

Confidence Interval Graph for the 2014 IRM Study

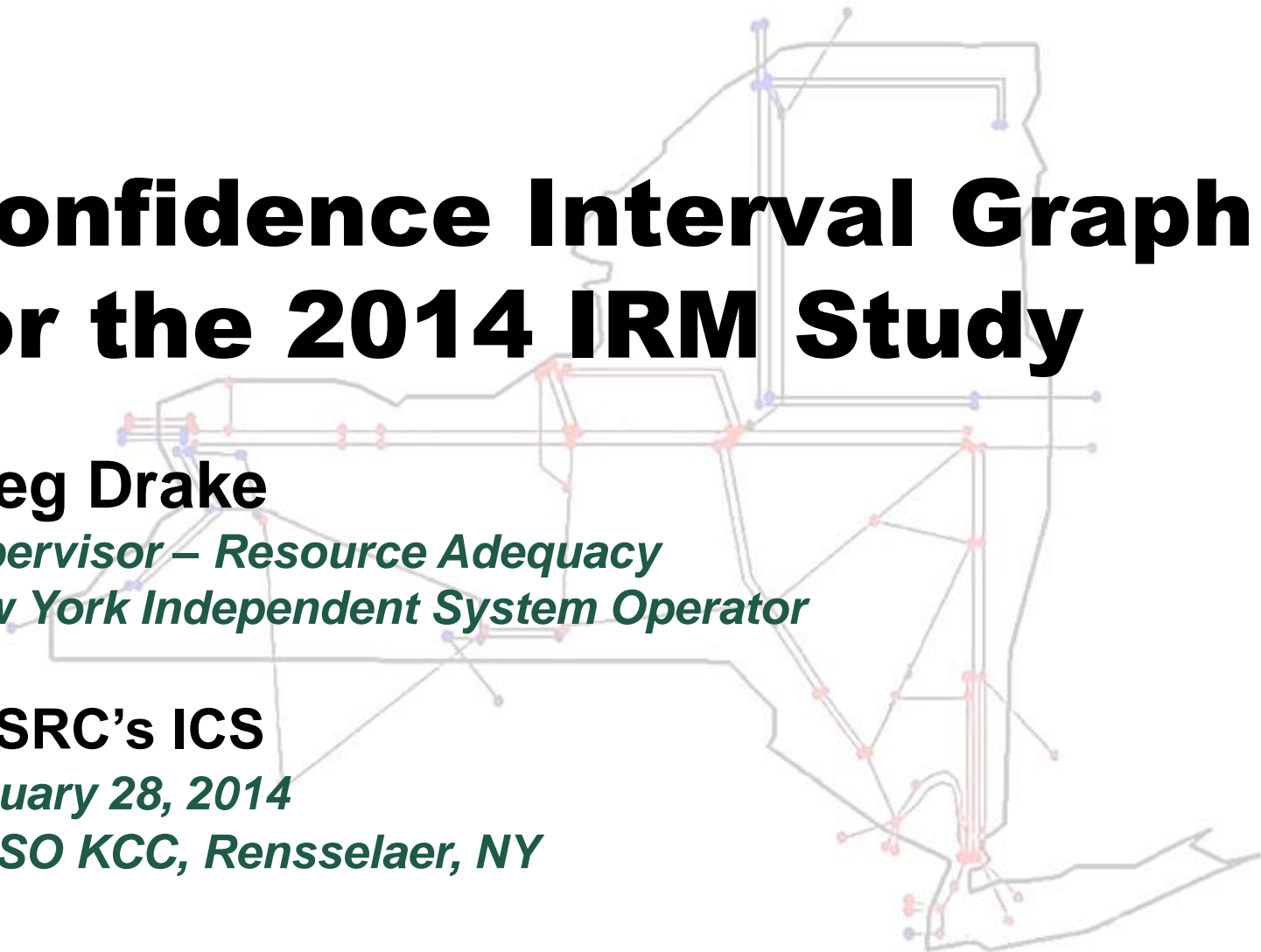
Greg Drake

*Supervisor – Resource Adequacy
New York Independent System Operator*

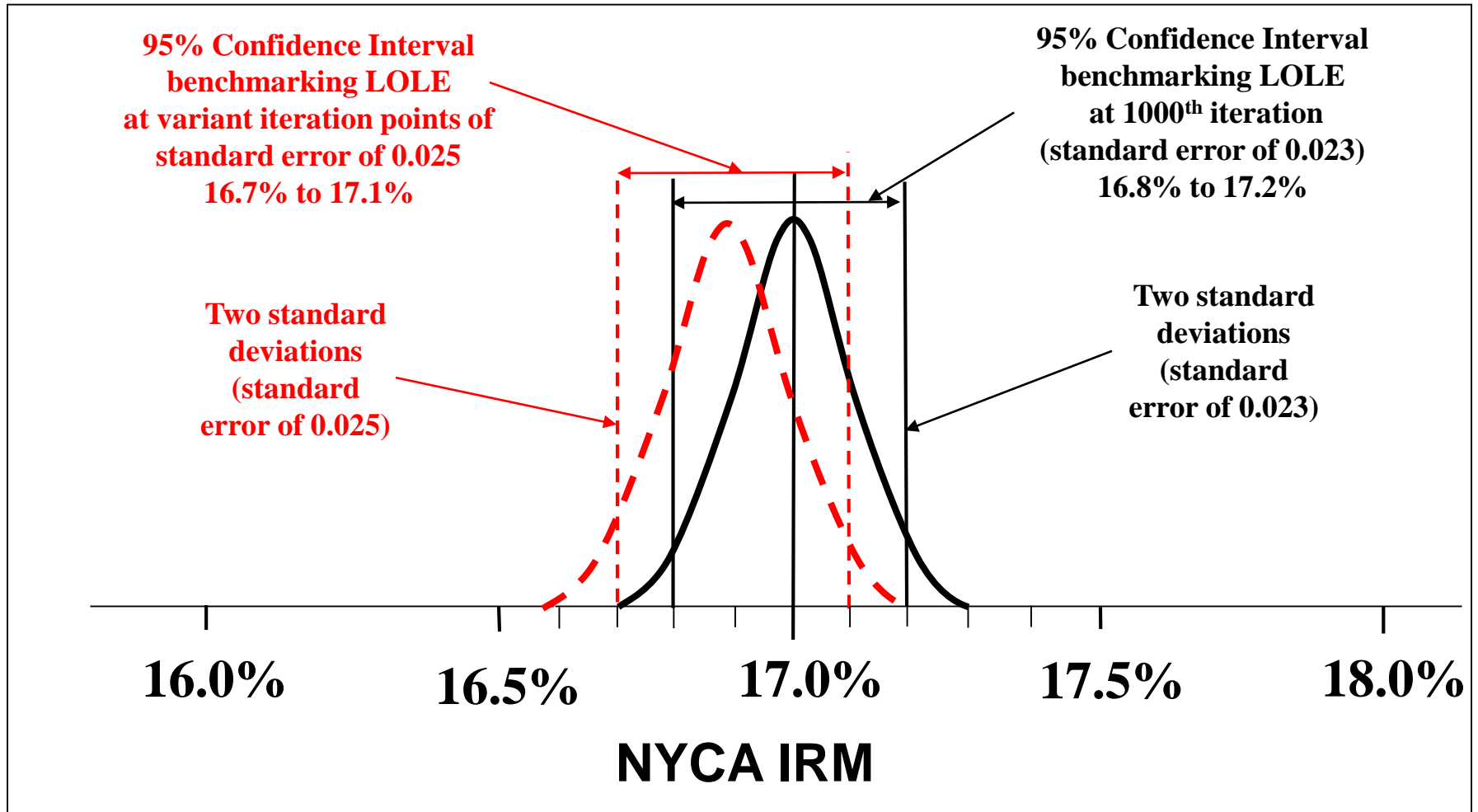
NYSRC's ICS

January 28, 2014

NYISO KCC, Rensselaer, NY



95% Confidence Interval of 2014 IRM



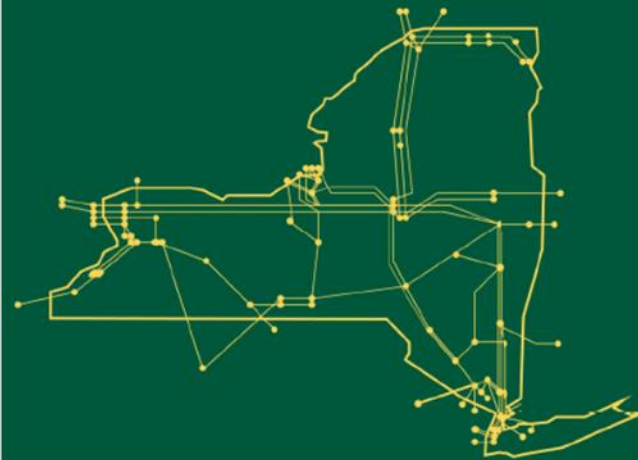
Generation of Orange Error graph

- ◆ Assumed to be bell shaped.
- ◆ One graph shows the targeting of a particular standard deviation (2SD) – It occurs at 883 replications
- ◆ Standard deviation is the standard error (provided in the output) multiplied by target LOLE (0.1)
- ◆ $2SD = +/- 2 \times (SE \times 0.1) = +/- 2 \times (0.025 \times 0.1) = 0.095$ to 0.105 LOLE
- ◆ The X axis shows IRM. IRM is determined by adding/removing capacity to meet 0.095 and 0.105 values. This is the orange curve.

Generation of Black Error graph

- ◆ The second graph targets 1,000 replications in the model leading to an LOLE of 0.1 days/year.
- ◆ The standard error (from output) was 0.023 at this point.
- ◆ $2SD = 95\% \text{ confidence} = \pm 2 \times (SE \times 0.1) = \pm 2 \times (.023 \times 0.1)$
- ◆ 95% confidence ranges from $0.1 - 0.0046$ to $0.1 + 0.0046 = 0.0954$ to 0.1046 LOLE
- ◆ The correspond IRMs are determined by adding/removing capacity to obtain above values of 16.8% and 17.2%

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