

AEPSC – Port Lavaca Area Improvement Project – ERCOT Independent Review (EIR) Status Update

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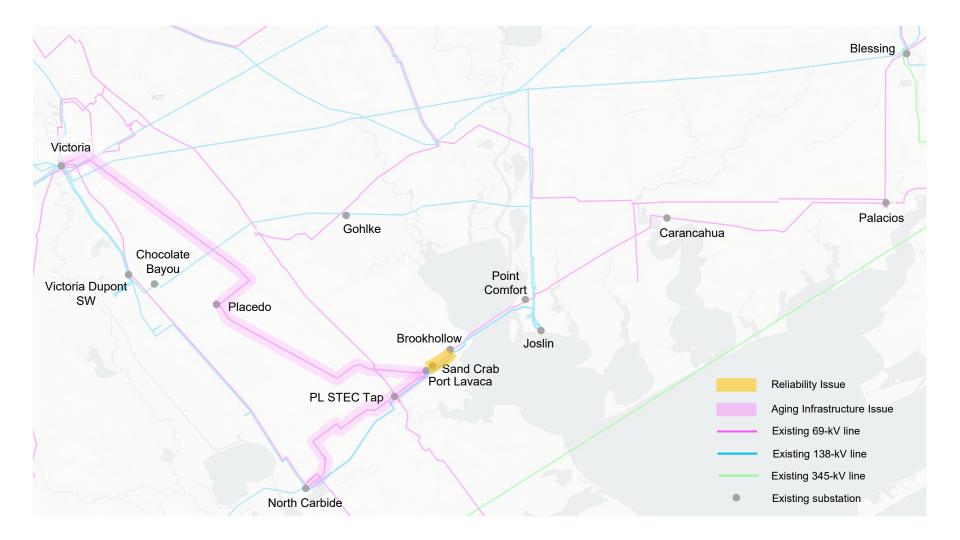
**Regional Planning Group (RPG) Meeting** June 15, 2021

## Recap

- ERCOT provided study scope for AEPSC Port Lavaca Area Improvement project at the April 2021 RPG meeting
  - <u>http://www.ercot.com/content/wcm/key\_documents\_lists/213851/AEPSC\_-</u> <u>Port\_Lavaca\_Area\_Improvement\_Project\_Scope\_-</u> <u>April\_6\_RPG\_Final.pdf</u>
- ERCOT conducted a reliability analysis and presented the need for transmission upgrade at the May 2021 RPG meeting
  - <u>http://www.ercot.com/content/wcm/key\_documents\_lists/213855/AEPSC\_-</u> <u>Port\_Lavaca\_Area\_Improvement\_Project\_Status\_Update\_-</u> <u>May\_11\_RPG\_Final.pdf</u>
- ERCOT is currently evaluating options to address the reliability need and aging infrastructure issues in the study region



### **Study Area Map**





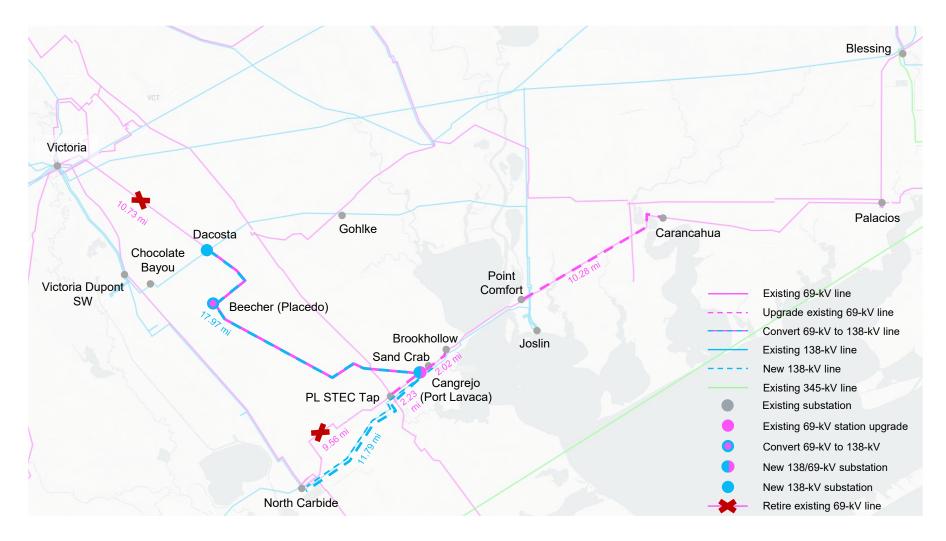




More details in Appendix







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#### **Preliminary Results – Option Evaluation**

- Among various options evaluated, ERCOT found Options 1, 2EA, and 4EA as short-listed options for further review
  - These three options addressed the reliability need and aging infrastructure issues in the study area
  - > The details of options evaluated can be found in Appendix

|   | Option 1         | Option 2EA       | Option 4EA       |
|---|------------------|------------------|------------------|
| Address the project needs                       | Yes              | Yes              | Yes              |
| Require CCN                                     | Yes<br>(2.02 mi) | Yes<br>(2.02 mi) | Yes<br>(2.02 mi) |
| Total millage for transmission upgrades (miles) | 45               | 44               | 30               |



# **Next Steps**

- ERCOT will further evaluate the short-listed options
- ERCOT will conduct a congestion analysis for a recommended transmission upgrade to ensure that the identified transmission upgrades do not result in new congestion within the study region
- Tentative Timeline
  - Final recommendation in July 2021





Stakeholder comments also welcomed through: <u>SunWook.Kang@ercot.com</u>



### **Option 1 Details**

| Transmission Upgrades   | Length (mi) |
|---|-------------|
| Rebuild Port Lavaca 69-kV substation (new station at Cangrejo)  |             |
| Rebuild the existing Brookhollow to Port Lavaca (Cangrejo) 69-kV using 2000 A conductor, operate at 69-kV   | 2.02        |
| Rebuild a portion of the existing North Carbide to Port Lavaca (Cangrejo) using 2000 A conductor, operate at 69-kV  | 2.23        |
| Retire the existing Port Lavaca STEC tap. – North Carbide 69-kV line  | 9.56        |
| Rebuild a portion of the existing North Carbide to Joslin using 2000 A conductor utilizing double circuit<br>structures:<br>#1. North Carbide - Port Lavaca (Cangrejo) - Sand Crab 138-kV line, operate at 69-kV<br>#2. North Carbide - Port Lavaca (Cangrejo) 69-kV line, operate at 69-kV | 11.79       |
| Rebuild the existing Port Lavaca (Cangrejo) to Victoria using 2000 A conductor, operate at 69-kV  | 28.87       |

Option 1 Map



### **Option 2EA Details**

| Transmission Upgrades  | Length (mi) |
|--|-------------|
| Rebuild Port Lavaca 69-kV substation (new station at Cangrejo) as 138/69-kV substation   |             |
| Install an 138/69-kV transformer at the new Cangrejo 138/69-kV substation  |             |
| Rebuild Placedo 69-kV substation (new station Beecher) as 138-kV substation  |             |
| Rebuild the existing Brookhollow to Port Lavaca (Cangrejo) 69-kV using 2000 A conductor, operate at 69-kV  | 2.02        |
| Rebuild a portion (STEC tap Cangrejo) of the existing North Carbide - Port Lavaca (Cangrejo) using 2000 A conductor, operate at 69-kV  | 2.23        |
| Retire the existing Port Lavaca STEC tap. – North Carbide 69-kV line   | 9.56        |
| Rebuild a portion of the existing North Carbide to Joslin using 2000 A conductor utilizing double circuit<br>structures:<br>#1. North Carbide – Cangrejo - Sand Crab 138-kV line (i.e., loop the existing the North Carbine to Sand Carb<br>138-kV line into Cangrejo), operate at 138-kV<br>#2. North Carbine - Cangrejo 138-kV line, operate at 138-kV | 11.79       |
| Construct a new Dacosta 138-kV substation at the intersection of the existing Chocolate Bayou – Gohlke 138-kV line and the existing Port Lavaca (Cangrejo) – Victoria 69-kV line   |             |
| Rebuild a portion of the existing Port Lavaca (Cangrejo) to Victoria using 2000 A conductor, operate at 138-<br>kV and terminate at the new Dacosta 138-kV substation  | 17.97       |
| Retire remaining portion of the existing Placedo (Beecher) – Victoria 69-kV line   | 10.73       |
| Rebuild portion of the existing Point Comfort – Carancahua 69-kV line, operate at 69-kV  | 10.28       |

Option 2EA Map



### **Option 4EA Details**

| Transmission Upgrades  | Length (mi) |
|--|-------------|
| Rebuild Port Lavaca 69-kV substation (new station at Cangrejo) as 138/69-kV substation   |             |
| Install an 138/69-kV transformer at the new Cangrejo 138/69-kV substation  |             |
| Rebuild the existing Brookhollow to Port Lavaca (Cangrejo) 69-kV using 2000 A conductor and operate at 69-kV   | 2.02        |
| Rebuild a portion of the existing North Carbide to Port Lavaca (Cangrejo) using 2000 A conductor and operate at 69-kV  | 2.23        |
| Retire the existing Port Lavaca STEC tap. – North Carbide 69-kV line   | 9.56        |
| Rebuild a portion of the existing North Carbide to Joslin using 2000 A conductor utilizing double circuit<br>structures:<br>#1. North Carbide - Cangrejo - Sand Crab 138-kV line (i.e., loop the existing the North Carbine to Sand Carb<br>138-kV line into Cangrejo), operate at 138-kV<br>#2. North Carbine - Cangrejo 138-kV line, operate at 138-kV | 11.79       |
| Rebuild Placedo 69-kV substation (new station at Beecher) as 138-kV substation   |             |
| Rebuild portion of the existing Placedo (Beecher) – Victoria 69-kV line (~4miles) with a double circuit 138-kV structure to cut into the existing Chocolate Bayou – Gohlke 138-kV line to create a loop, operate at 138-kV   | 4           |
| Retire remaining portion of the existing Placedo (Beecher) – Victoria 69-kV line   | 10.73       |
| Retire the existing Port Lavaca – Placedo (Beecher) 69-kV line   | 13.97       |
| Rebuild portion of the existing Point Comfort – Carancahua 69-kV line, operate at 69-kV  | 10.28       |

Option 4EA Map

