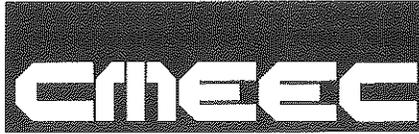


CONNECTICUT  
MUNICIPAL ELECTRIC  
ENERGY COOPERATIVE



30 Stott Avenue  
Norwich, CT 06360-1526  
860-889-4088 Fax 860-889-8158

February 28, 2011

Mr. Daniel F. Caruso, Chairman  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Dear Chairman Caruso:

The Connecticut Municipal Electric Energy Cooperative (CMEEC) herewith submits an original and twenty (20) copies to the Connecticut Siting Council of our Forecast of Electric Loads and Resources for 2011-2020 Report as required by Section 16-50R of the Connecticut General Statutes.

Should you require any additional information, please advise us.

Very truly yours,

CONNECTICUT MUNICIPAL ELECTRIC  
ENERGY COOPERATIVE

A handwritten signature in black ink, appearing to read 'DR Rankin', is written over the printed name.

Drew Rankin  
Chief Executive Officer

CJC/

Enclosures

cc: Service List

Serving Public Power in Connecticut

Groton  
Utilities

Jewett City  
Dept. of Public Utilities

Norwich Public  
Utilities

Norwalk Third Taxing  
District Electrical  
Department

South Norwalk  
Electric and Water

Town of Wallingford  
Department of Public  
Utilities

**FORECAST OF ELECTRIC LOADS AND RESOURCES 2011-2020**

March 1, 2011

**Connecticut Municipal Electric Energy Cooperative**  
30 Stott Avenue  
Norwich, Connecticut 06360

## Connecticut Municipal Electric Energy Cooperative

March 1, 2011

### FORECAST OF ELECTRIC LOADS AND RESOURCES 2011-2020

#### **Introduction and Background**

The Connecticut Municipal Electric Energy Cooperative ("CMEEC") is a not-for-profit joint-action power supply agency empowered to finance, plan, acquire, construct, operate, repair, extend, or improve electric generation and transmission facilities and sell power to serve the needs of Connecticut municipal electric utility and other electric utility systems. CMEEC sells power at wholesale to Connecticut's municipal electric distribution companies.

The CMEEC member utilities (collectively, the "Members") are (1) Norwalk Third Taxing District Electrical Department ("East Norwalk"), (2) Groton Utilities ("Groton"), (3) Jewett City Department of Public Utilities ("Jewett City"), (4) Norwich Public Utilities ("Norwich"), and (5) South Norwalk Electric & Water ("South Norwalk"). The Wallingford Department of Public Utilities ("Wallingford") is a CMEEC Participant, who, along with the Bozrah Power & Light Company ("Bozrah") and the Mohegan Tribal Utility Authority ("MTUA"), are also full-requirements wholesale customers of CMEEC. The loads of the CMEEC Members, Wallingford, Bozrah and the MTUA are represented on an integrated, single-system basis for purposes of ISO-New England ("ISO-NE") operations.

The joint power supply established by the CMEEC is intended to meet the diversified power supply needs of all of these systems. CMEEC's mission is to meet these requirements reliably and at the lowest possible cost over the long-term. Today, CMEEC's portfolio consists of CMEEC and member-owned generation, unit entitlement contracts, long-term contracts, intermediate and short-term system contracts, financial instruments from ISO New England (ISO-NE) and market purchases.

The enclosed forecast for 2011-2020 indicates slight load growth for CMEEC's Members/Participants. Last year (2010) showed some increases in energy purchases especially for select customers in Norwich and South Norwalk and a significant decrease in Groton due to a large industrial customer. Growth from the Foxwoods and the Mohegan Sun Casinos has slowed and the forecast reflects uncertainty about the pace of project development at these facilities and related regional economic impacts. Similarly, major developments long planned for the Norwalk area are on hold as a result of the recent economic downturn. Thus CMEEC's projections for the 2011-2020 period reflects an overall flat forecast.

Future growth is also modulated by reductions in usage rates resulting from the conservation programs implemented and planned by the municipal electric distribution companies. The long-term forecasts of electric demand and the energy of the CMEEC member and participant utilities are the primary tools used to ascertain future CMEEC power needs. When the primary individual forecasts are combined, the result is a CMEEC system-wide energy demand and capacity forecast, which is filed with the Council herein and also used to make power supply decisions.

## **Conservation and Load Management**

Connecticut's municipal electric utilities continued delivery of cost effective Conservation and Load Management ("C&LM") programs to their customers in 2010. CMEEC, on behalf of the municipal electric utilities, worked with the members of the Energy Management Board ("ECMB") pursuant to Special Session Public Act 05-01 (codified at Conn. Gen. Stat. Section 7-233y) in implementing additional programs to reduce their customers' electricity usage and peak demand. CMEEC in conjunction with the municipal electric utilities developed the 2009-2010 C&LM Plan and submitted it to the ECMB for review. The C&LM Plan measures the overall impact of electricity conservation programs on customer energy usage and peak demand.

In 2010, CMEEC provided a fully implemented portfolio of energy-efficiency initiatives, including:

- comprehensive energy audits and weatherization of nearly 4,700 homes;
- distributing more than 132,000 compact fluorescent lamps;
- promotion/purchase of over 4600 ENERGY STAR appliances through the CMEEC Mail-In Appliance Rebate Program coupled with the ARRA funded Appliance Rebate program;
- participation in Cool Choice Rebate programs by more than 200 customers; and
- energy-efficiency assessments and incentives for nearly 100 commercial and industrial customers' projects (custom equipment replacement, retrofit lighting, etc.)

These efforts will continue through 2011 and beyond.

In total, CL&M efforts during 2010 generated 6 MW in demand reduction and more than 19 gWh in annual energy savings, at a cost of less than \$0.02 per lifetime kWh. In addition, CMEEC's commercial and industrial customers received nearly \$1,000,000 in incentives for installing energy-efficiency measures in their facilities.

## **Smart Grid**

CMEEC's three-year \$18.4 million smart grid investment program (the ConnSMART Program - [www.connsmart.org](http://www.connsmart.org)) is 50% funded by the only U.S. Department of Energy ARRA Smart Grid Investment Grant awarded in Connecticut. ConnSMART will accelerate CMEEC and its Members' adoption of smart grid functions while incentivizing and empowering customers to reduce their peak demand by shifting their load out of peak cost periods in order to help reduce their power costs.

ConnSMART's technical scope includes: the installation of 22,000 two way communicating digital meters within four participating municipal utility service areas and implementation of three advanced metering infrastructure (AMI) systems, three meter data management (MDM) systems and a wholesale power procurement business intelligence (BI) system. Through the end of 2010, approximately one quarter of the Program's scope has been delivered, including: installation and acceptance of three AMI systems with 5,800 meters communicating, MDM procurement and implementation activities well underway and initial business intelligence platform procurement and phase I development completed.

ConnSMART will use these targeted smart grid information technology investments to pilot-test new customer engagement programs, tools and services across all residential, small business and commercial/industrial customer classes, including: time-of-use rates, direct load control devices and programs, in-home and on-premise energy management devices and services and customer electronic

communication devices and services. Additionally, ConnSMART's new smart grid infrastructure will support existing municipal electric billing, customer information (CIS), geographic information (GIS) and outage management (OM) systems to further enhance the value of these existing investments. ConnSMART also includes pilot-testing of new distribution automation (DA) devices and systems to further leverage smart grid functions across the municipal electric internal distribution operations.

ConnSMART's smart grid implementation approach will eventually generate additional customer benefits beyond the distribution system operational efficiency and reliability improvement benefits expected from these investments. However, the ConnSMART's ultimate customer energy and load reduction and resulting cost savings impact is heavily dependent on customer usage and behavior change and remains unconfirmed at this time pending completion of pilot studies. Therefore, prospective customer load reductions as a result of ConnSMART are not incorporated into the load forecast presented herein.

The following material and tables are in response to the specific itemized requirements of Sec. 16-50r of the General Statutes and is provided on behalf of CMEEC and its member and participant systems. Items (1) through (8) listed below correspond to the numbers included in that section.

**(1) Provide a tabulation of estimated peak loads, resources and margins for each year (of the forecast period):**

The required estimates provided in Table I reflect forecasted energy and demand for the period as well as data on summer and winter peak demands. Table II reflects the forecasted annual peak demands for the 2011-2020 periods for both the 50/50 forecast as well as the 90/10 forecast.

In December 2006, ISO-NE established new market rules for the capacity markets. These rules included a Transitional ICAP Payment mechanism covering the period from December, 2006 through May, 2010 compensating generators. The rules also define a forward procurement process whereby ISO-NE will secure capacity supply obligations from resources for periods three or four years into the future. Taken together, these rule changes have effectively eliminated a bilateral capacity market. In addition, based on discussions with CMEEC's prior demand response customers, the majority of CMEEC's prior demand response resources (totaling between 55 and 90 MW) exited the ISO-NE market effective June 1, 2010. The reason for this was that under the ISO-NE program, these resources would have had to commit to take on a Capacity Supply Obligation (CSO) in 2007, and these customers were either unwilling or unable to make such a commitment for 2010 at that time. CMEEC has been working with these customers to develop alternative arrangements that will retain this peak shaving capability for CMEEC and the rest of the State.

NYP&A and Hydro Quebec ICAP credits (20 – 30 MW), Conservation & Load Response ICAP Credits (5 MW), A.L. Pierce (75 – 95 MW), Norwich Jet (15 - 18 MW) and CMEEC's distributed generator resources (22 MW) will offset a significant portion of CMEEC's allocated ICAP and/or energy requirements. All the capacity resources and/or credits referenced above are long-term capacity resources for CMEEC.

CMEEC's energy supply strategy includes retaining an open market position for a small portion of its annual load. Energy balancing and daily optimization are managed at the short-term and spot markets. CMEEC is actively looking to the bilateral markets for energy resources to maintain its longer-term portfolio, and aims to buy strategically as market prices provide opportunities. In addition, CMEEC continues to investigate options for developing demand and supply resources within the CMEEC member communities and/or contracting with third parties. ISO New England's market-based system continues to allow NEPOOL Participants to meet their unsecured ICAP, Energy and Ancillary Service needs through a spot-market power exchange.

**(2) Provide data on energy use and peak loads for the five preceding calendar years:**

Historical energy use and peak loads for the five-member CMEEC system, plus Wallingford, Bozrah and the Mohegan Tribal Utility Authority (MTUA), are provided in Table III.

**(3) Provide a list of existing generating facilities in service:**

Generating facilities owned by CMEEC and CMEEC Members and participants are listed in Table IV. The mix of existing generating facilities and system power agreements that serve the CMEEC system are listed in Table V. Anticipated retirement dates of CMEEC's Members' generating facilities are listed in Table VI.

**(4) Provide a list of scheduled generating facilities for which property has been acquired, for which certificates have been issued, and for which certificate applications have been filed:**

The following sites/facilities have received certificates from the Council. These sites/facilities are in addition to the generating resources described in Tables IV and V provided in response to item 3 above:

1. Briar Hill, Norwich – 2 units at 2.49 MW each
2. Salem Turnpike, Norwich – 2 units at 2.49 MW each

**(5) Provide a list of planned generating units at plant locations for which property has been acquired or at plant locations not yet acquired that will be needed to provide estimated additional electric requirements:**

CMEEC is currently evaluating a site opportunity at the Naval Submarine Base New London, in Groton, Connecticut for an approximately 10 MW peaking plant. As part of that project, CMEEC is negotiating a tentative lease with the NAVY.

**(6) Provide a list of planned transmission lines on which proposed route reviews are being undertaken or for which certificate applications have already been filed.**

There are no planned transmission lines.

**(7) Provide a description of the steps taken to upgrade existing facilities and to eliminate overhead transmission and distribution lines in accordance with the regulations and standards described in Section 16-50t:**

Several upgrading projects are underway in CMEEC Member service territories, Bozrah and Wallingford, which are summarized below.

The feasibility of supplying the existing 27.6 kV **South Norwalk** bulk power substation with a new 115 kV to 27.6 kV substation continues to be explored. Additional land was purchased during 2009 to increase the size of the 115 kV substation site. A Connecticut Siting Council

application is in the preliminary stages of preparation. South Norwalk applied in January 2011 to ISO New England for permission to connect to the New England Power Grid. The primary objective of this project is to serve anticipated load increases arising from economic development projects and to improve power delivery reliability and economy. Time and details of this project depend on load growth projections. Also in South Norwalk, ground was broken in December, 2007 for the proposed Reed/Putnam project. However, the Reed/Putnam project has been delayed due to the economic downturn. The first phase of this project will result in an increase of between 3-5 MW in demand. The new 50 MW generating facility originally scheduled to proceed and be on-line by June, 2010 has been cancelled and will not proceed.

**East Norwalk** has installed three (3) 2,000 KW emergency generators as part of the ISO New England Special Southwest Connecticut Gap Generation Program. These generators have been upgraded with the installation of state of the art pollution control equipment and are bid into the power markets for dispatch by ISO New England.

East Norwalk has also acquired a site to expand an existing substation and directly connect to the 115 KV transmission system.

**Norwich Department of Public Utility (NPU)** continues to upgrade its 4.8kV distribution system to 13.8kV to increase efficiency by reducing system losses and to improve reliability through better voltage conditions and newer equipment. Over the last 10 years, NPU has converted 7.5MW, or about 25%, of its 4.8kV system load and more than 7 miles of overhead lines to improve system voltage, capacity, and reliability in affected areas. Over the last few years, NPU has replaced over 2 miles of 13.8kV overhead distribution lines with new 500MCM copper underground in Norwich's downtown and prime commercial district, as part of various projects, including two Connecticut Department of Transportation projects (i.e., Route 82 and the Intermodal Transportation Center).

All NPU substations, generating stations and several distribution switches are monitored and controlled via Supervisory Control and Data Acquisition (SCADA) system in NPU's control room 24/7.

In 2009, NPU, along with CMEEC, added an emissions reduction unit to its 2MW Caterpillar generator, located at the Norwich Waste Water Treatment Plant (WWTP) facility. This unit was intended to meet new DEP permit requirements and reduces NOx and carbon emissions by more than 90%. The WWTP generator continues to participate in ISO New England's energy market, as well as providing emergency backup capabilities for the WWTP operation. In 2010, NPU and CMEEC installed two 2.5MW Cummins generators in the Norwich Business Park to serve as peaking units and drive down purchased power costs in addition to providing emergency backup capabilities for key portions of NPU's electric distribution system. NPU is studying the addition of a cogeneration plant at a large industrial facility which will provide up to 500kW of power and hot water for the customer's laundry facilities. NPU has received funding from the DOE to support this project, which will utilize clean, efficient cogeneration technology. NPU's clean hydro generation plants continue to provide around 5% of Norwich's system load to the citizens of Norwich throughout most of the year. Our Greeneville Dam fishlift and Occum Dam fish passages operated successfully during 2010 fish season, and NPU worked closely with DEP on their fish management program.

**Jewett City** Department of Public Utility (JCDPU) is continuing the upgrading of its distribution network in an intended development of long-range system expansion and as part of this effort JCDPU is continuously gathering load data for future consideration and/or expansion. Any business expansion would involve underground cable installation.

**Groton Utilities** is continuing the electric infrastructure improvement projects as planned. In 2010, Groton Utilities operations personnel have completed the 308 line underground cable replacement project. The project consisted of replacing the 52 year old 2.5 mile underground cable, cleaning manholes and installing cable racks. The circuit is rated for 60 MVA an upgrade from 37 MVA. Also completed was the 322/325 lines underground feeder project at Buddington Substation. The project consisted of replacing the overhead 35 kV conductors with underground cables for the purpose of eliminating poles and overhead conductors in Buddington Substation.

The voltage conversion is continuing throughout Groton Utilities' territory. As of January 1, 2011, 90% of the southern portion of the service territory primary distribution voltage has increased from 8.32 kV to 13.8 kV. The voltage conversion project consists of replacing aging poles, crossarms, insulators, lightning arrestors and fuse cutouts while increasing distribution line capacity. Scheduled for 2011, are the Groton Long Point and the Groton Town Center areas. The voltage conversion project is scheduled to continue throughout the year 2011.

There have been five residential housing developments built in 2010 all with underground distribution facilities. Replacement of the traffic light controller and traffic light fixture located at the intersection of North Road and Bridge Street is scheduled to be completed in 2011. This is the fifth out of seven planned traffic lights to be upgraded.

In **Bozrah Light and Power's** service territory, three residential subdivisions were built with underground electrical distribution facilities. At Stockhouse Road Substation, electric operations personnel completed the 2X transformer replacement. The project consisted on replacing the failed 24 MVA transformer with a new 40 MVA unit. Also installed was a secondary concrete contaminant pad for the newly installed transformer. Scheduled for 2011 in Stockhouse Road Substation are the replacement of five 115 kV switches and the installation of a new 115 kV breaker.

**Wallingford Electric Division's (WED)** 13.8-kV overhead distribution system is in very good condition, having been almost 100% re-built during the 1990's. WED employs an aggressive vegetation management effort in which trees along its overhead distribution lines are trimmed on a four-year cycle to preserve system performance and reliability. Presently, WED is concentrating its distribution system improvement efforts on the replacement of aged poles, overhead conductor, and underground residential distribution (URD) facilities. The latter is being replaced with new cable in buried conduit. Additionally, all new primary underground cable is installed in conduit.

WED's substation facilities are in equally good condition, with the oldest station dating from only the mid-1980's. WED also no longer has any oil-filled 115-kV circuit breakers in service. 2011 projects include several 115-kV relay and switch replacements, a significant life-extension maintenance project on a large 115/13.8-kV substation transformer, the replacement of all of

the feeder protection relays in two of the Division's three substations, and the replacement of the battery bank in one substation.

- (8) For each private power producer having a facility generating more than one (1) megawatt, and from whom CMEEC has purchased electricity during the preceding calendar year, provide a statement including the name, location, size, and type of generating facility, the fuel consumed by the facility, and the by-product of the consumption:**

Generally, the customers in CMEEC member and participant service areas who have generating capacity greater than 1 MW retain the power for ongoing internal utilization and/or for peak shaving against utility power purchases. Table VII summarizes major on-site generation capability at customer locations within the municipal service territories. CMEEC does not have formal arrangements in place to purchase power from those facilities at this time. Many of these customers, however, are asked to generate power and/or shed load during high load or emergency conditions as defined in NEPOOL's Operating Procedure #4.

TABLE I

CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE  
10-YEAR FORECAST OF RETAIL SALES BY CUSTOMER CLASS, ENERGY REQUIREMENTS AND PEAK DEMAND

2011-2020

YEAR	Residential Service		Small General Service		Medium General Service		Large General Service		Other Service		Total Retail Sales		Mohegan Tribal Authority		Hydro Gener.		Subtrans. & Distri. Losses		Systems Energy Requirements Met by CMEEC		CMEEC Summer Coincident Peak Demand		CMEEC Winter Coincident Peak Demand		Lead Factor %
	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	MWh	Sales	
1992	424,463	118,862	250,533	707,087	47,619	1,548,564	0	11,292	68,988	1,606,260	267.49	266.51	68.4												
1993	441,802	115,140	250,426	711,377	47,119	1,565,864	0	11,372	72,747	1,637,239	286.08	263.33	64.9												
1994	450,933	114,205	256,064	697,152	48,728	1,567,082	0	6,524	83,816	1,644,374	296.86	281.06	63.2												
1995	448,638	114,746	247,902	710,876	51,182	1,573,344	0	3,845	85,114	1,654,613	311.63	296.47	60.6												
1996	477,285	114,580	251,441	784,919	52,647	1,680,872	15,491	3,774	74,266	1,766,855	290.17	279.85	69.3												
1997	468,598	113,766	245,795	749,385	53,356	1,630,900	45,138	3,216	78,568	1,751,390	319.54	264.34	62.6												
1998	472,361	115,427	249,085	747,566	53,839	1,638,298	48,027	3,524	63,026	1,745,827	309.16	263.73	64.5												
1999	482,997	116,139	287,677	682,328	57,565	1,636,706	48,036	2,111	75,553	1,758,184	322.39	286.24	62.3												
2000	504,537	119,702	335,887	641,300	59,936	1,661,362	61,694	2,825	67,067	1,787,298	310.46	285.36	65.5												
2001	514,722	122,207	337,878	642,227	61,560	1,678,594	101,918	2,118	65,810	1,844,204	351.12	277.51	60.0												
2002	517,056	119,644	344,415	640,657	66,843	1,698,515	147,846	2,173	74,769	1,919,057	367.87	299.49	59.6												
2003	556,621	122,552	357,194	639,020	68,528	1,743,915	150,594	3,163	64,889	1,956,185	349.93	302.38	63.8												
2004	559,744	127,258	362,651	667,561	70,485	1,787,699	151,435	2,315	67,716	2,004,535	345.27	332.36	66.1												
2005	585,344	135,123	362,835	666,702	73,674	1,823,678	149,229	689	67,879	2,040,097	372.12	311.67	62.6												
2006	556,078	125,012	373,229	653,640	69,568	1,777,527	151,334	3,138	59,321	1,985,044	398.32	291.28	56.9												
2007	565,983	129,472	382,165	647,856	71,558	1,797,034	151,654	2,075	63,600	2,010,213	366.89	306.67	62.5												
2008	554,797	127,301	380,996	611,202	71,677	1,745,373	152,534	8,399	68,214	1,958,322	374.36	303.05	59.6												
2009	543,950	121,527	366,845	505,438	72,865	1,610,625	151,397	8,969	54,973	1,808,026	347.59	287.50	59.4												
2010	556,612	122,273	377,102	493,353	74,538	1,623,878	154,043	5,703	64,353	1,836,571	346.16	273.06	60.6												
2011	559,915	125,229	379,001	480,991	71,236	1,615,773	154,813	8,000	69,028	1,831,614	352.75	288.99	59.3												
2012	569,573	127,354	387,048	480,489	71,723	1,636,187	155,587	8,000	68,035	1,851,809	358.39	292.87	58.8												
2013	569,455	128,455	391,740	480,592	72,270	1,642,511	155,587	8,000	67,380	1,857,479	362.32	294.15	58.5												
2014	574,569	129,876	397,395	480,700	72,753	1,655,293	156,365	8,000	66,074	1,869,732	366.80	296.89	58.2												
2015	580,153	131,225	402,806	480,813	73,191	1,668,188	156,365	8,000	64,723	1,881,277	371.16	299.57	57.9												
2016	587,830	132,944	409,347	480,931	73,588	1,684,639	157,147	8,000	63,213	1,897,000	375.67	302.79	57.5												
2017	591,023	133,828	413,144	481,054	73,896	1,692,946	157,147	8,000	61,910	1,904,003	379.76	304.72	57.2												
2018	595,938	134,947	417,620	481,182	74,194	1,703,881	157,933	8,000	60,999	1,914,813	383.68	306.91	57.0												
2019	600,853	136,003	421,868	481,316	74,489	1,714,529	157,933	8,000	59,903	1,924,365	387.58	309.00	56.7												
2020	605,840	137,357	427,009	481,454	74,766	1,726,426	158,722	8,000	59,171	1,936,319	391.06	310.93	56.5												
% INCREASE																									
2010-2020	0.85	1.17	1.25	-0.24	0.03	0.61	0.30	-0.84	0.53	1.23	1.31														

[1] Totals are the sum of kilowatt-hours rounded to the nearest megawatt-hour (MWh) less CT Steele Interruptible.

[2] The forecasted CMEEC coincident peak demands were computed by summing the Groton, Norwich (inclusive of the contribution of Norwich's Second Street and Tenth Street hydro units), Jewett City, East Norwich, South Norwich Wallingford and Bozrah noncoincident peak demands and multiplying by an average historical coincidence factor.

[3] The historical 1994 CMEEC winter and summer peak demand numbers reflect both Wallingford and Bozrah as if they were part of CMEEC at that time. The historical 1995 CMEEC winter and summer peak demand numbers reflect Bozrah as if they were part of CMEEC at that time.

TABLE II

March 2011

**CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE (CMEEC)**

**SUMMARY OF CMEEC PEAK FORECASTS (1)**

<u>Year</u>	<u>50/50 Peak Forecast</u>	<u>90/10 Peak Forecast</u>
2011	352.75	370.74
2012	358.39	376.49
2013	362.32	380.48
2014	366.80	385.06
2015	371.16	389.51
2016	375.67	394.13
2017	379.76	398.13
2018	383.68	402.33
2019	387.58	406.32
2020	391.06	409.90

(1) CMEEC developed its extreme weather forecast peak values by using the CMEEC summer peak forecast and applying an extreme weather scenario to arrive at the 90/10 forecast.

TABLE III

March 2011

**CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE (CMEEC)**

**HISTORICAL ENERGY USE AND PEAK LOAD  
2006-2010**

<u>Year</u>	<u>CMEEC Coincident Peak Load (MW) [1]</u>	<u>CMEEC Energy (MWh) [1]</u>
2006	398.32	1,985,044
2007	366.89	2,010,213
2008	374.36	1,958,322
2009	347.59	1,808,026
2010	346.16	1,836,571

[1] Reflects CMEEC Member loads inclusive of Wallingford, Bozrah and the Mohegan Tribal Utility Authority (MTUA) for 2006-2010.

TABLE IV

## CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE (CMEEC)

EXISTING GENERATION FACILITIES OWNED BY  
CMEEC AND ITS MEMBERS

As of March 1, 2011

<u>Generating Facility</u>	<u>Winter Rating (MW)</u>	<u>Summer Rating (MW)</u>
Norwich Combustion Turbine (Oil-Fired) [1]	18.800	15.255
Pierce Generating Unit (Oil/Gas-Fired) [2]	97.000	77.500
CYTEC 1 (Oil-Fired)	2.00	2.00
CYTEC 2 (Oil-Fired)	2.00	2.00
CYTEC 3 (Oil-Fired)	2.00	2.00
John Street #3 (Oil-Fired)	2.00	2.00
John Street #4 (Oil-Fired)	2.00	2.00
John Street #5 (Oil-Fired)	2.00	2.00
Norwich Waste Water Treatment (Oil-Fired)	2.00	2.00
Norden 1 (Oil-Fired)	2.00	2.00
Norden 2 (Oil-Fired)	2.00	2.00
Norden 3 (Oil-Fired)	2.00	2.00
Norwich Second Street (Hydro)	[3]	[3]
Norwich Tenth Street (Hydro)	[3]	[3]
Norwich Occum (Hydro)	[3]	[3]

[1] Represents CMEEC current joint-ownership share. The full capability of the Norwich combustion turbine unit is under contract to CMEEC.

[2] Represents CMEEC current sole ownership share. The full capability of the Pierce generating unit is under contract to CMEEC.

[3] Winter and summer ratings are based on average river flow conditions. The nameplate rating for the Second Street hydro station is 0.95 MW. The nameplate rating for the Tenth Street hydro station is 1.00 MW. The nameplate rating for the Occum hydro station is 0.80 MW. These hydro units remain a resource of the Norwich Department of Public Utilities. The generations of these hydro units are used by Norwich to directly offset Norwich load.

TABLE V

As of March 1, 2011

**MIX OF EXISTING GENERATION - CMEEC RESOURCES**

<u>Unit Designation</u>	<u>In-Service Date</u>	<u>Net Winter Capacity (MW) [1]</u>	<u>CMEEC Share (MW)</u>	<u>Net Summer Capacity (MW) [2]</u>	<u>CMEEC Share (MW)</u>	<u>CMEEC Percent of Unit (%)</u>
<u>Long-Term System &amp; Asset Contracts [3]</u>						
Base System Purchase		115.00	115.00	115.00	115.00	
Base Unit Entitlement Purchase		25.00	25.00	25.00	25.00	
On-Peak System Purchase		20.00	20.00	50.00	50.00	
<b>Total System Contracts</b>		<b>160.00</b>	<b>160.00</b>	<b>190.00</b>	<b>190.00</b>	
<u>Municipal Generation</u>						
Norwich Combustion Turbine	1972	18.80	18.80	15.25	15.25	100.00
Norwich Waste Water Treatment	2008	2.00	2.00	2.00	2.00	100.00
CYTEC 1	2008	2.00	2.00	2.00	2.00	100.00
CYTEC 2	2008	2.00	2.00	2.00	2.00	100.00
CYTEC 3	2008	2.00	2.00	2.00	2.00	100.00
John Street #3	2007	2.00	2.00	2.00	2.00	100.00
John Street #4	2007	2.00	2.00	2.00	2.00	100.00
John Street #5	2007	2.00	2.00	2.00	2.00	100.00
Pierce Generation Unit	2007	97.00	97.00	77.50	77.50	100.00
Norden 1	2009	2.00	2.00	2.00	2.00	100.00
Norden 2	2009	2.00	2.00	2.00	2.00	100.00
Norden 3	2009	2.00	2.00	2.00	2.00	100.00
<b>Total Municipal Generation</b>		<b>135.80</b>	<b>135.80</b>	<b>112.75</b>	<b>112.75</b>	
<b>TOTAL CMEEC CAPACITY RESOURCES</b>			<b>295.80</b>		<b>302.75</b>	
<u>Other Resources</u>						
NYPA Hydro (Firm & Peaking) [4]			13.20		13.20	NA
Short-Term Purchases [5]			Varies		Varies	NA
CMEEC's 50 in 5 Units [6]			40.00		40.00	

[1] Represents NEPOOL Winter Maximum Claimed Capability.

[2] Represents NEPOOL Summer Maximum Claimed Capability.

[3] System Purchases, Contract Purchases & Unit Entitlement Purchases from several counterparties.

[4] Represents maximum hourly contract deliveries to CMEEC. New York Power Authority (NYPA) hydro purchases began July 1, 1985. Energy contributions from NYPA are considered to be firm contracts and used to reduce electric requirements thereby reducing CMEEC Capability Responsibility in NEPOOL.

- [5] The MW amounts shown for Short-Term Purchases vary from month to month from 0 MW to 75 MW through December 2011.
- [6] Represents the CMEEC (50 in 5) Units which are currently commercially operating. Seven (7) 2.50 MW units are located in Groton, two (2) 2.50 MW units are located in Norwich, one (1) 2.50 MW unit is located in Jewett City, two (2) 2.50 MW units are located in Lebanon, CT and four (4) 2.50 MW units are located at the Mohegan Tribal Utility Authority. Additional 2.5 MW units are in the planning stages will be forthcoming and will be added to CMEEC's overall resource mix. These resources will be used for demand reduction purposes and are not anticipated to be enrolled in the ISO New England markets.

TABLE VI

CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE

March 2011

Anticipated Unit Retirement Dates

	<u>Retirement Date</u>
<b><u>Conventional Hydro</u></b>	
Norwich Tenth Street Hydro	Not Scheduled
Norwich Second Street Hydro	Not Scheduled
Norwich Occum Hydro	Not Scheduled
<b><u>Peaking</u></b>	
Norwich Combustion Turbine	Not Scheduled
Pierce Generating Unit	Not Scheduled
CYTEC 1	Not Scheduled
CYTEC 2	Not Scheduled
CYTEC 3	Not Scheduled
John Street #1	Retired as of March 4, 2011
John Street #3	Not Scheduled
John Street #4	Not Scheduled
John Street #5	Not Scheduled
Norwich Waste Water Treatment	Not Scheduled
Norden 1	Not Scheduled
Norden 2	Not Scheduled
Norden 3	Not Scheduled

Table VII

**Connecticut Municipal Electric Energy Cooperative (CMEEC)**

**COGENERATION & SMALL POWER PRODUCTION FACILITIES  
GREATER THAN 1 MW IN TOTAL SIZE [1]**

March 2011

<u>Facility Name</u>	<u>Facility Type</u>	<u>Facility Location</u>	<u>No. Of Units</u>	<u>Prime Mover</u>	<u>Type Fuel</u>	<u>Summer &amp; Winter Capacity</u>	<u>Years Installed</u>
Pfizer, Inc.	Cogeneration	Groton CT	5	Steam Turbine	Duel Fuel	39,700 kW	1948, 1950 1993 2001 & 2009
U.S. Naval Sub Base	Cogeneration	Groton CT	3	Steam Turbine	Duel Fuel	13,500 kW	1966, 1978 & 1993
			1	Steam Turbine	Duel Fuel	5,000 kW	1996
			1	Diesel Engine	#2 oil	1,500 [2]	1960 (est.)

[1] The customer retains power from each of these facilities.

[2] This diesel generator is used to provide black start capability.