



December 4, 2020

Ms. Samantha Meserve
Deputy Director, Renewable and Alternative Energy Division
Massachusetts Department of Energy Resources
100 Cambridge St #1020
Boston, MA 02114

SUBJECT: Tecogen's support for Combined Heat and Power (CHP) in Massachusetts Alternative Energy Credit (AEC) Program

Dear Ms. Meserve,

Tecogen respectfully submits the following comments in response to the 2020 APS Minimum Standard Review. Tecogen designs, manufactures, markets, and maintains high efficiency, ultra-clean cogeneration products including gas engine driven combined heat and power, air conditioning systems, and water heaters for residential, commercial, recreational, and industrial use. We provide cost efficient, environmentally friendly and reliable products for distributed power generation that nearly eliminate criteria pollutants and significantly reduce a customer's carbon footprint.

Tecogen's cogeneration systems are efficient because they drive electric generators or compressors, which reduce the amount of electricity purchased from the utility while recovering the engine's waste heat for water heating, space heating, and/or air conditioning at the customer's building. All our products are standardized, modular, CHP products that reduce energy costs, carbon emissions, and dependence on the electric grid.

As a leader in the industry, we are concerned about the report conducted by Daymark Energy reviewing the Massachusetts APS program. We urge DOER to revisit some of the more important assumptions pertaining to CHP. Specifically, there are several assertions in the Daymark Alternative Portfolio Standard Review that are controversial. We urge that DOER revisit the empirical basis for the following assumptions and claims in the Daymark report:

- The conclusion that there are no CO₂ savings from CHP
- Assumptions on capital costs of CHP systems
- Assumptions on maintenance costs of CHP systems
- Assumptions on expected years to payback assumed
- The level of incentive that the CHP systems would receive from other (Non APS) programs
- Provide a more comprehensive comparison by listing the full suite of environmental, societal, ratepayer, jobs and economic development benefits provided by CHP

Tecogen Inc.

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We believe the decision to prioritize resource technologies or continue CHP's full participation in the Alternative Portfolio Standard (APS) must be made on the basis of full and accurate information.

The information provided by Daymark in the Alternative Portfolio Standard Review, with respect to CHP, is an insufficient basis for making decisions on CHP's role in the program. The report uses electric and natural gas emissions factors that are different from those used by the utilities and prescribed by the Massachusetts Department of Environmental Protection. The Daymark report uses a natural gas emissions factor that considerably overstates on-site combustion emissions, and an electric emissions factor that understates emissions from grid electricity. Both of these work to the detriment of CHP and do not describe its actual environmental benefit.

In summary, Tecogen supports adjustments to the APS program to accelerate a cleaner energy system in Massachusetts, but we strongly maintain that CHP continue to play an important role in that future. We also support the comments of the New England CHP Initiative and the US Combined Heat and Power Alliance on this issue.

We appreciate the opportunity to provide this input and thank you in advance for your consideration of these comments.

Sincerely,

Benjamin Locke

CEO, Tecogen