



June 28, 2017

Ms. Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: F-2016/2017 Response to CMEEC Pre Hearing Interrogatories

Dear Ms. Bachman:

The Connecticut Municipal Electric Energy Cooperative (CMEEC) herewith submits an original and twenty (20) copies to the Connecticut Siting Council in response to Interrogatories 7 through 12 dated June 16, 2017 from the Connecticut Siting Council in conjunction with Docket No. F-2016/2017 Connecticut Siting Council 2017 Ten-Year Forecast of Electric Loads and Resources.

Should you require any additional information, please advise us.

Very truly yours,

CONNECTICUT MUNICIPAL ELECTRIC
ENERGY COOPERATIVE

A handwritten signature in blue ink, appearing to read "Drew Rankin", is written over the printed name.

Drew Rankin
Chief Executive Officer

CJC/

Enclosures



30 Stott Avenue ▶ Norwich, Connecticut 06360
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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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June 16, 2017

Drew Rankin
Chief Executive Officer
CMEEC
30 Stott Avenue
Norwich, CT 06360-1526

RE: **FORECAST-2016/2017** – Connecticut Siting Council 2017 Ten-Year Forecast of Electric Loads and Resources

Dear Mr. Rankin:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than June 30, 2017. To help expedite the Council's review, please file individual responses as soon as they are available.

Please forward the original and 20 copies to this office. In accordance with the State Solid Waste Management Plan, the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

Any request for an extension of time to submit responses to interrogatories shall be submitted to the Council in writing pursuant to §16-50j-22a of the Regulations of Connecticut State Agencies.

Yours very truly,

Melanie Bachman
Executive Director

MB/MP

c: Council Members

FORECAST-2016/2017
CMEEC Interrogatories
Set Two

7. Reference Table III of the Connecticut Municipal Electric Energy Cooperative (CMEEC) February 24, 2017 Forecast Report (CMEEC Forecast). CMEEC has provided its historical annual electrical energy in MWh for years 2012 through 2016. Please provide the weather-normalized CMEEC Energy in MWh for years 2012 through 2016.
8. Reference Table II of the CMEEC Forecast. CMEEC has included a 90/10 peak load forecast. Generally, is it correct to say that 90/10 extreme weather would less of an impact on annual energy (i.e. MWh) forecasts because the extreme peaks typically only occur for a limited number of hours per year?
9. Reference CMEEC's response to questions 3 and 6 of set one of the Council's interrogatories. Why is Community Solar Gardens not included in addition to the 50 MW for CMEEC's distributed generation forecast for 2017 through 2026? Is solar not included in the DG forecast in order to be conservative and because solar cannot be easily "dispatched" by CMEEC in the way that the 50 MW of diesel-fueled generation can be started for net demand reduction?
10. Page 3 of CMEEC's forecast notes approximately 0.462 MW or about 4,484 MWh of savings associated with 2016 Conservation and Load Management (C&LM) measures. Is it correct to say that CMEEC has provided the total, cumulative impacts of C&LM for 2017 to 2026 in its response to interrogatory question 3, and the 2016 data (noted above) is an example based on one year's incremental C&LM measures?
11. In general, is it correct to say that the normal weather peak load and energy forecasts in the CMEEC Forecast take into account the effects of C&LM and DG, and consistent with past Council forecast report practices, CMEEC's C&LM and DG effects can be added to CMEEC's peak load and energy forecasts in order to create approximately "unadjusted" load and energy forecasts?
12. Is Fisher's Island, NY still an approximately 1 MW peak load? For forecasting purposes, is it treated as part of Groton Utilities' load because of its connection to Groton?

Witness Responsible: Hao Ni

RESPONSE TO CSC DATA REQUEST Dated June 16, 2017

Q-CSC-7-CMEEC Reference Table III of the Connecticut Municipal Electric Energy Cooperative (CMEEC) February 24, 2017 Forecast Report (CMEEC Forecast). CMEEC has provided its historical annual electrical energy in MWh for years 2012 through 2016. Please provide the weather normalized CMEEC Energy in MWh for years 2012 through 2016.

A-CSC-7-CMEEC Please find the table below which contains CMEEC’s weather normalized energy for the period 2012-2016. Reflects CMEEC Members, including Bozrah Light & Power, who became a Member in January of 2016. Bozrah values are also reflected for 2012 - 2015. In addition, these values include the Mohegan Tribal Utility Authority (MTUA) and Airgas, an interruptible customer located in Bozrah, CT.

Year	Weather Normalized CMEEC Energy (MWh)
2012	1,340,511
2013	1,347,151
2014	1,329,986
2015	1,301,240
2016	1,265,061

Witness Responsible: Hao Ni

RESPONSE TO CSC DATA REQUEST Dated June 16, 2017

Q-CSC-8-CMEEC Reference Table II of the CMEEC Forecast. CMEEC has included a 90/10 peak load forecast. Generally, is it correct to say that 90/10 extreme weather would less of an impact on annual energy (i.e. MWh) forecasts because the extreme peaks typically only occur for a limited number of hours per year?

A-CSC-8-CMEEC Correct. The peak load model is a nonlinear function of energy and weather. The energy forecasting model have multiple input variables including past year energy, economy, weather and exogenous factors. 90/10 extreme weather would reflect in annual energy as well. According to ISO-NE's observations, the weather sensitive load only accounts 54% of the summer peak. Thus, 90/10 extreme weather would have less impact on annual energy than on summer peak.

Witness Responsible: Hao Ni

RESPONSE TO CSC DATA REQUEST Dated June 16, 2017

Q-CSC-9-CMEEC

Reference CMEEC's response to questions 3 and 6 of set one of the Council's interrogatories. Why is Community Solar Gardens not included in addition to the 50 MW for CMEEC's distributed generation forecast for 2017 through 2026? Is solar not included in the DG forecast in order to be conservative and because solar cannot be easily "dispatched" by CMEEC in the way that the 50 MW of diesel-fueled generation can be started for net demand reduction?

A-CSC-9-CMEEC

Community Solar Gardens are under a Power Purchase Agreement structure and are viewed not as traditional generation resources, this combined with the intermittent and passive nature of production. This is generally why we don't consider solar as dispatchable and controllable DG asset.

Witness Responsible: Hao Ni

RESPONSE TO CSC DATA REQUEST Dated June 16, 2017

Q-CSC-10-CMEEC Page 3 of CMEEEC's forecast notes approximately 0.462 MW or about 4,484 MWh of savings associated with 2016 Conservation and Load Management (C&LM) measures. Is it correct to say that CMEEEC has provided the total, cumulative impacts of C&LM for 2017 to 2026 in its response to interrogatory question 3, and the 2016 data (noted above) is an example based on one year's incremental C&LM measures?

A-CSC-10-CMEEEC Yes, 2016 data is based on one year's incremental C&LM measures, and CMEEEC is providing the cumulative impacts of C&LM for the years in question. However, it appears the numbers submitted for the years 2023-2026 were not in cumulative format. Below is a corrected table.

Energy, measured In Megawatt hours				
	Annual Projected Energy – net of conservation reductions	Conservation Energy Reductions	Load Response/Management Energy Reductions	Distributed Generation Energy Reductions
2017	1,357,147	174,157	Minimal annual energy reductions anticipated	Minimal annual energy reductions anticipated
2018	1,357,624	191,687		
2019	1,355,984	209,217		
2020	1,357,822	226,747		
2021	1,360,158	244,277		
2022	1,364,747	261,807		
2023	1,353,720	281,807		
2024	1,355,925	301,807		
2025	1,355,925	321,807		
2026	1,355,925	341,807		

Witness Responsible: Hao Ni

RESPONSE TO CSC DATA REQUEST Dated June 16, 2017

Q-CSC-11-CMEEC In general, is it correct to say that the normal weather peak load and energy forecasts in the CMEEC Forecast take into account the effects of C&LM and DG, and consistent with past Council forecast report practices, CMEEC's C&LM and DG effects can be added to CMEEC's peak load and energy forecasts in order to create approximately "unadjusted" load and energy forecasts?

A-CSC-11-CMEEC Correct.

Witness Responsible: Hao Ni

RESPONSE TO CSC DATA REQUEST Dated June 16, 2017

Q-CSC-12-CMEEC Is Fisher's Island, NY still an approximately 1 MW peak load? For forecasting purposes, is it treated as part of Groton Utilities' load because of its connection to Groton?

A-CSC-12-CMEEC Fisher's Island, NY's annual peak is approximately 2.5MW. Fisher's Island is included in Groton Utilities' load as it's within Groton Utilities' service territory.