



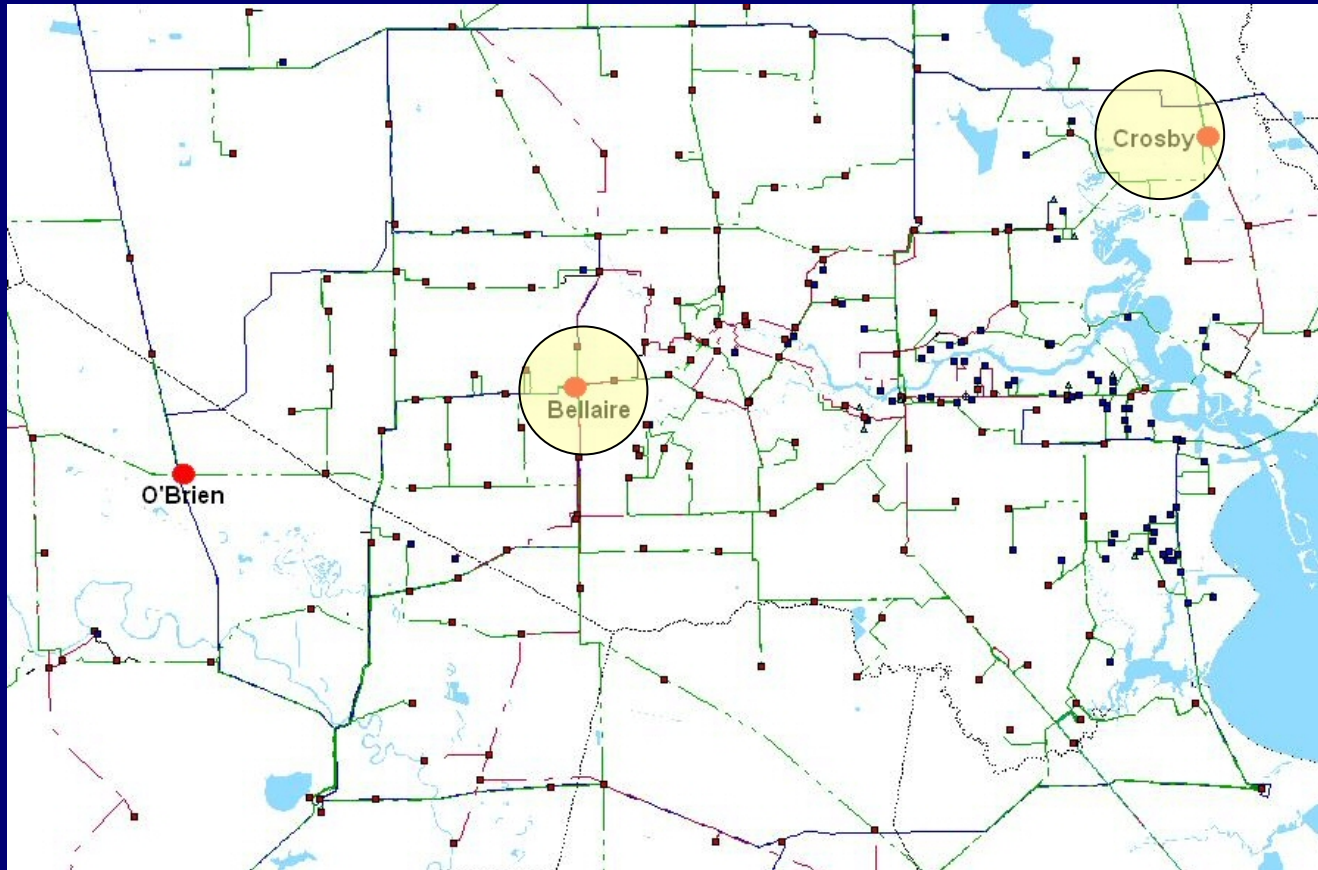
CenterPoint Dynamic Reactive Project

Board of Directors

8/15/2006

Bill Bojorquez
Director, System Planning

Description of Project



1. **2 Sites Selected:**
 - Bellaire
 - Crosby
2. **Estimated Cost \$20 – 25 M for devices and all construction.**
3. **In-Service by Peak 2008.**

Installation of devices (type to be determined through RFP) to provide dynamic reactive support at two substations in the Houston area



Projects Needed for Reliability

Project is needed to:

- Maintain voltage within acceptable limits following severe (NERC Category D) contingencies

– *Operating Guide 3.1.4.6, Protective Relaying Requirement*

- Maintain level of load shed following Category D contingencies to acceptable level

– *Limit the amount of load shedding to less than 1250 MW to avoid possible over frequency tripping, loss of significant local demand, and mitigate risk of cascading regional blackout*



Multiple Facility Forced Outages

- **ERCOT surveyed Transmission Operators to determine frequency of extreme events resulting in two or more components removed or cascading out of service – NERC Category D**
- **Results Showed:**
 - **Average 19.71 events per year**
 - **Average 3.89 circuits removed per event**
 - **Average Time Between Events – 16.67 Days**
- **Similar MAAC Data compiled by PPL Electric Utilities showed an average of 18.4 events per year with 2.4 to 2.6 circuits removed per event.**



Stakeholder Review

- **The Regional Planning Group stakeholder review period for this project was held in April 2006**
- **The project was presented to TAC at the August 3rd meeting**
- **There have been no dissenting comments on this project through the RPG or at TAC**



ERCOT Support For the Project

ERCOT supports the need for this project, as described, and asks that the Board endorse the project