



September 9, 2019

Indiana Utility Regulatory Commission
101 W. Washington St., Ste. 1500E
Indianapolis, IN 46204
Attn: Ryan Heater

RE: Recommendations to the Indiana Utility Regulatory Commission supporting Combined Heat and Power (“CHP”) and Waste Heat to Power (“WHP”) in Indiana’s future energy mix

Dear Members of the Indiana Utility Regulatory Commission (“IURC”):

Through House Act 1278, Indiana’s General Assembly has tasked the IURC to produce a study of the statewide impacts of transitions in fuel sources and other electric generation resources, as well as the impacts of new and emerging technologies impacting electric generation and distribution infrastructure, on electric generation capacity, system reliability, system resilience, and the cost of electric utility service for consumers. The IURC must provide a report on this study to the Governor, the legislative council, and members of the 21st Century Energy Policy Development Task Force by July 1, 2020.

As part of this study, the State Utility Forecasting Group will be modeling future scenarios, and the IURC and its staff are seeking input on this matter. The Alliance for Industrial Efficiency (“Alliance”), **strongly urges the IURC to evaluate CHP and WHP potential in the modeling scenarios of the state’s future energy portfolio mix.**

The Alliance is a diverse coalition that includes representatives from the business, non-profit, labor, and contractor communities, including over 190 members in Indiana. We are committed to enhancing manufacturing competitiveness and reducing emissions through industrial energy efficiency, particularly through the use of clean and efficient power generating systems such as CHP and WHP. CHP and WHP capture wasted heat and reuse it, thus using fuels most efficiently while cutting consumer energy costs and emissions. Because they generate power onsite, they improve the reliability of power services by allowing the host to operate even when the grid is down, and they deliver heat—an important and often ignored component in manufacturing.

By prioritizing CHP, WHP and other industrial efficiency measures when modeling Indiana’s new resource portfolio mix, the IURC would:

- **Make Indiana’s manufacturing sector more competitive.** By 2030, Indiana’s industrial sector customers can save more than \$8.8 billion on electricity costs and reduce CO₂ emissions by 9.2



million short tons annually, using CHP, WHP and other industrial efficiency measures.¹ In 2017 Indiana's industrial sector accounted for 29 percent (\$103 billion in 2017) of the total gross state product; employed over 17 percent of the workforce—both of which are the highest percentages across the U.S.²; and consumed nearly 46 percent of the total energy used statewide.³ Additionally, the electricity costs for the state's manufacturing sectors are trending upwards⁴: in May 2019, electricity prices for Indiana's industrial sector were 9 percent higher than the national average.⁵

- **Keep pace with other neighboring states.** Michigan, for example, issued a report—the CHP Roadmap for Michigan⁶—that laid out CHP and WHP potential across the state, assessed the cost and value of CHP and WHP in the state's future energy mix, and adopted policies, such as reformed Standby Rates⁷, which will accelerate adoption of CHP and WHP in the manufacturing sector. Specifically, the IURC should use the same methodology and the State Tool for Electricity Emissions Reduction (STEER) model, as outlined in pages 9 and 10 of the roadmap. Michigan is enhancing the competitiveness of its manufacturing sector with CHP and WHP and its progress is based on its strong analysis, which the IURC should replicate.
- **Seize unrealized CHP and WHP potential.** Indiana's deployment of CHP and WHP lags far behind its potential to produce power. The state could produce an additional 4,610 MW of power (equal to nine new power plants) from CHP and WHP with more than half of that (2,624 MW⁸) remaining onsite at industrial facilities.⁹ But the state has only 41 CHP sites generating 2,308 MW of clean and efficient power.¹⁰
- **Increase system-wide reliability and resiliency.** Capturing and using the waste heat allows CHP systems to reach fuel efficiencies of up to 80 percent, compared to about 50 percent for the separate generation of heat and power. When configured properly, a CHP system can continue to operate when the electricity grid is impaired, ensuring an uninterrupted supply of electricity to the host facility—making CHP particularly useful in critical infrastructure sectors.¹¹
- **Respond to Indiana businesses and other energy consumers.** Last year, Indiana businesses—**Capstone Turbine, Cargill, Centrica Business Solutions, City of Fort Wayne**

¹ The Alliance for Industrial Efficiency. "State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency: Indiana Factsheet" September 2016. https://alliance4industrialefficiency.org/wp-content/uploads/2016/10/Final_Indiana-Factsheet_AIE-State-Ranking-Report.pdf

² National Association of Manufacturers. "2019 Indiana Manufacturing Facts." 2019. <https://www.nam.org/state-manufacturing-data/2019-indiana-manufacturing-facts/>

³ U.S. Energy Information Administration. "Indiana Consumption by End-Use Sector." 2017. <https://www.eia.gov/state/?sid=IN>

⁴ Purdue University. State Utility Forecasting Group. "Indiana Electricity Projections: The 2017 Forecast." December 2017. Figure 7-5. <https://www.purdue.edu/discoverypark/sufg/docs/publications/2017%20SUF%20forecast%20final.pdf>

⁵ U.S. Energy Information Administration. "Indiana Price Differences from U.S. Average." May 2019. <https://www.eia.gov/state/?sid=IN#tabs-5>

⁶ Michigan Energy Office. "CHP Roadmap for Michigan." February 2018. https://www.michigan.gov/documents/energy/CHP_Roadmap_for_Michigan_Final_Report_final_628532_7.pdf

⁷ Michigan Public Service Commission. Case No. U-18255. April 18, 2018. <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t00000022KiYAAU>

⁸ The 2,624 MW industrial CHP technical potential number includes 2,151 MW capacity of industrial topping cycle CHP and an additional 473 MW capacity of WHP (located in four industrial sectors: chemicals, petroleum refining, stone/clay/glass, and primary metals).

⁹ U.S. Department of Energy. "Combined Heat and Power (CHP) Technical Potential in the United States." March 2016. https://www.energy.gov/sites/prod/files/2016/04/f30/CHP_Technical_Potential_Study_3-31-2016_Final.pdf

¹⁰ U.S. Department of Energy. "Combined Heat and Power (CHP) Installation Database: Indiana." Installations as of December 31, 2018. <https://energy.gov/chp-installs>

¹¹ Alliance for Industrial Efficiency. "Factsheet: The Opportunity for CHP in Natural Disaster Mitigation." February 2018. <https://alliance4industrialefficiency.org/resources/fact-sheet-opportunity-chp-natural-disaster-mitigation/>



Indiana, Clarke Energy, Direct Energy, Energy Resources Center, GEM Energy, General Motors, Heat is Power Association, Indiana Industrial Energy Consumers (INDIEC), International Paper, Midwest Cogeneration Association, Primary Energy, Unilever, and Veolia—sent a letter¹² to state policymakers and the IURC reinforcing the need for transparent, efficient, and fair standby rates, which would greatly increase CHP and WHP investment statewide from the commercial and industrial sectors.

Therefore, we strongly encourage the IURC to:

1. **Prioritize CHP and WHP** in the forecast models it produces;
2. **Analyze the potential for CHP and WHP** in Indiana's new resource generation mix;
3. **Establish a statewide goal for CHP and WHP deployment;** and,
4. **Adopt a CHP and WHP roadmap** outlining best practices for implementation.

Thank you for your consideration and attention to this matter. As you move forward, we look forward to working with you to explore the potential for CHP and WHP in Indiana and the appropriate actions to encourage their deployment.

Sincerely,

David Gardiner
Executive Director
Alliance for Industrial Efficiency

¹² Alliance for Industrial Efficiency. "Key Stakeholders Support Fair and Transparent Standby Rates in Indiana." October 2018. https://alliance4industrialefficiency.org/wp-content/uploads/2018/10/IN-Standby-Rates-Business-Letter_10.12.2018_final.pdf