February 2021 Winter Storms After Action Report

Update: 04 November 2021
Overall Event Timeline (February 11-21)

2021 February Ice Storm: Affected Customers vs. Time

ERCOT-Mandated Load Shed Challenges:
- Initially 35,000 weather-related Customer outages
- ERCOT inability to meet demand resulted in lengthy outages, nominally 200,000 customers
- Magnitude of Load Shed prevented "rotation" of outages

Customers restored after Feb. 11 ice storm

Polar Vortex & Below Freezing Event

Ice Storm & Wind

Ice Storms, Localized High Winds & Snowstorms

Ice Storm and Torrential Freezing Rain

100% of Customers restored

This slide is demonstrative as the weather varies across the footprint of the AE service area and the larger transmission system.
# February 2021 Winter Storms After-Action Report

## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction</td>
<td>3</td>
</tr>
<tr>
<td>2. After Action Report Development</td>
<td>5</td>
</tr>
<tr>
<td>3. Detailed Event Development</td>
<td>7</td>
</tr>
<tr>
<td>4. Observations and Follow-up Actions</td>
<td>12</td>
</tr>
<tr>
<td>Observation 1 — Community Communication</td>
<td>12</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>12</td>
</tr>
<tr>
<td>Austin Energy Outage Map</td>
<td>14</td>
</tr>
<tr>
<td>Outage Map Text Alerts</td>
<td>15</td>
</tr>
<tr>
<td>Austin 3-1-1 Service</td>
<td>15</td>
</tr>
<tr>
<td>Observation 2 — Other Utilities and City Departments that Provide Public Services</td>
<td>17</td>
</tr>
<tr>
<td>Texas Gas Service</td>
<td>17</td>
</tr>
<tr>
<td>Austin Water</td>
<td>17</td>
</tr>
<tr>
<td>Austin Transportation Department</td>
<td>19</td>
</tr>
<tr>
<td>Communications Companies</td>
<td>19</td>
</tr>
<tr>
<td>Observation 3 — Medically Vulnerable Registry (MVV)</td>
<td>20</td>
</tr>
<tr>
<td>Observation 4 — Incident Command Team</td>
<td>20</td>
</tr>
<tr>
<td>Observation 5 — Management of ERCOT-Directed Load Shed</td>
<td>21</td>
</tr>
<tr>
<td>Load Shed</td>
<td>21</td>
</tr>
<tr>
<td>Critical Load</td>
<td>23</td>
</tr>
<tr>
<td>Advanced Metering Infrastructure</td>
<td>25</td>
</tr>
<tr>
<td>Large Commercial and Industrial Customers</td>
<td>26</td>
</tr>
<tr>
<td>Downtown Underground Electric Network</td>
<td>27</td>
</tr>
<tr>
<td>Observation 6 — ERCOT Market and Generation Plants</td>
<td>27</td>
</tr>
</tbody>
</table>

# Observation 7 — Restoration Process | 29 |

# Damage Assessment Personnel | 30 |

# Single Outage Process | 50 |

# Advanced Distribution Management System | 31 |

# Energy Management System/Supervisory Control and Data Acquisition System (EMS/SCADA) | 32 |

# Cold Load Pickup | 32 |

# Observation 8 — Management of Vegetation Near Power Lines | 34 |

# Observation 9 — Substations | 36 |

# Observation 10 — Transmission Lines | 38 |

# Observation 11 — Black Start Process | 39 |

# Observation 12 — Fleet Management | 40 |

# Observation 13 — Vegetation Debris Resulting from Winter Storms | 40 |

# Observation 14 — Emergency Critical Supplies | 41 |

# Observation 15 — Employee Health and Well-Being | 42 |

# Observation 16 — Remote Workforce | 43 |

# Observation 17 — Safety Management | 44 |

# Observation 18 — Climate Event Risk Assessment | 45 |

# Observation 19 — Collaboration with COA Departments | 45 |

5. Conclusion | 46 |

6. Appendix A: Acronyms | 47 |
4. OBSERVATIONS AND FOLLOW-UP ACTIONS

This section of the AAIL summarizes what took place during the Winter Storms, analyzes the actions taken by Austin Energy and identifies strengths and areas needing improvement. The identified follow-up actions are planned or completed to leverage best practices or to address identified opportunities.

Observation 1 – Community Communications

Austin Energy provided information to the public under extreme circumstances and used various inclusive forms of public messaging, both during and immediately after the Winter Storms. Communications with customers, Austin Energy staff and management, City departments and City Council offices were impacted by the reduced availability of internet and cell phone service. Other challenges included the impact of power loss on standard communication tools, other technological challenges and language barriers. Opportunities to collaborate on communications with other public entities were identified.

Media and Communication

Background

At the onset of the Winter Storms, the Austin Energy team had an operational emergency communications plan and a specific strategy in place for ERCOT-directed EEA's. In addition, utility staff conducted crisis media training to ensure various teams understood the needs and demands of today's media and the public, so that the utility can deliver messages clearly and with credibility.

ERCOT has a series of emergency procedures that may be used when operating reserves drop below specified levels. There are three levels of EEA, depending on the capacity of operating reserves that are available to meet the electric demand on the system.

EEA Level 1

When operating reserves drop below 2,350 MW and are not expected to recover within 30 minutes, grid operators can call on all available power supplies, including power from other grids, if available.

EEA Level 2

When operating reserves are less than 1,750 MW and are not expected to recover within 30 minutes, ERCOT can reduce demand on the system by interrupting power from large industrial customers who have contractually agreed to have their electricity turned off during an emergency. ERCOT can also use demand response resources that have been procured to address tight operating conditions.

EEA Level 3

An EEA is declared if operating reserves cannot be maintained above 1,750 MW. If conditions do not improve, continue to deteriorate or operating reserves drop below 1,000 MW and are not expected to recover within 30 minutes, ERCOT will order transmission companies to implement controlled outages.

Austin Energy's strategy includes communications specific to each EEA level, building up to the following EEA messaging tactics used in this event:

- News releases (English and Spanish)
- New/flash emails to Key Account customers

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Observation 3 – Medically Vulnerable Registry

Austin Energy reached out to 365 customers associated with the Medically Vulnerable Registry (MVR) during the Winter Storms, performing wellness checks and providing resource information as needed.

Background

The COA Customer Assistance Program (CAP) engages with vulnerable populations across Austin Energy's territory to reduce and avoid interruptions of critical utility services. MVR is a program within CAP through which Austin Energy provides account support one-on-one case management, home visits, referrals to other social service providers and a customized, customer-centric collection process for MVR customers.

During the Winter Storms, CAP team members were activated and conducted outreach to enrolled MVR customers and their customers pending approval. They checked on each home, power status, and reviewed customers of the emergency backup plans they created in collaboration with CAP staff. MVR customers were provided with resources for food, water and warming centers. MVR customers who could not be reached directly or through a third party were referred to Austin Energy MCd staff. The field staff conducted 21 wellness checks and referred nine customers to CME.

Follow-Up Actions

- OA 3.1 – Incorporate processes to check meter status, alert staff to outages among medically vulnerable populations and confirm a timely plan for wellness checks with internal teams and other COA departments. (Q1, 2021)
- OA 3.2 – Work with other COA departments to establish a coordinated communication process to assist the medically vulnerable. (Q1, 2021)
- OA 3.3 – Refine the existing MVR process to update contact information regularly through outbound call efforts. (Q1, 2021)

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Observation 4 – Incident Command Team

The Austin Energy Incident Command Team successfully activated during the Winter Storms and it provided leadership and coordinated restoration activities according to established procedures. The Incident Command Team included the Austin Energy Executives and all groups were briefed on unfolding Winter Storm events and that they were responsive. The extent and severity of the Winter Storms reinvigorated improvement opportunities in policy and procedures, staffing and training.

Background

Austin Energy uses the NGM in its Incident Command System (ICS) to command, control and coordinate emergency events. At the onset of the Winter Storms, Austin Energy's ICS had been continuously activated since March 2020 in response to the COVID-19 pandemic. The ICS transitioned, without interruption, to respond to the Winter Storms event. The ICS includes an Executive Crisis Management Team and an Operational Incident Command Team. These teams held frequent structured meetings during the Winter Storms. Critical communications and remote weather updates were available to key decision makers, resulting in informed decisions based on broad parameters and a high level of situational awareness. Some key improvement opportunities noted during the Winter Storms include evaluating and improving employee preparedness and training processes.

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Observation 8 – Management of Vegetation near Power Lines

Austin Energy electric circuits with recently pruned vegetation performed significantly better during the Winter Storms than circuits around vegetation that had not been pruned recently. Austin Energy's customers benefit from the maintenance of adequate and standard tree clearances.

Background

Austin Energy’s contractors performed significant emergency tree pruning near power lines to remove tree branches and trees damaged by the inclement weather so as to reduce power. The utility’s customers benefit from adequate clearances between branches and vegetation and power lines. In 2019, Austin Energy increased its standard clearances between trees and wires. As Austin Energy vegetation management contractors complete their citywide tree trimming cycle, there will be greater clearances between trees and power lines throughout the city and fewer instances of tree-caused outages during significant storm events.

Follow-Up Actions

- OA 8.1 – Continue the Austin Energy vegetation management pruning program cycle and maintain adequate clearances between trees and wires in accordance with the tree pruning clearances established in 2019. (Ongoing)
- OA 8.2 – Communicate to neighborhood associations and other community groups the pruning need for Austin Energy to prune regularly in accordance with its standard clearances to ensure that adequate low- and vegetation clearances are established and maintained around power lines. (Ongoing)
### Areas that Worked Well

- Energy Control Center systems and timely implementation of Load Shed
- Sustaining power to customers on critical load list
- Performance of power generation units
- Energy market risk management and customer rate protection
- Transmission lines and substations
- Incident Command Structure
- Remote workforce
- Occupational safety management

### Areas for Follow-Up

- ERCOT market design discussions and potential regulatory changes
- Community communications, text alerts and outage map
- Vegetation management
- Evaluate further sectionalizing circuits and expanded smart grid technologies
- Increased coordination with large industrial customers to aid in Load Shed
- Development of method for reducing power use on downtown network
- Increased coordination with City Departments
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WINTER STORMS
AFTER-ACTION REPORT
February 11 - 20

Data as of 10/26

Follow-up Actions

- 50% In-Progress
- 29% Completed
- 21% Ongoing

Observations

- 19
- 112