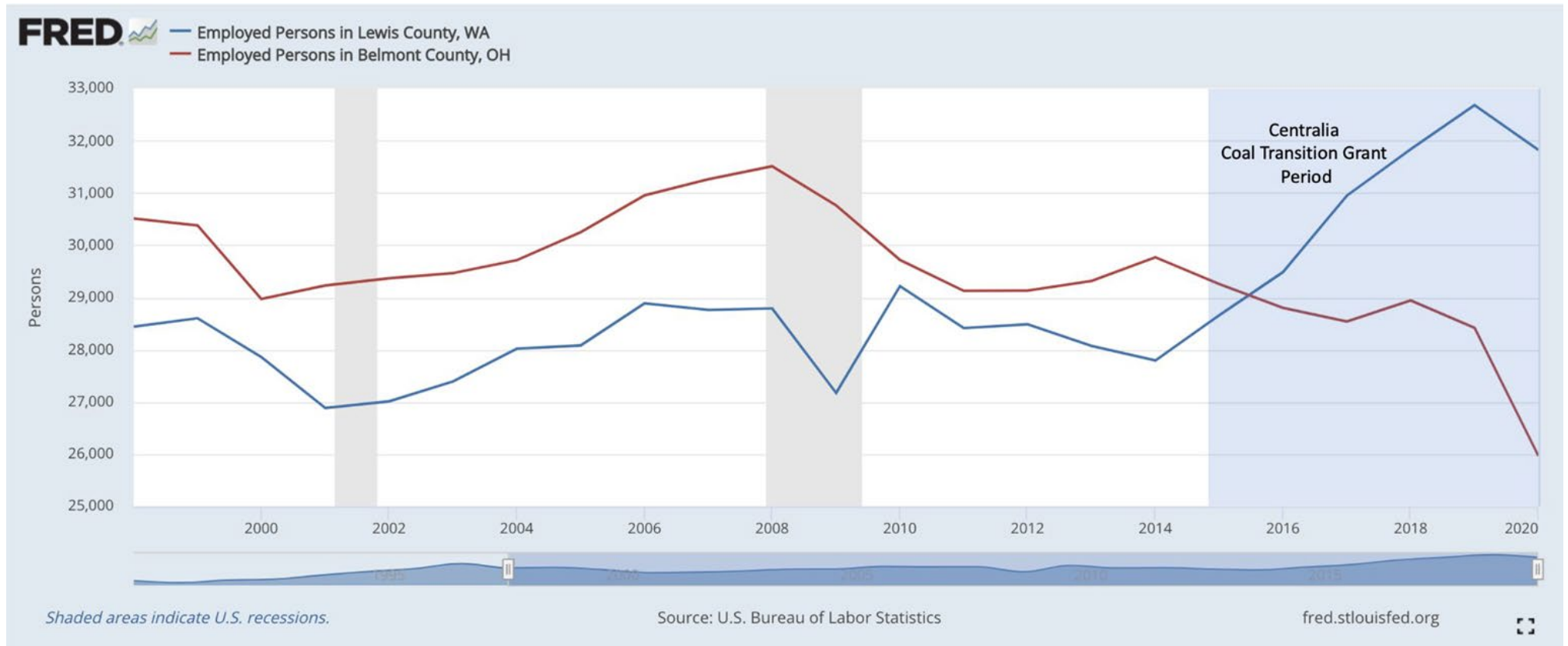
# Exemplary model: Centralia Washington [credit: Ohio River Valley Institute]

Belmont County, Ohio and Lewis County, Washington (the Centralia Metropolitan Statistical Area). Both struggled economically for decades. Then one county broke out, while the other broke down. We're going to see why.

## EMPLOYED PERSONS

**BELMONT COUNTY, OH &  
LEWIS COUNTY, WA (The  
Centralia MSA)**

1998 - 2020

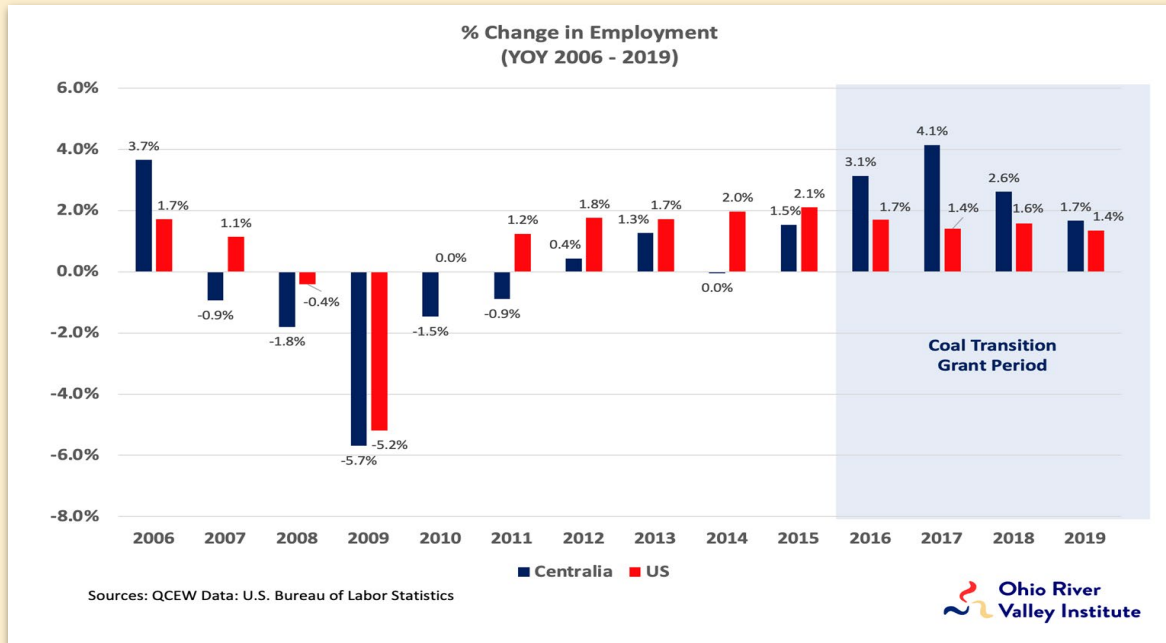
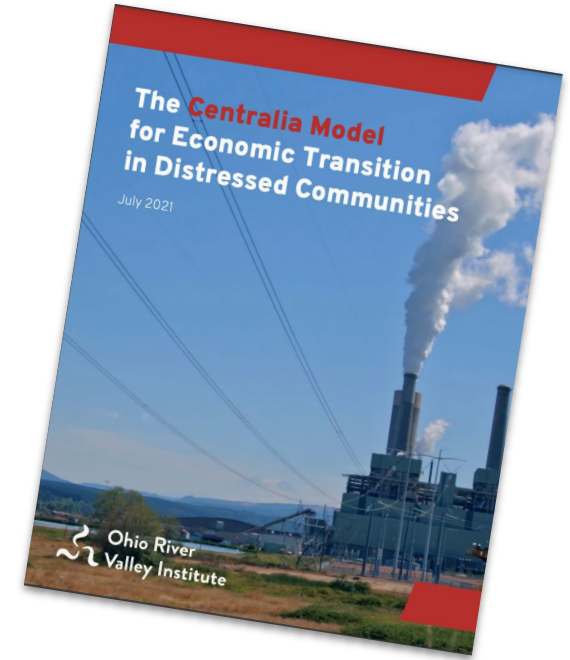


# A recent ORVI report explains the economic turnaround in Centralia

In 2006, Centralia lost its largest employer, a coal mine, that employed 600 workers. Then, the town learned that by 2025 it would lose its other anchor employer, a coal-fired power plant that once employed 370 workers.

But, in 2016 an economic transition program began distributing \$55 million in grants through:

- A “Weatherization Fund” that supports energy efficiency upgrades.
- An “Economic & Community Development Fund” that supports workers, families, businesses, and organizations.
- An “Energy Technology Fund” that supports clean energy generation, energy efficiency, storage, and transportation electrification.



As a result, in the first four years of grant activity:

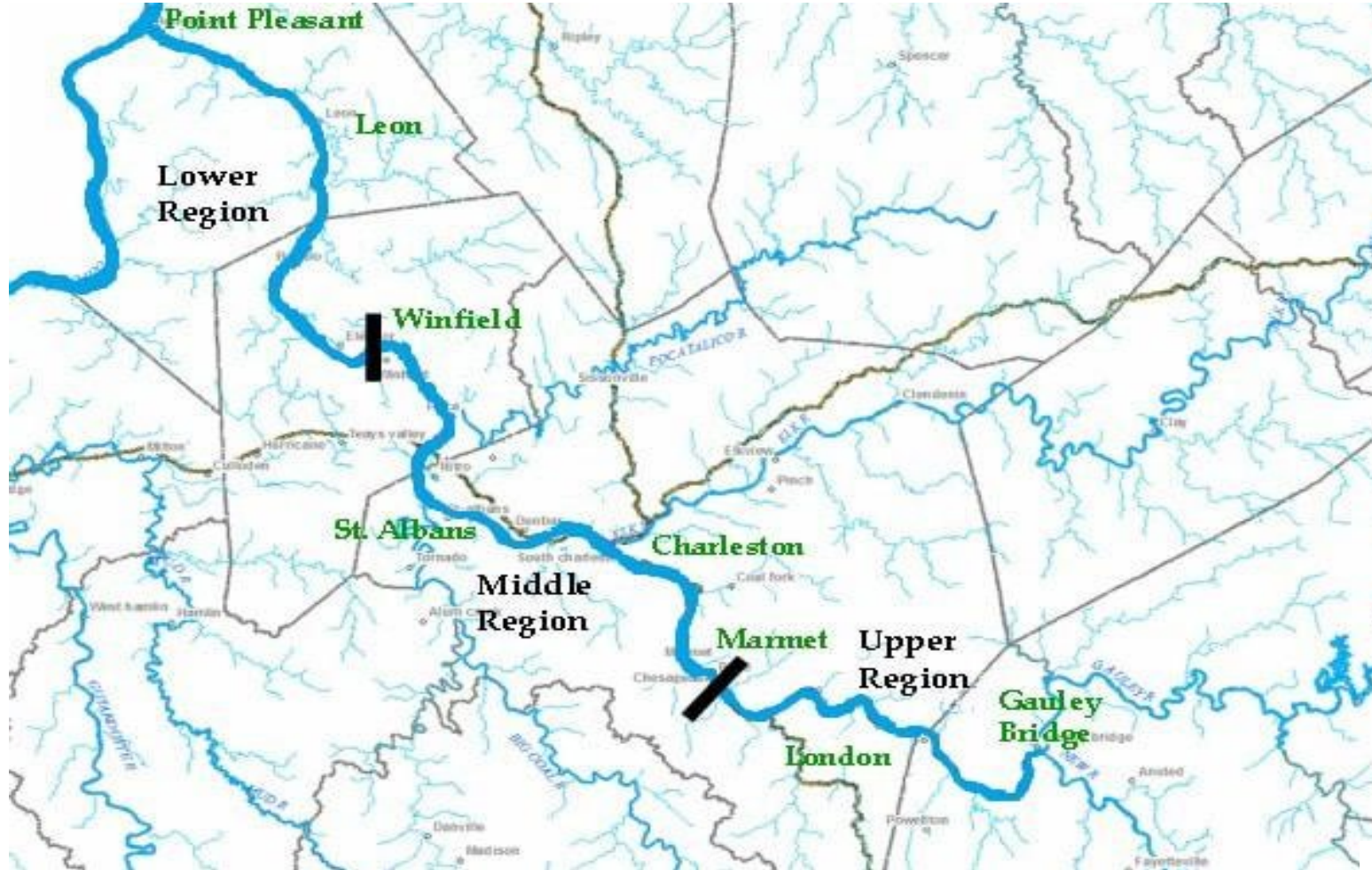
- Centralia’s GDP grew at twice the national rate.
- After trailing the nation in job creation for a decade, Centralia added jobs at nearly twice the national rate—more than 2,800 new jobs in all.
- Wages rose almost 50% faster than the national average.
- Population grew faster than the national average, as well.

# The grant program triggered a bunch of economic multipliers

- The energy efficiency and education sectors in which grant funding is concentrated are highly labor-intensive.
- Work in these sectors tends to be performed by local suppliers and contractors, so most of the upstream and downstream economic activity occurs locally, as well.
- The grants program is efficient because it leverages existing businesses and programs.
- The grants trigger supplemental private investment, which compounds their impact by roughly 2-3 times.
- The grants are annuity-producing because they lower monthly utility bills, which becomes added disposable income for residents now and in the future.
- Growth in jobs and commerce for local merchants begins right away because energy efficiency and education are always “shovel-ready.”
- Energy efficiency upgrades result in safer, more comfortable living spaces, work spaces, and recreation spaces that reduce absenteeism and healthcare costs and enhance residents’ quality of life.

## Current Goal: Kanawha River Cohort Project

Target Area: Middle and Upper Kanawha River Valley (Nitro - Smithers/Montgomery)





Tour of the River: Nitro population 6,618 according to the 2020 census



# Charleston: population 47,129 (2022)

Largest city in the state; over 90 buildings owned/operated by the city



Marmet: population: 1,447 (2022)

Example of small towns dependent on river transport and industries that line the River



# Riverside High School (Belle WV pop: 1,125) success story

64% EUI Reduction thanks to energy system changes, including installation of a geothermal heat pump system; savings of about \$240,000 per year.



# Smithers (751 pop in 2020 )/Montgomery (1,235 in 2022) WV

Two small towns with a lot of potential



# Resources & Technical Assistance

## Project Partners

ClearlyEnergy: <https://clearlyenergy.com/>

EEWV: <https://www.eewv.net/>

NEEP: <https://neep.org/>

MEEA: <https://www.mwalliance.org/>

DVRPC: <https://clearlyenergy.com>

## DOE Building Energy Codes Project (Codes & BPS)

<https://www.energycodes.gov/>

## DOE Technical Assistance Request

<https://www.energycodes.gov/bps/bps-technical-assistance>

## EPA

<https://portfoliomanager.energystar.gov/webservices/home;jsessionid=7DBCB770B8EAF142B9D6ED5D26BEF38>

## Reports & Resources

Measuring the Climate Impacts of Building Performance Standards

<https://clearlyenergy.com/bps-impact-report>

Center for Building Performance Standards

<https://beam-portal.org/>





# THANK YOU

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