

Winter Freeze Operations

Date : 01/26/2018

Due to its geographic location and proximity to the equator, the Rio Grande Valley's inhabitants – people, plants and animals – are not accustomed to frigid temperatures like the ones seen in December 2017 and January 2018. As a result, the Brownsville Public Utilities Board (BPUB) was impacted by numerous factors due to a cold weather event on Tuesday, Jan. 16, 2018, and Wednesday, Jan. 17, 2018.

Throughout the day, as temperatures started to drop, electricity demand began to peak as central heaters and space heaters put a demand on the local power grid. Across Texas and the Rio Grande Valley, the same was happening for other electric service providers, so much so that the Electric Reliability Council of Texas (ERCOT) said that the state set a new record of 65,731 megawatts (set between 7 and 8 a.m. on Wednesday, Jan. 17).

As north winds blew in, they sent loose vegetation flying. Tree branches and palm fronds making contact with power lines caused a good amount of blinking lights in multiple neighborhoods. The frigid winds combined with the cold rain caused icing on power lines. With high winds present, Brownsville experienced a phenomenon that not many line workers get to see in their lifetime: “galloping wires.” This dangerous event causes powerlines to hum or buzz loudly, and whip up and down violently. The whipping action can damage power poles, electrical lines and be extremely dangerous should those lines break and fall to the ground. Remember, they are still electrified.

Troubleshooters patrolled miles of circuits to pinpoint outage causes and reroute electric service to alternate circuits to complete restorations. Crews worked a 16-hour shift to get customer homes and businesses back online as freezing winds gusted and rain fell. The call center extended their hours of operation and backup crews were called in to assist and relieve primary crews. Other departments worked in communication with ERCOT to keep the Texas power grid operational and tracked outages. Still others fielded online customer questions and reported news about outages.

All customers were asked to conserve electricity by avoiding using appliances that use high amounts of electricity. The conservation helps to keep electrical circuits operational when demand is high. It also helps when crews have to switch loads from a heavily loaded circuit to a less heavily loaded circuit. If a circuit becomes too overloaded with electricity demand, it could fail. Think of a shoestring that has a finite strength limit. Too much pull and it could snap.

While the BPUB did not activate the BPUB General Emergency Plan, which begins our Incident Command System (ICS) to align with the city of Brownsville emergency operations and address BPUB's operational and restoration requirements, BPUB did follow a rationale that it follows in bad weather events: Safety above all and restore the biggest outages first and proceed to the next biggest until all are restored.