2021 RTP Scope Update

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Agenda

- 2021 RTP Load review methodology update for bounded weather zones
- ERCOT rooftop solar growth forecast
- Other assumption updates
- Next steps

Load Review – ERCOT Planning Guide Language

3.1.7 Steady State Transmission Planning Load Forecast

(1) ERCOT shall use the following process for determining the Load level to be used in the starting base cases for the Regional Transmission Plan and in the steady-state evaluation of a Tier 1 project pursuant to Protocol Section 3.11.4, Regional Planning Group Project Review Process:

(a) ERCOT will compare the ERCOT 90/10 Load forecast with the summed SSWG bus-level Load forecast for each Weather Zone.

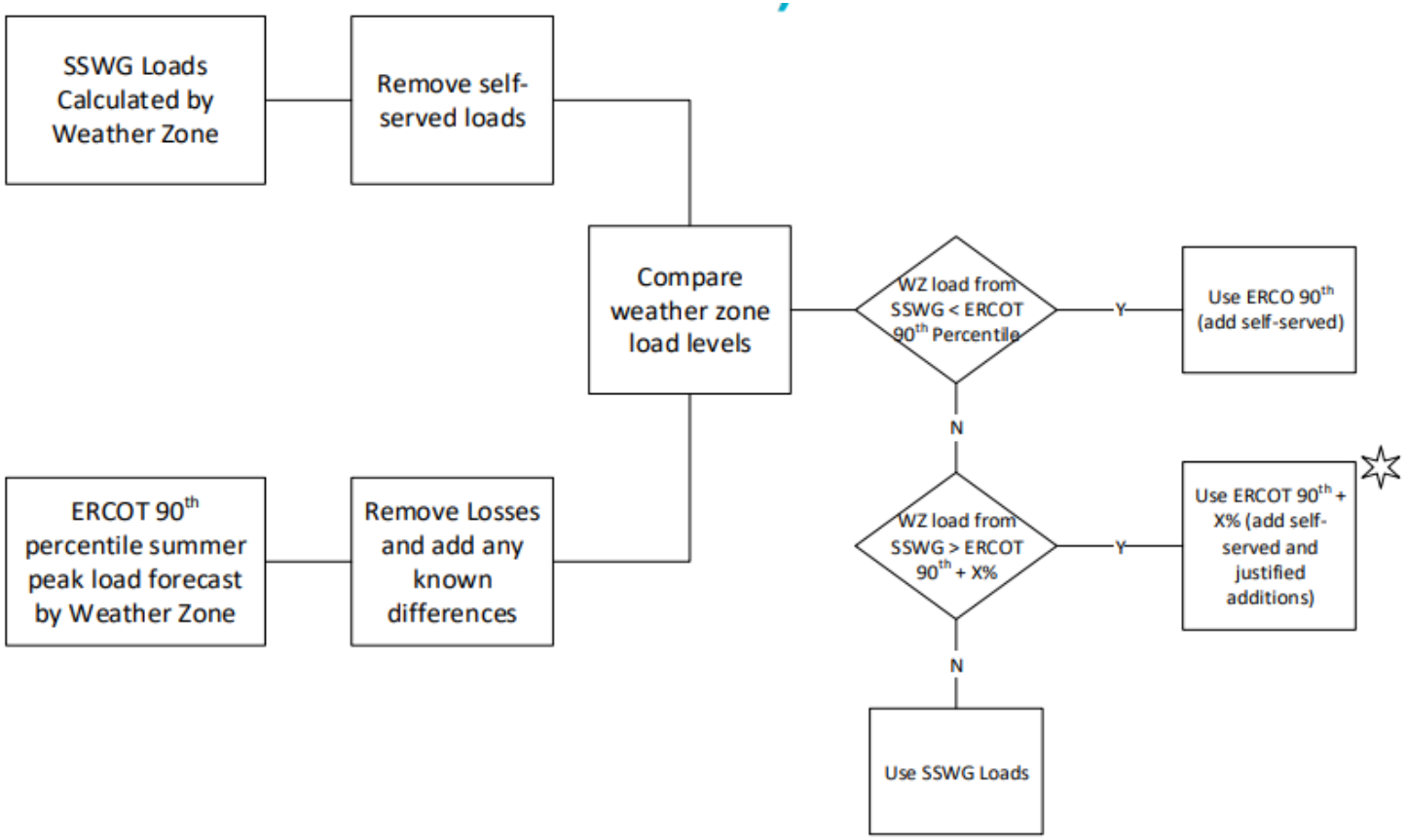
(b) If the ERCOT 90/10 Load forecast is higher, ERCOT will use this forecast for the Weather Zone.

(c) If the SSWG Load forecast is higher than or equal to the ERCOT 90/10 Load forecast, but below the ERCOT 90/10 Load forecast plus a boundary threshold determined in accordance with paragraph (f) below, ERCOT will use the SSWG Load forecast for the Weather Zone.

(d) If the SSWG Load forecast is higher than or equal to the ERCOT 90/10 Load forecast plus the boundary threshold, ERCOT will use the ERCOT 90/10 Load forecast plus the boundary threshold for the Weather Zone.

(e) If a TSP(s) believes that the ERCOT 90/10 Load forecast plus the boundary threshold does not adequately represent the Weather Zone or an area within the Weather Zone, the TSP(s) may present ERCOT with additional information to justify using a higher Load forecast, including the SSWG Load forecast, for that Weather Zone. ERCOT, in its sole discretion, may choose to use a higher Load forecast than indicated in paragraph (d) above if it reasonably determines that the Load forecast indicated in paragraph (d) above does not adequately represent the Weather Zone or an area within the Weather Zone. If ERCOT uses a Load forecast higher than the ERCOT 90/10 Load forecast plus the boundary threshold in the evaluation of a Tier 1 project, ERCOT must explain and document the basis

Load Review – Current Methodology[1]



☆ Load share for each TO within the weather zone is determined based on that TO's share of the most recent summer peak. Loads for TO's inside this WZ, but within the X% bounds would be retained from SSWG cases.

[1]http://www.ercot.com/content/wcm/key_documents_lists/108880/Load_Forecast_Review.pptx

TSP Load Determination in Bounded Weather Zone

- Many steps need to be performed to make sure both of the following conditions are satisfied
  - Weather zone loads maintain the approved levels (Planning Guide requirement)
  - If TSP's SSWG load is lower than the value calculated using the TSP's load share ratio from the most recent summer, SSWG load values should be retained (methodology presented to RPG in August 2017)
- TSP load levels become dependent on each other's SSWG load values

Bounded Weather Zone - Example

ERCOT Forecast + 5% (MW)	4500
SSWG Load (MW)	5000

Step 1:

	Last summer load share %	TSP Load based on load share %	SSWG Load	RTP Load
TSP A	40%	1800	1200	1200
TSP B	20%	900	1500	
TSP C	20%	900	1300	
TSP D	20%	900	1000	

Step 2: 3300 MW remaining load to be distributed

	Last summer load share %	Re-normalized load share %	TSP Load based on load share %	SSWG Load	RTP Load
TSP B	20%	33%	1100	1500	
TSP C	20%	33%	1100	1300	
TSP D	20%	33%	1100	1000	1000

Step 3: 2300 MW remaining load to be distributed

	Last summer load share %	Re-normalized load share %	TSP Load based on load share %	SSWG Load	RTP Load
TSP B	20%	50%	1150	1500	1150
TSP C	20%	50%	1150	1300	1150

Load Review – Proposed Changes for 2021 RTP

- Change the methodology of determining TSP load level in bounded weather zones and maintain the current Planning Guide language
  - Instead of retaining SSWG load when it is lower than the calculated TSP load level based on the load share ratio from the most recent summer, the load share ratio determined load level will be the RTP load level to be used for each TSP pending additional adjustment from the load review process

	Last summer load share %	TSP Load based on load share %	SSWG Load	RTP Load - 2020 RTP Methodology	RTP Load - 2021 RTP Methodology
TSP A	40%	1800	1200	1200	1800
TSP B	20%	900	1500	1150	900
TSP C	20%	900	1300	1150	900
TSP D	20%	900	1000	1000	900

Incorporating ERCOT Rooftop Solar Growth Forecast in 2021 RTP

- ERCOT weather zone level rooftop solar growth forecast will be incorporated in 2021 RTP

- ERCOT rooftop solar profiles* will be utilized to determine the contribution of the forecasted solar growth

*http://www.ercot.com/content/wcm/lists/197381/ERCOT_SolarPVProfiles_1980-2019.zip

Other Assumption Updates

- FACTS devices not intended for steady state voltage support will be used for post-contingency voltage support
- Coleto Creek will be taken offline in study year 2027 based on the following public announcement

  Coleto Creek Public Announcement

2021 RTP Next Steps

- Load review
  - Initial 2021 RTP load levels will be presented at the January 2021 RPG meeting
  - Initial bounded RTP cases will be posted in January 2021
- Renewable dispatch, rooftop solar growth, and DC Tie assumptions will be presented to RPG in Q1 2021
- Economic assumptions will be presented to RPG in Q1 2021

Questions and Comments?

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