

PUC Bureau of Technical Utility Services (TUS)

Reliability & Emergency Preparedness Responsibilities

September 7th, 2023



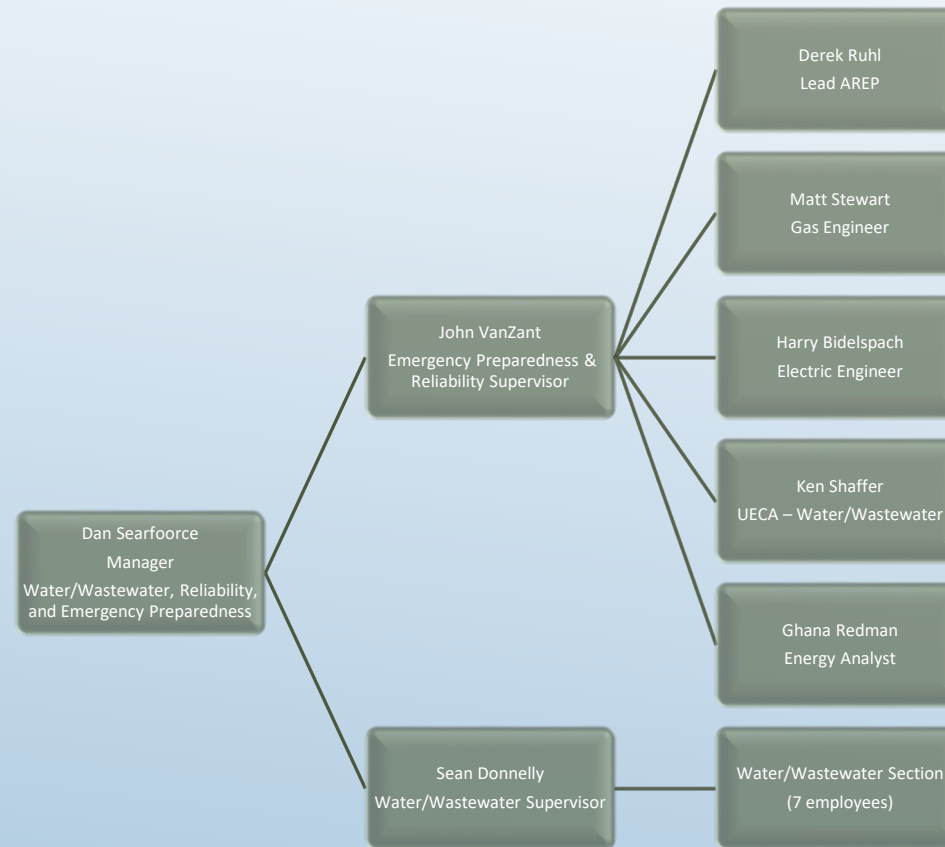
TUS Reliability & Emergency Preparedness Responsibilities

Disclaimer

- My presentation and opinions expressed do not necessarily represent those of the Commission, or any of the Commissioners



TUS Reliability & Emergency Preparedness Organization Chart



TUS Emergency Preparedness Responsibilities

- TUS serves as the principal point of contact with the investor-owned electric distribution, landline telephone, water/wastewater utilities, and the major railroad companies
- The TUS Emergency Preparedness team is tasked with carrying out the responsibilities defined in the Commonwealth Emergency Operations Plan (CEOP) and certain Emergency Support Functions (ESFs)
- The PUC is the primary support agency to the Department of Environmental Protection (DEP) under ESF 12 (Energy)



TUS Emergency Preparedness Responsibilities (continued)

- The TUS Lead Agency Representative (AREP) acts as the main point of contact for TUS with the Pennsylvania Emergency Management Agency (PEMA) and the regulated utilities for emergency incidents
- There are additional PUC AREPs and Subject Matter Experts for Electrical Safety, Pipeline Safety, Rail Safety, and Motor Carrier Safety that are on PEMA contact lists for questions and incidents



I&E Emergency Preparedness Responsibilities

- In addition to TUS, the PUC Bureau of Investigation & Enforcement (I&E), has responsibilities in Electric, Pipeline (natural gas and hazardous liquid fuel pipelines) and Motor Carrier safety and compliance enforcement
- I&E acts as the principal point of contact for electrical safety, pipeline safety, and motor carrier safety reported emergency incidents or problems



TUS Role During Storms

- The Lead AREP monitors the National Weather Service and PEMA briefings for severe weather threats
- If necessary, the Lead AREP notifies utilities of severe weather events and surveys them on preparedness efforts and anticipated outage impacts
- The utility feedback is then sent to the PUC Commissioners, DEP Energy Office, and PEMA for awareness and preparedness purposes



TUS Role During Storms (continued)

- 52 Pa. Code § 67.1: Fixed utilities (electric, natural gas, steam heat, water, and telephone) report outages to the PUC for any incidents where a minimum of 2,500, or 5%, whichever is less, of a utility's total customers are interrupted for six or more consecutive hours
- The Lead AREP establishes a reporting schedule and compiles outage information, details, and estimated times of restoration for PEMA and PUC Commissioners
- The Lead AREP and other PUC AREPs monitor utility response to ensure that essential utility services are restored as quickly and safely as possible



TUS Role During Storms (continued)

- If utility damages and disruptions are expected to be significant, the PUC may conduct a Chairman and Utility CEO Conference Call (Jurisdictional Electric, Natural Gas, Water, & Telcos)
- The PEMA Director and Governor's Office Staff are invited, and other state agencies may be invited depending on the incident
- The purpose of the call is to ensure a common operating picture and to identify unmet needs



Electric Grid Emergencies

- TUS communicates with the regional electric grid operator, PJM, on a regular basis and receives PJM Emergency Procedure notifications
- Jurisdictional electric utilities are required to communicate with the PUC during electric capacity or voltage emergencies – TUS shares the situational awareness with PEMA and the DEP Energy Office
- All EDCs are required to have emergency plans and procedures should they need to enact rolling blackouts or brownouts (load or voltage reductions, respectively)



Natural Gas Capacity & Supply Emergencies

- The Natural Gas Distribution Companies (NGDCs) are required to communicate with the PUC and customers during natural gas capacity/supply emergencies
- NGDCs are required to have a gas emergency plan and to include the plan in their tariff
- The plans are plain language and simplified to ensure customers can understand the steps an NGDC would take
- TUS provides situational awareness to PEMA and the DEP Energy Office



Natural Gas Capacity & Supply Emergencies (continued)

- Dependence on natural gas and liquid fuel for emergency back-up is important
- All our lifeline utility sectors will depend on natural gas or liquid fuel during a large emergency - Do you have enough back-up power fuel capacity or supply to continue operations with a loss of commercial power?



Long-term Infrastructure Investment Plan (LTIIP)

- The LTIIP regulations became effective December 20, 2014, and TUS is responsible for reviewing water, wastewater, natural gas, and electric LTIIPs
- Companies are required to provide details on how their investment plan for infrastructure replacements of the targeted eligible property will improve reliability and/or safety
- Companies are required to provide additional details on how their plan and eligible property were determined and targeted (risk-based approach, age, leak rates, material type, Commission directive/audit finding, etc.)
- The companies are required to provide details on the measurement of LTIIP program success



Operation Blue Flame Exercise Program

- TUS has been delivering annual natural gas emergency tabletop exercises (TTX)s since 2018
- The target audience of the TTX rotates annually between the Large Natural Gas Distribution Companies (NGDCs) and state agencies (PEMA, DEP, Department of Health, Department of Human Services, National Guard, etc.)
- Every designed exercise varies from understanding the operational response aspects of a gas response and relight; to the law enforcement aspects of a suspicious event; to making sure that state and local agencies understand their consequence management responsibilities during a large gas outage



Operation Blue Flame Exercise Program (continued)

- Gas Ex '18 – UGI (NGDC Focus)
- Gas Ex '19 – Columbia Gas (State Agency Focus)
- Gas Ex '21 – Peoples Gas (NGDC Focus)
- Gas Ex '22 – PECO Gas (State Agency Focus)
- Gas Ex '23 – Phila. Gas Works (NGDC and Law Enforcement Focus)
- Gas Ex '24 – Catalyst Event for the '24 National Mass Care Exercise (UGI)



Black Sky Steering Committee (BSSC)

- Black Sky Events (BSE) are defined as extraordinary and hazardous events that produce power outages of a large, potentially regional scale, that last significantly longer than typical weather or operational outages and may have cascading impacts on other critical infrastructure sectors
- BSEs can be caused by electromagnetic pulse events (EMP)s, severe cyberattacks, severe weather events, severe solar flares, or physical attacks
- Through the Black Sky Steering Committee (BSSC) the Commonwealth is beginning to develop BSE plans and concepts



BSSC (continued)

- The BSSC meets bi-annually and consists of four lifeline sector workgroups (Energy, Water/Wastewater, Communications, Transportation)
- The BSSC consists of many different utility sectors and state agency reps
- The workgroups are intended to meet throughout the year and have their own planning concepts and cross-workgroup exercises
- Work products to-date are a draft PACE communications plan; an interdependency matrix; and a BSE conference call procedure
- The BSSC could use more involvement from the gas and liquid fuels industry since that is a critical commodity that all lifeline sectors will depend on during a BSE



Cybersecurity

- The PUC has created internal and external cybersecurity procedures for how to communicate and respond to an internal or external cyber attack that is reported to us
- The Colonial Pipeline cyber attack occurred on their IT system however it still impacted their operational system causing the pipeline to shut down with cascading downstream effects
- Do you understand whether a cyber attack on your IT systems would impact your operational capabilities even if they are separate systems?



Thoughts Moving Forward

- Always consider inviting your County Emergency Mgmt. Agencies to your drills and exercises and meet with them annually
- In the event of degraded conventional communications, consider creating **Primary, Alternate, Contingency, and Emergency Communications (PACE) Plans** for your Continuity of Operations Plans (COOP Plans)
- Ensure your emergency communications include responsible independent actions in the event conventional communications are degraded
- Make sure you are documenting your critical interdependencies and discussing your needs with those entities in the event of a BSE

