



Manual 24

Reliability Analysis Data Manual

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2.4. NYISO Data Screening Procedure

Prior to the submittal of data to the NYISO, Market Participants shall apply the data screening

⁶ For emergency equipment replacements (ex. transformers) the data may not be immediately available; therefore, Facility Owner may initially provide generic modeling data and within 30 days after providing the generic data they must provide the actual data.

guidelines documented in Attachment D. For all data submitted, the Market Participant shall state either that the data screen identified no suspect data or that the data screen identified the data as suspect but has been verified as accurate. Screening data identified as incorrect shall be corrected prior to submittal of the data to the NYISO. The notification of data screening results shall be provided through either the data comment field in Model on Demand or via email at system_analysis_data@nyiso.com.

In accordance with NYSRC Reliability Rule I.4(R1), upon receipt of system network representation model data from a Market Participant, the NYISO will screen the data to determine if it is reasonable, as outlined in Attachment D. If suspect data is identified and the Market Participant did not communicate to the NYISO that the data is identified as suspect but has been verified as accurate, the results of that screen will be sent electronically to the Market Participant for their review. The Market Participant shall respond to the NYISO by the specified deadline and shall either confirm the data is accurate or provide modified data accordingly.

Attachment D NYISO Data Screening Procedure

If any model data meets the following conditions, that data will be identified as suspect data:

A. Steady State

1. Generator data checks:

- $P_{GEN} < P_{MIN}$
- $P_{GEN} > P_{MAX}$
- $P_{GEN} < 0$
- $P_{MAX} < P_{MIN}$
- $Q_{MAX} < Q_{MIN}$
- Machine with $M_{BASE} < P_{MAX}$
- Machine with $M_{BASE} = 0$
- Small $X''d$ impedance (less than 0.05 p.u. on machine MVA base)
- Large $X''d$ impedance (greater than 0.50 p.u. on machine MVA base)

2. Non-Transformer Branch data checks:

- Small impedance (less than 0.0001 p.u. on 100 MVA base)
- Large impedance (greater than 3.0 p.u. on 100 MVA base)
- High R/X ratio (absolute value of R greater than absolute value of X)
- High X/R ratio (X/R ratio greater than 12)
- Low X/R ratio (X/R ratio less than 3)
- High charging (greater than 5.0 or negative)
- Branch long-term emergency ratings (RATE B) or short-term emergency ratings (RATE C) less than the normal ratings (RATE A)
- Branch long-term emergency ratings (RATE B) greater than the short-term emergency ratings (RATE C)

3. Transformer data checks:

- Small impedance (less than 0.01 p.u. on transformer base)
- Large impedance (greater than 0.30 p.u. on transformer base)
- High R/X ratio (absolute value of R greater than absolute value of X)
- High X/R ratio (X/R ratio greater than 40)
- Low X/R ratio (X/R ratio less than 10)
- Tap step = 0.0
- Small tap steps (less than 0.00625)
- R_{MAX} , R_{MIN} , V_{MAX} , or $V_{MIN} = 0.0$
- High tap ratios (greater than 1.20)
- Low tap ratios (less than 0.90)

B. Dynamics

1. Generator data checks:

- $X''_d > X'_d$
- $X'_d > X_d$
- $X_l > X''_d$
- $T'_{d0} < T''_{d0}$
- Machine with $M_{BASE} < P_{MAX}$
- Machine with $M_{BASE} = 0$
- Small X''_d impedance (less than 0.05 p.u. on machine MVA base)
- Large X''_d impedance (greater than 0.50 p.u. on machine MVA base)
- Does it have the exciter model?
- Does it have the governor model?
- Does it have the stabilizer model?

C. Short Circuit

1. Generator data checks:

- $X''_d > X'_d$
- $X'_d > X_d$
- Machine with $M_{BASE} < P_{MAX}$
- Machine with $M_{BASE} = 0$
- Small X''_d impedance (less than 0.05 p.u. on machine MVA base)
- Large X''_d impedance (greater than 0.50 p.u. on machine MVA base)

2. Non-Transformer Branch data checks:

- Small impedance (less than 0.0001 p.u. on 100 MVA base)
- Large impedance (greater than 3.0 p.u. on 100 MVA base)
- High R/X ratio (absolute value of R greater than absolute value of X)
- High X/R ratio (X/R ratio greater than 12)
- Low X/R ratio (X/R ratio less than 3)

3. Transformer data checks:

- Small impedance (less than 0.01 p.u. on transformer base)
- Large impedance (greater than 0.30 p.u. on transformer base)
- High R/X ratio (absolute value of R greater than absolute value of X)
- High X/R ratio (X/R ratio greater than 40)
- Low X/R ratio (X/R ratio less than 10)