

Maine Department of Environmental Protection
Public Hearing on Clean Air Act § 176A (a) (2) Petition
July 30, 2018

Statement NEITHER IN FAVOR NOR OPPOSED

By

Ruben S. Brown, M.A.L.D.

Rockport, Maine

On behalf of

Northeast Clean Heat and Power Initiative (NECHPI)

Madame Hearing Officer Hodgman, Director Cone and others, it is my privilege to comment on the draft petition. On behalf of the Northeast Clean Heat and Power Initiative (NECHPI) I am going to present extracted and aggregated information for CHP populations for end-of-year 2017 using data just made publicly available by USDOE and ICF♦. I will address Maine, all thirteen states in the Ozone Transport Region (OTR) and the seven states covered by NECHPI. Of course, both OTR and NECHPI include Maine. NECHPI spans seven states from New York through Maine.

I came from “Away” and bought a home in Rockport in 2000. I lived here part-year until 2014 when my wife and I moved here permanently. In September 2017 my wife passed away at 76 from acute respiratory failure. I don’t hold Maine’s air quality responsible. Unfortunately, she smoked heavily for thirty years to her mid-forties. And we lived high above a busy intersection on Broadway in Manhattan for forty-two years. That probably didn’t help either.

When we moved from Washington, D.C. to New York (the other name for Manhattan to outer borough residents) in 1973 I was appointed Executive Director of the Council on the Environment of New York City (CENYC) by Mayor John Lindsay. In 1975 I became Director of the Center for Regional Technology at Polytechnic Institute (University) now part of NYU, where I fostered alternate energy development across New York and the northeastern States, including Maine, especially small hydroelectric and cogeneration development. In 1980 I became a small hydro developer/re-developer, including part ownership of Brown’s Mill for several years, a 600 KW installation in Dover-Foxcroft. In 1984 I returned to the consulting world

Since 1975 I have evaluated more than 250 power projects, from 1 kW to 1,300 MW, and addressed strategic State, Federal, regional and local policy issues affecting many of those projects, and the entities developing them. Occasionally I appeared before the Maine Legislature and the PUC, but not before your Agency. In 1986 I provided invited testimony to the US Senate Commerce Committee at the first oversight hearing on the Public Utility Regulatory Policies Act of 1978 (PURPA).

Recently on behalf of the Northeast Clean Heat and Power Initiative (NECHPI) I have evaluated the 2017 data assembled by USDOE and ICF for combined heat and power projects (CHP) for the US. I discuss those results.

The Northeast Clean Heat and Power Initiative is a 501 (c) (6) organization, a business league. A business league is an association of persons having some common business interest, the purpose of which is to promote such common interest and not to engage in a regular business of a kind ordinarily carried on for profit. Trade associations and professional associations are business leagues. It may engage in some political activity and may engage in lobbying

NECHPI is becoming the primary voice of the CHP industry in the northeast region. Through advocacy, education, and collaboration, NECHPI supports the efforts of those seeking the most efficient generation of power with environmental stewardship and the objectives of public policy in mind.

I am a Board member and Chair of the Policy Committee. The new (July 1) and permanent Executive Director is Kristin Digirolamo of Milford, Massachusetts. She was formerly at Northeast Public Power Association (NEPPA). Kristin's highest priority is expanding the membership of NECHPI to all kinds of entities that embrace and/or advance clean heat and power. A policy event is being planned after the November elections in Boston.

Two of NECHPI's founding leaders in 2001 were Suzanne Watson and Sean Casten (whose then company Turbosteam installed a 575 kW Back Pressure Turbine in Jackman). Sean is now running for Congress as a Clean Energy candidate in Illinois' Sixth District. Some of you will recall Suzanne who has returned from Washington, D. C. and now lives in Freeport. She is working with the effort for the University of Maine to take the lead in USDOE's Technical Assistance Partnership (TAP) fostering CHP across New England. Engineers from the University of New Hampshire and University of Massachusetts (Amherst) are also being mobilized. In short, the infrastructure to support the refreshed expansion of combined heat and power is firming up. It has the support of the four Senators from Maine and New Hampshire.

Turning to the data, I direct your attention to Exhibit A that summarizes data by type of prime mover for CHP installations:

- 1. The state of Maine. (ME)**
- 2. The thirteen states in the OTR (CT, ME, MA, NH, NY, RI, VT plus DC, DE, MD, NJ, PA, VA)**
- 3. The seven states in the NECHPI footprint (CT, ME, MA, NH, NY, RI, VT)**

In Maine there are 38 sites with 656 MW of operational installed capacity.

In the thirteen OTR states there are 1,739 sites with 17,509 MW of operational installed capacity. Maine has 2% of the sites in OTR region and 4% of the installed capacity.

In the seven NECHPI states there are 1,219 sites with 8,794 MW of operational installed capacity. Maine has 3% of the sites in NECHPI Footprint and 7% of the installed capacity.

Since 1991 when OTR took effect:

- 1. Seventy-one percent or 71%, (27) of Maine's 38 sites have gone operational.**
- 2. Eighty-one percent or 81% (1,406) of the 1,739 sites in the OTR thirteen states have gone operational, and**

<https://doe.icfwebservices.com/chpdb/>

<https://doe.icfwebservices.com/chpdb/state/ME>

3. Eighty-six percent or 86% (1,049) of the 1,219 sites in the “NECHPI seven”, have gone operational

WHAT IS THE RELEVANCE OF ALL THIS TO YOUR INVESTIGATION?

The pace of growth clearly relates to the recognition by State Governments of the value and the continued value of CHP to entities in their State. We urge the State of Maine to remove barriers and to provide incentives for CHP deployment, including broadening alternative portfolio standards. CHP is an important transitional resource as we move toward an altered climate future. NECHPI supports extending portfolio opportunities to CHP. But that is not the agenda today.

OTR requirements should not stifle the optimal use of behind the meter facilities. The OTR guidelines did not prevent entities from acting to obtain efficient combined heat and power (from a single fuel source), but the guidelines appear to have impeded the fuller realization of the resource. Multiple states have encouraged the efficiency improvements yielded by CHP development with a variety of incentives, most notably awards that provided upfront benefits and/or operating performance awards/revenue. Guidelines that simplified procedures for interconnection were important as well as reasonable standby rates and so forth. The Federal government has provided various incentives and tools to remove barriers. Wholesale grids, such as ISO-NE, have opened access to market revenues as have procurements within a single state and across borders, e.g. when renewable attributes meet value objectives somewhere. In some instances, site owners have lost their rights to export. Actions that prevent CHP owners from making optimal use of their on-site generation should be frowned upon.

Excellent examples exist for the promotion of CHP. For example, here in Maine we have the Community-based Renewable Energy Pilot Program (Act), P.L. 2009, ch. 329 approved by the legislature in 2009 that are facilitating development efforts such as the Georges River Energy Project at Robbins Lumber in Searsmont. That program should move beyond the Pilot Stage of 50 MW to another 300 MW. OTR regulations should not be a barrier to development and deployment.

We encourage you to keep perspective. NECHPI will be available to assist the State of Maine to enhance CHP deployment.

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Exhibit A - NORTHEAST CLEAN HEAT AND POWER INITIATIVE
 July 30.2018 Testimony - Maine Department of Environmental Protection Public
 Hearing On Clean Air Act § 176A (a) (2) Petition

Extracted by E Cubed LLC from ICF/DOE CHP INVENTORY

2017 OTR 13 State Summary		
	Sites	Capacity (KW)
Total	1,739	17,508,955
Backpressure Steam Turbine	24	13,661
Boiler/Steam Turbine	177	6,392,341
Combined Cycle	58	8,962,834
Combustion Turbine	112	1,246,077
Reciprocating Engine	1,146	787,597
Fuel Cell	69	42,068
HRSG **	1	3,000
Microturbine	145	41,992
Organic Rankine Cycle	2	9,570
Other	5	9,815
Other WHP*	-	-
Steam Rankine Cycle	-	-

**Heat Recovery Steam Generator with a Steam Turbine

2017 NECHPI 7 State Summary		
	Sites	Capacity (KW)
Total	1,219	8,793,702
Backpressure Steam Turbine	15	6,216
Boiler/Steam Turbine	93	2,331,294
Combined Cycle	38	5,161,450
Combustion Turbine	63	732,525
Reciprocating Engine	842	489,742
Fuel Cell	58	35,018
HRSG **	-	-
Microturbine	106	27,772
Organic Rankine Cycle	2	9,570
Other	2	115
Other WHP*	-	-
Steam Rankine Cycle	-	-

**Heat Recovery Steam Generator with a Steam Turbine

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<https://doe.icfwebservices.com/chpdb/>

<https://doe.icfwebservices.com/chpdb/state/ME>

Exhibit A - NORTHEAST CLEAN HEAT AND POWER INITIATIVE

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◆ Extracted by E Cubed LLC from ICF/DOE CHP INVENTORY

Maine 2017 Summary		
Prime Mover	Sites	Capacity (KW)
Total	38	656,662
Backpressure Steam Turbine	1	575
Boiler/Steam Turbine	21	438,375
Combined Cycle	0	0
Combustion Turbine	3	178,400
Reciprocating Engine	8	29,862
Fuel Cell	0	0
HRSG **	0	0
Microturbine	4	450
Organic Rankine Cycle	1	9,000
Other	0	0
Other WHP*	0	0
Steam Rankine Cycle	0	0

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