



# **SU South Plains Transmission Project – ERCOT Independent Review Scope**

RPG Meeting  
March 21, 2017

# South Plains Transmission Project Overview

- ❑ Sharyland Utilities submitted the South Plains transmission project for RPG review in October 2016.
- ❑ The project is intended to provide a new export path out of Panhandle to increase the Panhandle export limit while meeting ERCOT economic planning criteria.
- ❑ The South Plains project is projected to be in service by the end of 2020 with the estimated capital cost of \$251M.
- ❑ The South Plains transmission project has gone through the comment period and study mode and is currently in ERCOT Independent Review.

# Study Assumptions

- ❑ ERCOT will use the 2022 Economic Study case from the 2016 RTP.
- ❑ The current ERCOT Economic Criteria will be used to evaluate the project options.
- ❑ Generators in the Panhandle region that meet Planning Guide Section 6.9 requirements and were not included in the base case will be added.
- ❑ As of March 13, 2017, the total capacity of the wind generators that are operational or have met Planning Guide Section 6.9 requirements in the Panhandle region is 5206 MW.

# Panhandle Operational Wind Generators (3452 MW)

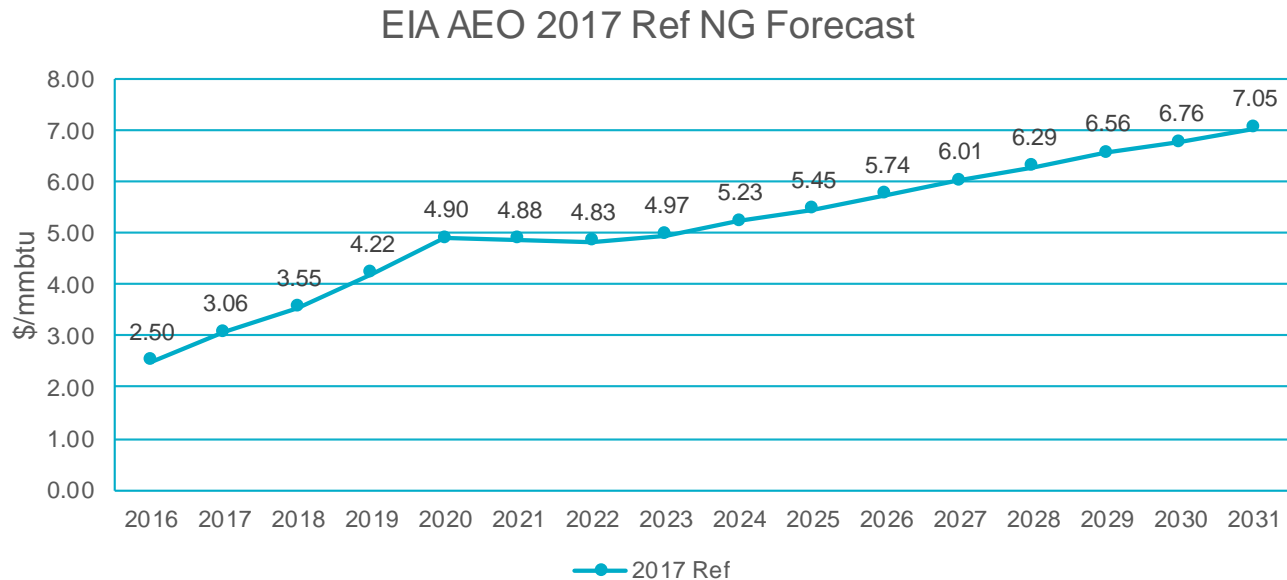
| INR          | Project Name                            | Capacity |
|--------------|---|----------|
| 13INR0005a   | Grandview Phase I (Conway Windfarm)     | 211      |
| 13INR0005b   | Colbeck's Corner W (Grandview Phase II) | 200      |
| 13INR0010b   | Mariah Del Norte                        | 230      |
| 13INR0048    | Spinning Spur Wind Two                  | 161      |
| 13INR0059a   | Hereford Wind                           | 200      |
| 13INR0059b   | Jumbo Road Wind                         | 300      |
| 14INR0012a   | Miami Wind 1 Project                    | 289      |
| 14INR0023a   | Longhorn Energy Center North            | 200      |
| 14INR0025a   | South Plains I                          | 200      |
| 14INR0025b   | South Plains II Phase a                 | 152      |
| 14INR0025c   | South Plains II Phase b                 | 149      |
| 14INR0030a_2 | Panhandle Wind 1                        | 218      |
| 14INR0030b   | Panhandle Wind 2                        | 191      |
| 14INR0032a   | Route66 Wind                            | 150      |
| 14INR0047    | Wake Wind                               | 257      |
| 14INR0053    | Spinning Spur W 3                       | 194      |
| 14INR0072    | Briscoe Wind                            | 150      |

# Panhandle Wind Generators Met Planning Guide 6.9 Requirements (1754 MW)

| INR        | Project Name       | Capacity |
|------------|--------------------|----------|
| 13INR0005c | Grandview W 3      | 188      |
| 13INR0010a | Mariah Del Este    | 139      |
| 13INR0010c | Mariah Del Sur     | 230      |
| 13INR0038  | Swisher Wind       | 300      |
| 14INR0023b | Longhorn South     | 160      |
| 14INR0062  | Salt Fork 1 Wind   | 174      |
| 15INR0074  | Falvez Astra W     | 163      |
| 16INR0037  | Cotton Plains Wind | 50       |
| 16INR0037b | Old Settler Wind   | 150      |
| 16INR0037c | Pumpkin Farm Wind  | 200      |

# Fuel Assumptions

- ❑ Natural gas: 2017 Reference Case from the 2017 EIA Annual Energy Outlook (AEO), modeled in nominal dollars.



- ❑ Coal and lignite: SNL fuel costs including mine-to-plant transportation costs modeled using an escalation rate of 2%.

## Study Approach

- ❑ Step 1: Establish Panhandle Interface limit for project options based on system strength analysis.
- ❑ Step 2: Run economic analysis using the Panhandle Interface limits established in step 1.
- ❑ Step 3: Select the most economical project that meets ERCOT economic criteria.
- ❑ Step 4: Verify dynamic performance of the selected project by dynamic simulations based on NERC TPL-001-4 requirements and ERCOT Planning Criteria.

# Sensitivity Study

- ❑ Sensitivity study based on PGRR0042: generators in the Panhandle region with SGIA but do not meet Planning Guide Section 6.9 requirements at the time of the study may be added.
- ❑ As of March 13, 2017, the total capacity of the wind generators in the Panhandle region with SGIA but do not meet Planning Guide Section 6.9 requirements is 4095 MW.





# Questions?