Regional System Plan Transmission Projects
July 2007 – October 2007 Update

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Note: See Slide 8 for graph of investment in transmission projects under the Regional System Plan (RSP)

Highlights

Summary of Changes of Reliability Projects
July 2007 versus October 2007 Update

New Projects (total projects now in the Plan = 354)	0
Cancelled Projects	2
Projects Advancing to 'Planned' Status (Review of Market Participant's Proposed Plans (I.3.9) - Approved)	8
Projects Commencing Construction	9
Projects Placed In Service	7
System Plan Cost Estimate Change from July 2007 Update (RSP07 total estimate: $5.4 billion)	+ $11 million

October 2007 Changes

Cost Estimate Comparisons of Reliability Projects
July 2007 vs. October 2007 Update (1)

	As of July 2007 Plan Update (in millions $)	As of October 2007 Plan Update (in millions $)	Change in Plan Estimate (in millions $)
MAJOR 345 kV PROJECTS			
Northwest Vermont Reliability Project	210.1	210.1	0
Southwest Connecticut Reliability Project (Phase I)	343.2 (2)	343.2 (2)	0
Southwest Connecticut Reliability Project (Phase II)	1384	1385	1
NSTAR 345 kV Transmission Reliability Project	283.1	283.1	0
Northeast Reliability Interconnect Project	144.0	144.0	0
New England East - West Solution (NEEWS)	272.7 (3)	272.7 (3)	0
Greater Rhode Island Transmission Reinforcements	182	182	0
Springfield Area	TBD	TBD	0
Merrimack Valley / North Shore Reliability Project	152	152	0
Vermont Southern Loop Project	200	200	0
SUBTOTAL	**3171**	**3172**	**1**
OTHER PROJECTS	2181	2172	-9
NEW PROJECTS		0	0
TO BE DETERMINED (TBD) PROJECTS WITH COST ESTIMATES		19	19
TOTAL	**5352**	**5363**	**11**
minus 'in-service'	-974	-978	
(Aggregate estimate of active projects in the Plan.)	**4378**	**4385**	

(1) All costs provided by Transmission Owners

(2) Includes $117.4 million of Localized Costs

(3) Reported costs for the Rhode Island portion of NEEWS

October 2007 Changes, *Con't.*

Make-up of Cost Estimate Change of Reliability Projects July 2007 vs. October 2007 Update (1)

Project	October 2007 ($ millions)	Change ($ millions)	Cause of Change
Short Term Lower SEMA(2) Upgrades	49.3	16	Revised estimate includes cost associated with Dynamic Var Device
Other (aggregate) (sixteen projects)	157.2	-5	Various (i.e. cancelled, new/updated estimates)
		+ $11	

(1) All costs provided by Transmission Owners

(2) SEMA – Southeastern Massachusetts

October 2007 Changes, *Con't.*

Seven Projects Placed In-Service and Corresponding Needs

Transmission System Upgrades	Cost (in millions)	Improvement/Need
Retension Bellows Falls to Ascutney Tap (W-149S) 115 kV line (New Hampshire)	0.1	Increase thermal capability of the line
Hudson Substation – rebuild station to breaker and a half configuration (New Hampshire) – part of Scobie Pond-Hudson Reinforcement Project	*(1)	Improve post-contingency voltage and thermal performance in the area
Upgrade Kingston Street to Kingston Network (385-510/511) 115 kV lines (Boston) – Boston Area 115 kV Enhancements	0.5	Increase thermal capability of the line
Mystic Substation – upgrade three 115 kV circuit breakers to Independent Pole Tripping (Boston)	0.7	Improve system stability performance in the area
Kent County Substation – relay upgrades (Rhode Island) – part of Southwest Rhode Island (SWRI) Reliability Project	0.4	Protection upgrades needed for SWRI transmission upgrades

(1) Cost is reflected in the Scobie Pond – Hudson Reinforcement Project cost estimate of $30.1 million

October 2007 Changes, *Con't.*

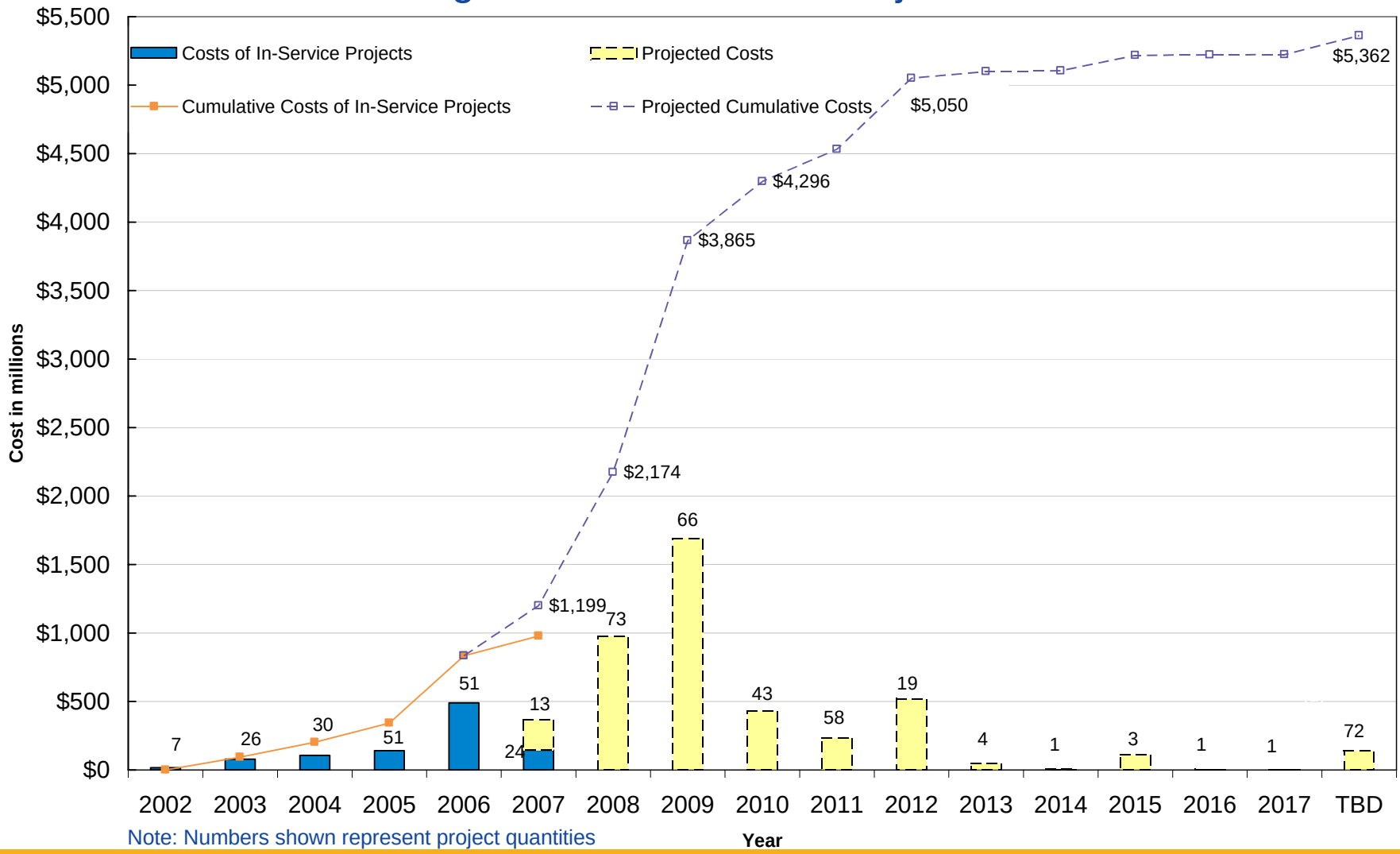
Seven Projects Placed In-Service and Corresponding Needs

Transmission System Upgrades (Con't)	Cost (in millions)	Improvement/Need
Mashpee Substation – add 115 kV 37.5 MVAR[1] capacitor bank (Southeastern Massachusetts)	1.0	Improve voltage control in the Cape Cod area
Wing Lane Substation – add 115 kV 37.5 MVAR capacitor bank (Southeastern Massachusetts)	1.2	Improve voltage control in the New Bedford area

(1) MVAR – megavolt-ampere-reactive

October 2007 Changes, *Con't.*

Investment of New England Transmission Projects



Note: Numbers shown represent project quantities

Status of Major Transmission Projects

Northeast Reliability Interconnect Project

- I.3.9 Approval – March 2003
- Transmission Cost Allocation (TCA) Approval – Reliability Committee (RC) recommended approval of revised TCA application on July 10, 2007 for additional $34.1M. **ISO Determination Letter issued September 28, 2007**
- Siting approved for Canadian section of line
- Maine Public Utilities Commission (PUC) Siting approval – July 2005
- Maine Department of Environmental Protection (DEP) Permit received October 2005
- Department of Energy (DOE) Presidential Permit approved and received in December 2005
- Army Corps of Engineers Clean Water Act Permit received January 2006
- Right-Of-Way complete. Line construction over 90% complete
- Orrington Substation work 90% complete. Series capacitor 97% complete
- Completion of work on Canadian section of the line on target
- Estimated in-service date – December 2007

Status of Major Transmission Projects, *Con't.*

Northwest Vermont Reliability Project

- I.3.9 Approval – January 2003
- TCA Approval – Vermont Electric Power Company to develop amended TCA application expected Spring 2008
- Vermont Supreme Court upholds Vermont Public Service Board's (VT PSB) approval of project
- Blissville Substation 115 kV Phase Angle Regulator (PAR) placed in-service December 2006
- West Rutland – New Haven 345 kV line placed in-service January 2007
- First Granite autotransformer received May 2007.
- Second Granite autotransformer expected September 2007. Two PARs expected in early fall 2007
- Permits for Vergennes and Queen City 115 kV substations received and construction has begun
- VT PSB approved New Haven – Queen City 115 kV final line design and landscape plans on June 25, 2007
- Estimated in-service date – December 2008 (for remainder of project)

Status of Major Transmission Projects, *Con't.*

NSTAR 345 kV Transmission Reliability Project

- I.3.9 Approval – February 2005
- TCA Approval – RC recommended approval of revised TCA application on May 30, 2007 for additional $57.5M due to increases in labor and materials associated with Stage 1. ISO Determination Letter expected **October 2007**
- Energy Facilities Siting Board (EFSB) and Massachusetts Department of Telecommunications and Energy (MA DTE) approval received on December 23, 2004
- Pipe installation complete
- Substation equipment installation completed
- Stoughton Substation energized May 6, 2006
- Stoughton – Hyde Park (3164) 345 kV cable fully operational November 2006
- Stoughton – K Street (3162) 345 kV cable fully operational April 2007
- Estimated in-service date – October 2008 (Stage 2)

Status of Major Transmission Projects, *Con't.*

Lower SEMA (Southeastern Massachusetts) Upgrades

- I.3.9 Approval - August 2007
- TCA Approval - TBD
- Long-Term needs analysis underway
- Estimated in-service date – October 2008 (Short-Term) / 2010 (Long-Term)

Status of Major Transmission Projects, *Con't.*

Merrimack Valley / North Shore Reliability Project

- I.3.9 Approval – TBD
- TCA Approval – TBD
- Project involves multiple steps over a ten year horizon
- 2007 – 115 kV line reconductoring (Level 1 Proposed Plan Application)
- 2008 – new 345 kV Wakefield Junction Substation, circuit breaker additions at Sandy Pond 345 kV Substation, and capacitor bank addition at Revere Substation
- 2009, 2010, 2017 – 115 kV line replacement and reconductorings
- Task Force recommendations for approval have been received
- Estimated in-service date – 2007 through 2017

Status of Major Transmission Projects, *Con't.*

Southwest Connecticut Reliability Project

Phase I: Bethel (Plumtree Substation) – Norwalk (Norwalk Substation)

- I.3.9 Approval – February 2004
- TCA Approval – ISO Final Determination Letter issued September 2006, which finds $117.4 million of the total estimated cost constitutes Localized Costs
- Placed in-service – October 2006

Phase II: Middletown (Scovill / Beseck Substations) - Norwalk

- I.3.9 Approval – January 2006
- TCA Approval – application expected 4th Quarter
- Siting approved April 2005
- Construction is in progress (35% Complete)
- Estimated in-service date – December 2009

Status of Major Transmission Projects, *Con't.*

New England East – West Solution (NEEWS)

- Comprised of the Interstate, Greater Springfield, Rhode Island, and Central Connecticut Reliability Projects
- I.3.9 Approval – expected winter 2007/2008
- TCA Approval – initial applications expected spring 2008
- Transmission Owners Presentation of preferred alternatives expected at the Oct/Nov PAC
- Tentative start for siting processes is 2008
- Estimated in-service date – 2011 - 2013

Status of Major Transmission Projects, *Con't.*

Springfield Area

- I.3.9 Approval – expected winter 2007/2008
- TCA Approval – expected spring 2008
- Estimated in-service date – 2010 - 2013

Greater Rhode Island Transmission Reinforcements

- I.3.9 Approval – expected winter 2007/2008
- TCA Approval – expected spring 2008
- Transmission Task Force recommendation for approval received in July 2007
- Estimated in-service date – 2008 - 2012

APPENDIX

October 2007 Changes

Project Count Update and Reconciliation – July 2007 to October 2007 Update

363	Reliability projects: as of July 2007 Update
+0	Projects added as a result of further study and scope definition of previously identified projects
+0	New projects
363	
-7	Projects placed in service
-2	Projects cancelled
354	Projects as of October 2007 Update

October 2007 Changes, *Con't.*

Project Status Changes – July 2007 vs. October 2007 Update

July 2007 Status		October 2007 Status	Total Projects Changing Status
Conceptual	→	Cancelled	0
Conceptual	→	Proposed	7
Conceptual	→	Planned	0
Conceptual	→	Under Construction	0
Conceptual	→	In-Service	0
Proposed	→	Cancelled	2
Proposed	→	Planned	8
Proposed	→	Under Construction	0
Proposed	→	In-Service	0
Planned	→	Cancelled	0
Planned	→	Under Construction	9
Planned	→	In-Service	0
Under Construction	→	In-Service	7
		Total	**33**

October 2007 Changes, *Con't.*

Reliability Project Counts and Aggregated Cost Estimates by Project Stage with Applied Accuracy Ranges (1)

Project Stage (Status)	Project Count	Estimate Range Minimum	Estimate Range Maximum	Estimated Costs ($millions)	Range Minimum ($millions)	Range Maximum ($millions)
Concept	81	-50%	200%	442	221	1326
Proposed	164 (2)	-25%	50%	1238	928	1856
Planned	62	-25%	25%	358	269	448
Under Construction	47	-10%	10%	2347	2113	2582
Total October 2007 Plan	**354**			(3) **4385**	**3531**	**6212**
In-Service	7	-10%	10%	4	3	4
Cancelled	2			3.4		

(1) All costs provided by Transmission Owners

(2) 115 projects are in advanced stages of studies. (NEEWS, Greater Rhode Island Transmission Reinforcements, Springfield 115 kV Reinforcements, New Hampshire Seacoast Area Reliability, Merrimack Valley/North Shore, Rumford-Woodstock-Kimball Road Corridor, Auburn Area, and Central/Western Massachusetts Projects)

(3) Not included here is the cost of 120 reliability projects for which no estimates have been provided. Estimates for these projects are noted as TBD in the Project Listing

Project Listing

Project Listing Column Definitions for:

- Reliability Projects
- Interconnection Projects
- Economic Projects
- Elective Projects
- Merchant Projects
- Projects In-Service
- Cancelled Projects

October 2007 Project Listing – Column Definitions

Part Number (Part #)

The Part #'s designate the 'need' category of the project. Original categories are not changed when a project is placed 'In-Service' or 'Cancelled".

Part 1 – These projects are reliability upgrades.

- 1a: Planned or Under Construction
- 1b: Conceptual or Proposed

Part 2 – These projects are generator interconnection upgrades.

- 2a: Proposed (I.3.9 approval but without Generator Interconnection Agreement), Planned (I.3.9 approval with Generator Interconnection Agreement), or Under Construction
- 2b: Conceptual or Proposed

Part 3 – These projects are economic upgrades.

- 3a: Planned or Under Construction
- 3b: Conceptual or Proposed

Part 4,5 – These projects may be promoted by any entity electing to support the cost of transmission changes. The entity sponsoring the changes will have their own justification for their actions.

- 4,5a: Planned or Under Construction
- 4,5b: Conceptual or Proposed

Project ID

This number is generated from ISO-NE System Planning Information Tracking System. It may change in the future as the tracking system evolves.

Primary Equipment Owner

The company listed here is the responsible equipment owner / provider designated to design and implement the project

October 2007 Project Listing–Column Definitions, *Con't.*

Other Equipment Owner

For projects that involve multiple Transmission Owners, the company listed here is also a responsible equipment owner / provider designated to design and implement the project.

Projected Month/Year of In-Service

The month/year entered is the date the project is expected to be placed in service.

Major Project

Name given to a project that consists of smaller subprojects.

Project Description

A brief, high-level description of the project is entered here. It will either include major pieces of substation equipment and/or types of line work to be performed.

Status (July 2007 / October 2007)

In Service: The project has been placed in operation.

Under Construction: The project has received necessary approvals and a significant level of engineering or construction is underway.

Planned: The project has received I.3.9 approval (if required), but may or may not have received TCA approval. The TCA approval may be applied for at a later date at the project owner's risk. Generator Interconnection projects are considered 'planned' when they have interconnection agreements filed with and accepted by the Federal Energy Regulatory Commission (FERC).

Proposed: A significant degree of analysis is available to show potential need for the project, but I.3.9 approval has not been received yet. ISO New England has been provided with a copy of the analysis associated with the project.

Concept: There is little or no analysis available to support a specific project, but there is sufficient information to suggest a pending need for future study work and a remedial project.

Cancelled: Project has been cancelled.

October 2007 Project Listing–Column Definitions, *Con't.*

Right-Of-Way (ROW – Substation/Transmission)

These columns provide information on ROW.

Substation:
a. Expand existing; own property
b. Expanding existing; purchase required
c. New Station; own property
d. New Station; purchase required
e. No ROW required

Transmission:
a. Expansion of existing ROW required
b. New ROW required
c. No new or expanded ROW required

I.3.9 Approval (Review of Market Participant's Proposed Plans)

A date in this column signifies when the project received approval pursuant to Section I.3.9 of the ISO-New England Tariff. This approval indicates that the project will have no adverse impact on the stability, reliability, or operating characteristics of the system. A 'no' indicates that an approval is required, but has not been received yet. An 'NR' indicates that an I.3.9 approval is not required.

October 2007 Project Listing–Column Definitions, *Con't.*

TCA Approval (Transmission Cost Allocation)

A date in this column signifies when the project PTF costs were reviewed and approved. This approval indicates that it has been agreed whether, and by how much, the scope of the project and associated costs exceed regional needs. An 'NR' indicates that a TCA approval is not applicable either because the project has been cancelled or no/very minimal PTF costs are involved.

TCA Category (Transmission Cost Allocation)

This entry represents the most likely category for cost allocation, prior to TCA approval, and the actual category, post TCA approval.

'GI' – Generator Interconnection Related Upgrade
'EL' – Elective Transmission Upgrade
'NM' – NEMA Upgrade
'02' – Regional Transmission Expansion Plan (RTEP) 02 Upgrade
'RBU' – Regional Benefit Upgrade
'ECO' – Economic Upgrade

Estimated Costs (July 2007 / October 2007)

The pool-supported project cost estimate presented here should be the best estimate available. It is understood that the estimate accuracy may vary dependent on the maturity of the project. Accuracy tolerances for these estimates are targeted as follows:

Concept Project (-50%, +200%),
Proposed Project that has been reviewed and approved to proceed by ISO-NE (-25%, +50%),
I.3.9-Approved Project (+/-25%), and
TCA-Approved Project (+/-10%)