



How Ohio Incorporated CHP and WER into Its Clean Energy Standards

Program Description / Program Partners

In 2011, the State of Ohio had approximately 403 MW of installed combined heat and power (CHP) capacity at 42 separate sites.¹ However, the U.S. Department of Energy (DOE) estimated the total CHP technical potential in Ohio to be greater than 9,700 MW.² This gap between the technical potential and actual adoption represented a significant opportunity to explore how increasing CHP and waste energy recovery (WER) could provide large energy and environmental benefits for commercial, institutional, and industrial facilities within Ohio.

At the same time, the newly elected Governor, John Kasich, and his administration embarked on developing a comprehensive state energy plan. The Midwest CHP Regional Application Center (RAC), the forerunner of today's Midwest CHP Technical Assistance Partnership, was invited to participate in the process. Working closely with the Ohio Environmental Council (OEC), the Midwest RAC served as a technical expert, providing unbiased technical information on CHP and WER technologies to the Governor's Office, the Public Utility Commission of Ohio (PUCO), and the OEC, all key players in educating policy makers about technology options to consider in the state energy plan.



DTE Marietta CHP Plant at Solvay Specialty Polymers
(Source: DTE Energy)

The next step was to identify how to create opportunities to increase CHP and WER adoption in Ohio. Since the State of Ohio already had in place both a Renewable Portfolio Standard (RPS) and an Energy Efficiency Resource Standard (EERS), a program goal was set to first establish both CHP and WER as qualifying technologies under these state energy programs and then to work closely with the PUCO to establish reasonable guidelines for implementing these technologies into the state energy programs.

Program Development

The following is an abbreviated outline of the major activities/milestones leading to the development and implementation of CHP and WER policies in Ohio:

- 2010: The OEC formed the Ohio Coalition for Combined Heat and Power (OCCHP), a broad voluntary coalition of wide-ranging interests that support and promote CHP and WER in Ohio. Members included the Ohio Manufacturers Association, Policy Matters Ohio, Sierra Club Ohio, Natural Resources Defense Council (NRDC) Ohio, Ohio Business Council for a Clean Environment, Ohio Chemistry Technology Council, GE Energy, Midwest RAC, among others.
- 2010–2012: Numerous OCCHP workshops, conferences, meetings, and phone calls were held to educate Ohio's various economic sectors on CHP and WER technologies, applications, benefits, and issues.
- 2012: Governor John Kasich signed into law Ohio Senate Bill 315 (SB 315), allowing WER projects to qualify as a renewable energy resource under Ohio's RPS or as an energy efficiency measure under the Ohio's EERS. CHP projects required a minimum efficiency of 60%, with at least 20% of the useful energy produced be in the form of thermal energy.
- 2012–2013: The RAC, at the invitation of the PUCO, participated in numerous meetings, phone calls, and public hearings providing technical information on CHP technologies and their applications.

¹ U.S. Department of Energy (DOE) CHP Database. February 2018. <https://doe.icfwebservices.com/chp>

² Ibid

- 2013: The NRDC and OEC submitted a white paper to the PUCO entitled “Implementing the CHP and WER Provisions of Revised Code Sections 4928.64 and 4928.66.”³ The white paper addressed key issues facing the PUCO as they began to implement the CHP and WER provisions of SB 315.
- 2013: American Electric Power of Ohio (AEP Ohio) worked with the PUCO to establish incentive levels for two CHP projects approved under their EERS program.

Program Success Despite Major Setback

The level of enthusiasm for CHP and WER grew as a result of the OEC/RAC efforts. 2012 and 2013 saw a substantial increase in installed CHP projects as well as over 20 MW of CHP in the pipeline for startup in 2014 and 2015. However, the strong support for CHP and WER stalled in 2014 when Governor Kasich signed Senate Bill 310 (SB 310), which froze the RPS and greatly reduced energy efficiency requirements for a two-year period. In addition, SB 310 allowed large industrial customers to opt out of the EERS, eliminating a substantial portion of the CHP market from being eligible for utility incentives.

In late 2016, Governor Kasich vetoed Ohio House Bill 554, which would have extended the restrictions SB 310 placed on the clean energy standards. On January 1, 2017, the two-year freeze ended and the Ohio RPS and EERS programs resumed. Today, all of Ohio’s four investor owned electric utilities (AEP Ohio, Dayton Power & Light, Duke Energy, and First Energy) offer CHP-specific incentives as part of their current energy efficiency program portfolios. Although each plan varies somewhat in its approach, all incorporate some aspects in the 2013 white paper, written as part of the OEC/RAC program.

CHP has delivered numerous benefits in Ohio as a direct result of this effort. For example, AEP Ohio declared that 10.7% of the total kWh savings claimed by the Business Customer Class (BCC) toward its 2016 EERS target resulted from CHP projects. CHP ranked third in terms of the most productive energy efficiency measures implemented by the BCC, behind lighting at 44.6% and process efficiency at 23.2%. For the three-year period 2017 to 2020, AEP Ohio estimates that CHP will account for 30.4% of the total kWh savings claimed by the BCC, outperforming all other available energy efficiency measures.⁴ CHP plays an important role in assisting utilities and the State in reaching energy efficiency goals.

Lessons Learned

- Although the electric utilities in Ohio initially opposed the inclusion of CHP and WER in the state EERS program, they are now benefiting from the realized energy savings resulting from CHP/WER technologies to meet their required energy saving targets.
- The champion for legislative change, the OEC, had to be knowledgeable, persistent, patient, and flexible as they successfully navigated the legislative path, working closely with industry stakeholders, the PUCO, and the Governor’s Office.
- Recognition and endorsement of CHP and WER technologies from the commercial, industrial, and institutional stakeholders was needed to advance the issue; 100% unanimity regarding specific legislative language was not necessary.

For More Information

U.S. DOE MIDWEST CHP TECHNICAL
ASSISTANCE PARTNERSHIP (CHP TAP)
www.mwchptap.org

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³ Dylan Sullivan, NRDC, and Trish Demeter, OEC. “Implementing the CHP and WER Provisions of Revised Code Sections 4928.64 & 4928.66.”

⁴ Michelle Cross, Engineer Principle. “AEP CHP and WER Programs.” 2017 presentation. AEP Ohio Business Program.