



**2007
NPCC STATISTICAL
BROCHURE**

October 2007

INTRODUCTION

This pamphlet presents an “at a glance” summary of historical and projected seasonal peak-hour demand, annual net energy for load, capacity, transmission expansion and improvements, and other information for the Northeast Power Coordinating Council, Inc. (NPCC) and its five geographic areas. The intent is to summarize data that are useful to NPCC members and those interested in the organization. NPCC’s web site (www.npcc.org) and NERC’s “2007 Long-Term Reliability Assessment” (www.nerc.com/~filez/rasreports.html) provide additional detailed information beyond that which can be readily presented here. A list of NPCC members and other commonly used reference items is also included.

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Walter Cintron	Manager, Compliance Enforcement
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Maritza Feliciano	Executive Assistant
Daniel J. Grinkevich	Associate Engineer
James H. Hartwell	Manager, Operations Readiness
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Paul A. Roman	Manager, Operations Planning
Guy V. Zito	Assistant Vice President of Standards

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Chairman

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John Vasco — *Consolidated Edison Company of New York, Inc.*

ABOUT THE REGION

The Northeast Power Coordinating Council, Inc. (NPCC) is one of the eight regional reliability councils constituting the North American Electric Reliability Council (NERC). The total population served is approximately 56 million. The area covered is approximately 1 million square miles. From an electric load perspective, 20% of the Eastern Interconnection load is served within NPCC. For Canadian electricity requirements, 70% of Canadian load is located within the NPCC region.

NPCC contains five geographic areas consisting of the six New England states (Massachusetts, Connecticut, Rhode Island, Vermont, New Hampshire, and Maine), the state of New York, the Province of Ontario, the Province of Québec, and the Canadian Maritime Provinces of New Brunswick, Nova Scotia, and Prince Edward Island.

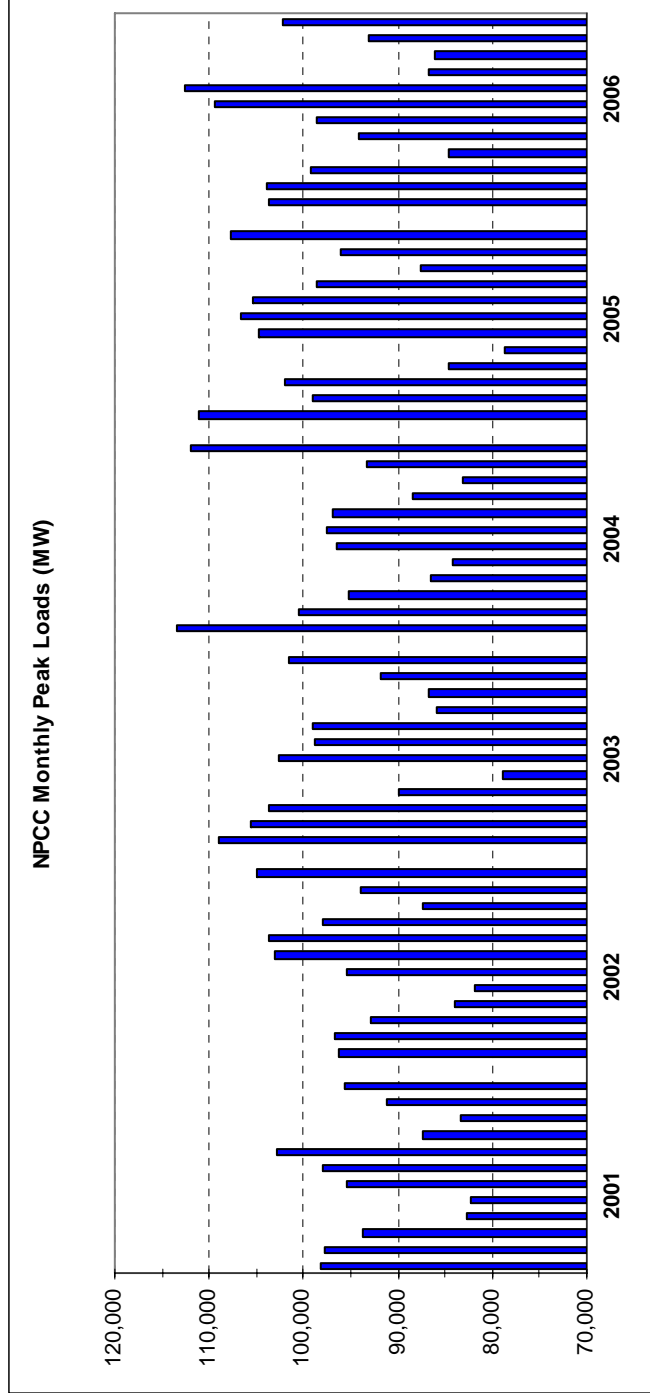
ABOUT NPCC

NPCC was originally formed as a voluntary, nonprofit regional electric reliability organization in January 1966 shortly following the Northeast Blackout of November 9, 1965. NPCC is one of eight Regional Reliability Organizations located in North America. In response to U.S. energy legislation (EPAct 2005 signed into law August, 2005) and in preparation for the certification of an Electric Reliability Organization (ERO) in 2006 and subsequent execution of a Regional Delegation Agreement (RDA) and Memorandums of Understanding (MOUs) with appropriate Canadian Provincial regulatory and governmental authorities, NPCC restructured. The Membership interests in NPCC were transferred to a regional reliability assurance not-for-profit corporation, NPCC Inc., and a separate and independent, affiliated, not-for-profit corporation, NPCC: Cross-Border Regional Entity, Inc. (NPCC CBRE). NPCC CBRE performed the functions delegated or contracted to it from the ERO.

In 2007, the Northeast Power Coordinating Council, Inc. developed a plan of merger to combine with its independent affiliate corporation; Northeast Power Coordinating Council: Cross-Border Regional Entity, Inc. On May 23, 2007 the respective Boards of Directors of NPCC CBRE and NPCC, Inc. unanimously approved and adopted the Agreement and Plan of Merger of NPCC CBRE with and into NPCC, Inc., with NPCC, Inc. surviving the merger and continuing in existence under the Not-for-Profit Corporation Law of the State of New York. Following respective membership approvals, the Supreme Court of the State of New York issued an order approving the plan of merger and in early July, the Certificate of Merger was filed with an August 1, 2007 effective date of merger.

The resultant Northeast Power Coordinating Council, Inc. (hereafter referred to as NPCC) provides the statutory functions and services for Northeastern North America of a cross-border regional entity through a regional entity division, as well as non-statutory criteria services for Northeastern North America through a criteria services division. This divisional separation allows for distinct funding with regard to activities determined to be statutory and in the furtherance of NERC's mission and for criteria services particular and essential to reliability in Northeastern North America.

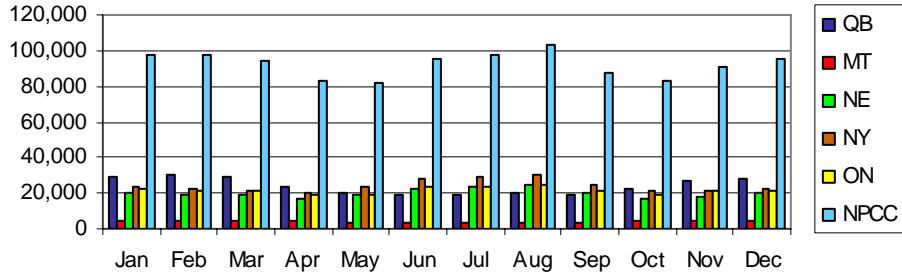
Source: NPCC Load, Capacity, Energy, Fuels and Transmission Report



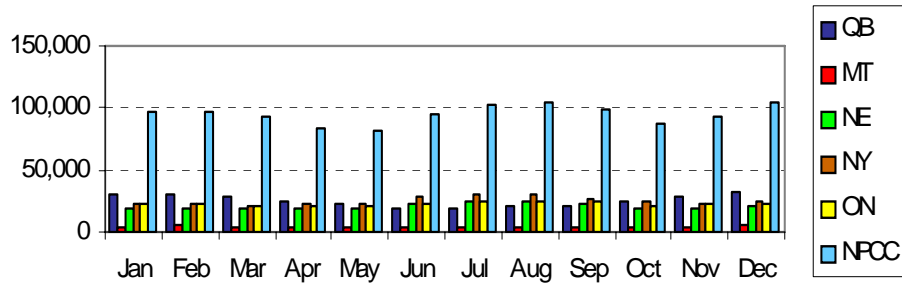
NPCC Monthly Peak Loads (2001- 2003)

Source: NPCC Load, Capacity, Energy, Fuels and Transmission Report

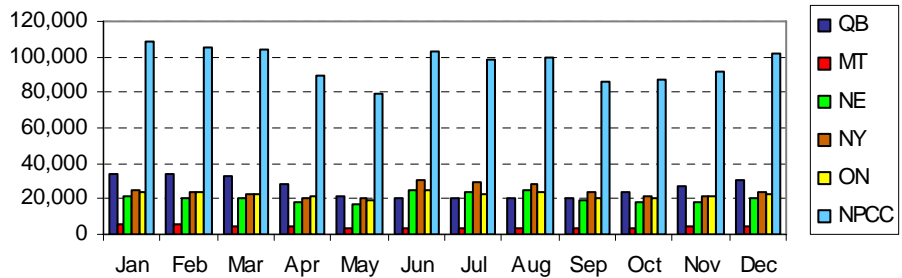
2001 Monthly Peaks Loads (MW)



2002 Monthly Peak Loads (MW)

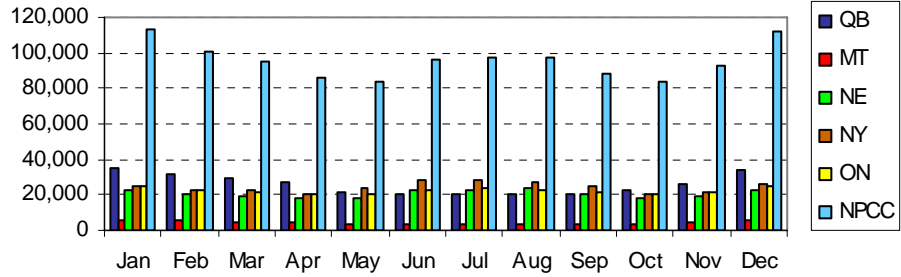


2003 Monthly Peak Loads (MW)

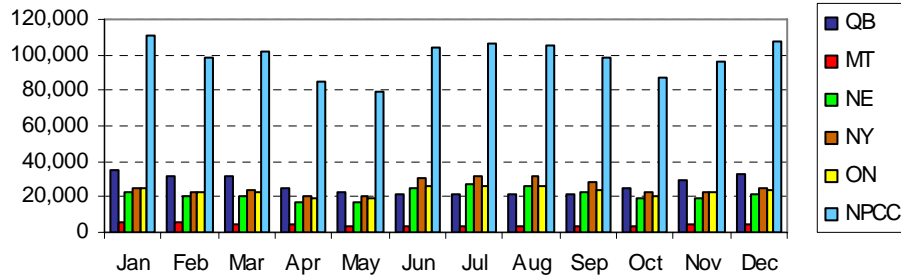


NPCC Monthly Peak Loads (2004 - 2006)
 Source: NPCC Load, Capacity, Energy, Fuels and Transmission Report

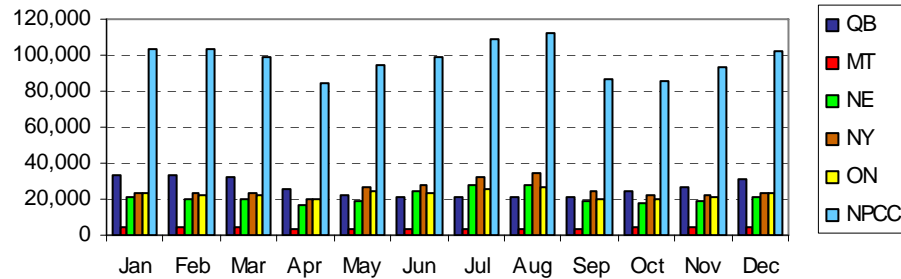
2004 Monthly Peak Loads (MW)



2005 Monthly Peak Loads (MW)

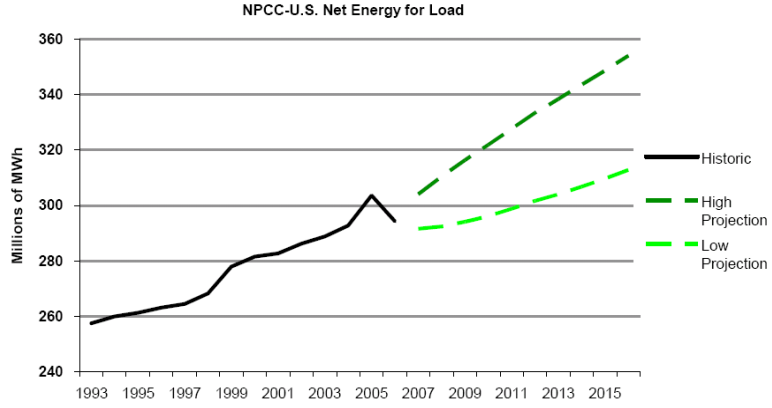


2006 Monthly Peak Loads (MW)



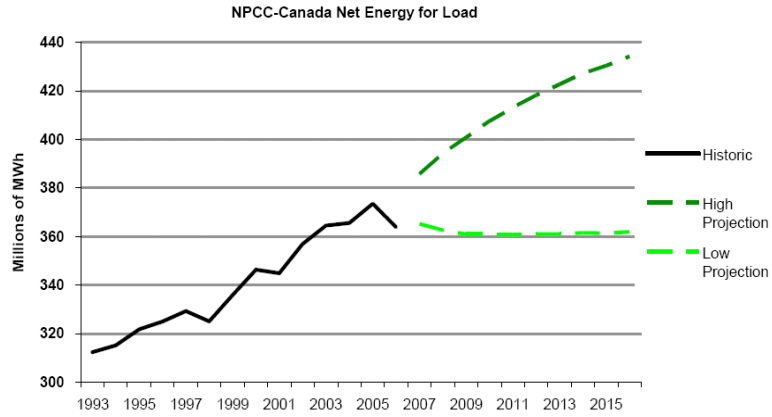
Actual / Projected Net Energy
(NPCC United States)

Source: NERC 2007 Long-Term Reliability Assessment



Actual / Projected Net Energy
(NPCC Canada)

Source: NERC 2007 Long-Term Reliability Assessment



Regional Self Assessment

Source: NPCC Reliability Assessment for Summer 2007

NPCC

Due to their geographic and electrical diversity, the reliability of NPCC is monitored through the assessment of the five NPCC areas: the Maritimes (the New Brunswick System Operator, Nova Scotia Power Inc., the Maritime Electric Company Ltd., and the Northern Maine Independent System Administrator, Inc), New England (the ISO New England Inc.), New York (the New York ISO), Ontario (the Independent Electricity System Operator) and Québec (Hydro-Québec TransÉnergie). Three of these areas are summer peaking in nature: New England, New York, and Ontario. The remaining two Canadian areas, the Maritimes, and Québec, are winter peaking systems.

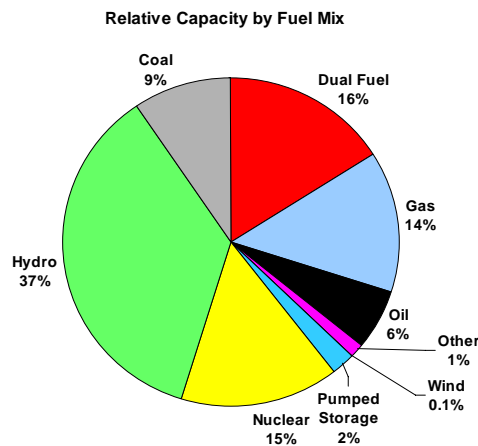
Demand

The non-coincident (sum of the individual Areas) forecast peak demand for NPCC for the summer of 2007 is 113,921 MW (May – September period). The forecast coincident peak demand for NPCC for the summer of 2007 of 111,299 MW is expected to occur during July. This forecast is 1,085 MW (-1.0%) lower than last year's actual coincident all-time NPCC peak demand of 112,384 MW recorded on August 1, 2006.

Ambient weather conditions are the single most important variable impacting the demand forecasts during the summer months. The Maritimes and Québec Provinces experience late spring demands that are influenced primarily by heating loads that occur during the defined summer time period.

NPCC Region Capacity by Type — Summer 2007

Source: NERC 2007 Summer Assessment



Regional Assessment Highlights

Source: *NERC 2007 Long-Term Reliability Assessment*

New England

ISO-NE anticipates it will meet the NPCC resource adequacy criterion of one day- in-ten-years loss-of-load expectation through 2008, assuming forecasted loads and capacity materialize and 2,000 MW of tie reliability benefits are available. Based on multi-area tie reliability benefits studies, this amount was determined to be made up of 600 MW from New York, 1,200 MW from Hydro-Québec, and 200 MW from New Brunswick. Existing transfer capability study results indicate that sufficient transfer capability is in place with surrounding areas to receive this assistance when needed. New capacity will be needed beyond 2008 in order to meet the reliability criterion. To meet NPCC criteria, and assuming 2,000 MW of tie reliability benefits are available from neighboring control areas, approximately 170 MW are needed in 2009, increasing annually and requiring a total of 4,300 MW by the winter of 2015/2016. ISO-NE expects to purchase these resources in its Forward Capacity Auction.

New York

The NYISO conducts an annual Reliability Needs Assessment (RNA) that examines both resource and transmission needs over a ten year period. Resources totaling approximately 930 MW as well as transmission upgrades that are under construction or otherwise have met the screening criteria are included in the base case. This assessment determined that sufficient statewide resources are available to meet NPCC LOLE criteria through the year 2010. For 2011, the assessment indicates that resources would be sufficient if 250 MW were added to New York City (NYC) or 500 MW were added in the Lower Hudson Valley or if transfer limits into NYC were increased. Beyond 2011, additional resources of between 1,750 MW and 2,000 MW would be needed to meet the criteria through 2016. A majority of those resources are needed in the NYC zone.

Subsequent to the Reliability Needs Assessment, the NYISO solicits solutions to address the needs identified in the RNA. Sufficient market solutions as well as updated transmission owner's plans have been proposed to more than meet the needs through 2016. If sufficient market solutions are not proposed, the responsible transmission owners are obligated under the NYISO reliability planning process to implement regulatory backstops and/or gap solutions to meet any potential reliability shortfalls.

Regional Assessment Highlights

Source: NERC 2007 Long-Term Reliability Assessment

Ontario

Under median demand growth assumptions, resources that are currently available within Ontario together with the forecast new generation and economic imports are sufficient to meet the NPCC regional resource adequacy criterion, from 2007 to 2016. The planned shut down of Ontario's coal-fired generating stations is being managed by the OPA and the IESO. In 2006, generation from coal-fired facilities was down three percent from the previous year. As new facilities come into service and conservation and demand management program activities progress, reliance on coal to meet demand in Ontario can continue to decline, and ultimately lead to shut down as soon as reliability criteria allow.

The IESO target is an available reserve margin of about 16 percent above the summer peak demand based on monthly normalized weather impacts. Resources available within Ontario are generally expected to be adequate, but deficiencies could arise as a result of higher than forecast generator outages, prolonged extreme weather conditions and other influencing factors. Available imports, to supplement internal generation, are expected to be sufficient to meet the Ontario demand under these circumstances.

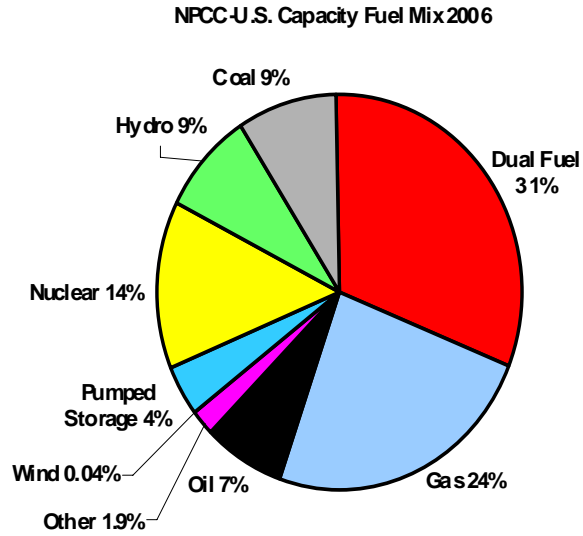
Quebec

In NPCC's 2006 *Québec Area Interim Review of Resource Adequacy*, Québec demonstrated that the installed reserve margin requirement, expressed as a percentage of the peak load, needs to be slightly above 10 percent to comply with the NPCC adequacy criterion. In this long term assessment, the planned reserves are close to 14 percent except for the period of time during which the Gentilly 2 nuclear unit will be out of service for refurbishment. The installed reserve margin percentage will be between 12 percent and 13 percent during the Gentilly outage. In the case of a high load forecast scenario, Québec still meets the NPCC resource adequacy criterion (LOLE less than 0.1 day per year).

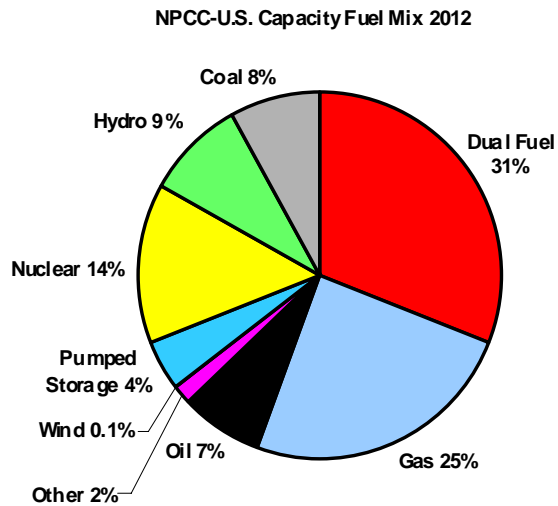
Maritimes

A 20 percent reserve criterion is required for the Maritimes to meet the NPCC resource adequacy criterion that the loss of load expectation shall be no more than 0.1 days per year. The 20 percent regional reserve requirement in the Maritimes Area also accommodates load forecast uncertainty (i.e. higher peak demands) and instances of resource unavailability. Over the assessment period the Maritimes Area will be below the 20 percent margin by 451 MW in 2008/09 due to the planned 18-month refurbishment of the 635 MW Point Lepreau nuclear generation station, scheduled from April of 2008 to October of 2009. Plans for replacement capacity through purchases to accommodate this refurbishment are still being evaluated by New Brunswick Power. Following the refurbishment of Pt. Lepreau, the Maritimes will meet the criterion except for a slight deficiency of 45 MW in the winter of 2014/15. In 2015/16, the criterion is met with the planned addition of 400 MW of conventional generation in Nova Scotia.

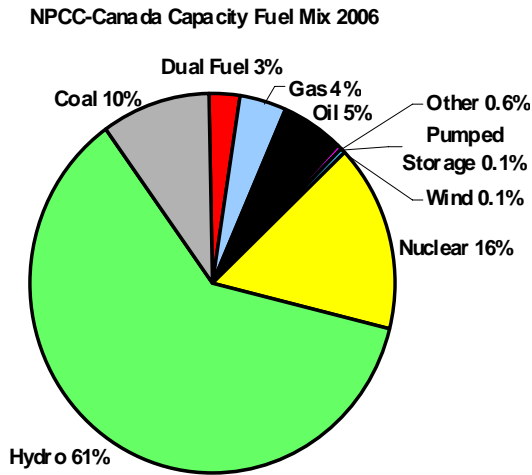
NPCC US Capacity Fuel Mix — Summer 2006
Source: NERC 2007 Long-Term Reliability Assessment



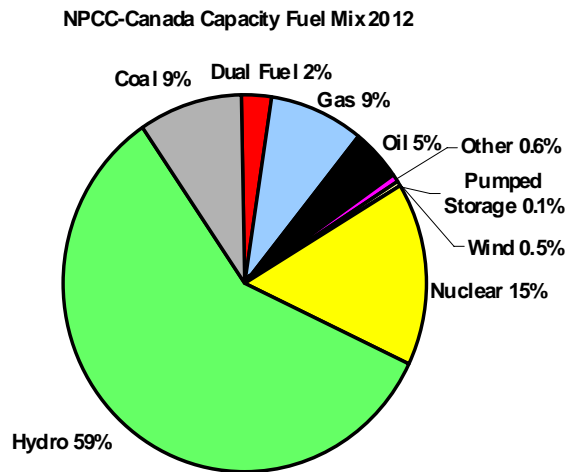
NPCC US Projected Capacity Fuel Mix — Summer 2012
Source: NERC 2007 Long-Term Reliability Assessment

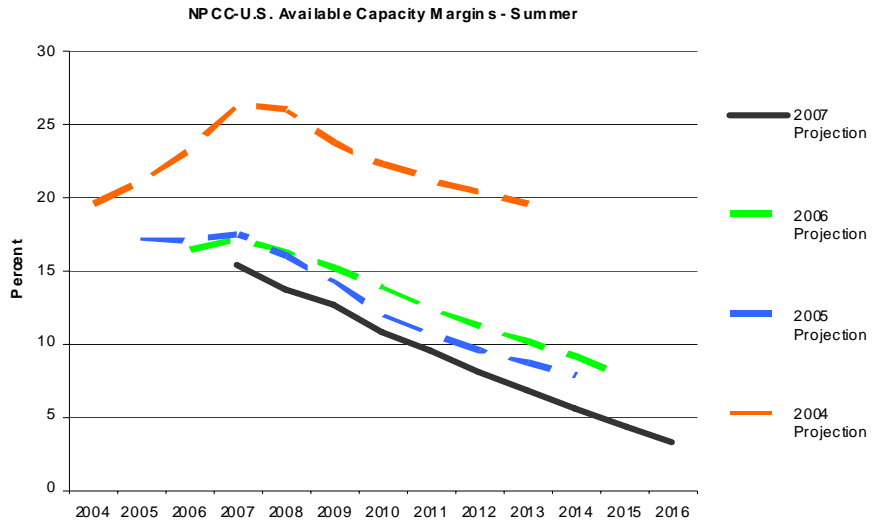


NPCC Canada Capacity Fuel Mix — Summer 2006
Source: NERC 2007 Long-Term Reliability Assessment

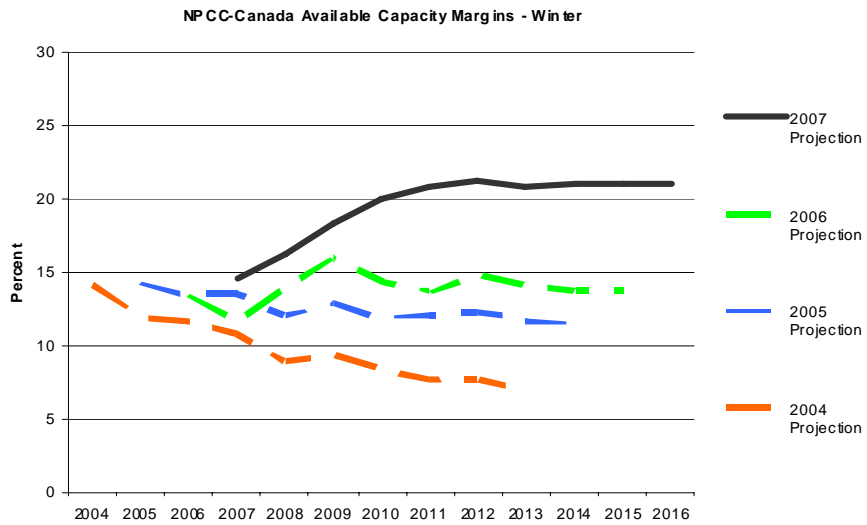


NPCC Canada Projected Capacity Fuel Mix — Summer 2012
Source: NERC 2007 Long-Term Reliability Assessment

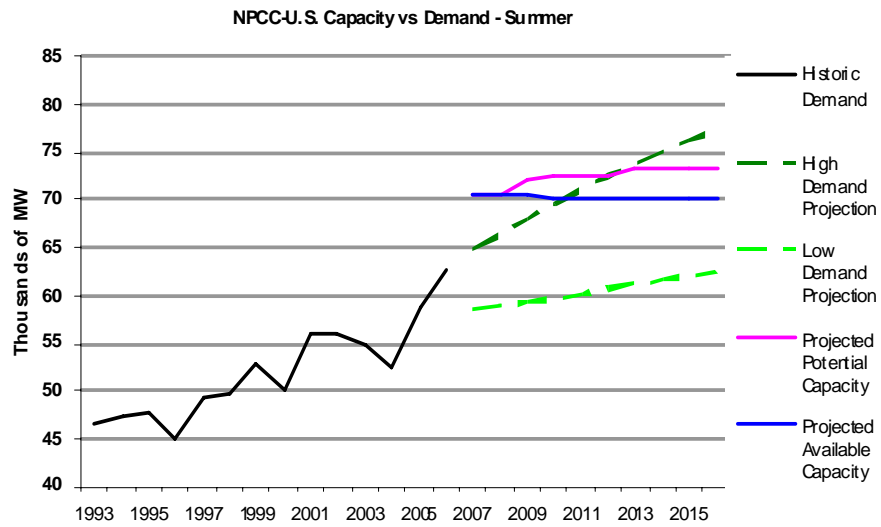




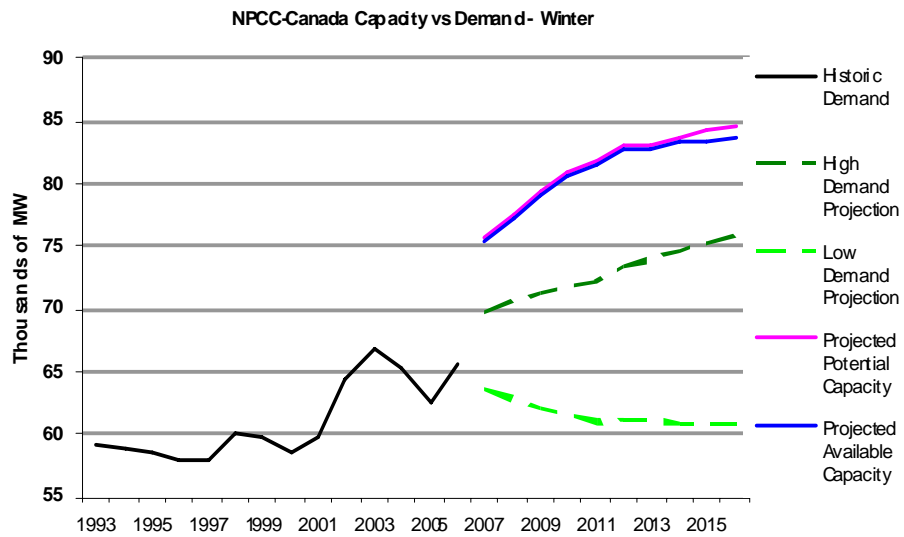
Source: NERC 2007 Long-Term Reliability Assessment



Source: NERC 2007 Long-Term Reliability Assessment



Source: NERC 2007 Long-Term Reliability Assessment



Source: NERC 2007 Long-Term Reliability Assessment

NPCC Area Transmission Expansion Summary
Source: NERC 2007 Long-Term Reliability Assessment

Maritimes

The second 345 kV interconnection between New Brunswick and New England is scheduled to be in-service by December of 2007. This new line, the only new transmission line at 230 kV or above in the baseline plan for the Maritimes Area, will connect Point Lepreau, New Brunswick, to Orrington, Maine. As a result of this project the maximum transfer capability from New Brunswick to New England will increase from 700 MW to 1000 MW, and the firm transfer capability from New England to New Brunswick will increase from 100 MW to 400 MW. This second intertie also significantly improves the reliability of the Maritimes system, since loss of either of the two interconnections to New England will no longer result in the separation of the Maritimes from the interconnected New England power system.

New England

The New England region has 253 transmission projects in various stages of planning, construction, and implementation. Over 50 of these 253 projects are part of six major projects that have significant reliability impacts on the region:

Northeast Reliability Interconnect Project— a second 345 kV interconnection between New Brunswick and New England scheduled to be in-service by December 2007.

Northwest Vermont Reliability Project—includes a new 345-kV line within the state, the addition of new devices to provide reactive support throughout the state, and an additional phase angle regulator to help control flows. While some smaller portions of this project remain under construction, the new 345 kV line was placed in service in January of 2007.

Maine-New Hampshire— a number of projects are under way to address local reliability needs that will also impact the capability of this interface. These projects are in various stages of development and approval.

Southwest Connecticut Reliability Project—two large 345-kV installations to build a 345-kV loop through the area were planned to meet the growing load demand in the area. The first portion of this installation was placed in service in October 2006, and the second piece is expected prior to the end of 2009. These two projects should remove the generation interdependencies internal to the area, and will also increase the import capability into the area. In addition to the two 345-kV projects, a smaller 115-kV project extends new circuits from one of the new 345-kV substations to the load centers in the farthest corner of the area. This 115-kV project is scheduled to be in service in 2008.

New England East-West Solution - The CT system is limited in its ability to transfer power into the state to serve its own load. As currently being evaluated, a new 345-kV line across the East-West interface into eastern CT and the creation of a new 345-kV tie from the western portion of CT to western MA should provide significant increases in both CT import and East-West transfer capability.

NSTAR 345-kV Transmission Project -adds three new 345-kV cables into downtown Boston. The first stage of this project added two of the three cables. The first stage increased Boston-import capability by approximately 1,000 MW. The second stage is currently scheduled to be in-service in 2008.

New York

Based on the present load forecast, planned transmission facilities, and projected generation resources, including proposed generation additions and associated transmission upgrades, the New York bulk power transmission system is judged to be adequate through 2016. Significant transmission projects currently being proposed include the following:

Area	Project Name	In-Service	
		Status	Date
PJM-NY	Atlantic Energy Project Neptune – 660/750 MW monopole DC from PJM to Newbridge Rd. LI	C	2007
PJM-NY	East Coast Power – 300 MW Linden VFT Inter-Tie	S	2008
NE/NY	Replace Norwalk Harbor - Northport cable	S	2008
NY	RG&E Upgrades - 4th Station 80 345/115 kV Transformer and Other Upgrades	S	2008
NY	Mott Haven 345 kV Substation	S	2007
NY	Sprainbrook-Sherman Creek 345 kV	S	2009

Status:

S – Study is underway or complete
C – Under construction

Ontario

During the last year, deratings on the 500/230 kV, 750 MVA autotransformers at Trafalgar TS were removed and the Great Lakes Power transmission reinforcement was completed. Imports from New York continued to be limited at times by transmission constraints internal to Ontario during the summer of 2006. These limitations are anticipated to continue in 2007 until the completion of the new 230 kV double circuit line between Allanburg TS and Middleport TS. New York transfers into Ontario should see a net increase in transfer capability of about 350 MW.

Hydro One and Hydro-Québec TransÉnergie are building a 1,250 MW interconnection between Hawthorne TS in Ontario and Outaouais station in Québec consisting of a double circuit 230 kV line and back-to-back high-voltage direct-current (HVDC) converters, scheduled to be in service in 2009.

Over the next decade, the need for transmission enhancements is particularly evident in 1) southwestern Ontario to deliver additional nuclear and wind supply from the Bruce Area; 2) the northeast and northwest to enable the planned expansion of hydroelectric and wind capability and to reinforce the connection of these areas to the load center in southern Ontario; and, 3) the Toronto region in order to meet capacity needs of fast growing areas in the Greater Toronto Area.

Québec

Due to the possible retirement of the Monroe HVDC converter (existing Des Cantons – Monroe HVDC interconnection), Hydro-Québec TransÉnergie is evaluating the feasibility of operation of the Des Cantons converter with the Sandy Pond converter. Also, to increase the exchange capability between the Québec and the Ontario system, a new interconnection of 1,250 MW is planned to be in service in 2009 with reinforcement planned in 2010 by a new 315 kV double circuit line in the Outaouais subsystem.

During the next ten years, about 550 miles of new lines will be added on the Hydro-Québec TransÉnergie grid. The major projects in this planning horizon are: 1) new transmission lines and local equipment enhancements to integrate additional generation provided by hydroelectric projects to the main grid; and 2) changes and new transmission lines on the Gaspesia subsystem made to integrate ~1,500 MW of new wind generation.

NPCC Membership

Sector 1: Transmission Owners

Central Hudson Gas & Electric Corporation
Central Maine Power Company
Consolidated Edison Company of New York, Inc.
Hydro One Inc.
Hydro-Québec TransÉnergie
Long Island Power Authority
National Grid USA
New Brunswick Power Transmission Corporation
New York Power Authority
New York State Electric & Gas Corporation
Northeast Utilities
Nova Scotia Power Inc.
Rochester Gas & Electric Corporation
The United Illuminating Company
Vermont Transco

Sector 2: Reliability Coordinators

Hydro-Québec TransÉnergie
Independent Electricity System Operator (Ontario)
ISO New England, Inc.
New Brunswick System Operator
New York Independent System Operator

Sector 3: TDUs, Distribution and LSEs

Braintree Electric Light Department
Consolidated Edison Company of New York, Inc.
Consolidated Edison Energy/Development
Hydro One, Inc.
Hydro-Québec Distribution
Long Island Power Authority
National Grid USA
New York Power Authority

Sector 4: Generator Owners

Consolidated Edison Company of New York, Inc.
Consolidated Edison Energy/Development, Inc.

NPCC Membership

Sector 4: Generator Owners (continued)

Dynegy, Inc.
Entergy Nuclear Northeast, Inc.
Exelon Generation Company. LLC
Exeter Energy Limited Partnership
FPL Energy, LLC
Hydro-Québec Production
International Power America
Long Island Power Authority
New York Power Authority
Nova Scotia Power, Inc.
Ontario Power Generation, Inc.
US Power Generating Company, LLC

Sector 5: Marketers, Brokers, Aggregators

Consolidated Edison Company of New York, Inc.
Consolidated Edison Energy/Development, Inc.
Constellation Energy Commodities Group, Inc.
Long Island Power Authority
New York Power Authority
PPL EnergyPlus, LLC

Sector 6: Customers

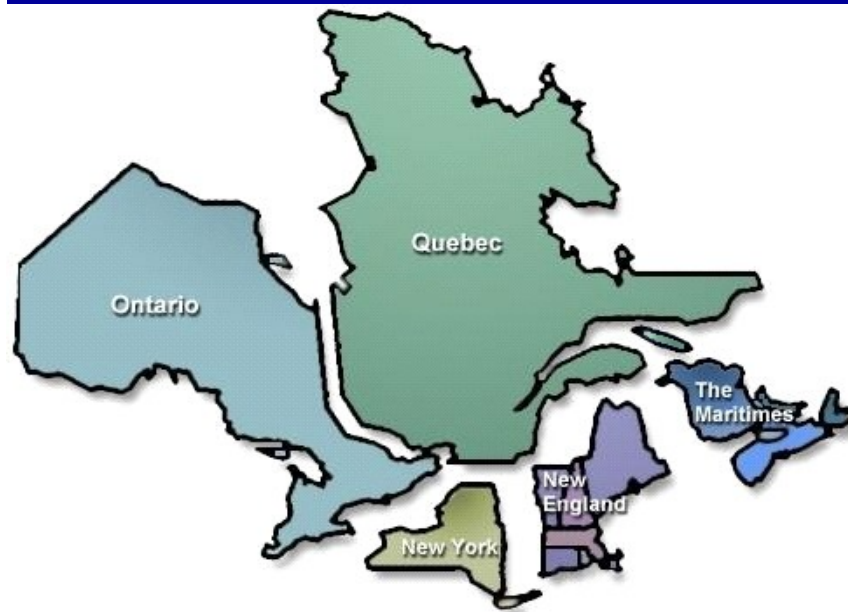
Wood Group Power Operations, Inc.

Sector 7: State and Provincial Regulators & Governmental Authorities

Massachusetts Department of Public Utilities
Long Island Power Authority
Maine Public Utilities Commission
New Hampshire Public Utilities Commission
New York Power Authority
New York State Department of Public Service
Vermont Department of Public Service

Sector 8: Sub Regional Reliability Councils, REs and Others

New York State Reliability Council, LLC



Northeast Power Coordinating Council, Inc.

1515 Broadway 43rd Floor
New York, New York 10036

(212) 840-1070
www.npcc.org