



**LP&L's ERCOT Integration
Status Report
ERCOT RPG
December 17, 2019**



LP&L ERCOT Integration

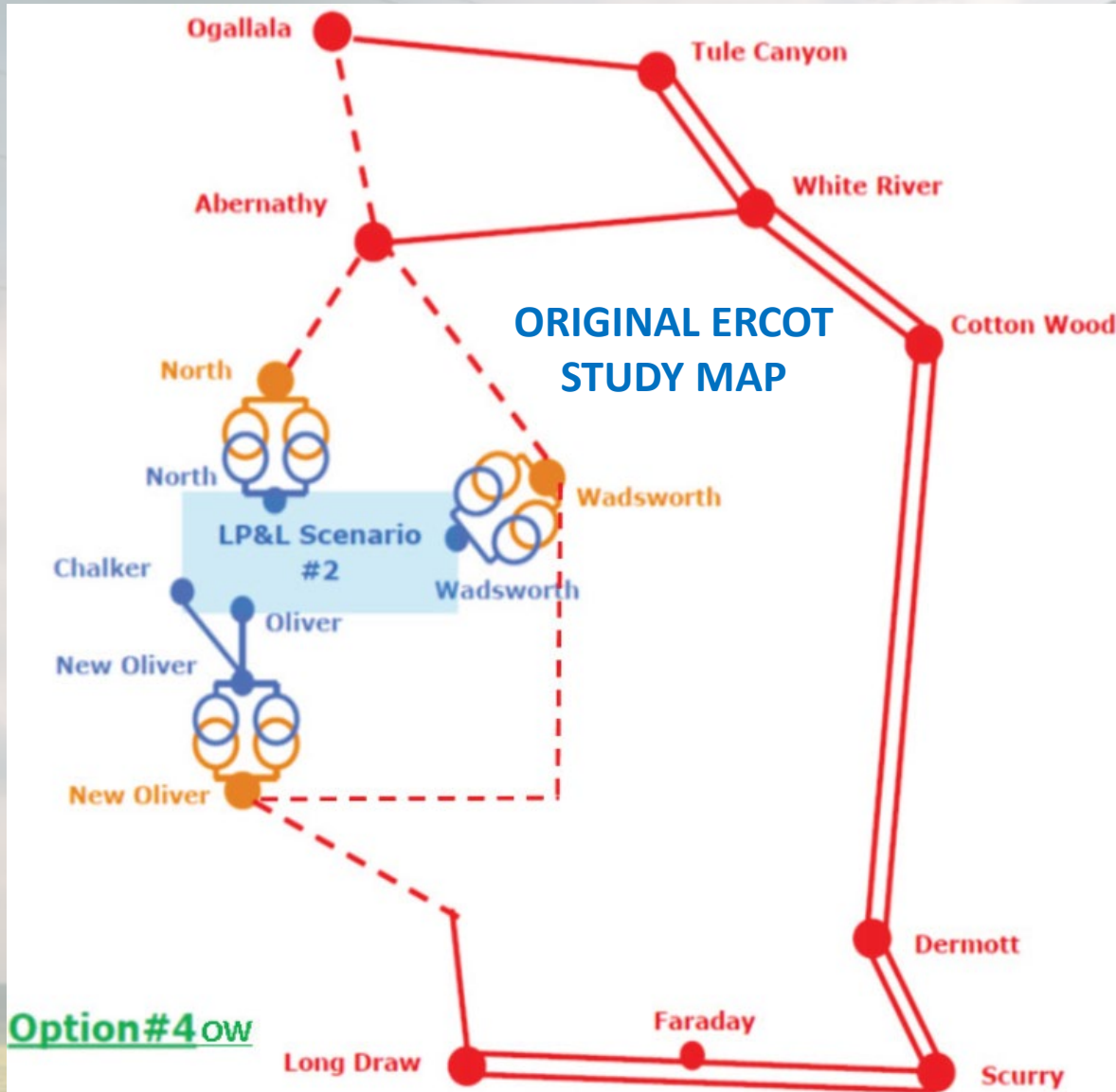
ON TRACK FOR INTEGRATION IN JUNE 2021

ERCOT Benefits – Acceptance of LP&L’s membership application:

- **Reinforces ERCOT reliability**
 - Balances ERCOT’s panhandle transmission system as Lubbock’s transmission interconnections create an improved network and more highways for electricity to travel, improved ability to schedule transmission outages
 - Achieves significant system strength benefits to the ERCOT Panhandle region
 - Creates greater transmission capacity and increased generation deliverability with load addition and new 345 kV transmission lines
- **Improves economies of scale throughout the ERCOT system**
 - Introduces a large member to share costs
 - Makes use of LP&L’s existing system to stabilize the grid
- **Partners ERCOT with the largest municipality in the Texas panhandle for the long-term**
 - Allows the entrance of the 11th largest city in Texas as an active participant in ERCOT
 - Boosts additional consumption of electricity in a constrained region

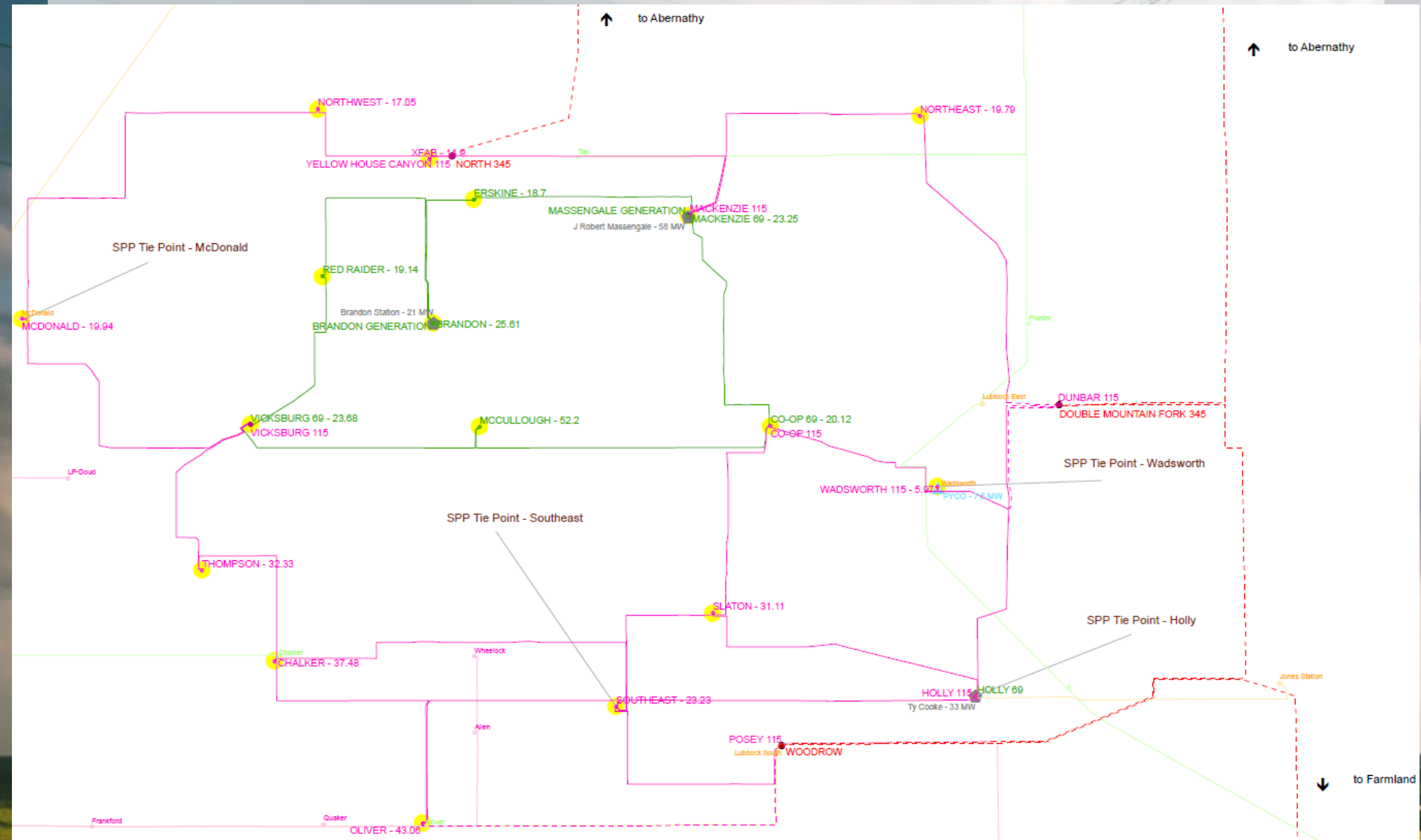


ERCOT Integration: Transmission





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LP&L ERCOT Integration: Status

- **Total LPL peak load forecast 640 MW**
- **SPS will provide partial requirements service for 170 MW**
 - This portion of load will remain in SPP
- **Peak load proposed to interconnect with ERCOT 480 MW+**
 - Will connect initially as a **NOIE**
 - Transition to retail competition
 - Upon governing body approval
 - West Load Zone, North Weather Zone
 - **No block load transfer** capability planned
- **LPL generation coming to ERCOT 112 MW summer capability**
 - Brandon - 21 MW, Distributed Generation Resource
 - Massengale - 38 MW (McKenzie 115 kV POI)
 - Massengale - 20 MW (McKenzie 69 kV POI)
 - Ty Cooke - 16 MW (Holly POI)
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- **LPL upgrade of existing system to 115 kV well underway**
- **Models currently in Planning Cases and being continuously updated**
- **Work on Operations Model starting by March 2020**



LP&L ERCOT Integration: Status

- **Held several meetings with ERCOT**
- **Held several meeting with SPP & TRE**
- **Compliance activities underway**
- **Generation Resource Integration underway**
 - RARFs Submitted
 - SSO/SSR Data Gathering underway
- **Steady State Reliability Study of LPL After Transition to ERCOT**
 - 2021 Summer Peak Case
 - LPL Load at 489 MW
 - Three levels of LPL Generation (0%, one unit, and 100%)
 - Ran all NERC/ERCOT Contingencies within and 3 levels outside LPL
 - **No issues or concerns** identified except for P6 Contingencies
- **Preliminary Transition Plan completed** (Timeline next slide)
- **Final ERCOT Transition Plan underway**
 - Dependent on reliability analysis of switching plan
- **Power System Analysis of Switching Plan underway**



LP&L ERCOT Integration Timeline

- **Nov 2019**
 - TSP: Develop EPS Meter Design Proposals
- **Jan 2020**
 - QSE: Designate QSE for LSE and RE
- **Feb 2020**
 - RE: Recommended date to complete RARFs for LP&L generation
- **Apr 2020**
 - TO: Test Telemetry and Voice with ERCOT
- **May 2020**
 - TSP: Certify EPS Meter Inspector
- **Jun 2020**
 - TSP/DSP: Prepare 4-Coincident Peak (4CP) Data with ERCOT (ongoing from this date)
 - DSP: Provide 4CP Data to ERCOT
- **Aug 2020**
 - ERCOT's preferred date for adding LP&L's system into NOM
 - TSP: Develop Network Operations Model with ERCOT
 - DSP: Provide 3 years of total Historical Load Data to ERCOT for forecasting
- **Sep 2020**
 - TSP: Execute a WAN Agreement, install WAN (if applicable), and test WAN in order to become a TO
 - TSP: Maintain Network Operations Model with ERCOT (ongoing from this date)
- **Nov 2020**
 - RE: Deadline to establish data links with LP&L's designated QSE
- **Feb 2021**
 - TO: Finalize Transmission Operator Switching Sequence Plan for Integration
- **Apr 2021**
 - RE: Deadline to provide Emergency Operations Plans and Weatherization Plans for LP&L's generators to ERCOT
 - NOIE: Deadline to provide Unregistered Distributed Generation Reporting data to ERCOT
 - NOIE: Deadline to provide NOIE Identification and Meter Point Registration information to ERCOT
 - TSP: Prepare Backup and Load Shedding Plans with ERCOT
 - TO: Log Outages with ERCOT
 - TO: Deadline to train and Certify LP&L's Transmission Operators
 - DSP: Complete Annual Load Data Request (ALDR) and Network Modeling
 - DSP: Develop Load Shedding Plans with ERCOT
- **Jun 2021**
 - TO: Coordinate outages with ERCOT (ongoing from this date)



LP&L ERCOT Integration

QUESTIONS & DISCUSSION

Thank You for your time and attention.