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March 2, 2020

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

Re: CL&P dba Eversource Energy Forecast of Loads & Resources for the Period 2020-2029

Dear Ms. Bachman:

The Connecticut Light and Power Company dba Eversource Energy (the "Company") submits herewith 15 copies of the Company's 2020 Forecast of Loads and Resources, as required by Connecticut General Statute 16-50r.

Please do not hesitate to contact me if you have any questions regarding this filing.

Sincerely,

Christopher R. Bernard
Manager, Regulatory Policy & Strategy – CT
As Agent for The Connecticut Light & Power Company
dba Eversource Energy

Enclosure



2020 Forecast of Loads and Resources

for the Period 2020-2029

March 2, 2020

List of Acronyms

"ACEEE" American Council for an Energy Efficiency Economy

"C&LM" Conservation and Load Management

"CAGR" Compound Annual Growth Rate

"CEAB" Connecticut Energy Advisory Board

"CSC" Connecticut Siting Council

"CMEEC" Connecticut Municipal Electric Energy Cooperative, Inc.

"DEEP" Department of Energy and Environmental Protection

"EE" Energy Efficiency

"EEB" Energy Efficiency Board

"EDC" Electric Distribution Company

"EV" Electric Vehicles

"FCA" ISO-NE Forward Capacity Auction

"FCM" ISO-NE Forward Capacity Market

"FERC" Federal Energy Regulatory Commission

"FLR" Forecast of Loads and Resources

"GHCC" Greater Hartford/Central Connecticut

"IRP" Integrated Resource Plan

"ISD" In-Service Date

"ISO-NE" Independent System Operator – New England

"kV" Kilovolt or 1,000 Volts
"kW" Kilowatt or 1,000 Watts

"kW-Month" Kilowatt month

"LREC" Low Emission Renewable Energy Credits

"MW" Megawatt or 1,000,000 Watts

"NERC" North American Electric Reliability Corporation

"NPCC" Northeast Power Coordinating Council

"NTA" Non-Transmission Alternative

"PA 11-80" Public Act 11-80, An Act Concerning the Establishment of the Department of Energy and

Environmental Protection

"PAC" Planning Advisory Committee

"PV" Photovoltaic

"PURA" Public Utilities Regulatory Authority

"RFP" Request for Proposal

"RGGI" Regional Greenhouse Gas Initiative

List of Acronyms, Continued

"ROFR" Right of First Refusal

"RSP" ISO-NE's Regional System Plan

"SWCT" ISO-NE Southwest Connecticut Zone

"TO" Transmission Owner

"ZREC" Zero Emission Renewable Energy Credit

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Chapter 1: INTRODUCTION

1.1 Overview of Eversource's 2020 Forecast of Loads and Resources Report

The Connecticut Light & Power Company doing business as Eversource Energy ("Eversource" or the "Company") is a company engaged in electric distribution and transmission services in Connecticut, as defined in Conn. Gen. Stat. §16-1. As such, Eversource has prepared this Ten-Year FLR pursuant to Conn. Gen. Stat. §16-50r. Eversource has provided an annual FLR to the CSC for over forty years. This 2020 FLR includes the following information¹:

- 1. A tabulation of the peak loads, resources, and margins for each of the next ten years, using CL&P's 50/50 financial forecasting methodology.
- 2. Data on energy use and peak loads for the five preceding calendar years, including data on the energy savings provided by Eversource's energy efficiency programs during that period.
- 3. A list of planned transmission lines on which proposed route reviews are being undertaken or for which certificate applications have already been filed.

1.2 Energy and Peak Demand Forecasts

There is uncertainty in any forecast, and weather can especially have a large impact on the realization of any forecast. Eversource's electric energy usage is expected to decrease by a weather-normalized CAGR of 0.7% per year, but peak demand is expected to increase by a weather-normalized CAGR of 1.2% per year over the 10- year forecast period from 2020 through 2029.

While Eversource is providing this forecast, which was developed for financial forecasting purposes, Eversource uses ISO-NE's load forecast for transmission planning purposes. Further discussion of Eversource's forecast is provided in Chapter 2.

1.3 Evolving Load and Resource Influences

As part of the state's restructuring of the electric industry, which began in 1998, Eversource sold its generation assets, while remaining a Connecticut electric distribution and transmission company. Since that time, the state has enacted a number of policies and programs which affect the developing wholesale electric market in the region.

State-Mandated Integrated Resource Planning

In 2007, the Connecticut legislature passed PA 07-242, *An Act Concerning Electricity and Energy Efficiency*, directing the annual development of an IRP for Connecticut. In 2011, the Connecticut legislature passed PA 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*. PA 11-80 calls for DEEP to create an IRP by January 1, 2012 and biennially thereafter, in consultation with the CEAB² and the EDCs.

On March 17, 2015, DEEP issued its 2014 IRP for Connecticut presenting a comprehensive plan for improving Connecticut's electric energy future. DEEP is currently developing its latest IRP and has yet to issue a draft for comment.

¹ Pursuant to discussions with CSC staff, Eversource has removed the previously provided Table 2-3: Existing Customer Owned Facilities 1 MW and Above Providing Generation to the Eversource System from this filing.

² The CEAB was dissolved as of June 6, 2014. See General Statutes § 16a-3, repealed by Public Act 14-94, § 82.

ISO-NE Wholesale Electric Markets

Section 2.2 of this report discusses the results of the most recent FCA in the ISO-NE wholesale electricity market.

Energy Efficiency Programs

For many years, Eversource has been developing and implementing nationally recognized EE programs for its customers to help them control their energy usage, save money and reduce overall electric consumption in the state. These successful programs are primarily funded by a per kWh energy efficiency charge on customer bills, as well as revenues received from RGGI auctions and revenue from the ISO New England Forward Capacity Market.

On October 31, 2017, the state of Connecticut passed a budget for biennium ending June 30, 2019. This budget swept approximately \$117 million from the energy efficiency fund and an additional \$20 million from the RGGI over the next two fiscal years into the state's General Fund. However, for Eversource, this negative impact will largely be offset by an incremental energy efficiency bid pursuant to Docket No. 17-01-11, PURA Review of Public Act 15-107(B) Small-Scale Energy Resource Agreements. Further discussion of Eversource's energy efficiency program forecast can be found in Chapter 3.

Transmission Planning

Eversource plans, builds and operates transmission infrastructure with a goal of safely and reliably delivering power to its customers under a wide variety of supply and demand conditions. A discussion of Eversource's transmission forecast can be found in Chapter 4. The key topics include:

Eversource's transmission facilities are part of the New England regional grid and must be designed, operated and maintained to ensure compliance with mandatory NERC, the NPCC, ISO-NE and Eversource reliability standards and criteria.

- Eversource is proposing new 115-kV transmission projects to strengthen the Connecticut transmission system.
- The New England transmission system is an important enabler of competitive markets and the region's efforts to meet environmental objectives and mandates.
- Eversource Transmission Line Department is continuing to improve the reliability of the transmission system. Inspections have found degradation of many overhead wood transmission structures. Replacing these structures over the next several years resolves multiple structural/hardware issues and supports safe and reliable operation.

Chapter 2: FORECAST OF LOADS AND RESOURCES

Chapter Highlights

- Electric energy usage is expected to decrease by 0.7% per year over the 10-year forecast period; however, peak demand is expected to increase by 1.2% per year during this time.
- While Eversource uses its own Reference Plan Forecast for financial forecasting, it uses ISO-NE's load forecast for transmission planning purposes.

Electric Energy and Peak Demand Forecast

The energy and peak demand forecasts contained in this chapter are based on the Company's budget forecast, which was prepared in the Fall/Winter of 2019, and are based on Eversource's total franchise area. The base case or 50/50³ case is also referred to as the Reference Plan Forecast. Eversource's Reference Plan *Energy* Forecast is based on the results of econometric models, adjusted for Eversource's forecasted energy efficiency programs, projected reductions resulting from solar installations and expected additions due to electric vehicles.

- 1. The Reference Plan *Peak Demand* Forecast is also based on an econometric model, adjusted for energy efficiency, solar and expected large customer additions.
- The Reference Plan Forecast is used for Eversource's financial planning and distribution system planning, but is not used for transmission system planning. As ISO-NE is responsible for regional transmission planning and reliability, it independently develops its own forecast which the Company utilizes to plan and construct its transmission system.
- 3. Section 2.1.3 discusses ISO-NE's forecast in general terms and how it conceptually compares to Eversource's forecast.
- 4. The Reference Plan Energy Forecast projects a decrease in the weather-normalized CAGR for total electrical energy output requirements of 0.7% for Eversource from 2019-2029. Without the Company's energy efficiency programs, solar installations or electric vehicles, the forecasted energy growth rate is projected to be a decrease in the weather-normalized CAGR of 0.5%.

The weather-normalized CAGR for summer peak demand in the Reference Plan *Peak Demand* Forecast is forecasted to increase by 1.2% over the ten-year forecast period. Similarly, if Eversource's Energy Efficiency and solar installations, along with our large customer additions were excluded, the increase in the CAGR for forecasted peak demand would be 1.3%.

Table 2-1 provides historic output and summer peaks, actual and normalized for weather, for the 2015-2019 period, and forecast output and peaks for the 2020-2029 periods. The sum of the budgeted class sales for each year, adjusted for losses, is the annual forecast of system electrical energy requirements or output. This is the amount of energy that must be supplied by generating plants to serve the loads on the distribution system.

³ A "50/50 forecast" is a forecast that is developed such that the probability that actual demand is higher or lower than the forecasted amount is 50%.

The Reference Plan Forecast is a 50/50 forecast that assumes normal weather throughout the year, with normal peak-producing weather episodes in each season. The forecasted 24-hour mean daily temperature for the summer peak day is 84° F and is based on the average peak day temperatures from 2010-2019. The Reference Plan Forecast's summer peak day is assumed to occur in July, since this is the most common month of occurrence historically. It should be noted, however, that the summer peak has occurred in June, August and September in some years.

2.1.1 Uncertainty in the Reference Plan Forecast

There is uncertainty in any long-run forecast, because assumptions that are used in the forecast are selected at a point in time. The point of time chosen is generally insignificant, unless the forecast drivers are at a turning point. Outlined below are six major areas of uncertainty that are inherent to this forecast:

- The Economy The Reference Plan Forecast is based on an economic forecast that was developed in July 2019. Business cycles represent normal economic fluctuations which are typically not reflected in long-run trend forecasts because recovery eventually follows recession, although it is difficult to pinpoint when. So, while the level of energy or peak demand that is forecasted for any given year of the forecast may be attained a little earlier or later than projected, the underlying trend is still likely to occur at some point and needs to be planned for.
- Solar Installations This forecast includes explicit reductions to electrical energy output requirements due to solar installations stemming from the currently active LREC/ZREC program and the Connecticut Green Bank residential program.
- Energy Efficiency This forecast includes explicit reductions to electrical energy output and peak demand due company sponsored energy efficiency based on the most recent 3-year plan.
- Electric Vehicles This forecast includes explicit additions to electrical energy output requirements due to EVs. It does not include any additions to the peak forecast since it assumed that most of the charging will be done off-peak.
- Large Customers The peak demand forecast includes explicit adjustments for large customer additions with expected demands greater than 0.25 MW's.
- Weather The Reference Plan Peak Demand Forecast assumes normal weather based on a ten-year average (2010 2019). The historical peak day 24- hour mean temperatures range from 79° F to 89° F, with deviations from the average peak day temperatures being random, recurring and unpredictable occurrences. For example, the lowest peak day mean temperature occurred in 2017, while the highest occurred in 2011. This variability of peak-producing weather means that over the forecast period, there will be years when the actual peaks will be significantly above or below the forecasted peaks.

Despite the inherent risks outlined above, the Company believes its current forecast to be the best possible, given the information available today.

2.1.2 Forecast Scenarios

Table 2-1 contains scenarios demonstrating the variability of peak load around the 50/50 peak forecast due to weather. The table shows that weather has a significant impact on the peak load forecast with variability of approximately 8%, or 375 MWs, above and below Eversource's 50/50 forecast, which is based on normal weather. To illustrate, the 2029 summer peak forecast reflecting average peak-producing weather is 5,052 MWs.

However, either extremely mild or extremely hot weather could result in a range of potential peak loads from 4,737 MWs to 5,489 MWs. This 750 MWs of variation, which is a band of approximately plus or minus 8% around the average, demonstrates the potential impact of weather alone on forecasted summer peak demand.

The Extreme Hot Weather scenario roughly corresponds conceptually to ISO-NE's 90/10 forecast, described in Section 2.1.3.

Table 2-1: Eversource 2020 Reference Plan Forecast

	Net Electric	٠,	Reference	e Plan (50/5	50 Case)	Extreme Hot Scenario			Extreme Cool Scenario		
<u>Year</u>	Output	Annual Change	<u>Peak</u>	Annual Change	<u>Load</u> <u>Factor</u>	<u>Peak</u>	Annual Change	<u>Load</u> <u>Factor</u>	Peak	Annual Change	<u>Load</u> <u>Factor</u>
	GWh (1)	(%)	MW	(%)	(2)	MW	(%)	(2)	MW	(%)	(2)
HISTOR'	_										
2015	23047	0.50/	4850	0.00/	0.543						
2016	22460	-2.5%	4948	2.0%	0.517						
2017	21686	-3.4%	4721	-4.6%	0.524						
2018	22236	2.5%	5045	6.8%	0.503						
2019	21274	-4.3%	4763	-5.6%	0.510						
Compou	ınd Rates of C	Frowth (2015	-2019)								
	-2.0%		-0.5%								
HISTOR	Y NORMALIZI	ED FOR WEA	THER								
2015	22811		5034		0.517						
2016	22242	-2.5%	4953	-1.6%	0.511						
2017	21755	-2.2%	5098	2.9%	0.487						
2018	21657	-0.4%	4989	-2.1%	0.496						
2019	21047	-2.8%	4462	-10.6%	0.538						
Compou	ınd Rates of C	Frowth (2015	-2019)								
	-2.0%	(-3.0%								
FORECA											
2020	21154	0.5%	4882	9.4%	0.493	5307	18.9%	0.454	4583	2.7%	0.525
2020	20984	-0.8%	4910	0.6%	0.493	5337	0.6%	0.434	4610	0.6%	0.525
2021	20740	-1.2%	4939	0.6%	0.479	5367	0.6%	0.449	4637	0.6%	0.520
2022	20576	-0.8%	4953	0.0%	0.473	5382	0.3%	0.441	4649	0.3%	0.505
2023	20412	-0.8%	4970	0.3%	0.468	5400	0.3%	0.430	4664	0.3%	0.498
2025	20157	-1.3%	4987	0.4%	0.461	5419	0.3%	0.425	4680	0.3%	0.492
2026	19998	-0.8%	5002	0.4%	0.456	5435	0.3%	0.420	4693	0.3%	0.486
2027	19852	-0.7%	5016	0.3%	0.452	5450	0.3%	0.416	4705	0.3%	0.482
2028	19774	-0.4%	5033	0.4%	0.447	5469	0.3%	0.412	4721	0.3%	0.477
2029	19583	-1.0%	5052	0.4%	0.443	5489	0.4%	0.407	4737	0.4%	0.472
	ind Rates of C			0.170	0.110	0.00	0.170	0.107		0.170	0.112
30pou	-0.8%	2.2 (2010	0.6%			1.4%			-0.1%		
Normalia	zed Compoun	d Rates of G		9-2029)					270		
	-0.7%		1.2%	,		2.1%			0.6%		

Sales plus losses.

Forecasted reference plan peaks are based on normal peak day weather (84° mean daily temperature). Forecasted high peaks are based on the weather that occurred on the 2011 peak day (89° mean daily temperature). Forecasted low peaks are based on the weather that occurred on the 2017 peak day (79° mean daily temperature).

^{2.} Load Factor = Output (MWh) / (8760 Hours X Season Peak (MW)).

2.1.3 ISO-NE Demand Forecasts

The CSC's <u>2008 Review of the Ten-Year Forecast of Loads and Resources</u> provides a concise description of the ISO-NE's "90/10" forecast used by Eversource for transmission planning purposes. A relevant excerpt is provided below.

Called the "90/10" forecast, it is separate from the normal weather (50/50) forecasts offered by the Connecticut utilities. However, it is the one used by both ISO-NE and by the Connecticut utilities for utility infrastructure planning, including transmission and generation.

The 90/10 forecast is a plausible worst-case hot weather scenario. It means there is only a 10 percent chance that the projected peak load would be exceeded in a given year, while the odds are 90 percent that it would not be exceeded in a given year. Put another way, the forecast would be exceeded, on average, only once every ten years. While this projection is extremely conservative, it is reasonable for facility planning because of the potentially severe disruptive consequences of inadequate facilities: brownouts, blackouts, damage to equipment, and other failures. State utility planners must be conservative in estimating risk because they cannot afford the alternative.

Just as bank planners should ensure the health of the financial system by maintaining sufficient collateral to meet worst-case liquidity risks, load forecasters must ensure the reliability of the electric system by maintaining adequate facilities to meet peak loads in worst-case weather conditions. While over-forecasting can have economic penalties due to excessive and/or unnecessary expenditures on infrastructure, the consequences of under-forecasting can be much more serious. Accordingly, the Council will base its analysis in this review on the ISO-NE 90/10 forecast.

As Eversource has reported in the past, there is one other major difference between the Eversource and ISO-NE forecasts, aside from the difference between the 50/50 forecast methodology used by Eversource and the 90/10 forecast methodology used by ISO-NE. The Eversource peak demand forecasts include explicit reductions for the Company's EE programs, solar resources and explicit large customer additions, while the ISO-NE demand forecasts do not include these adjustments; instead, ISO-NE considers EE and large scale solar to be supply resources in their capacity forecast. ISO-NE has developed a new PV forecast such that small scale solar is calculated and explicitly reduces the ISO-NE demand forecast. ISO-NE publishes the PV forecast annually as part of their load forecast documentation.

Table 2-2 shows Eversource's Reference Plan Forecast with savings from Eversource's EE programs, solar and large customer additions added back in to make it easier to compare Eversource's forecast with ISO-NE's forecast.

Table 2-2: Adjustments to Output and Summer Peak Forecasts

Net Electrical Energy Output Requirements	(GWH)	

	<u>Unadjusted</u>		Company Energy	<u>Large</u> <u>Customer</u>	Electric	Adjusted	Annual Change
<u>Year</u>	Output	Solar	Efficiency	Additions	Vehicles	Output	(%)
HISTOR	Y NORMALIZE	D FOR W	EATHER				
2019						21,047	
FOREC	<u>AST</u>						
2020	21,231	(47)	(29)	-	22	21,154	0.5%
2021	21,120	(91)	(45)	-	45	20,984	-0.8%
2022	20,939	(141)	(59)	-	69	20,740	-1.2%
2023	20,824	(177)	(71)	-	95	20,576	-0.8%
2024	20,687	(195)	(80)	-	124	20,412	-0.8%
2025	20,453	(213)	(83)	-	154	20,157	-1.3%
2026	20,312	(231)	(83)	-	187	19,998	-0.8%
2027	20,184	(249)	(83)	-	224	19,852	-0.7%
2028	20,124	(267)	(83)	-	265	19,774	-0.4%
2029	19,951	(285)	(83)	-	311	19,583	-1.0%
Normali	ized Compoun	d Rates of	f Growth (201	9-2029)			
	-0.5%					-O 70/-	

-0.5%

-0.7%

<u>Year</u>	<u>Unadjusted</u> <u>Peak</u>	<u>Solar</u>	Company Energy Efficiency	<u>Large</u> <u>Customer</u> <u>Additions</u>		Adjusted Peak	Annual Change (%)
HISTOR	RY NORMALIZE	D FOR W	EATHER				
2019						4,462	
FOREC.	<u>AST</u>						
2020	4,931	(21)	(53)	26	-	4,882	9.4%
2021	4,940	(25)	(61)	56	-	4,910	0.6%
2022	4,962	(30)	(61)	68	-	4,939	0.6%
2023	4,978	(32)	(61)	68	-	4,953	0.3%
2024	4,992	(32)	(61)	71	-	4,970	0.3%
2025	5,009	(32)	(61)	71	-	4,987	0.4%
2026	5,024	(32)	(61)	71	-	5,002	0.3%
2027	5,038	(32)	(61)	71	-	5,016	0.3%
2028	5,055	(32)	(61)	71	-	5,033	0.4%
2029	5,074	(32)	(61)	71	-	5,052	0.4%
Normali	ized Compoun	d Rates of	f Growth (201	9-2029)			

Extreme Hot Weather Scenario (MW)

		LYIIGI	ne not weath	ei oceilalio (il	/1 V V)		
		•	Company	Large	•		Annual
	<u>Unadjusted</u>		Energy	Customer		<u>Adjusted</u>	Change
<u>Year</u>	<u>Peak</u>	<u>Solar</u>	<u>Efficiency</u>	<u>Additions</u>		<u>Peak</u>	<u>(%)</u>
HISTOR	RY NORMALIZE	D FOR W	EATHER				
2019						4,462	
FOREC	<u>AST</u>						
2020	5,356	(21)	(53)	26	-	5,307	18.9%
2021	5,367	(25)	(61)	56	-	5,337	0.6%
2022	5,390	(30)	(61)	68	-	5,367	0.6%
2023	5,407	(32)	(61)	68	-	5,382	0.3%
2024	5,422	(32)	(61)	71	-	5,400	0.3%
2025	5,441	(32)	(61)	71	-	5,419	0.3%
2026	5,457	(32)	(61)	71	-	5,435	0.3%
2027	5,472	(32)	(61)	71	-	5,450	0.3%
2028	5,492	(32)	(61)	71	-	5,469	0.3%
2029	5,511	(32)	(61)	71	-	5,489	0.4%
Managa		d Datas at	C	0.2020\			

Normalized Compound Rates of Growth (2019-2029)

2.1%

1.3%

2.1%

1.2%

2.2 ISO-NE Wholesale Electric Markets

This section reports on the most recent ISO-NE forward capacity auction.

The fourteenth FCA took place on Monday, February 3, 2020. Virtually all the information about FCA 14 has been taken from the ISO-NE press release, which can be found at the following location:

https://www.iso-ne.com/static-assets/documents/2020/02/20200205_pr_fca14_initial_results.pdf

Holyoke, MA—February 5, 2020—New England's annual capacity auction for power system resources concluded Monday with sufficient resources to meet peak demand in 2023-2024, and preliminary results indicate the clearing price was the lowest in the auction's history. ISO New England Inc. runs the auction to procure the resources needed to meet consumer demand for electricity in three years.

The 14th Forward Capacity Market (FCM) primary auction (FCA #14) closed at a preliminary clearing price of \$2.00 per kilowatt-month (kW-month) across New England, compared to \$3.80/kW-month in last year's auction.

"New England's competitive wholesale electricity markets are producing record low prices, delivering unmistakable economic benefits for consumers in the six-state region," said Robert Ethier, vice president for system planning at ISO New England.

Resources totaling 42,219 megawatts (MW), including 34,905 MW of existing capacity and 516 new resources totaling 7,314 MW, qualified to participate in the FCM, while the regional capacity target for 2023-2024 is 32,490 MW.

The primary auction concluded with commitments from 33,956 MW to be available in 2023-2024, with 1,466 MW of surplus supply over the net installed capacity requirement. The auction rules allow the region to acquire more or less than the capacity target, providing flexibility to acquire additional capacity and enhanced reliability at a cost-effective price.

More than 600 MW of new resources within New England secured obligations during the primary auction. Of this total, approximately 317 MW received their obligations under the renewable technology resource (RTR) designation. The RTR designation allows a limited amount of renewable resources to participate in the auction without being subject to the minimum offer-price rule. Resources receiving an obligation under the exemption included land-based and offshore wind, solar photovoltaic (PV) systems, and solar PV systems paired with batteries. Approximately 19 MW remain under the exemption for next year's capacity auction, which will be the last to include the RTR exemption.

No capacity supply obligations were traded this year under auction rules that allow existing resources interested in retiring to trade their obligations with new state-sponsored resources that did not clear in the primary auction.

Prior to the auction, ISO New England retained two units, Mystic 8 and 9, needed for fuel security in the 2023-2024 capacity year.

Preliminary results of FCA #14:

• The primary auction cleared for all resources at \$2.00/kW-month after five rounds of competitive bidding. Resources within New England's four capacity zones, as well as

imports over all of the external ties closed at that price.

- Previous clearing prices (all per kilowatt-month): FCA #7 (2013), \$3.15 floor price, except \$14.99 for new resources in the former Northeast Massachusetts/Boston zone; FCA #8 (2014), \$15 for new and \$7.025 for existing resources; FCA #9 (2015), \$9.55 system-wide except SEMA/RI: \$17.73 new and \$11.08 existing; FCA #10 (2016), \$7.03; FCA #11 (2017), \$5.30; FCA #12 (2018), \$4.63; FCA #13, \$3.80.
- At the primary auction clearing price of \$2.00/kW-month, the total value of the capacity market in 2023-2024 will be approximately \$980 million (preliminary estimate).
- Capacity clearing the auction totaled 33,956 MW to meet the 32,490 MW net installed capacity target for 2023-2024:
 - o 28,978 MW of generation, including 335 MW of new in the primary auction
 - o 3,919 MW (including 323 MW new) of demand resources, including energy efficiency, load management, and distributed generation resources
 - o 1,059 MW of total imports from New York, Québec, Canada and New Brunswick, Canada
- Prior to FCA #14, 258 MW of resources submitted retirement bids, while an additional 21 MW of resources submitted permanent de-list bids to leave the capacity market; all of these bids were cleared before the auction.

Chapter 3: ENERGY EFFICIENCY

Chapter Highlights

- Energy savings resulting from Connecticut Energy Efficiency Fund programs are a costeffective resource available to Connecticut customers by reducing customer bills and helping to mitigate peak energy prices.
- Connecticut Energy Efficiency Fund programs are recognized nationally and provide economic development benefits to the State.
- The energy efficiency forecast includes a portion of 34 MW of energy savings from Incremental Energy Efficiency pursuant to CT Public Act 15-107 Section 1(b) that initiated in 2017. An Act Concerning Affordable and reliable Energy.

CL&P 2019 - 2021 Conservation and Load Management Plan

Energy efficiency is a cost-effective resource available to policymakers to address rising energy costs, reliability challenges, and greenhouse gas reduction. Efficiency and load response programs in Connecticut reduce the amount of energy homes, businesses and schools consume, helping to decrease demand for energy from power plants, reducing the harmful emissions those power plants produce, and reducing consumer energy bills in all sectors. Energy efficiency programs also provide economic development benefits for Connecticut and help mitigate winter peak energy prices resulting from natural gas pipeline constraint during winter high-use periods.

Connecticut is a nationally recognized leader in implementing high-quality energy-efficiency programs. Since 2000, the American Council for an Energy Efficiency Economy has ranked Connecticut as one of the top states for energy efficiency. In the ACEEE's 2019 State Energy Efficiency Scorecard, Connecticut ranked sixth in the nation. This ranking reflects the success of Connecticut's energy efficiency programs.

Eversource with guidance from the Energy Efficiency Board, maintain their C&LM programs' success through an evolving, integrated approach that reaches out to customers in their homes, at their jobs, in schools and in the community. Through seminars, workshops, teacher training, museum partnerships, trade and professional affiliations, retail partnerships and marketing, Eversource is helping to shape a more efficiency-minded consumer that not only participates in award-winning programs, but makes wiser energy choices every day.

In 2011, Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future Efficiency*, was passed which laid the groundwork for pursuing all cost-effective energy efficiency. In 2013, Public Act 13-298, *An Act Concerning Implementation of Connecticut's Comprehensive Strategy and Various Revision to the Energy Statutes*, provided the framework for increased conservation spending in Connecticut for electric and natural gas conservation programs. On December 22, 2015, DEEP approved the 2016 – 2018 Conservation and Load Management Plan ("Three Year Plan") submitted by the Connecticut electric and gas utility companies on October 1, 2015.⁴ The C&LM Plan was based upon input from members of the public, industry groups and private enterprise, and was developed in collaboration with the Energy Efficiency Board. The Plan included unprecedented levels of funding for both electric and natural gas energy efficiency programs based on Public Act 13-298.

Funding for C&LM programs currently comes from several sources. Since the passage of the state's restructuring legislation in 1999, a 3-mil electric charge has served as the primary funding source.5 Public Act 11-80 and the subsequent DEEP approval of the Plan provide an additional 3 mil Conservation Adjustment Mechanism charge for conservation. In addition, C&LM programs receive funding from other sources including the ISO-NE's Forward Capacity Market and from the RGGI.

On October 31, 2017, the state of Connecticut passed a budget for biennium ending June 30, 2019. This budget swept approximately \$117 million from the energy efficiency fund and \$20 million from the RGGI over the next two fiscal years into the state's General Fund. For Eversource, the reduced energy efficiency budgets will result in approximately a 17 percent reduction in funding for energy efficiency electric programs in 2017, a 33 percent reduction in 2018, and a 17 percent reduction in 2019, and commensurate reductions in savings during this timeframe.

On September 7, 2017 PURA approved Eversource's incremental energy efficiency bid pursuant to Docket No. 17-01-11, PURA Review of Public Act 15-107(B) Small- Scale Energy Resource Agreements (the "Decision"). This Decision authorized the procurement of 34 MW passive demand resources by incrementally scaling up participation in a subset of existing energy efficiency programs over a period of four years beginning on October 1, 2017. The net effect of this of incremental energy efficiency bid will largely mitigate the impact of the State of Connecticut energy efficiency budget sweep.

The annual energy savings forecast in Table 3-1 is based on a reduced C&LM funding commensurate with the Connecticut energy efficiency budget sweep and the additional energy efficiency due to Incremental Energy Efficiency bid pursuant to CT Public Act 15-107 1(b) as described above.

3.1 Ten-Year C&LM Forecast

Table 3-1 presents the potential cumulative annualized energy savings and summer and winter peak-load reductions forecasted for C&LM programs implemented in the CL&P service territory for the C&LM Plan budget. The forecast is based on anticipated savings from the 2020 Update to the 2019-2021 C&LM Plan. Forecasted savings beyond 2021 assumes similar programs, and savings as anticipated in 2021. However, savings in years 2021 and beyond reflect anticipated changes in energy efficiency budgets and production costs due to market transformation, stringent building code and federal standards.

3.2 Forecast Sensitivity

The C&LM programs utilize a complementary mix of lost opportunity, retrofit, and market transformation implementation strategies to achieve savings. The energy savings and peak-load reductions projected in this forecast are sensitive to changes in a number of factors including changes in the electricity marketplace and consumer attitudes. In particular, the impact of federal policy on lighting standards is unclear at this point and may impact future savings.

⁴ DEEP, Public Act 11-80 – Section 33 – 2016-2018 Conservation and Load Management Plan submitted by The Connecticut Light and Power Company, The United Illuminating Company, Yankee Gas Services Company, Connecticut Natural Gas Corporation, Southern Connecticut Gas Company.

⁵ Conn. Gen. Stat. § 16-245m

			Tabl	le 3-1							
CL&P C&LM Programs Annual Energy Savings											
and											
Peak Load Reduction by Customer Class											
Connecticut Light and Power											
2020-2029											
GWh Sales Saved											
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Residential	72	126	171	211	245	275	302	317	330	343	
Commercial	206	334	440	536	623	701	771	834	890	942	
Industrial	62	100	132	161	187	210	231	250	267	282	
Total	340	560	744	908	1,055	1,186	1,303	1,400	1,488	1,567	
M	W Reduc	ctions (P	assive F	Resourc	e Summ	er Impa	cts)				
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Residential	13	23	31	38	45	50	55	59	62	64	
Commercial (non-Load Response)	28	45	60	73	85	96	105	114	122	129	
Industrial (non-Load Response)	8	14	18	22	26	29	32	34	36	39	
Total	49	82	109	133	155	175	192	207	220	232	
N	IW Redu	ctions (Passive	Resour	ce Winte	er Impac	ts)				
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Residential	18	33	45	55	65	73	80	86	91	95	
Commercial (non-Load Response))	28	46	61	74	87	97	107	116	124	131	
Industrial (non-Load Response)	8	14	18	22	26	29	32	35	37	39	
Total	55	92	124	152	177	200	220	237	252	266	

Notes:

- 1) This table includes only passive resources. It does not include 72.2 MW of Active Demand Response that is planned during this period.
- 2) Total savings assumes that all measures will continue to provide savings for their measure lives throughout the forecast period.
- 3) The forecast includes 34MW of Summer Peak Savings from Incremental Energy Efficiency bid installed between 2017 and 2020.

Chapter 4: TRANSMISSION PLANNING AND SYSTEM NEEDS

4.1 Transmission is planned and built for the long term

Transmission systems enable varying amounts and sources of generation to serve load over a long term. The addition of significant amounts of remote renewable generating capacity or the retirement of local generation may increase the need to import or export power to or from Connecticut, and the transmission system may need to be expanded. Transmission system additions are proposed and built to accommodate the future, considering many scenarios.

4.2 Transmission Planning and National Reliability Standards

Eversource's transmission facilities are part of the New England regional grid and must be designed, operated and maintained to ensure compliance with mandatory NERC and NPCC, ISO-NE and Eversource reliability standards and criteria.

On December 20, 2012, the FERC issued a final ruling (FERC Order 773) approving revisions to NERC's "Bulk Electric System" definition. Key revisions to the approved definition removed language allowing for broad discretion across the reliability regions in North America and establish a "bright-line" threshold that includes all facilities operated at or above 100 kilovolts. The revised definition requires that more facilities be covered and be compliant with the NERC Transmission Planning Reliability Standards than under the previous definition. Periodic transmission planning assessments and studies have been expanded to adhere to this revised definition to comply with the NERC reliability standards.

On March 19, 2015 FERC approved Order 1000 that requires a transition in the way New England plans the transmission system. In May 2015, ISO New England implemented changes to the regional and interregional transmission planning process to comply with the directives in FERC Order No. 1000 which establishes new electric transmission planning and cost allocation requirements for public utility transmission providers. This will introduce competition into the development of regulated transmission solutions. It removes arrangements that protect the ROFR for incumbent transmission providers.

4.3 Transmission Planning Process

Within the ISO-NE regional planning process established for compliance with NERC and NPCC planning standards, ISO-NE performs reliability assessment studies of the New England transmission system. Individual sub-area studies ("Needs Assessments") are performed to identify system needs over a ten-year horizon. When a system reliability problem is identified from a needs assessment, ISO-NE first determines whether the system reliability problem exists under current conditions or is expected to develop within three years. If these criteria are met, ISO-NE and the TO develop one or more transmission system options (i.e., backstop transmission solutions) to resolve the transmission reliability needs and ensure that NERC and NPCC reliability standards are met. If the system reliability problem is not expected to materialize until more than three years from the completion of the Needs Assessment, ISO-NE would use its competitive transmission development process to solicit regulated transmission solutions from any qualified developer, including Eversource.

The transmission system solution options are then further evaluated to determine their feasibility of construction, potential for environmental impacts, estimated costs, longevity, operational differences, etc. When analysis of the options is complete, the ISO-NE recommends a proposed

transmission project to the Planning Advisory Committee. In parallel, market participants can develop and propose Non-Transmission Alternatives to resolve the identified needs.

These transmission studies, and the transmission solutions, are documented in a series of reports prepared by ISO-NE, and in aggregate, provide a basis for updating RSP as depicted in the sequence of the process below:

Transmission Planning Process Figure 1



4.4 Connecticut's Transmission System and Serving Load

Eversource plans, builds and operates transmission infrastructure with a goal of safely and reliably delivering power to its customers, under a wide variety of supply and demand conditions.

 Eversource is responsible to meet reliability standards mandated by the FERC and implemented by NERC. Penalties for non-compliance can be up to \$1.2 million per event per day, based on the severity of the violation.

4.5 Assessment of Transmission Needs in Connecticut's Sub-areas

Eversource divides its service territory into several areas as described below for the purpose of assessing the reliability of its transmission system. ISO-NE has identified reliability projects within those areas that are needed in Connecticut.

- The ISO-NE SWCT area is the largest load area within Connecticut which comprises fifty-four towns, including all Avangrid's service territory, Wallingford Electric and some of the CMEEC service territory. This area includes the towns essentially west of Interstate 91 and south of Interstate 84, and accounts for approximately half of the state's peak electric load demand. In July of 2014, the Southwest Connecticut 2022 Preferred Solution was presented to ISO-NE PAC. Eversource received ISO-NE approval for the SWCT preferred Solution in April of 2015 and is currently under construction and is scheduled to be completed by the end of 2020. In July 2018, ISO-NE completed a 2027 Needs Assessment. No Solution Study is required because the reliability criteria violations will be solved through an assessment condition replacement project.
- There also is a local reliability project proposed in the Norwalk Stamford subarea known as
 the Greenwich Substation and Line project to meet load serving needs. This project was
 approved by ISO-NE and has started construction. The project is scheduled for completion in
 2020.
- The Eastern Connecticut Area extends in a westerly direction for about twenty miles from the Rhode Island border and north from Long Island Sound to the Massachusetts border. The area is served by both Eversource and CMEEC. Eversource is currently reviewing the Eastern Connecticut solutions to address the needs identified in Eastern Connecticut. In May of 2018, ISO-NE completed a 2027 Needs Assessment that analyzed the performance of the sub- area. In March of 2019, ISO-NE announced a re-assessment of the Eastern Connecticut

Needs due to the reduction of load resulting from the 2018 and 2019 CELT Report load forecasts. The Eastern Connecticut 2029 Needs Assessment results were presented to ISO-NE PAC in September of 2019. A final Needs Assessment report was posted to the ISO-NE PAC in December of 2019. Eversource is currently finalizing the solution study with ISO-NE and CMEEC to address the criteria violations identified in the 2029 Needs Assessment.

- The Greater Hartford / Central Connecticut needs assessment was completed in February 2014, and a needs report was published in April 2014. The preferred solutions for the identified needs were presented to PAC in July 2014. The preferred solution consists of transmission improvements in each if the four subareas, and include elements that will perform a "double duty" of both meeting local load-serving needs and addressing the remaining need for increased Western Connecticut import capability. Eversource received ISO-NE approval for the GHCC preferred Solution in April of 2015 and the project is currently under construction and is scheduled to be completed by the end of 2020.
- The four GHCC subareas are:
 - The Manchester Barbour Hill Area includes towns north and south of Manchester.
 These include Glastonbury to the south and the Massachusetts border towns of Enfield, Suffield, and Somers to the north.
 - The Middletown Area consists of a five- to ten-mile-wide band east and west of the Connecticut River from Hebron to Old Lyme. The westerly section consists of the area included in a triangle that runs from Middletown to Old Saybrook and back to the eastern part of Meriden.
 - The Greater Hartford Area includes the towns in the vicinity of the Capitol city and stretches north to the Massachusetts border, west to the Farmington River, and south to the Route 691 interchange with the Berlin Turnpike. It straddles the Connecticut River in the heart of central Connecticut.
 - The Northwestern Connecticut Area is the portion of the state bounded north and west by the Massachusetts and New York state borders, easterly toward Route 8 and southerly to the SWCT region.
- Eversource Transmission Line Department is continuing to improve the reliability of the transmission system. Inspections have found indicated degradation of many overhead wood transmission structures. Replacing these structures over the next several years resolves multiple structural/hardware issues and supports a safe and reliable operation.

A list of all transmission projects and their components is listed by transmission line and substation in tables 4-1 and 4.2, below. Transmission line reinforcements and asset condition projects are identified by entries under the "from" and "to" station headings in Table 4.1. Station reinforcements are identified by single line entries under the "from" station heading in Table 4.2. The term "station" is interchangeable with substation or switching station. The tables include information on the project's proposed In-Service-Date.

Table 4-1: Eversource Proposed Transmission Line Projects in Connecticut

From Station	City or Town	To Station	City or Town	Voltage kV	ISD	Miles	Project Description	Status
Newington	Newington	Newington Tap	Newington	115	2020	0.01	(GHCC) – Reconductor Line Section	Under Construction
Newington	Newington	SW Hartford	Hartford	115	2020	4.0	(GHCC)- New Line & Series Reactor	Under Construction
West Brookfield	Brookfield	West Brookfield Jct.	Brookfield	115	2020	1.4	(SWCT) – Reconductor Line Section	Planned
South Meadow	Hartford	SW Hartford	Hartford	115	2020	N/A	(GHCC) - Install a series reactor	Under Construction
Northeast Simsbury	Simsbury	Canton	Canton	115	2020	N/A	Line Structure Replacements	Under Construction
Haddam	Haddam	Bokum	Old Saybrook	115	2020	N/A	Line Structure Replacements	Under Construction
Manchester	Manchester	South Windsor	South Windsor	115	2020	N/A	Line Structure Replacements	Under Construction
Manchester	Manchester	Rood Ave	Windsor	115	2020	N/A	Line Structure Replacements	Under Construction
Haddam	Haddam	Middletown	Middletown	115	2020	N/A	Line Structure Replacements	Under Construction
South Windsor	South Windsor	Barbour Hill	South Windsor	115	2020	N/A	Line Structure Replacements	Under Construction
North Bloomfield	Bloomfield	Farmington	Farmington	115	2020	N/A	Line Structure Replacements	Under Construction
Mystic	Stonington	Shunock	North Stonington	115	2020	N/A	Line Structure Replacements	Proposed
Berlin	Berlin	Westside	Middletown	115	2020	N/A	Line Structure Replacements	Under Construction
Haddam	Haddam	Pratt & Whitney	Middletown	115	2020	N/A	Line Structure Replacements	Under Construction
Long Mountain	New Milford	Eversource Border (CT/NY)	Kent	345	2020	N/A	Upgrade Line	Under Construction
Killingly	Killingly	Brooklyn Fry Brook Tunnel	Danielson Plainfield Preston	115	2020	N/A	Laminated Structure Replacements	Under Construction
Bean Hill (CMEEC)	Norwich	Tunnel	Preston	115	2020	N/A	Laminated Structure Replacements	Under Construction
Cos Cob	Greenwich	Greenwich	Greenwich	115	2020	2.4	New Line	Under Construction
Cos Cob	Greenwich	Greenwich	Greenwich	115	2020	2.4	New Line	Under Construction
Bunker Hill	Middlebury	Baldwin Tap	Middlebury	115	2020	3.0	Line Upgrade for generator (QP784)	Planned
Glenbrook	Stamford	Waterside	Stamford	115	2020	0.2	Reconductor Line Section	Planned
South End	Stamford	Tomac Tap	Greenwich	115	2020	0.2	Reconductor Line Section	Planned
Schwab Jct.	Wallingford	Colony	Wallingford	115	2020	1.3	Reconductor Line Section & Structure Replacements	Under Construction
Frost Bridge	Watertown	Long Mountain	New Milford	345	2020	N/A	Line Structure Replacements	Under Construction
Millstone	Waterford	Manchester	Manchester	345	2020	N/A	Line Structure Replacements	Under Construction

From Station	City or Town	To Station	City or Town	Voltage kV	ISD	Miles	Project Description	Status
Montville	Montville	Haddam Neck	Haddam	345	2020	N/A	Line Structure Replacements	Under Construction
Millstone	Waterford	Card	Lebanon	345	2020	N/A	Line Structure Replacements	Under Construction
Scovill Rock	Middletown	East Shore	New Haven	345	2020	N/A	Line Structure Replacements	Under Construction
Barbour Hill	South Windsor	Ludlow (MA)	Ludlow (MA)	345	2020	N/A	Line Structure Replacements	Under Construction
Sandy Hook	Newtown	Newtown	Newtown	115	2020	N/A	Line Structure Replacements	Proposed
Southington	Southington	Colony Hanover	Wallingford Meriden	115	2020	N/A	Line Structure Replacements	Proposed
Darien	Darien	Fitch St. (CMEEC)	Norwalk	115	2021	N/A	Line Relocation	Proposed
Sherwood	Westport	South Norwalk (CMEEC)	Norwalk	115	2021	N/A	Line Relocation	Proposed
Beseck	Wallingford	Southington	Southington	345	2021	N/A	Line Structure Replacements	Proposed
Card	Lebanon	Lake Road	Killingly	345	2021	N/A	Line Structure Replacements	Under Construction
Dooley	Middletown	West Side	Middletown	115	2022	N/A	Line Uprate for generator (QP647)	Proposed
Montville	Montville	Bean Hill	Norwich	115	2023	N/A	Line Structure Replacements	Proposed
North Bloomfield	Bloomfield	Northeast Simsbury	Simsbury	115	2023	N/A	Line Structure Replacements	Propose
Montville	Montville	Tunnel Card Lisbon	Preston Lebanon Norwich	115	2023	N/A	Line Structure Replacements	Proposed
Southington	Southington	Wallingford	Wallingford	115	2023	N/A	Line Structure Replacements	Proposed
Stevenson	Monroe	Sandy Hook	Newtown	115	2023	N/A	Line Structure Replacements	Proposed
Northeast Simsbury	Simsbury	Canton	Canton	115	2023	N/A	Line Structure Replacements	Proposed
Montville	Montville	Mystic Buddington	Stonington Groton	115	2023	N/A	Line Structure Replacements	Proposed
Montville	Montville	Buddington	Groton	115	2023	N/A	Line Structure Replacements	Proposed
Tunnel	Preston	Frybrook Brooklyn Killingly	Plainfield Danielson Killingly	115	2023	N/A	Line Structure Replacements	Proposed
Tunnel	Preston	Frybrook Exeter Killingly	Plainfield Sterling Killingly	115	2023	N/A	Line Structure Replacements	Proposed
Rocky River	New Milford	West Brookfield	Brookfield	115	2023	N/A	Line Structure Replacements	Proposed
Campville	Harwinton	Canton Franklin Drive	Canton Torrington	115	2023	N/A	Line Structure Replacements	Proposed
Northwest Hartford	Hartford	North Bloomfield Rood Avenue	Bloomfield Windsor	115	2023	N/A	Line Structure Replacements	Proposed
Bloomfield	Bloomfield	Northwest Hartford	Hartford	115	2023	N/A	Line Structure Replacements	Proposed
West Side	Middletown	Berlin	Berlin	115	2023	N/A	Line Structure Replacements	Proposed

From Station	City or Town	To Station	City or Town	Voltage kV	ISD	Miles	Project Description	Status
Dooley	Middletown	West Side	Middletown	115	2023	N/A	Line Structure	Proposed
							Replacements	
Southington	Southington	Todd	Wolcott	115	2023	N/A	Line Structure	Proposed
							Replacements	

Table 4-2: Eversource Proposed Substation Projects in Connecticut

Substation	City or Town	Voltage kV	ISD	Project Description	Status
Southwest Hartford	Hartford	115	2020	(GHCC) – Upgrade terminal equipment	Under Construction
Newington	Newington	115	2020	(GHCC) – Reconfigure substation	Under Construction
Scitico	Enfield	115/23	2020	Add a distribution transformer and a circuit breaker	Under Construction
Stepstone	Guilford	115/23	2020	Add a distribution transformer	Under Construction
North East Simsbury	Simsbury	115/23	2020	Add a distribution transformer	Under Construction
Scitico	Enfield	115	2020	Add two circuit breakers for generator	Under Construction
Greenwich	Greenwich	115/13.2	2020	Add a new substation	Under Construction
Rood Ave	Windsor	115/23	2020	Add a distribution transformer	Proposed
Plumtree	Bethel	115	2020	Oil Circuit Breaker Replacement Project	Under Construction
Franklin Drive	Torrington	115/13.2	2021	Replace both distribution transformer	Concept
Manchester	Manchester	345 and 115	2021	Manchester Control House Expansion	Proposed
Carmel Hill	Woodbury	115/23	2021	Add a distribution transformer	Concept
Sandy Hook	Newtown	115/23	2021	Add a distribution transformer	Concept
Falls Village	Canaan	69/13.2	2021	Replace transformer	Concept
Canterbury	Canterbury	115	2021	Add a new 3-breaker 115- kV Ring Bus switching station for generator (QP588)	Planned
Mansfield	Mansfield	115/23	2022	Add a distribution transformer	Concept
Beacon Falls	Beacon Falls	115	2022	Reconfigure substation to a ring bus	Planned
Middletown	Middletown	115	2022	Associated substation work for repower (QP647)	Proposed
West Brookfield	Brookfield	115/13.8	2023	Replace distribution transformers	Concept
Millstone	Waterford	345	2023	Insulator Replacements	Proposed
Bokum	Old Saybrook	115/27.6	2023	Replace Transformers	Concept
Southington	Southington	115/13.8	2023	Replace Transformer	Concept
Salisbury	Salisbury	69/13.2	2024	Replace Transformer	Concept
Skungamaug	Coventry	69/13.8	2024	Replace Transformer	Concept
Peaceable	Redding	115/13.8	2024	Replace Transformers	Concept

4.6 Incorporation of Renewables on the Eversource Transmission and Distribution System

DEEP, through a competitive RFP, secured offshore wind project that will provide approximately 19% of the state's electricity supply.

Deepwater Wind's Revolution Wind project is a joint venture offshore wind project by Eversource Energy and Ørsted. This project will be interconnected to a switching station in the state of Rhodes Island, and will provide approximately 5% of the electrical supply in the state of Connecticut.

Vineyard Wind's Park City Wind project is an 804 MW offshore wind project that was selected as part of the 2019 RFP. This project will make a landfall in Barnstable County, MA and is expected to provide approximately 14% of the electrical supply of the Connecticut.

In addition to these projects, there are two offshore wind projects that have submitted their interconnection request to ISO-NE. QP893/QP927 is a 1200 MW project that is proposing to interconnect to the coast of Eastern and or Central Connecticut. QP791/QP792 is an 805 MW project that is proposing to interconnect to the same locations in Connecticut. These projects combined, will provide approximately 35% of the electrical supply in the state of Connecticut.

These projects are in various level of regulatory approval process, contract negotiations, system impact studies, and have an expected or proposed in-service date of 2025.

Eversource will continue to monitor and incorporate these projects in the reliable planning of the electrical system in Connecticut.