



Transmission Adequacy

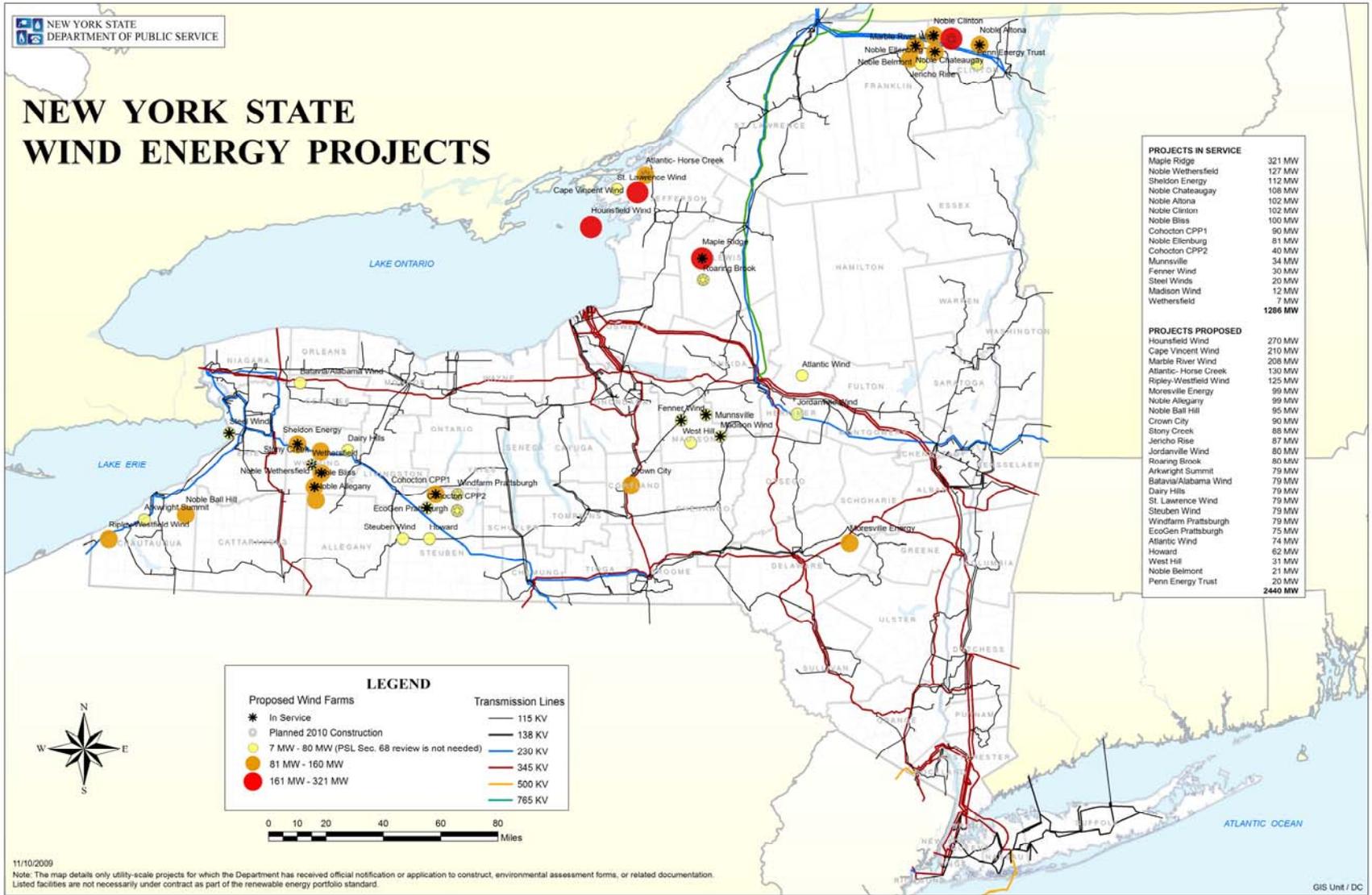
To Meet the Renewable
Portfolio Standard

November 12, 2009
Commission Session

RPS Goal

- 1,300 MW renewable resources installed since the establishment of the RPS
- Need additional (as estimated by NYISO):
 - 1,500 MW (assuming full achievement of EEPS)
 - 2,000 MW (assuming no EEPS)

NEW YORK STATE WIND ENERGY PROJECTS



PROJECTS IN SERVICE	
Maple Ridge	321 MW
Noble Wethersfield	127 MW
Sheldon Energy	112 MW
Noble Chateaugay	108 MW
Noble Altona	102 MW
Noble Clinton	102 MW
Noble Bliss	100 MW
Cohocton CPP1	90 MW
Noble Ellenburg	81 MW
Cohocton CPP2	40 MW
Munnsville	34 MW
Fenner Wind	30 MW
Steel Winds	20 MW
Madison Wind	12 MW
Wethersfield	7 MW
Total	1266 MW
PROJECTS PROPOSED	
Hoursfield Wind	270 MW
Cape Vincent Wind	210 MW
Martie River Wind	208 MW
Atlantic-Horse Creek	130 MW
Ripley-Westfield Wind	125 MW
Moresville Energy	99 MW
Noble Allegany	99 MW
Noble Ball Hill	95 MW
Crown City	90 MW
Story Creek	88 MW
Jericho Rise	87 MW
Jordanville Wind	80 MW
Rising Brook	80 MW
Arkwright Summit	79 MW
Batavia/Alabama Wind	79 MW
Dairy Hills	79 MW
St. Lawrence Wind	79 MW
Steuben Wind	79 MW
Windfarm Prattsburgh	79 MW
EcoGen Prattsburgh	75 MW
Atlantic Wind	74 MW
Howard	62 MW
West Hill	31 MW
Noble Belmont	21 MW
Penn Energy Trust	20 MW
Total	2440 MW

LEGEND

Proposed Wind Farms	Transmission Lines
★ In Service	— 115 KV
○ Planned 2010 Construction	— 138 KV
● 7 MW - 80 MW (PSL Sec. 68 review is not needed)	— 230 KV
● 81 MW - 160 MW	— 345 KV
● 161 MW - 321 MW	— 500 KV
	— 765 KV

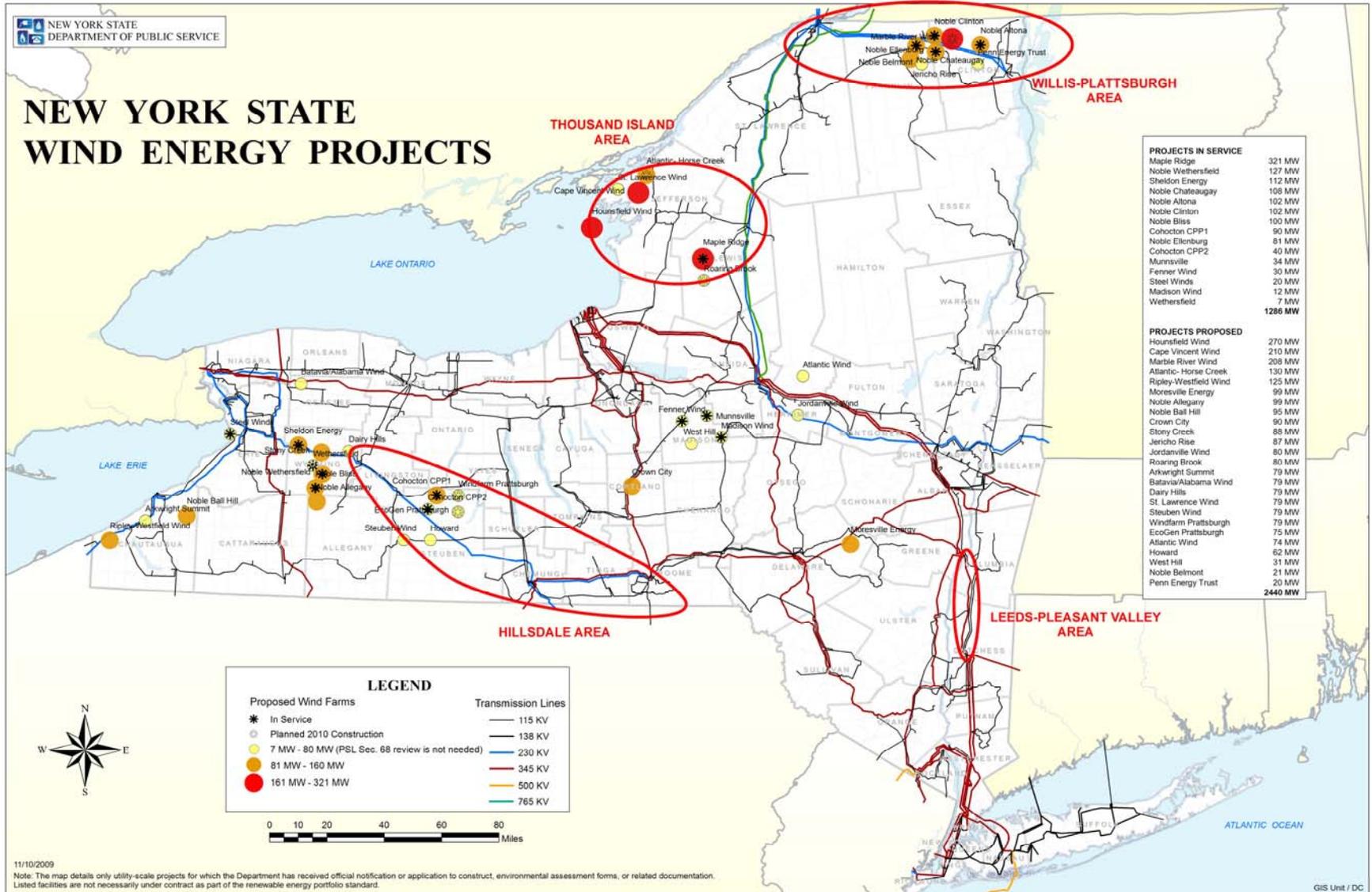


11/10/2009
Note: The map details only utility-scale projects for which the Department has received official notification or application to construct, environmental assessment forms, or related documentation. Listed facilities are not necessarily under contract as part of the renewable energy portfolio standard.

What do we know now?

- Based on studies so far (NYSEG/RGE Generation Bottling study and preliminary results of NYISO Wind study):
 - Found that potential constraints were mainly local rather than on the Bulk System
 - Areas where wind could potentially be bottled have been identified

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161 MW - 321 MW		500 KV	765 KV



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What additional information will ongoing studies provide?

- **NYISO Wind study**
 - Will evaluate the impact of wind on the transmission system and on production costs
 - Will generate a list of potential transmission constraints
- **STARS study**
 - Will use results of NYISO Wind study
 - Will recommend direction of future transmission development considering wind development

(Results of both studies are anticipated in Winter 2010)

What does this mean for RPS?

- It does not appear that the achievement of the RPS goal will be significantly hampered by transmission constraints
 - Depending upon actual dispersions by location of new projects
- The information from these studies and others will help inform the PSC as well as the developers
 - The result of the studies may guide developers to areas that are less constrained
- If system upgrades are needed, an analysis will be done at that time to determine the benefits, costs and possible alternatives (e.g. storage)