

# Proposed Weather Adjustment of BTM:NG Resources for ICAP Market Forecast

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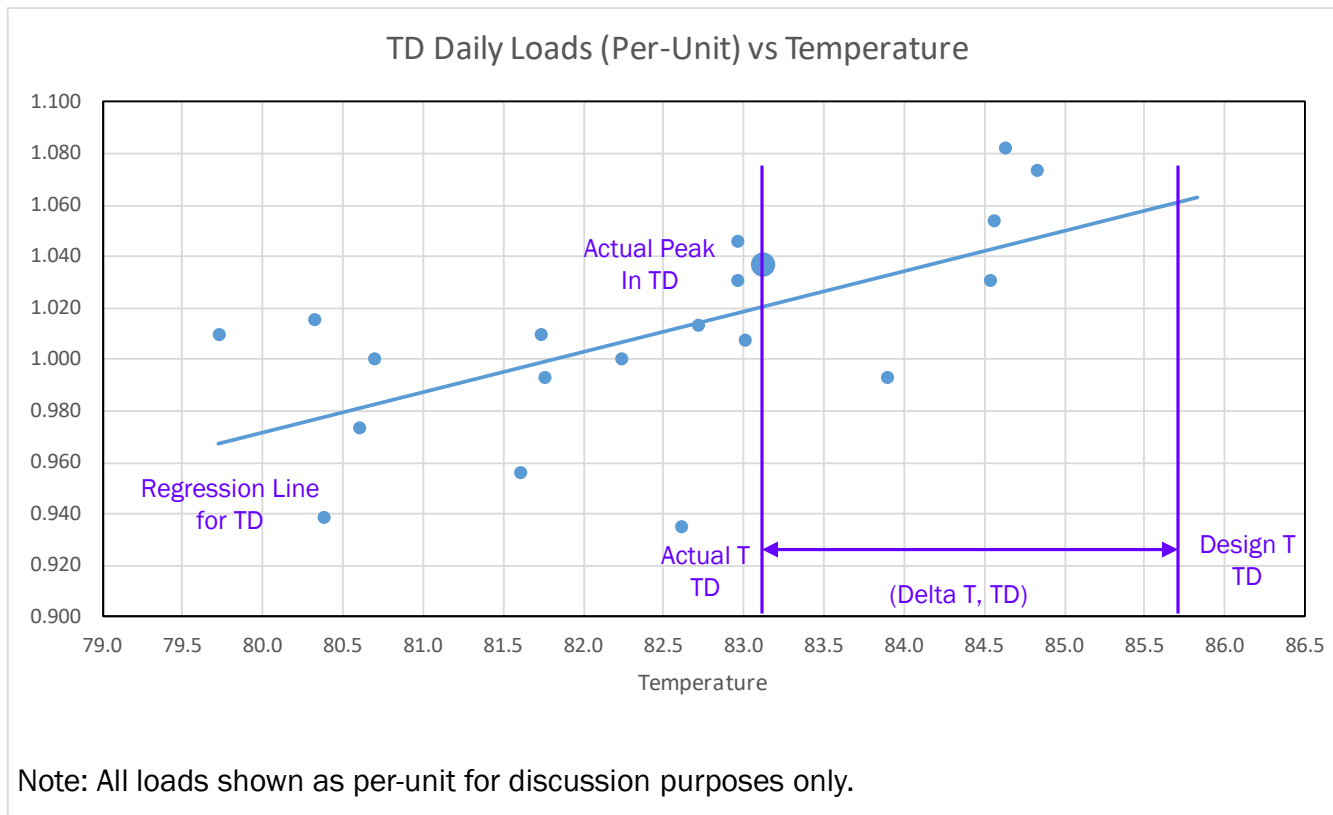
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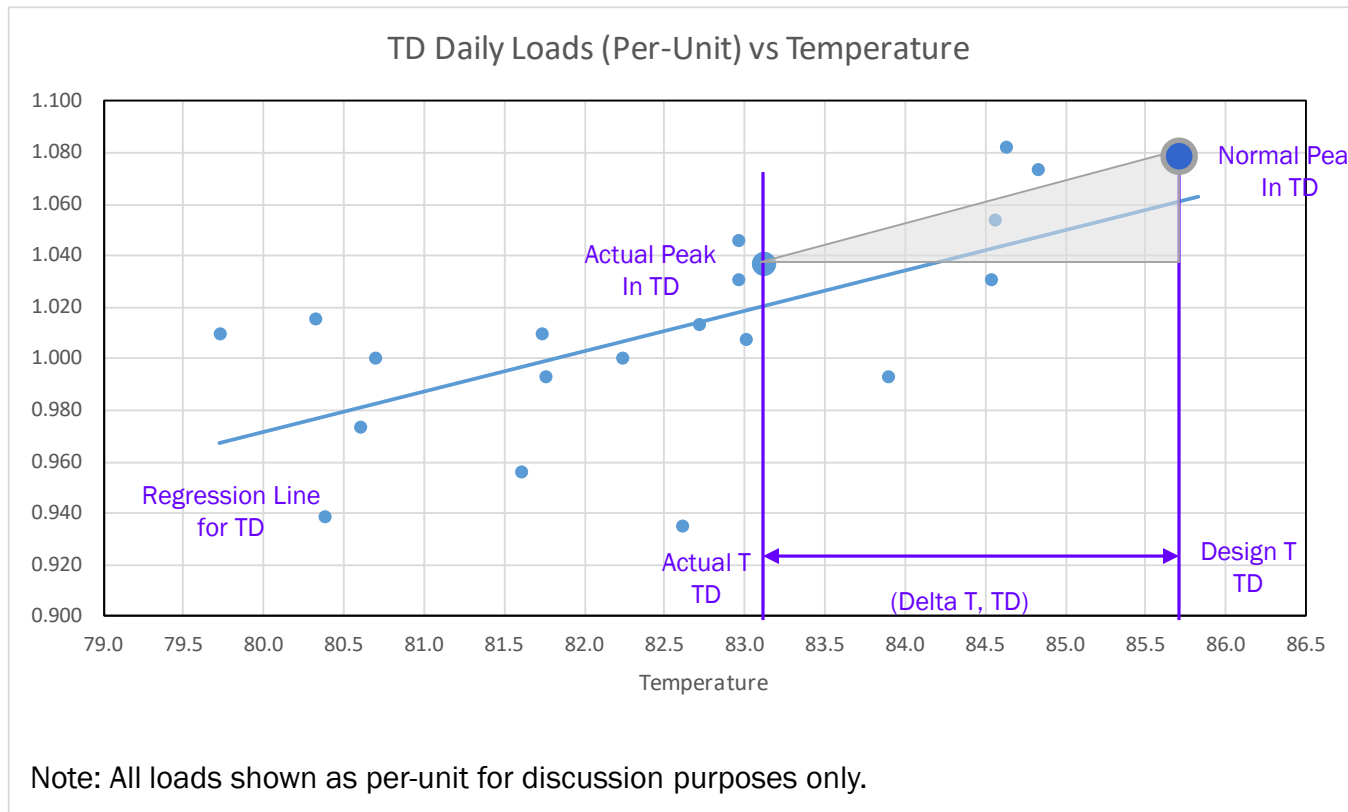
August 24 2018, Rensselaer NY



# Current Method for Weather Adjustment of Transmission District Peak



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# Proposed Weather Adjustment of BTM:NG Resources for ICAP Market Forecast

1. Determine the change in temperature from Actual to Design for a Transmission District:

$$\text{Delta T} = (\text{T Design} - \text{T Actual})$$

2. For each BTM:NG Resource, find the actual average load and weather response:

$$\text{MW}_{\text{BTM:NG, Avg}} = \text{Sum}(\text{top 20 loads}) / 20$$

B = MW per Degree, from linear regression of top 20 load hours  
with hourly temperatures in TD

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## 3. Calculate the weather adjustment for each BTM:NG Resource:

$$\text{Delta MW} = B * \text{Delta T}$$

Use Delta T from Transmission District & Weather Response of BTM:NG :

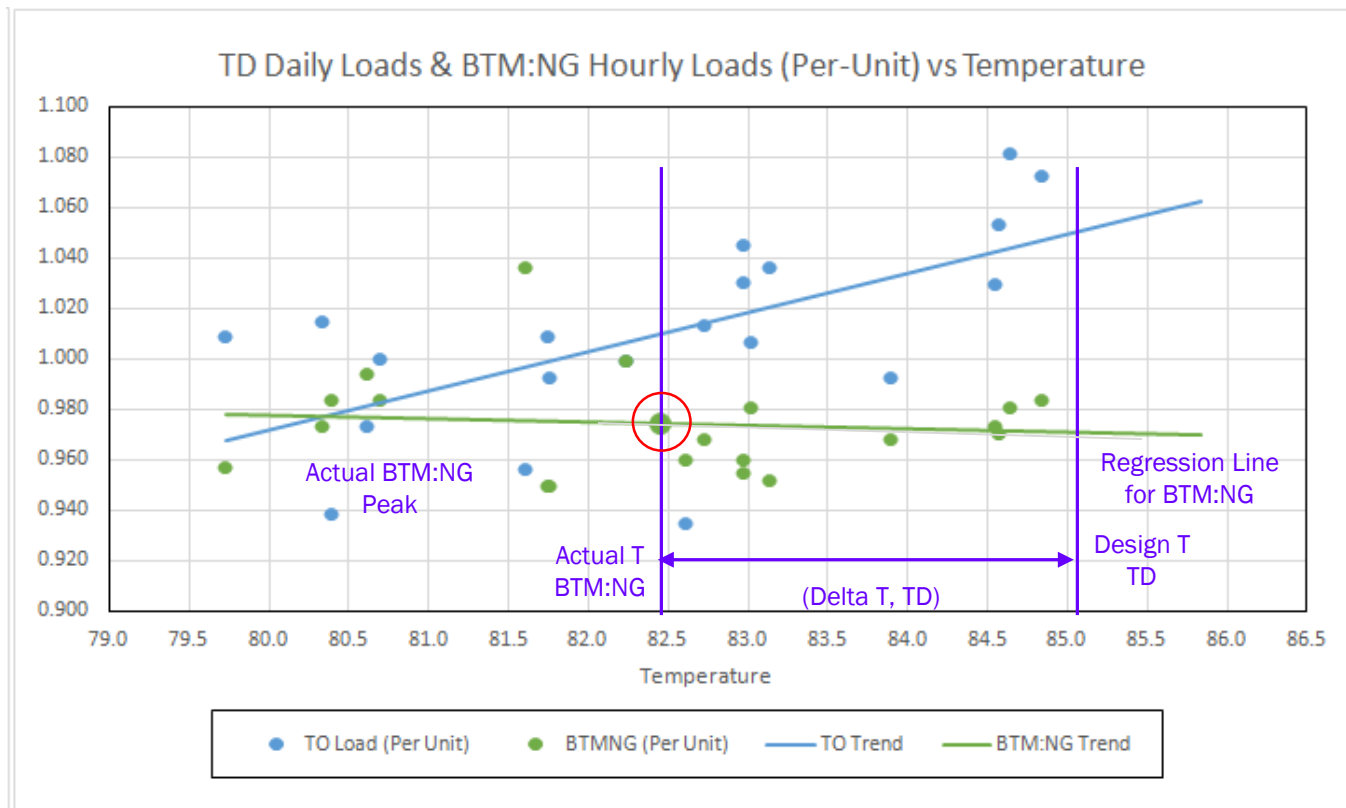
$$\text{MW}_{\text{Normal}} = \text{MW}_{\text{BTM:NG, Avg}} + \text{Delta MW}$$

(Note: B must be greater than or equal to 0. If slope is negative, the weather adjustment is zero.)

## 4. Determine (1 + WNF) for each BTM:NG Resource:

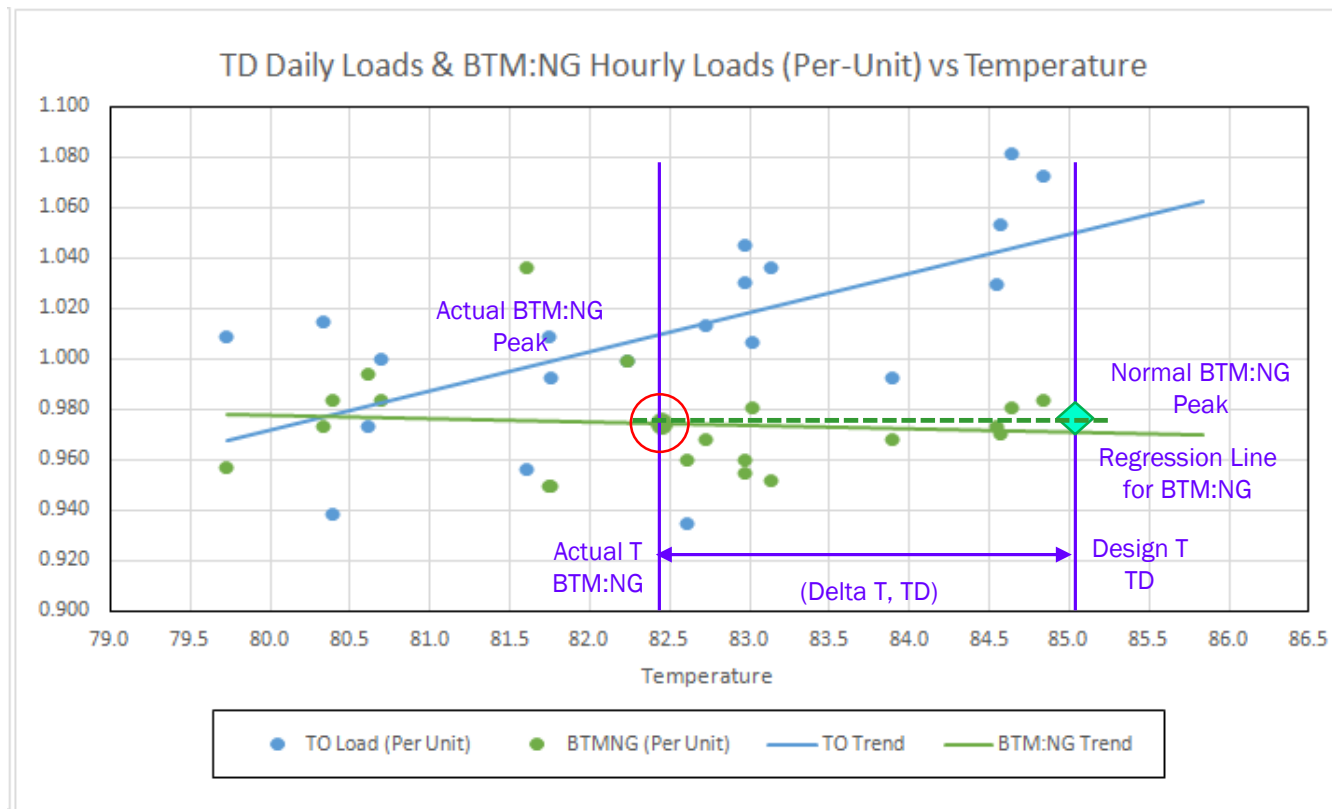
$$(1 + \text{WNF}) = \text{MW}_{\text{Normal}} / \text{MW}_{\text{BTM:NG Avg}}$$

# Proposed Method for Weather Adjustment of BTM:NG Resource



Note: All loads shown as per-unit for discussion purposes only.

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# Discussion Points

- 1. This proposed method properly accounts for specific weather response of each resource in order to determine its net generation.**
- 2. The method is consistent with the Tariff and ICAP Manual, since it uses top 20 hours of each resource, from within the top 40 NYCA hours.**
- 3. The method is consistent with the current NYISO Demand Response Operation processes, which allow for a (1+WNF) factor specific to each resource.**
- 4. Should not result in significant increase in time & resources since right now there are only a limited number of BTM:NG resources to analyze; however, this proposed method should be reviewed should the number of BTM:NG resources increase significantly.**



# Questions?

We are here to help. Let us know if we can add anything.

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- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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