



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Helgeson, Brown, Mital, Simpson and Carlson
FROM: Rodney Price, Chief Electric Engineering and Operations Officer, Mark Hankins,
Project Manager for Electric Outage Updates
DATE: November 7, 2017
SUBJECT: Update on Electric Outage Preparedness for Winter Season
OBJECTIVE: Information and Update.

Issue

Requested Information and Update on Storm Season Readiness for the Electric System.

Background

In December, 2016, Eugene experienced a substantial ice storm event that resulted in approximately 22,000 of Eugene Water and Electric Board (EWEB) customers losing power. After the storm, EWEB created a Post Incident Action Report (PIAR) to document improvements and transfer this knowledge soon after the incident into an action plan to be used to improve EWEB's response for the next incident command system (ICS) event. This update will report on the status of the PIAR recommendations and additional efforts taking place to improve our response to major ICS type events.

Discussion

The PIAR identified a number of actions needed to improve the performance of EWEB's outage response with a due date of September 1, 2017 to ensure readiness for the 2017-18 storm season. Progress is slightly behind the 2017 schedule recommended in the report, but we have made many improvements to date with our outage response system, as evidenced in the April wind storm. In early August we created a plan to get back on schedule, which began with appointing a dedicated Project Manager and will culminate in a complete system table top test in mid-November.

April 2017 Wind Storm – Incremental Improvements

As mentioned, we began implementing improvements almost immediately after the ice storm. As a result of the improvements, a wind storm in April that resulted in 6,200 outages, was handled much more efficiently and resulted in a much quicker restoration. Many improvements from the ice storm were noted in the windstorm hot wash, including improvements to process flow, communication and coordination efficiencies and Planning Section logistics. However one of the key learning points that came out of the April windstorm hot wash was:

- Improved coordination/work flow between assessment teams, planning and coordinators to decrease redundancy and speed accurate info into responder

With this recommendation and the additional ice storm recommendations, we made a decision to do a more comprehensive update to our outage management process.

Outage Management Update Project - Current Status

Numerous staff from various departments have been working since mid-August to get EWEB ready for the 2017-18 storm season. Mark Hankins was appointed as a Program Manager to focus on coordinating all the updates and changes taking place around ICS outage management. The plan for the updates includes addressing the ice storm recommendations, mapping and refining the overall work flow, going paperless and committing the process to Responder.

Below are the top six goals and recommended actions taken from the EWEB ice storm PIAR. A current status is given for each recommendation.

1. *Each chief ensure there are at least 3 backups identified and trained in each position in the ICS structure. (All Chiefs and Commander)*
Status: ICS lists have been updated with three deep for each of the positions. Training and preparation meetings have been happening since end of September, with most groups having met and briefed on roles and responsibilities. As the process is still under development and final details are being refined, additional training will be needed to solidify concepts and understanding among all ICS staff.
2. *Add the following positions to the ICS Structure (ICS Commander):*
 - a. IT primary and backups to be on hand around the clock during ICS (Logistics)
 - b. Board liaison (assigned to ET Member) to communicate directly with board during event. (ET)
 - c. Add Customer information coordinator – i.e. social networking, website. (Information)
 - d. Warehouse to be moved under finance (Finance).Status: GIS Supervisor and ICS staff have been added to ARCOs for ICS callout. We are still working out details on the board liaison position, but have identified preliminary responsible staff. The Customer information position is also a new position and not been addressed. Warehouse was moved into the Finance ICS structure.
3. *Determine the number of resources needed for Responder data scrubbing and train individuals. (Planning)*
Status: A key finding from the ice storm indicated a bottleneck in our process with Responder input. Responder is the software used to capture and manage customer outages. To address this bottleneck, EWEB initiated training to over 50 people in GIS and Responder in September, with more detailed training completed in October for a subset of “Super Scribes” of which will combine software training with electrical training to enable some response planning tasks to be self-contained in one position.
4. *Hold functional exercise drills during “blue sky operations”. (ICS Commander)*
Status: We will be conducting a series of table top exercise with subsets of the ICS structure, the first starting Oct, 30. As we evaluate the results of this exercise, we will plan additional table tops to refine our process.
5. *Create “mission control center” where information is shown and accessible to all visually throughout outage. (Planning)*
Status: Several efforts are taking place to make outage information easily available to all interested parties. First, Engineering, Operations and Information Services are partnering to create a web based outage map that will allow customers to be able to see their house with outage notification and an estimated time of restoration. This outage map will be

tested internally, but released to the customers once we are confident it's working. The internal facing map will be ready by November. Second, we have developed an outage dashboard that shows the outage data in various states of our new process, as well as update information such as assigned ICS staff and operational briefing minutes. This dashboard will be available to all EWEB employees on a SharePoint page. We are also in the process of updating the Electric Operations Center (EOC) to bring more computers and ICS sections into the room to manage information and resources more efficiently.

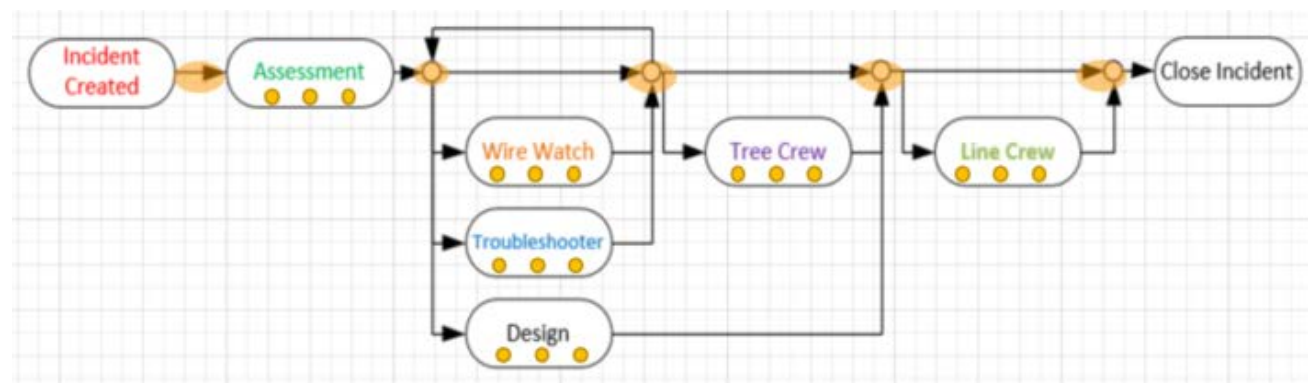
6. *Each chief participate in quarterly briefings during 2017 to discuss progress towards completing actions in this report.*


Status: We have been meeting at least monthly, and in many cases weekly since mid-August.

This comprehensive update to the outage process involves many resources and numerous tasks. To update our process, extensive interviews were conducted of operations staff from which a process map was created that will rely on extensive input to Responder, as well moving to a more paperless assessment process.

Another main focus of a storm response will be on getting a full damage assessment as soon as possible, before major restoration work begins. The overall goal of the new system is to get information faster and more accurately to the Planning section so resources will be assigned efficiently.

Below is a high level incident workflow we are using now. An incident is any outage report that comes into Responder.



 -Yellow nodes highlight Responder status updates.

 -Represent crew status updates of 'Dispatched', 'Working', 'Complete'.

The updated process includes more input and tracking of incidents in Responder. As noted above there are now 5 main inputs to Responder for 3 different milestones within each function. To keep up with the Responder input, we created a new position called Super Scribe and began training more resources to use Responder.

Following our process updates, we identified numerous tasks to implement the new system. Our major task list currently contains 38 major efforts that are being worked. Following are some of the key tasks and status.

Task	Status
Basic Responder Training - 50 plus	Done
Identify and train Superscribes - 8-10?	Done
Basic Electric 101 & Assessment 101 training -100 plus	Done
Identify and Train Assessors - 50 plus	Done
Customer Service ICS Refresher/Responder/Portal Training	Done
Create SharePoint site for ICS info and Dashboard	Done
Update Responder Views to match new process	TBD 90% done
Increase iPad count and Configure with new forms	In Progress
Complete Development of Online Outage Map	Draft Done
Complete physical seating arrangement and computers for ICS event	50% done
Complete Wire watch Training	TBD
Create a Q&A highlighting major process changes and communicate them	In Progress
Update go kits	In Progress
Communicate in Staff meetings about new processes	TBD
Tabletop Exercise to practice new processes	30-Oct, TBD
Create and Test customer Map	Draft Done

Overall, we are on track per our August plan to complete a major table top with the new process by mid-November of this year.

Recommendation

This Board backgrounder is for information only. If you have any questions please contact Rodney Price at rod.price@eweb.org.