



# Item 12: AEPSC Airline/ North Padre Island Area Improvements Project Regional Planning Group (RPG) Review; ERCOT Independent Review

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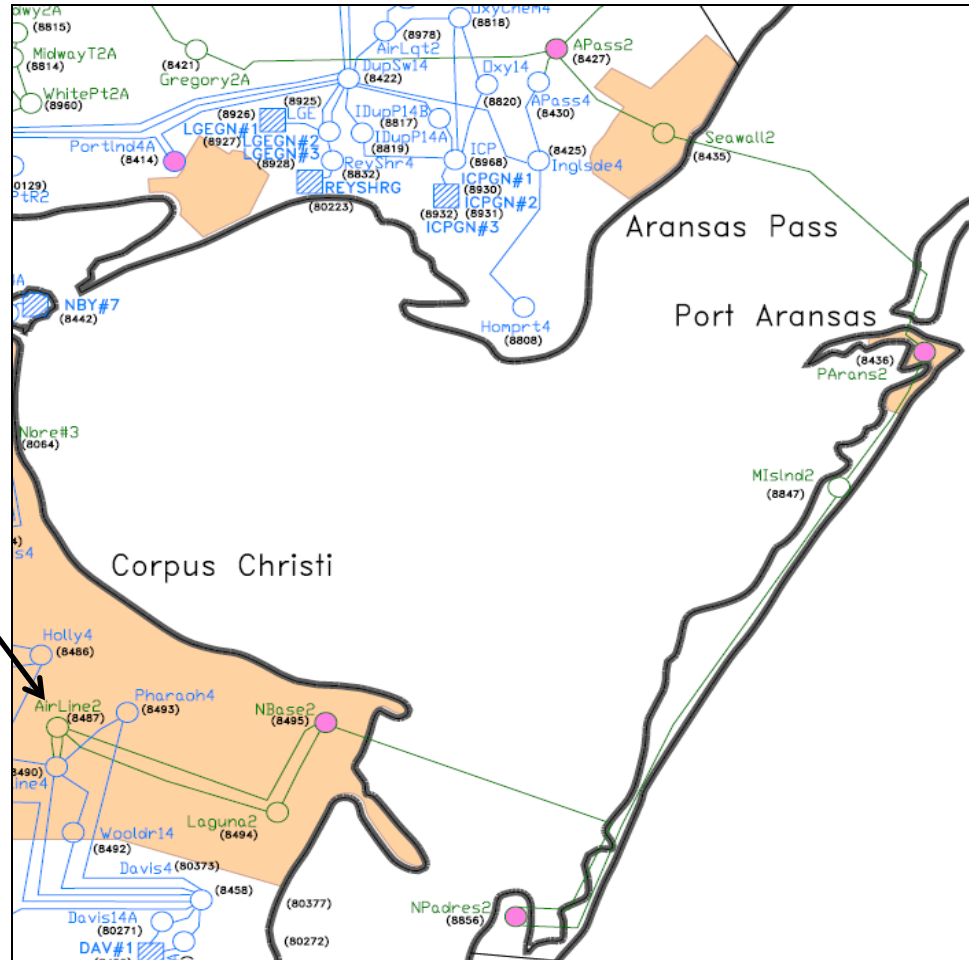
Board of Directors Meeting

ERCOT Public

January 15, 2013

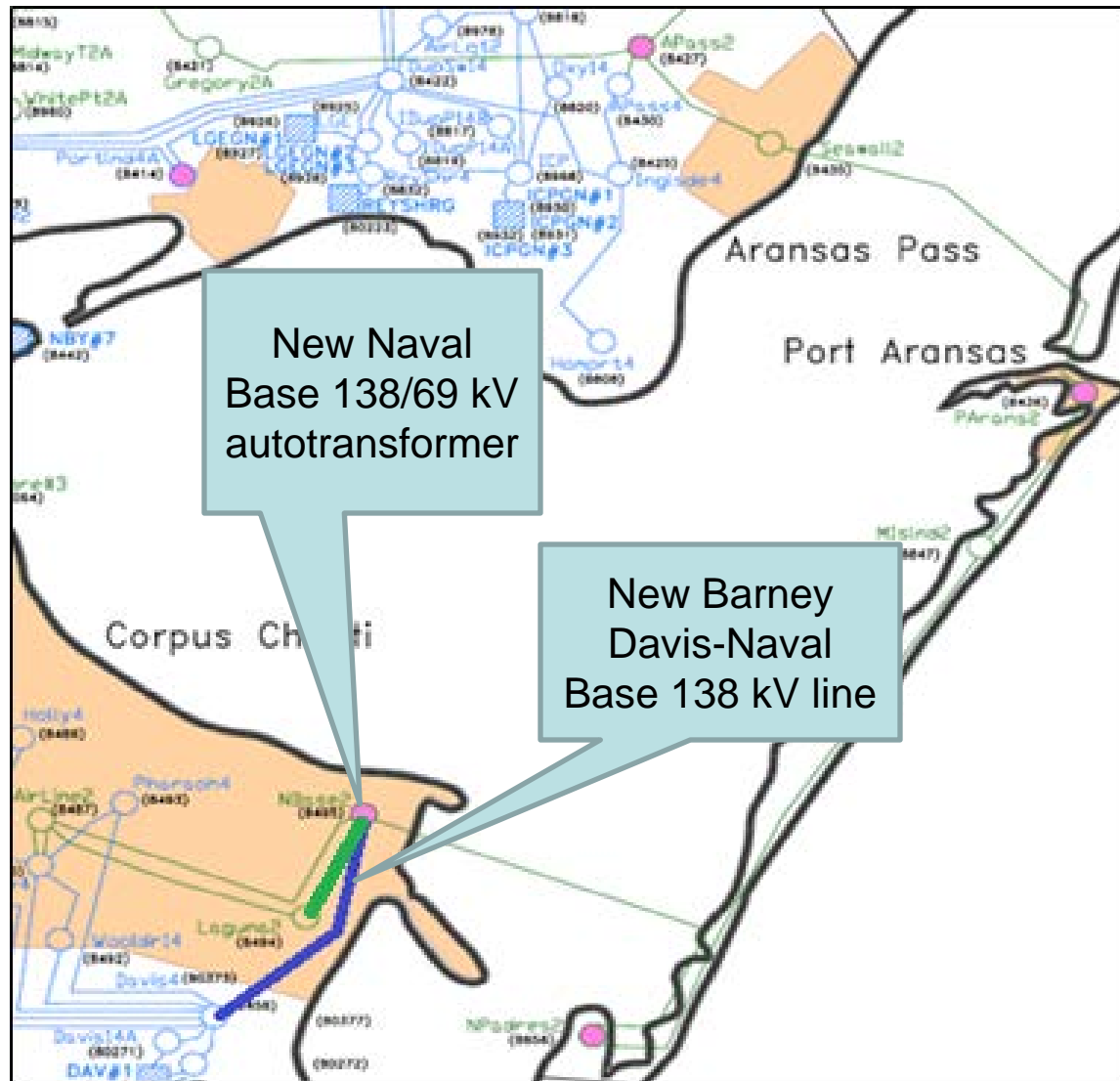
- **American Electric Power Service Corporation (AEPSC) received ERCOT Board of Directors endorsement for projects in the Corpus Christi area in December of 2009**
  - Part of project set included a new 138 kV line from Barney Davis to Laguna and a 138/69 kV autotransformer at Laguna in order to meet reliability criteria
- **Prior to submitting the Certificate of Convenience and Necessity (CCN) application for the Barney Davis to Laguna 138 kV line, AEPSC received public comments via open house meetings and explored alternative solutions**
  - Routing analysis drove cost estimates higher than anticipated in 2009 analysis
- **Based on the public input, environmental assessment and routing analysis AEPSC concluded that an alternative project set represented a better long-term solution for the needs in the area**

- **AEPSC submitted revised project set for RPG Review in July 2012**
- **Primary reliability concern:**
  - With one Airline 138/69 kV transformer out of service, the contingency loss of the other Airline transformer will cause a local voltage collapse
  - Includes critical load at Naval Base substation
  - Exposure is year-round



- **ERCOT Independent Review analyzed eight options including original project set (Option 5) and AEPSC revised project set (Option 2)**
  - Focused on N-1-1 AC contingency reliability analysis in 2013 spring and fall peak cases
    - NERC TPL Standards require planning for maintenance outages for load levels at which those outages are most likely to occur (ie. spring and fall in ERCOT)
  - Analyzed two future load growth sensitivity scenarios
- **ERCOT respectfully requests the ERCOT BOD endorse the following improvements associated with the AEPSC revised project set (Option 2):**
  - Construct a new 138 kV transmission line from Barney Davis to Naval Base such that the circuit emergency rating is approximately 320 MVA
  - Install a 138/69 kV autotransformer at Naval Base such that the circuit emergency rating is approximately 165 MVA
- **The cost estimate for these improvements is ~ \$54.7 million**

# Comments/ Questions?



Option 2 Upgrades