

Connecticut Siting Council Ten Franklin Square New Britain, CT 06051 Internet: ct.gov/csc

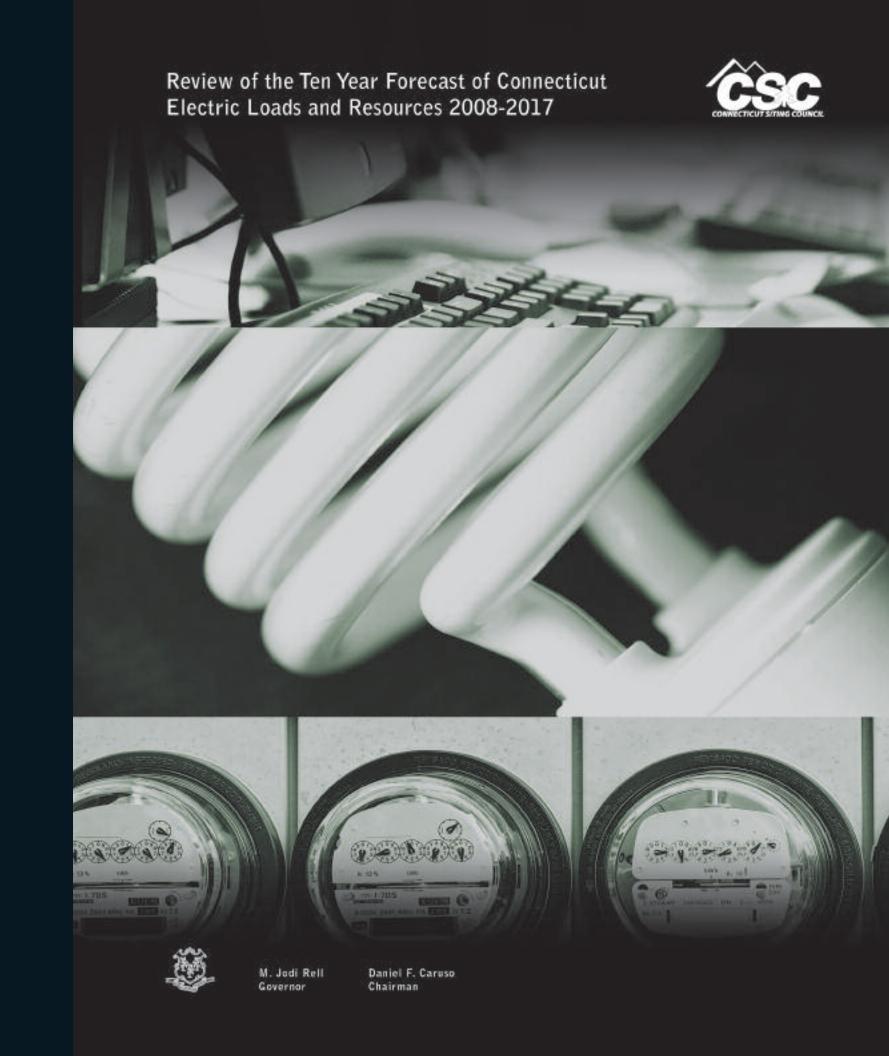








In keeping with the spirit of Governor Rell's Energy Vision, this report is printed with vegetable oil-based ink on Green Seal-certified paper that is manufactured with non-polluting, wind-generated energy. Please visit onethingct.com and help spread the word about Governor Rell's OneThing Energy Vision.



The Connecticut Siting Council (Council), formerly known as the Power Facility Evaluation Council, was established in 1971 to balance the need for adequate and reliable public services at the lowest reasonable cost to consumers while protecting the environment and the ecology of Connecticut. The Council is part of the executive branch of the State of Connecticut and derives its operating revenues from application fees and assessments charged to the applicants. The Council meets most often to review energy and telecommunications matters, typically every two to four weeks.

Pursuant to CGS § 16-50i, electric facilities subject to Council review include electric transmission lines of a design capacity of sixty-nine kilovolts or more, including associated equipment but not including a transmission line tap, as defined in subsection (e) of this section; any electric generating or storage facility using any fuel, including nuclear materials, including associated equipment for furnishing electricity but not including an emergency generating device, as defined in subsection (f) of this section or a facility (i) owned and operated by a private power producer, as defined in section 16-243b, (ii) which is a qualifying small power production facility or a qualifying cogeneration facility under the Public Utility Regulatory Policies Act of 1978, as amended, or a facility determined by the council to be primarily for a producer's own use, and (iii) which has, in the case of a facility utilizing renewable energy sources, a generating capacity of one megawatt of electricity or less and, in the case of a facility utilizing cogeneration technology, a generating capacity of twenty-five megawatts of electricity or less; and any electric substation or switchyard designed to change or regulate the voltage of electricity at sixty-nine kilovolts or more or to connect two or more electric circuits at such voltage, which substation or switchyard may have a substantial adverse environmental effect, as determined by the council established under section 16-50j, and other facilities which may have a substantial adverse environmental effect as the council may, by regulation, prescribe.

## **Table of Contents**

Introduction
Load and Load Forecasting
Peak Load Forecasting
Forecasting Energy Consumption
Conservation and Load Management
Electric Supply11
Megawatt (Resource) Balance
Existing Generation
Market Rules Affecting Electric Supply
Transmission System
Electric Transmission in Southwest Connecticut
NEEWS
Resource Planning
Conclusion

## **Connecticut Siting Council**

## Planned Substation and Switching Station Projects

## This map depicts the locations of planned substation and switching station projects.

Planned Substation and Switching Station Projects	Est. In-Service Date	Company	
landall dia anno 445/42 O la/Wildon Caladada in Wildon	2000	CLOD	
Install the new 115/13.8 kV Wilton Substation in Wilton	2008	CL&P	
Modify the existing 115 kV Norwalk Substation in Norwalk	2008	CL&P	
Modify the existing 115 kV Glenbrook Substation in Stamford Modify the existing 138/115 kV Norwalk Harbor Substation in No	2008 2008 orwalk	CL&P CL&P	
	2008 2008	CL&P	
Modify the existing 115 kV Flax Hill Substation in Norwalk Install the new 115 kV Oxford Substation in Oxford	2008	CL&P	
		CL&P	
Modify the existing 115 kV Cedar Heights Substation in Stamford Modify the existing 345/115 kV Barbour Hill Substation in South		CL&P	
Modify the existing 343/113 kV Enfield Substation in Enfield	2008	CL&P	
Install the new 115/13.8 kV Trumbull Substation in Trumbull	2008	UI	
Modify the existing 115 kV Cos Cob Substation in Greenwich	2009	CL&P	
Modify the existing 115 kV Devon Substation in Milford	2009	CL&P	
Install the new 345/115 kV East Devon Substation in Milford	2009	CL&P	
Modify the existing 345 kV Southington Substation in Southington		CL&P	
Modify the existing 115 kV Mystic Substation in Mystic	2009	CL&P	
Modify the existing 115 kV North Bloomfield Substation in Bloon		CL&P	
Modify the existing 345 kV Norwalk Substation in Norwalk	2009	CL&P	
Modify the existing 345 kV Beseck Switching Substation in Wallin		CL&P	
Modify the existing 345 kV Card Substation in Lebanon	2009	CL&P	
Modify the existing 345 KV Millstone Substation in Waterford	2009	CL&P	
Install the new 115 kV Stepstone Substation in Guilford	2009	CL&P	
Install the new 115 kV Rood Avenue Substation in Windsor	2009	CL&P	
Modify the existing 115 kV Glenbrook Substation in Stamford	2009	CL&P	
Modify the existing 345 kV Long Mountain Substation in New M		CL&P	
Install the new 345/115 kV Singer Substation in Bridgeport	2009	UI	
Install the new 115 kV Waterford Substation in Waterford	2010	CL&P	
Install the new 345 kV Kleen Substation in Middletown	2010	CL&P	
Modify the existing 115 kV Waterside Substation in Stamford	2010	CL&P	
Install a new 115 kV substation in Shelton	2010	UI	
Install a new 115 kV substation in New Haven I	2010	UI	
Install a new 115/27.6 kV Metro-North Substation	2010	UI	
Modify the existing 115 kV Scitico Substation in Enfield	2011	CL&P	
Rebuild the existing Grand Avenue 115 kV Switching Station	2012	UI	
Naugatuck Valley Reliability improvement Project (115 kV)	2012	UI	
Pequonnock Fault Duty Mitigation Project (115 kV)	2012		
Install a new 115 kV substation in Fairfield	2012	UI	
Install a new 115 kV substation in Orange	2013	UI	
Install a new 115 kV substation in Hamden	2014	UI	
Install a new 115 kV substation in North Branford	2014	UI	
Install a new 115 kV substation in New Haven II	2015	UI	
Modify the existing 115 kV Bunker Hill Substation in Waterbury	TBD	CL&P	
Modify the existing 345 kV Millstone Substation in Waterford	TBD	CL&P	
Modify the existing 345 kV Card Substation in Lebanon	TBD	CL&P	
Modify the existing 345 kV Lake Road Substation in Killingly	TBD	CL&P	
Modify the existing 345 kV Frost Bridge Substation in Watertown		CL&P	
Modify the existing 345 kV North Bloomfield Substation in Bloon		CL&P	100
Modify the existing 115 kV Glenbrook Substation in Stamford	TBD	CL&P	
Modify the existing 115 kV Torrington Terminal Substation in Torr		CL&P	N.
Modify the existing 115 kV Montville Substation in Montville	TBD	CL&P	- 1
Modify the existing 115 kV Peaceable Substation in Redding Modify the existing 115 kV Cedar Heights Substation in Stamford	TBD TBD	CL&P	
		CL&P	
Modify the existing 345 kV Manchester Substation in Mancheste Modify the existing 115 kV Waterside Substation in Stamford	r TBD TBD	CL&P CL&P	
Install the new 115 kV Westport Substation in Westport	TBD	CL&P	
install the new 113 kV Westport Substation in Westport	IBD	CLAP	

