



**Texas City Transmission Improvement  
Project - ERCOT Independent Review**

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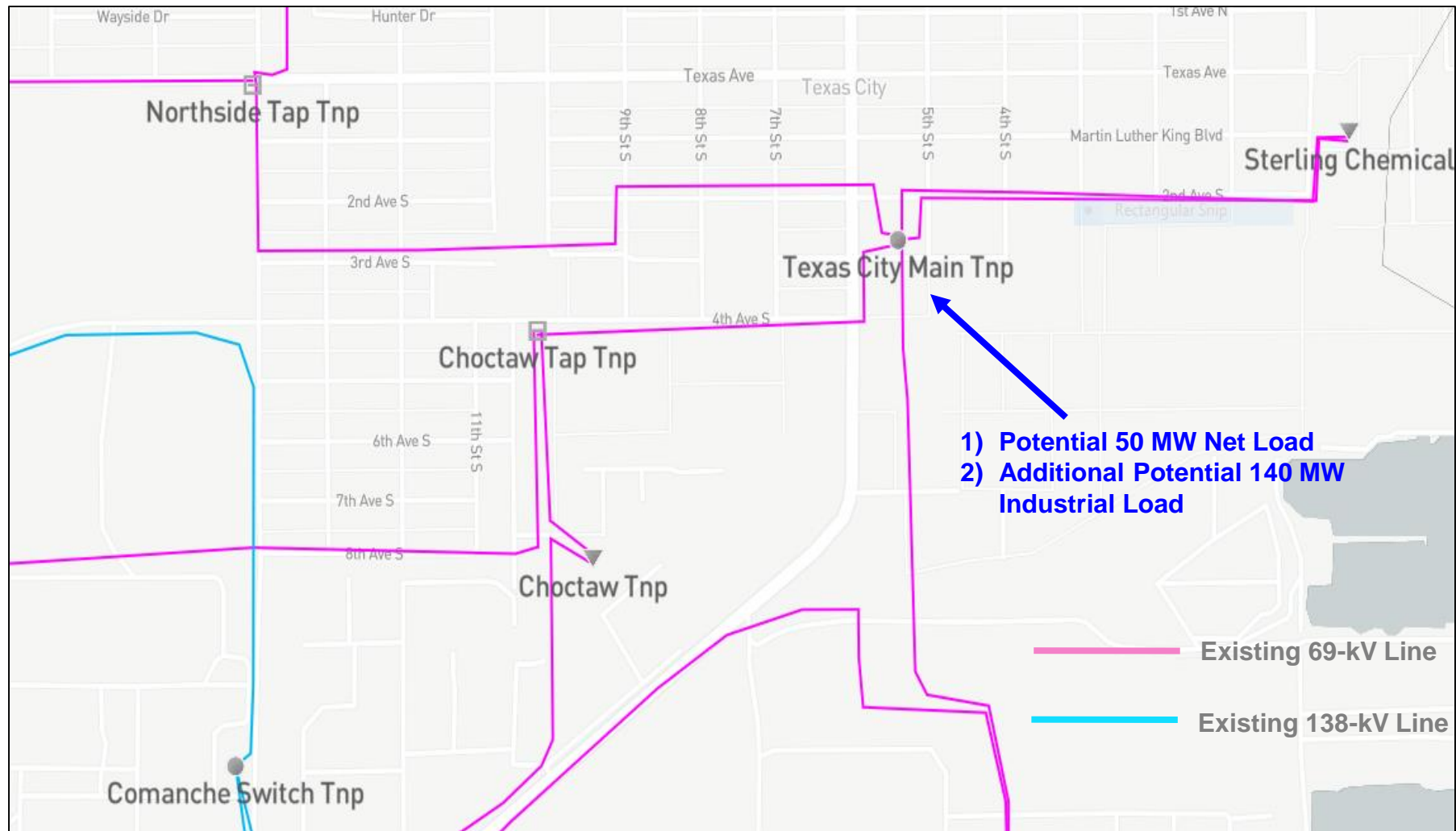
RPG Meeting  
May 19, 2020

# Current Status

- ❖ Texas New Mexico Power (TNMP) proposed the Texas City Transmission Improvement Project for ERCOT Independent Review (EIR) in April 2020. This Tier 2 project that is estimated at \$29.3 Million.
- ❖ EIR will address reliability issues primarily driven by a potential 50 MW net load associated with a planned cogeneration plant in Texas City to be in service in May 2022 <sup>(1)</sup>.
- ❖ Also, a potential industrial load of 140 MW in Texas City is expected to be integrated on or before summer peak of 2022 <sup>(1)</sup>.

(1) ERCOT will not recommend a project until a customer meets the agreement, notice to proceed and financial security requirements in accordance with Protocol Section 3.11.4.9(3).

# Map – Potential 50 MW Load & Cogeneration Unit



# Study Assumptions (Steady-State)

## ❖ Steady Region

- Coast Weather Zone in ERCOT system

## ❖ Steady-State Base Case

- Final 2019 RTP 2022 East/Coast (EC) summer peak case will be updated to construct the study base case.

<https://mis.ercot.com/misapp/GetReports.do?reportTypeId=15764>

# Study Assumptions

## ❖ Generation Update

- The following generators that met Planning Guide Section 6.9(1) for inclusion in the planning models at the time of the study are added to the case based on GIS published in April 2020 as <http://mis.ercot.com/misapp/GetReports.do?reportTypeId=15933&reportTitle=GIS%20Report&showHTMLView=&mimicKey>

GINR	Project Name	Fuel	Projected COD	MW Capacity
18INR0050	Mustang Creek Solar	SOLAR	05/01/2021	150
18INR0062	Wagyu Solar	SOLAR	06/03/2020	120
19INR0014	Formosa Increase	GAS	08/03/2020	240
19INR0041	Myrtle Solar	SOLAR	06/01/2021	240
20INR0069	Danish Fields Solar	SOLAR	06/01/2021	201
20INR0206	PES1	GAS	12/01/2020	363
20INR0287	STP Unit 1 repower	NUCLEAR	04/30/2020	13
20INR0308	Gibbons Creek TEERP	COAL	07/27/2020	493
21INR0016	Danish Fields II	SOLAR	06/01/2021	201
21INR0017	Danish Fields III	SOLAR	06/01/2021	201

- The new renewable generations in the table will be dispatched consistent with the 2020 RTP methodology.

# Study Assumptions

## ❖ Generation Update

- Retired and mothballed units will be consistent with the 2020 RTP.

## ❖ Load Update

- Load level in the study weather zone will be adjusted based on the 2020 RTP.

## ❖ Cogeneration Plant and Internal Load

- In the base case, these will be assumed to be interconnected to the existing Texas City Main 69-kV substation.

# Study Assumptions

## ❖ Transmission Update

The following Tier 4 projects that are expected to be in-service within the study region by June 1, 2022, will be added to the study base case based on February 2020 TPIT published on MIS as

<http://www.ercot.com/gridinfo/planning>

TPIT Number	Project Title
4010	Rebuild Magnolia – Seminole 138-kV Line
52181	ENCO (ENC) 138-kV Substation
52183	EXTER 69-kV Substation Removal

## ❖ Reserve

Load outside the study weather zone will be adjusted to make up for 3,000 MW reserve to be consistent with the 2020 RTP.

# Study Methodology

## ❖ Base Scenario

- Planned cogeneration plant and associated load (50 MW)

## ❖ Sensitivity Scenario

- Base scenario + 140 MW of industrial load

## ❖ Congestion Analysis

- Congestion analysis may be performed based on the potential transmission upgrades to ensure that the identified transmission upgrades do not result in new congestion within the study area.



# Study Methodology

## ❖ Contingencies

- NERC TPL-001-4 and ERCOT Planning Criteria ([http://www.ercot.com/content/wcm/current\\_guides/53526/04-070118.doc](http://www.ercot.com/content/wcm/current_guides/53526/04-070118.doc)):
  - Normal system condition (P0)
  - N-1 conditions (P1, P2-1, P7)
  - P2-2 to 2-4, P4, and P5 (EHV only)
  - X-1 + N-1 (X-1 represents transformer outage)
  - G-1 + N-1 (G-1 represents generator outage)

## ❖ Criteria

- Thermal: Monitor all transmission lines and transformers in the study region
  - Use Rate A for normal conditions
  - Use Rate B for emergency conditions
- Voltage: Monitor all buses 69-kV and above in the study region
  - Voltages exceeding their pre-contingency and post-contingency limits
  - Voltage deviations exceeding 8% on non-radial load buses

## Next Steps

- ❖ ERCOT will provide status update in future RPG meetings.
- ❖ In accordance with Protocol Section 3.11.4.9(3), ERCOT will not issue the independent review recommending a project to meet needs identified for the load until a customer meets the agreement, notice to proceed and financial security requirements.



Stakeholder Comments Also Welcomed Through:

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