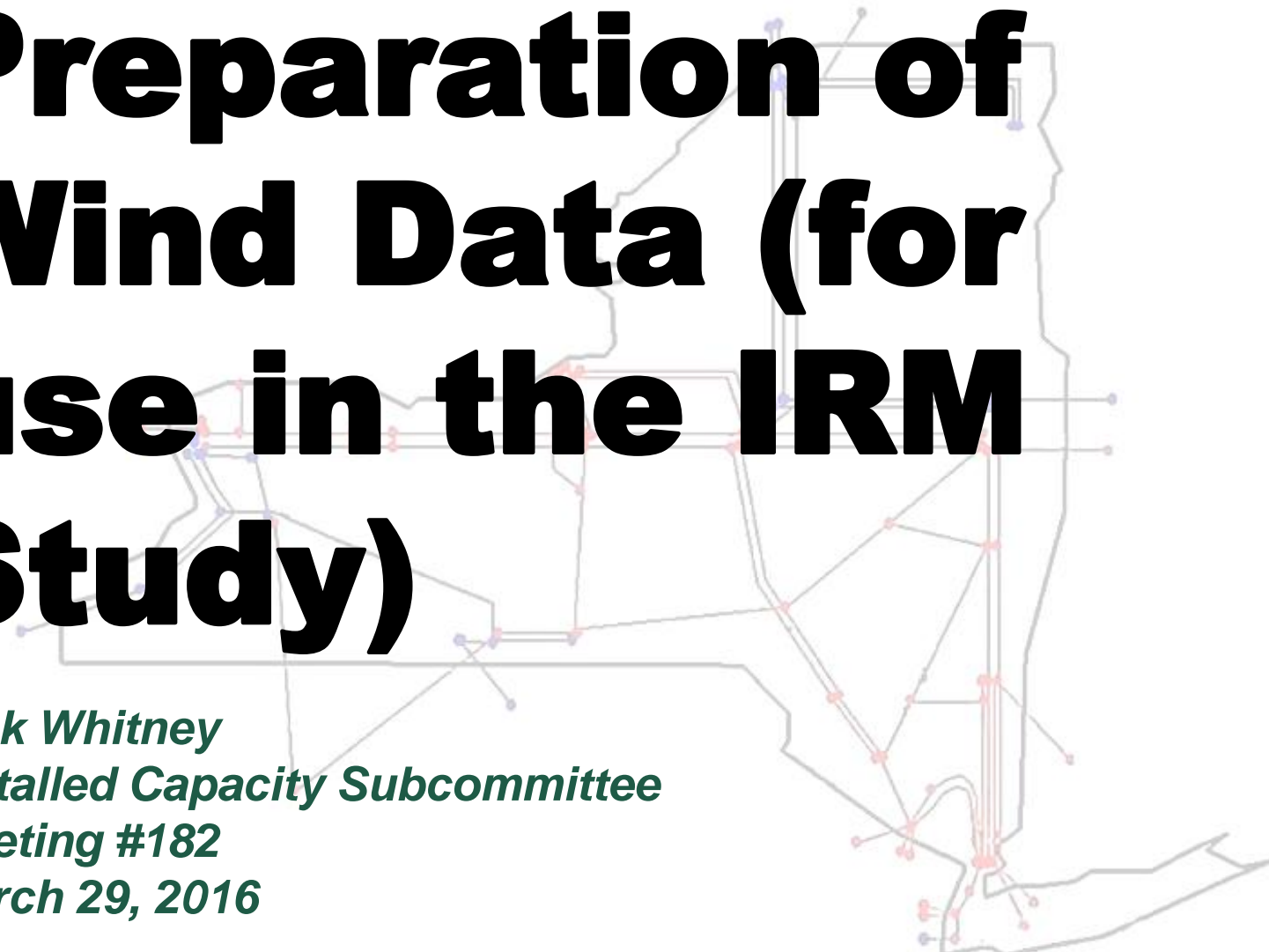


# Preparation of Wind Data (for use in the IRM Study)

A faint background map of New York State is overlaid with a network of lines and nodes representing a power grid. The nodes are small circles in various colors (purple, red, blue) and are connected by thin grey lines. The map shows the state's outline and major geographical features.

*Nick Whitney  
Installed Capacity Subcommittee  
Meeting #182  
March 29, 2016*

# Objectives

- ◆ **Overview of the data set**
- ◆ **List of resources included**
- ◆ **Modeling of new wind facilities**
- ◆ **Monthly average wind data**
- ◆ **Next Steps**

# Overview

- ◆ **As of last year billing-quality meter data was provided and is available for all but four existing wind facilities for the years 2011 through 2015.**
  - *Howard Wind, Orangeville Wind Farm, Marble River Wind, Hardscrabble Wind all in service after Jan 2011*
- ◆ **Wind facilities that have CRIS Rights were included in the data set.**
- ◆ **Marble River Wind was also included because it is in an open Class Year Study and is expected to obtain CRIS Rights by next summer.**

# Resource List

- ◆ Name Plate ratings and CRIS values were taken from the 2015 Gold Book.
- ◆ Monthly average output data is posted with these meeting materials.

Resource	Name Plate*	CRIS*
Bliss Wind Power	100.5	100.5
Steel Wind	20	20
Canandaigua Wind Power	125	125
High Sheldon Wind Farm	112.5	112.5
Howard Wind	57.4	57.4
Orangeville Wind Farm	93.9	88.5
Wethersfield Wind Power	126	126
Altona Wind Power	97.5	97.5
Chateaugay Wind Power	106.5	106.5
Clinton Wind Power	100.5	100.5
Ellenburg Wind Power	81	81
Marble River Wind	215.5	215.5**
Hardscrabble Wind	74	74
Maple Ridge Wind 1	231	231
Maple Ridge Wind 2	90.7	90.7
Munnsville Wind Power	34.5	34.5
Madison Wind Power	11.6	11.5
<i>*2015 Load and Capacity Data Report</i>		
<i>**CRIS requested</i>		

# Modeling of New Facilities

- ◆ Output for facilities that came into operation after January 2011 was scaled on a zonal basis using a ratio of nameplate MW to zone total nameplate MW multiplied by zone total output MW.

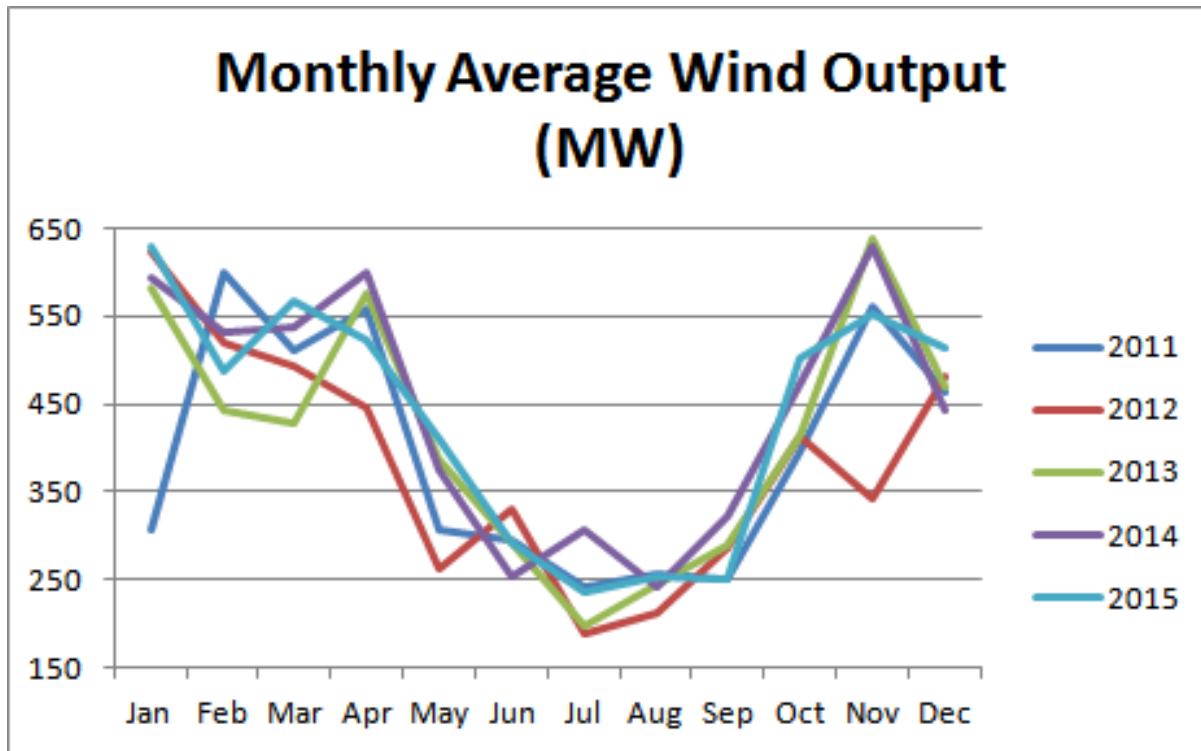
Zone	A	A	A	A	A
Name Plate	50	100	100	100	100
Resource	<i>New Resource</i>	Existing A	Existing B	Existing C	Existing D
Output	25	75	50	50	25

$$\frac{\text{New Resource Name Plate } 50}{\text{Zone Total Name Plate } 400} = 12.5\%$$

$$\text{Zone total output} * \text{ratio above } (200 \text{ MW} * .125) = 25 \text{ MW}$$

# Monthly Average Wind Output

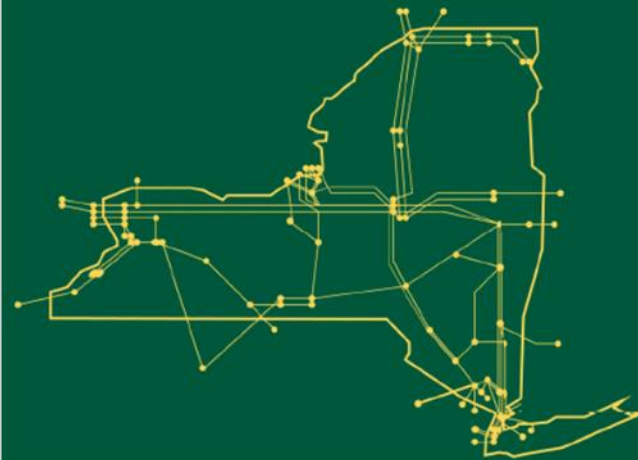
- ◆ Supporting data can be found with the posted material.



# Next Steps

- ◆ **NYISO is in the process of testing the model with five years of data.**

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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