



Ms. Kathleen A. Theoharides
 Secretary of Energy and Environmental Affairs
 Massachusetts Executive Office of Energy and Environmental Affairs
 100 Cambridge St, Suite 900
 Boston, MA 02114

March 22, 2020

RE: Public Comment on the Interim Clean Energy and Climate Plan for 2030

The Combined Heat and Power Alliance (CHP Alliance) respectfully submits the following comments on behalf of 2G Energy Inc., AB Energy USA, Blue Delta Energy, Capstone Turbine Corporation, CEM Engineering, Curtis Power Solutions, Dalkia Aegis/ EDF Group, DT Energy Consultants, Durawatts LLC, Enginuity Power Systems, Integrated CHP Systems Corp., Kanin Energy, Kelly Generator & Equipment, Inc., Kinsley Energy Systems, Kraft Energy Systems, Martin Energy Group, Midwest Cogeneration Association, Milton CAT, National Propane Gas Association, Northeast-Western Energy Systems, Northeast Clean Heat and Power Initiative, Sterling Energy Group LLC, Thermax USA, and Turbine Intel Cooling Association in response to the Executive Office of Energy and Environmental Affairs (EEA) open commenting period on the Massachusetts Interim Clean Energy and Climate Plan for 2030. Particularly, the CHP Alliance submits recommendations on the B2 Strategy Actions outlined in Chapter 3, Section 3.2: Transforming our Buildings, Getting to 45% in 2030.

The CHP Alliance is a diverse coalition and the leading national voice for the deployment of Combined Heat and Power (CHP). We are a coalition of business, labor, contractor, non-profit organizations, and educational institutions with the common purpose to educate all about CHP, and how CHP can make manufacturers and other businesses more competitive, reduce energy costs, enhance grid and customer reliability, and reduce emissions.

The B2 Strategy Actions states the *“DOER will work to phase out incentives for fossil fuel heating systems as soon as possible, limiting fossil fuel heating system incentives in the 2022-2024 Three Year Plan, and ending all fossil fuel heating system incentives by the end of 2024.”* The CHP Alliance strongly urges the EEA against phasing out said incentives, for it is proven that natural gas-fired CHP systems, eligible under the Mass Save® program incentives¹, provide substantial emission reduction benefits.

CHP is a technology that when properly designed typically operates with an overall efficiency of 65-85 percent², with some systems approaching 90 percent efficiency.³ This efficient generation of energy reduces all types of emissions, including greenhouse gasses, criteria pollutants, and hazardous air pollutants.⁴ In fact, a recent ICF report shows that CHP systems installed through 2035 and operating through 2050 are expected to cause a net reduction in carbon emissions over their system life.⁵ Additional analysis conducted by the CHP Alliance denotes that through CHP and industrial efficiency measures, Massachusetts can reduce emissions nearly 3 million annual short tons of CO₂ emissions by 2030.⁶

CHP systems installed today running on fossil fuels can also be converted to use a variety of other decarbonized fuels in the near future, including biogas, biomethane or renewable natural gas, natural gas paired with Carbon Capture Utilization and Storage (CCUS), and hydrogen blended fuels.⁷ Said conversions would add even greater carbon reductions to help Massachusetts meet its climate goals and could be implemented more broadly as decarbonized fuels become cost-effective.

¹ Mass Save. “Combined Heat and Power (CHP).” <https://www.masssave.com/en/learn/business/combined-heat-and-power>

² U.S. Department of Energy. “Combined Heat and Power (CHP) Technical Potential in the United States.” March 2016, p. 3. https://www.energy.gov/sites/prod/files/2016/04/f30/CHP_Technical_Potential_Study_3-31-2016_Final.pdf

³ U.S. Environmental Protection Agency. Combined Heat and Power Partnership. “CHP Benefits.” <https://www.epa.gov/chp/chp-benefits>

⁴ CHP Alliance. “CHP and a Changing Climate: Reducing Emissions and Improving Resilience.” January 2021. <https://chpalliance.org/resources/chp-and-a-changing-climate-reducing-emissions-and-improving-resilience/>

⁵ ICF. “Combined Heat and Power Potential for Carbon Emission Reductions: National Assessment 2020-2050.” July 2020, p. 4. http://consortia.myescenter.com/CHP/ESC_CHP_Emissions-Full_Study-ICF-071320.pdf

⁶ CHP Alliance. “State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency.” September 2016. https://chpalliance.org/wp-content/uploads/2016/09/FINAL-AIE-State-Industrial-Efficiency-Ranking-Report_9_15_16.pdf

⁷ CHP Alliance. “CHP and a Changing Climate: Reducing Emissions and Improving Resilience.” January 2021. <https://chpalliance.org/resources/chp-and-a-changing-climate-reducing-emissions-and-improving-resilience/>

Another major benefit of keeping the incentives for CHP intact is the resiliency component, especially as the compounding effect of climate change is causing increased disruptions to the electricity grid.⁸ CHP's ability to operate in island mode independent of the grid is an important metric in the preparation of climate-induced grid outages, which can be very costly as seen in the events that transpired in Texas in February. The resiliency and reliability of CHP systems are particularly vital for maintaining operations at critical infrastructure facilities—hospitals, universities, police and fire facilities, multi-family buildings, financial institutions, data operations—which are key components to not only the Massachusetts economy, but also provide essential services to the Commonwealth's residents during grid disruptions. Now is not the time to lessen incentives for a technology that is both clean and reliable.

The CHP Alliance strongly recommends that the EEA review the comments⁹ submitted by Northeast Clean Heat and Power Initiative (NECHPI) to the Massachusetts Department of Energy Resources on December 4, 2020 in response to the Daymark Energy study conducted during the 2020 APS Minimum Standard Review. The study made claims that natural gas CHP does not reduce CO₂ emissions, and the NECHPI comments cite numerous Massachusetts company testimonials as well as expert analysis to refute said claim and support the emission reduction benefits of CHP applications in the Commonwealth.

Lastly, the CHP Alliance urges the EEA to refer to our Smart Solutions to Reduce Greenhouse Gas Emissions Factsheet¹⁰, further outlining the significant opportunity to reduce emissions using CHP technologies and supporting the argument to maintain the fossil fuel incentives in Massachusetts under which CHP is categorized.

The CHP Alliance appreciates the opportunity to provide comments on the Massachusetts Interim Clean Energy and Climate Plan for 2030.

Respectfully,

2G Energy Inc.
AB Energy USA
American Gas Association
Blue Delta Energy
Capstone Turbine Corporation
CEM Engineering
Combined Heat and Power Alliance
Curtis Power Solutions

Dalkia Aegis/ EDF Group
DT Energy Consultants
Durawatts LLC
Enginuity Power Systems
Integrated CHP Systems Corp.
Kanin Energy
Kelly Generator & Equipment, Inc.
Kinsley Energy Systems

⁸ CHP Alliance. "CHP and a Changing Climate: Reducing Emissions and Improving Resilience." January 2021. <https://chpalliance.org/resources/chp-and-a-changing-climate-reducing-emissions-and-improving-resilience/>

⁹ The NECHPI comments submitted to the DOER on December 4, 2020 are provided as an attachment in this set of CHP Alliance comments to the Executive Office of Energy and Environmental Affairs.

¹⁰ CHP Alliance. "Alliance Factsheet on CHP and WHP as Smart Solutions to Reduce Emissions." February 2019. <https://chpalliance.org/resources/alliance-factsheet-on-chp-and-whp-as-smart-solutions-to-reduce-emissions/>

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Midwest Cogeneration Association
Milton CAT
National Propane Gas Association

Northeast-Western Energy Systems
Northeast Clean Heat and Power Initiative
Sterling Energy Group LLC
Thermax USA
Turbine Inlet Cooling Association