

February 26, 2015

Mr. Robert Stein, Chairman Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Dear Chairman Stein:

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 2015-2024 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

Drew Rankin

Chief Executive Officer

CJC/

Enclosures

cc: Service List



# FORECAST OF ELECTRIC LOADS AND RESOURCES 2015-2024

March 1, 2015

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

#### **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 at wholesale and other markets to serve the needs of the Connecticut municipal electric utilities ("MEUs") and other electric utility systems and customers.

The CMEEC Member utilities (collectively, the "Members") are (1) the City of Norwalk's 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"). 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, Bozrah and the MTUA are represented on an integrated, single-system basis for purposes of ISO-NE operations.

The joint power supply established by CMEEC is intended to meet the diversified power supply needs of all of CMEEC's Members and customers. 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, and ISO New England (ISO-NE) market purchases.

The enclosed forecast for 2015-2024 shows minimal load growth for CMEEC's Members/customers in Connecticut. CMEEC's projections for the 2015-2024 period reflect an average compound growth rate of 0.08% for total system energy requirements and 0.64% for annual summer coincident peak demand. Last year (2014) showed decreases in total energy purchases for all of CMEEC's Members and customers in Connecticut. In the 2015-2024 load forecast the residential sector of CMEEC's Members/Connecticut customers is anticipated to grow slightly while the remaining sectors, except as noted below, reflects an overall flat forecast. Power usage from the biological science clusters has also slowed significantly. Growth attributable to the area Casinos slowed during the 2011-2013 time period. The overall energy requirements for the Casino did rebound during 2014. There is still some uncertainty about the pace of development at these facilities and related regional economic impacts. However, the 2015-2024 forecast projects significant increases in one area. A new Norwalk based data center came on-line in December 2013. The new data center provides the potential for significant load growth and is fed by the newly constructed Fitch Street substation located in East Norwalk.

Future growth is further modulated by reductions in usage rates resulting from the conservation programs planned and implemented by the municipal electric distribution utilities (MEU). These programs remain very active and are popular with all sectors of MEU end users. The long-term

<sup>&</sup>lt;sup>1</sup> As of January 1, 2014, the Town of Wallingford Electric Division elected to procure its power supply resources on a stand-alone basis and to separately administer its conservation and load management ("CL&M") funds. Accordingly, Wallingford is no longer included in this Connecticut Siting Council document, other than with respect to any historical statistics for operations prior to January 1, 2014.

forecasts of electric demand and the energy of the CMEEC Member and customer 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, peak demand and capacity requirements forecast, which is filed with the Council herein and also used to make power supply decisions.

Municipal electric systems delivery capabilities maintained by the State's MEUs covered by this forecast during the forecast period 2015-2024 appear strong and poised for growth. The new Fitch Substation in East Norwalk is expected to meet the needs of that community for several decades and the similar SNEW South Norwalk 115 kV to 13.8 kV SONO substation which opened in 2014 likewise sets the stage for meeting future load growth with improved reliability over the previous 27.6 kV supply system. Corresponding with this major supply route change SNEW has upgraded its distribution system to 13.8 kV, reducing losses and improving distribution level reliability. With respect to grid related issues, CMEEC participates in NEPOOL studies which include delivery capability review for MEU points of receipt for which CMEEC reports. A current such study is the Southeastern Connecticut Area Study, which looks out to 2022.

#### **Conservation and Load Management**

The MEU's, for which CMEEC reports, continued delivery of cost effective Conservation and Load Management ("C&LM") programs to customers in 2014. CMEEC, on behalf of the MEUs, for which is reports, worked with the members of the Energy Efficiency Board ("EEB") pursuant to Conn. Gen. Stat. Section 7-233y, in implementing additional and ongoing programs to reduce customer electricity usage and peak demand. The C&LM Plan measures the overall impact of electricity conservation programs on customer energy usage and peak demand.

In 2014, the MEUs, for which CMEEC reports (and including prior years, as noted below), provided a fully implemented portfolio of energy-efficiency initiatives, including:

- Performing comprehensive energy audits and weatherization of 820 homes;
- Distributing over 50,000 compact fluorescent lamps, bringing the total to over 1,300,000 since program inception in 2006;
- Promotion/purchase of over 35 ENERGY STAR appliances through the mail-In Appliance Rebate Program;
- Participation in the Cool Choice HVAC Rebate program by more than 1,050 residential and commercial customers; and
- Providing energy-efficiency assessments and incentives for nearly 35 commercial and industrial customer projects (e.g. custom equipment replacement, lighting retrofits).

MEU CL&M efforts during 2014 resulted in a 0.5 MW in coincident summer peak demand reduction and more than 4.4 gWh in annual energy savings, at a cost of about \$0.05 per lifetime kWh. MEU commercial and industrial customers, for which CMEEC reports, received over \$1,218,449 in incentives for installing energy-efficiency measures in their facilities. Residential customers received over \$1,140,257 in incentives. These efforts will continue through 2015 and beyond.

#### **Smart Grid**

CMEEC's ConnSMART Program received a 2009 U.S. Department of Energy (DOE) \$9.2M 50% matching Smart Grid Investment Grant funded by the American Recovery and Reinvestment Act. Program participants include CMEEC, Groton Utilities, Jewett City Department of Public Utilities, Norwich Department of Public Utilities and South Norwalk Electric and Water. Execution of the CMEEC/MEU ConnSMART Program was complete on December 31, 2014 with metric reporting and grant closure to be completed in 2015. A goal of CMEEC and MEU adoption of smart grid functions is to empower customers to reduce peak demand, energy use, and overall power costs. Foundational to meeting the goal is establishment of new information, tools and reliable two way communicating meters as provided for in part in the DOE grant. CMEEC has substantially modified its CMARS Business Intelligence tool through the grant and the MEUs have installed smart meters and related software to permit introduction of a next round of near real time conservation and load management programs. Other goals being realized include savings from remote service connect and disconnect meter functions and advanced system diagnostics to reduce outages, and in the event of an outage, better pinpointing of the source to speed remedy. Further benefits include the ability to better manage net metering arrangements for customer renewable energy installations.

The following material and tables are in the specific itemized requirements of Sec.16-50r of the General Statutes and provided on behalf of CMEEC and its Members and customers. 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):

Table I shows 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 2015-2024 periods for both the 50/50 forecast as well as the 90/10 extreme condition forecast.

CMEEC is a participant in ISO NE and meets its net power needs through the ISO-NE market system. CMEEC also maintains power and related resources delivered to the Markets. Market resources over the forecast period include NYPA 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). CMEEC maintains distributed generator resources (40-50 MW) to help attain local reliability goals.

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

Historical aggregated energy use and peak loads for the five-member CMEEC system, plus 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 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 and Member 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:

CMEEC executed a lease in 2014 with the United States Navy for use of an approximately 1 acre federally owned site located at the Naval Submarine Base New London, in Groton, and within the federal enclave area of the Submarine Base. CMEEC is developing a 6 MW to 8 MW electric generation peaking plant that will be largely dedicated to serving load on this site. Air emissions permit filings with DEEP are pending. This project is subject to Conn. Gen. Stat. Section 16-50k (d).

(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:

There are no planned CMEEC owned generating units responsive to this question.

CMEEC has entered into five power purchase agreements ("PPAs") with an independent developer for the development, design, construction and operation of solar photo-voltaic ("PV") array electric generating facilities at five separate locations in the service areas of CMEEC's Members and customers and interconnecting with the Members' electric distribution systems. These facilities follow the business model of a community solar garden and range in size from approximately 2.5 to 6 MWs in capacity depending on location. The commercial operation date of these projects is anticipated to occur over the next 1-2 years, following completion of permitting, development and construction activities. Under the PPAs, the developer is responsible for the development, construction and operation of the projects. CMEEC, under the PPAs, is the purchaser of the electric products produced by the projects.

(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 projects are recently completed, underway or in various stages of completion in the CMEEC Member service territories and Bozrah, which are summarized below.

South Norwalk (SNEW) has completed (except for non-functional items such as landscaping, cleanup outside the station, paving and a final report to the Siting Council) and placed into service a new 115 kV to 13.8kV distribution substation connected to a new CL&P / Eversource Energy PTF station. The new SNEW station replaces two unreliable 27.6 kV sub-transmission feeders owned by CL&P / Eversource Energy. The new distribution substation, feeder breakers and switch gear replaces a 70 year old 27.6 kV to 13.8 kV and a 27.6 kV to 4.16 kV substation, including all existing station switchgear. The old station is out of service and will be decommissioned within the next year. The new station necessitated the conversion of SNEW's existing 4.16 kV overhead distribution system to 13.8 kV. The purpose of the new station is to increase reliability and efficiency. SNEW is currently replacing existing distribution system primary switches, resizing transformers, balancing loads on the distribution system and adding additional distribution system protection equipment to further improve system reliability. The new station provides additional capacity for future system load expansion. SNEW has deployed about 6500 AMI electric meters.

East Norwalk (TTD) put in service in December 2013 a new PTF level substation Fitch (47R) which is the subject of CSC Docket #426. This project addresses 1) reliability by replacing aged systems which posed unacceptable risks, and 2) imminent load growth which taken together with current loads would cause current capability service reliability thresholds to be exceeded. The Fitch (47R) substation eliminates two underground supply cables, which were originally installed in 1946, and which had undergone piecemeal replacement as faults have occurred.

Norwich Department of Public Utilities (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 upgraded about 50% of its 4.8kV system load and more than 15.0 miles of overhead lines to improve system voltage, capacity, and reliability in affected areas. Over the last two years, NPU has installed approximately 5 miles of new 13.8kV overhead lines.

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. All stations have been moved to NPU's fiber optic network for more reliable communication and monitoring.

CMEEC and NPU completed installation and commissioning of 10 MW of diesel generation on the Backus Hospital property off of Matlack Road in Norwich. This project was approved by the Council in CSC Petition No. 1071. This generating station provides a microgrid capability to supply emergency power to Backus Hospital in addition to several other critical facilities in the City of Norwich, such as schools, emergency shelters, a fire station, a large supermarket/pharmacy chain, a public water supply, a gas

station and a shopping center.

The Greeneville Dam and Occum Dam fish passages operated successfully during 2014. NPU continued to work closely with DEEP on fish passages, eel passages, pit tagging program and shad trucking to promote the migration of shad to new spawning grounds. Occum Dam continues to pass American Shad and DEEP determined that the fish passage is currently in compliance with their regulations. NPU's Greenville and Occum Dams are certified by the Low Impact Hydro Institute (LIHI) and continue to accrue renewable energy certificates (RECs).

By the end of 2014, NPU successfully deployed about 17,000 electric meters onto its AMI System and is planning to complete the remaining 4,000 - 5,000 electric meters in 2015.

**Jewett City Department of Public Utilities (JCDPU)** is continuing the upgrading of its distribution network in an intended development of long-range system expansion and as part of this effort, any business or residential expansion would involve underground cable installation. Lastly, all of JCDPU customers are now served through two-way communicating meters.

**Groton Utilities** installed 3,325 feet of underground primary and secondary cables that provides electric power to a housing complex on Military Highway in Groton Ct. In addition, numerous underground services to residential customers have been installed throughout the year in the prior two years. Groton Utilities preferred construction standard is to place all power distribution facilities underground.

Groton Utilities and Bozrah have deployed about 15,000 electric meters onto its AMI System.

**Bozrah Light and Power's** installed seven (7) underground services throughout the year in the prior two years. Bozrah's preferred construction method is to place all power distribution facilities underground.

(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 Members service areas who have generating capacity greater than 1 MW retain the power for ongoing internal utilization and/or load management. 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

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

					Load	Factor	*	36.6	56.5	61.6	63.8	61.8	55.4	61.5	58.8	57.3	59.7	58.3	96.0	57.3	62.3	61.6	60.3	59.7	59.4	59.1	59.0	29.0	6.83	58.9	58.8			
	Historical	CMEEC	Winter	Coincident	Peak	Demand	MW [2] [3] [4]	178.94	213.28	221.29	239.53	223.78	215.17	224.46	17.71	208.23	195.94	192.74	189.86	194.78	222.91	213.06	215.90	218.44	218.88	219.13	219.00	219.11	219.48	219.94	220.48		0.11	
	Historical	CMEEC	Summer	Coincident	Peak	Demand	MW [2] [3] [4]	251.94	265.06	249.78	245.13	256.79	280.02	255.36	260.31	243.97	236.15	238.00	240.82	238.28	248.15	251.25	22.72	259.06	260.59	261.98	262.03	262.48	263.05	263.74	264.38		0.64	
			Systems	Energy	Requirements	Met by CMEEC	Mwh [1]	1,249,176	1,311,376	1,347,347	1,374,734	1,390,976	1,358,433	1,375,629	1,343,518	1,225,385	1,234,574	1,215,919	1,185,526	1,195,314	1,354,503	1,355,444	1,362,126	1,353,720	1,355,925	1,357,147	1,357,624	1,355,984	1,357,822	1,360,158	1,364,747		0.08	
				Subtrans.				45,295	50,885	46,546	48,025	47,883	44,861	47,611	45,787	40,435	36,368	34,843	40,263	31,852	24,954	39,535	39,416	38,980	38,243	37,199	36,331	35,605	35,044	34,629	34,161		3.19	
					Hydro	Gener.	MWh	2,118	2,173	3,163	2,315	689	3,138	2,075	8,399	8,969	5,654	7,932	990'5	6,545	4,377	5,100	5,100	5,100	2,100	5,100	2,100	5,100	5,100	5,100	5,100			
						Cervalis	MWh	0	0	0	0	0	•	•	0	0	0	0	0	0	886	926	8,376	16,260	24,144	32,028	32,028	32,028	32,028	32,028	32,028			
				Mohegan	Tribai	Authority	MWh	101,918	147,846	150,594	151,435	149,229	151,334	151,654	152,534	151,397	153,546	151,640	147,963	141,963	151,070	150,856	151,224	150,856	150,856	150,856	150,856	150,856	150,856	150,856	150,856			
2015-2024				Total	Retail	Sales	MWh	1,104,081	1,114,818	1,153,370	1,177,589	1,194,553	1,165,376	1,178,439	1,153,596	1,042,522	1,050,314	1,037,368	1,002,366	1,028,044	1,016,720	1,005,253	1,011,685	1,004,083	1,007,026	1,009,292	1,010,637	1,009,723	1,012,122	1,014,874	1,019,931		0.03	
					Other	Service	Mwh	38,749	42,857	44,795	46,338	48,748	44,077	45,632	46,377	47,340	49,041	48,283	45,171	42,137	40,358	39,451	39,595	38,991	39,097	39,152	39,290	39,373	39,458	39,548	39,602		-0.19	
			Large	General	Service	MWh	Sales	428,940	424,952	435,590	451,268	445,991	441,910	437,327	414,249	329,781	315,177	310,160	297,641	303,202	298,784	301,173	300,723	299,467	298,974	298,208	297,503	297,006	296,647	296,421	296,077		-0.09	
			Medium	General	Service	MWh	Sales	232,129	237,734	243,644	246,356	244,023	252,747	258,818	229,502	246,237	256,362	255,747	252,183	257,188	253,920	250,344	251,482	247,712	248,360	248,879	250,016	249,547	249,999	250,492	251,938		-0.08	
			Small	General	Service	MWh	Sales	85,694	83,709	85,729	060'06	96,321	88,048	806'06	90,180	85,341	85,883	85,213	82,010	85,178	85,126	81,783	82,387	82,229	82,418	82,618	82,892	82,729	82,866	83,020	83,485		-0.19	
				Residential	Service	MWh	Sales	318,599	325,566	343,612	343,537	359,470	338,594	345,754	343,288	333,823	343,851	337,965	325,361	340,339	338,532	332,502	337,499	335,685	338,177	340,435	340,936	341,068	343,152	345,393	348,829		0.30	
							YEAR	2001	2002	2003	2004	2005	2006	2002	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	7	2014-2024	

[1] Totals are the sum of kilowatthours rounded to the nearest megawatthour (MWh).

[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 Norwalk, South Norwalk and Bozzah noncoincident peak demands and multiplying by an average historical coincidence factor.

[3] The historical 1994 CMEEC winter and summer peak demand numbers reflect 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.

[4] The historical CMEEC coincident peak demands are net of the large interruptible customer AIRGAS (Bozrah).
The forecasted CMEEC coincident peak demands were computed by summing all of the noncoincident peaks for each of CMEEC's Members/Participants including the interruptible customer and multiplying by an average historical coincidence factor.

TABLE II

#### March 2015

# CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE (CMEEC) SUMMARY OF CMEEC PEAK FORECASTS (1)

	50/50	90/10
	Peak	Peak
<u>Year</u>	<u>Forecast</u>	<u>Forecast</u>
2015	251.25	251.49
2016	257.22	258.11
2017	259.06	260.60
2018	260.59	262.77
2019	261.98	264.81
2020	262.03	264.85
2021	262.48	265.30
2022	263.05	265.87
2023	263.74	266.56
2024	264.38	267.20

<sup>(1)</sup> 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 IV**

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

# EXISTING GENERATION FACILITIES OWNED BY CMEEC AND ITS MEMBERS

#### As of March 1, 2015

Generating Facility	Winter Rating (MW)	Summer Rating (MW)
Norwich Combustion Turbine (Oil-Fired) [1]	18.800	15.255
Pierce Generating Unit (Oil/Gas-Fired) [2]	97.000	77.500
Norwich Waste Water Treatment (Oi	l-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]

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

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

<sup>[3]</sup> 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, 2015

#### MIX OF EXISTING GENERATION - CMEEC RESOURCES

	In-	Net Winter	CMEEC	Net	OMERO	CMEEC
	In- Service	Capacity	CMEEC Share	Summer	CMEEC Share	Percent of Unit
Unit Designation	Date	(In MW) [1		Capacity (In MW) [2		01 Onit <u>(%)</u>
Ont Designation	Date	(111 1V1 VV ) [1	1 (INI VV)	(111 IVI VV ) 12	1 (IAT AA )	(70)
Long-Term System & Asset Co	ontracts [3]					
Base System Purchase		65.00	65.00	40.00	40.00	
Base Unit Entitlement Purchas	e	25.00	25.00	25.00	25.00	
On-Peak System Purchase		25.00	25.00	25.00	25.00	
Total System Contra	ncts	115.00	115.00	90.00	90.00	
Municipal Generation						
Norwich Combustion Turbine	1972	18.80	18.80	15.25	15.25	100.00
Norwich Waste Water Treatme	ent 2008	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
Total Municipal Ger	eration	123.80	123.80	100.75	100.75	
TOTAL CMEEC CAPACIT	Y RESOUR	CES	238.80		190.75	
Other Resources						
NYPA Hydro (Firm & Peaking	g) [4]		13.20		13.20	NA
Short-Term Purchases [5]	,, i, i		Varies		Varies	NA
CMEEC's 50 in 5 Units [6]			50.00		50.00	

- [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.
- The MW amounts shown for Short-Term Purchases vary from month to month from 0 MW to 25 MW through December 2015.
- [6] Represents the CMEEC MicroGen 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, four (4) 2.50 MW units are located at the Mohegan Tribal Utility

Authority and (4) 2.5 MW units located at Backus Hospital in Norwich. 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 2015

# **Anticipated Unit Retirement Dates**

Conventional Hydro	Retirement Date
Norwich Tenth Street Hydro	Not Scheduled
Norwich Second Street Hydro	Not Scheduled
Norwich Occum Hydro	Not Scheduled
<u>Peaking</u>	
Norwich Combustion Turbine	Not Scheduled
Pierce Generating Unit	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 2015

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

<sup>[1]</sup> The customer retains power from each of these facilities.

<sup>[2]</sup> This diesel generator is used to provide black start capability.