

DNV·GL

AVISTA EOP STRUCTURE ASSESSMENT

Avista EOP Assessment

Avista Corporation

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Prepared by: Verified by: Approved by:

Milton Omoto
Senior Principal Consultant

Wiley Gustafson
Emergency Planning Consultant

John McDaniel
Head of Section

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1 EXECUTIVE SUMMARY

This report is an assessment of Avista's Emergency Operating Plan (EOP), its execution during the recent 2015 November windstorm, and lessons learned. It is an independent analysis performed by DNV GL for Avista. DNV GL has strived to provide a balanced report that includes what worked well, opportunities for improvement, and recommendations that will be of value to Avista.

1.1 Avista Responded

Based on DNV GL's review of post-storm debrief documents and from interviews, Avista employees rose to the occasion and worked the windstorm well. Comments such as "a willingness to do whatever it takes, a willing spirit, great teamwork, trust in the abilities of people, adapting to changes, and we pulled together" testify to the strong Avista culture of working together to serve customers and the community. Avista employees made the EOP process work. They leveraged their knowledge and skills to complete work assignments and tasks. There is no doubt that the single most valuable resource during this recent windstorm is Avista's employees.

1.2 Approach to Assessment

The information sources used by DNV GL for this assessment include Avista's EOP, supporting procedures, logs of Avista's debrief sessions, the employee Windstorm Survey results, select interviews with key EOP personnel, and considerable discussions with the Senior Program Manager of Enterprise Business Continuity. This approach leveraged a significant number of documentation available. In this manner, no re-assembly of post-storm debrief groups were requested.

This report has minimized repeating findings and recommendations already documented extensively in debrief session logs and reports. Instead, this report focuses on the opportunity areas for consideration by Avista and recommendations based on our experience with after action assessments performed with other energy utility clients.


1.3 What Worked Well

Avista mobilized effectively and timely to address this windstorm event. The EOP provided the necessary structure and organization to manage activities and restore customer services in a safe and effective manner. There were sufficient field resources with the addition of contractor and mutual aid crews. The Spokane Service Area, the hardest hit geographic area, was split into two operating sections to enable supervision of the many field personnel and improve restoration efficiency.

The Logistics group provided all necessary materials and supplies with no shortages. Communications, both internal and external to customers, the media and to public agencies were handled well. Customers appreciated the timely information provided to them through a variety of methods such as the Avista Outage Center web site, IVR, social media, and the Customer Call Center. Overall, customer and community feedback were positive to Avista's response to the windstorm event.

1.4 Opportunity Areas

As in any major emergency event, there are always lessons learned that can improve the overall EOP and its execution. The EOP itself can be enhanced with a document hierarchy to help users navigate and identify supporting documents, including where the documents are located and retrieved online. Some processes



and procedures were developed during the windstorm event that worked well and should be incorporated into the EOP as well as standard work practices. These should be documented and formalized. They include the contractor and mutual aid on-boarding and off boarding processes, the approach to feeder centric damage assessment and restoration, and internal and external communications. Ready access to certain information is needed. For example, it was important to know critical and urgent customers on feeders to help prioritize restoration work.

1.5 Conclusion

Overall, DNV GL views Avista's response to this major windstorm event as appropriate and effective. Avista activated the EOP in a timely manner, acquired necessary crew resources and managed the restoration well. Avista's current EOP, processes, and supporting documents are comparable with other utilities that respond well to major storm events. The many identified successes of the 2015 Windstorm attest to Avista's organizational readiness to respond and manage major emergency events. DNV GL also observed that, from this experience, there are resulting lessons learned and opportunities that Avista should consider to further improve the EOP and ready it for the next major event. DNV GL's recommendations are in Section 5. Implementation of these recommendations may enable the EOP program, preparedness and response capabilities to continually improve.

1.6 Disclaimer

Comparison of Avista's EOP and execution to other utilities provided in this report is qualitative and purely based on DNV GL's experience and observations working with other energy utilities. No benchmark study or industry survey was conducted as part of this engagement to support these comparisons.



2 INTRODUCTION

2.1 Background of Event

In November 2015, Avista Utilities experienced a severe windstorm that resulted in significant damage to their energy delivery facilities. The National Weather Service Office in Spokane WA identified that the strongest non-convective storm winds occurred across the Columbia Basin, the Palouse region, the Spokane and Coeur d'Alene areas and areas of North Idaho from Latah and Shoshone Counties to the north result from strong low pressure systems moving from west to east across southern British Columbia. Very strong winds were observed over a widespread area resulting in significant damage to the electrical power infrastructure and other impacts. An examination of various meteorological parameters shows this event was unprecedented when compared to other wind events for the area.

In anticipation of the windstorm, the Emergency Operations Center (EOC) was established in a conference room at Avista's Mission Avenue Campus on Monday, November 16, 2015. Avista's Emergency Operations Plan (EOP) was activated on November 17, 2015 at 9:00 A.M. Each EOP incident management position was staffed by pre-assigned personnel. Once activated, regular event status briefings were conducted and communicated throughout the organization. The peak of the windstorm occurred the afternoon and early evening of November 17th. By 11:00 P.M. of November 17th, significant infrastructure damage had occurred resulting in service interruption to over 178,210 customers. On November 18th, the State of Washington declared a state of emergency.

2.2 Scope of this Assessment

This report provides an assessment by DNV GL of the EOP program, how the EOP performed during this event, and identifies opportunities for improving the EOP and its execution. Key objectives for improving plan documentation, strategy, capabilities and performance are defined. Qualitative comparisons of Avista's EOP and methods to peer utilities were made. Peers include combined gas and electric and electric only utilities of comparable size to Avista that may experience events of this magnitude.

A review of the comprehensiveness of the EOP was conducted, including its content and supporting documentation. DNV GL did not perform assessments of system hardening, vegetation management, nor an in-depth supporting information technology analysis as part of this review.

3 EOP ASSESSMENT

3.1 EOP Structure

The EOP structure is defined in the *Avista Utilities Emergency Operating Plan: Roles & Responsibilities* document. The Avista EOP structure correlates well to the National Incident Management System’s Incident Command System (ICS) and to the 14 essential ICS features as shown in the table below.

Figure 1 ICS and Avista EOP

Essential ICS Features	Avista EOP
Standardization	Included
Command	Included
Planning/Organizational Structure	Included
Facilities and Resources	Included
Communications/Information Management	Included
Professionalism	Included
Transfer of Command	Included
Modular Organization	Included
Position Titles	Included
ICS Organization	Included
Overall Organizational Functions	Included
Incident Commander	Included
Command Staff	Included
General Staff	Included

The EOP as written is comprehensive with the appropriate level of detail. The EOP is relatively well institutionalized within Avista, particularly with mid-to upper level management. The EOP organization structure is consistent with ICS.

3.2 EOP Roles and Responsibilities

Roles are well defined in the EOP with position’s description of responsibilities and duties identified. The descriptions are at a relatively high level since more detail is in supporting documents. Each EOP position has an associated check list that provides the next level of task detail. Descriptions are also available for other positions or groups not specifically identified in the EOP, such as Support Coordinator, and support roles.

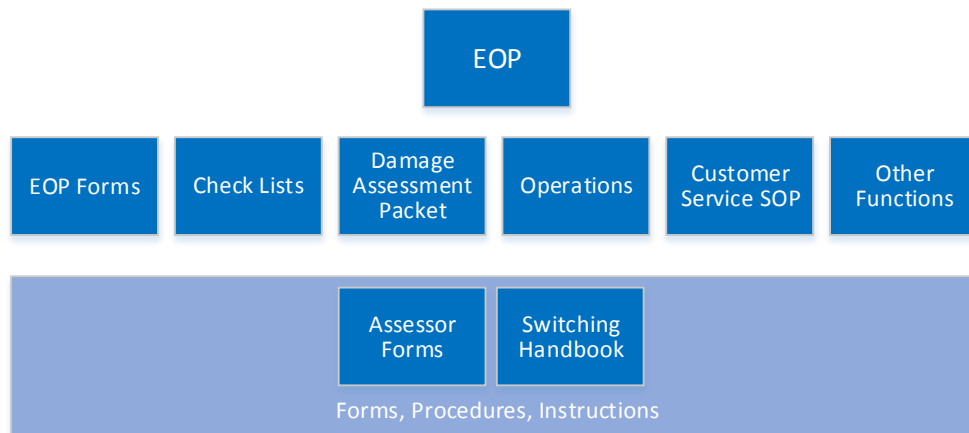
3.3 Processes and Procedures

Processes are well defined in the EOP and supporting documents. They define the work flow from outage analysis, damage assessment, restoration planning and prioritization, work assignment and switching.

Many documents intended to support the EOP appear to be in different formats and levels of detail. EOP Coordinator forms are included in the EOP Forms document. They provide the structure for the capture and recording required for EOC incident briefings and reporting. Procedural documents exist for functions specific

to certain roles, for example, Damage Assessors, Wire Guards, Assessor Tech, and Administrative Assistant. Other documents reviewed that were in various formats include Standard Operating Procedures, logs, instructions, lower level flow charts, and procedures such as EOP and Emergency Conference Bridge Lines, and numerous tracking spreadsheets. Figure 2 depicts the current basic EOP document hierarchical structure. Formalizing this structure will aid in developing more consistent documentation and identify areas where additional documents are needed.

Figure 2 EOP Documentation Structure



3.4 EOP Assessment

DNV GL views Avista’s EOP as above average as compared to emergency response plans of utilities that experience more frequent major storm events. It is well written and comprehensive. The incident management structure is well documented with roles and responsibilities defined.

3.5 Execution of the EOP

Once started, the EOP was executed according to plan. The following is DNV GL’s understanding of EOP execution activities.

EOP Incident Management

- The EOC Coordinator continually monitored pre-storm weather predictions and status and kept key EOP personnel apprised including EOC Directors
- The EOC was established immediately at the start of the event and the EOP was activated in a timely manner by EOC Directors
- A majority of EOP positions were filled at the inception of the EOC by the pre-assigned personnel
- Most EOP positions had back-up personnel to relieve the primary person, whether pre-assigned or filled on-the-fly; some positions did not have a pre-assigned backup but were eventually assigned

Organizational Readiness and Mobilization

- Overall, Avista mobilized well and scaled appropriately to manage this major event
- Avista personnel demonstrated commitment and professionalism in responding to this major storm event which contributed to the successful restoration of customer services
- The contractor and mutual aid on-boarding and off-boarding was highly effective; feedback from mutual aid crews supported the effectiveness and efficiency of the process
- A significant number of company personnel volunteered to support the effort when the call was made



Customer Service and Customer Communications

- Customer Service Representatives (CSR's) mobilized and responded to a significantly large number of customer calls as the windstorm hit the Spokane area
- Avista leveraged social media capabilities that maintained effective customer communications
- Posting of outage and restoration status using the Outage Center web site was an effective customer communications medium

Logistics

- Logistics mobilized to provide all necessary materials, equipment and supplies which contributed to efficient restoration
- Logistics processed contractor and mutual aid crews with on-boarding in a highly effective manner

Enterprise Technology

- ET mobilized quickly to set-up the Damage Assessment Unit of the EOP
- ET was able to configure and provide mobile radios for all contract and mutual aid crews as they arrived

3.6 EOP Execution Assessment

Avista executed the EOP according to plan. The organization mobilized effectively to respond to the windstorm event. The EOP provided the necessary structure that enabled proper coordination and management of resources, functions and activities.

4 EOP LESSONS LEARNED

The following observations and lessons learned from the windstorm event are based on DNV GL's review of EOP documents, summary logs from the post-storm debrief sessions, results of the 2015 Windstorm Survey Summary, and interviews.

4.1 Post-Storm Debrief

- Seventeen (17) debrief sessions were conducted, issues identified and documented
- These sessions identified what worked well during the event as well as what can be improved
- A general survey (10 questions) was available to all employees and was completed by over 390 employees
- Avista's Business Process Improvement (BPI) group scored and weighted categories and identified action items; ownership of these action items now are currently being clarified and assigned.

4.2 What Worked Well

The following are some of the many areas identified that worked well during Avista's response to this windstorm event.

EOP, Activation and Emergency Operating Center

- Avista's EOP provided the necessary foundation and structure that enabled the organization to respond effectively to this emergency event
- The EOP was activated in a timely manner
- The Emergency Operating Center (EOC) was established early, was staffed according to plan, and was well managed throughout the event, providing effective leadership and oversight to the responding organization
- Employees were positive about the organization being better prepared for this windstorm and that overall the EOP process improved from the last two storms

Communications

- Internal communications from the EOC and between organizations and groups was good and appreciated, making people's functions more effective
- External communications to the public, media and government agencies was managed well

Customer Experience

- Customer interface and communications was effective with the use of social media and the Outage Center website
- A team monitored and responded to social media activity that was appreciated by customers
- Overall customer and community feedback were positive to Avista's response to this major storm event

Safety

- With no injuries to employees, contractors, mutual aid crews and customers, this outcome attests to the strong safety culture of Avista
- Avista employees have safety awareness and knowledge and apply it; they focus on customer and public safety
- The on boarding process was effective in contributing to contractor and mutual aid crew safety
- Debris clean-up occurred timely to enable clearing of hazardous situations
- The Avista Clinic mobilized to support employees working on the storm, but was not a formalized part of the EOP prior to this windstorm
- The V-watch devices were effective as an added safety alert tool (V-Watch is a device, worn by damage assessor and others that alerts of a nearby electrical energy source)

Logistics

The Logistics Section worked effectively to ensure that there were no shortages of materials for restoration, drawing from other service area inventories as necessary. Avista personnel were used effectively to get materials to field locations when and where they were needed. Enterprise Technology (ET) kept systems and data networks operational throughout the event.

Community Relations

Avista hosting a warming shelter at a school that enabled it to provide meals, warmth, and electricity to the public displayed strong community support.

4.3 EOP Execution Opportunities

The following are common themes identified from debrief logs and documents. These themes serve as the opportunity areas for improvement.

EOP Structure

There is need to standardize processes and procedures used during the EOP:

- Better institutionalizing the EOP within Avista, especially at the lower levels of the organization, may help ensure that all employees understand it and adhere to it when called.
- Supporting EOP documentation are in various forms and formats that would benefit from standardization.
- Manual procedures/workarounds should be developed and documented in the event that certain critical technologies and capabilities become unavailable, such as radio service, cell phone coverage, OMT, DMS, SCADA and other systems; manual procedures and workarounds must be thought through, tested and documented.

DNV GL Observation: Avista's EOP is comprehensive and ranks as complete, comparable to other utilities' EOP and who experience storm events of this magnitude. It can be further enhanced by implementing the recommendations provided in this report. There are always improvement opportunities to standardize processes and procedures for clear communication of requirements to those working the EOP. Overall, Avista's EOP is well structured with good supporting documentation.

Annual EOP Training and Exercise

EOP training and exercise are important to maintaining organizational readiness:


- Proper and regular training of employees in their EOP role, on the EOP process, and on equipment and tools necessary to perform their emergency function is necessary.
- The EOP should be exercised annually by mobilizing the organization and having employees perform their EOP functions.

DNV GL Observation: Avista does not have a formal EOP exercise. Many utilities that experience severe weather related storm events practice their EOP annually with tabletops, workshops and field exercises. While it may not be practical to train all personnel that may be called up for storm duty, training plans for key EOP positions will help with any rapid training needed during an event.

Personnel Resource and Management

Identification, scheduling and use of company personnel:

- There was difficulty in identifying the role of certain personnel; some people were confused about what role each person plays since many do not know everyone and the specific role they have during EOP.



DNV GL Observation: Identification of key EOP personnel and their role can easily be accomplished by identifying vests or badges.

Restoration Planning and Management

Restoration analysis, planning and management are critical to the restoration of the energy delivery infrastructure:

- The approach of swarming a feeder rather than addressing incidents worked well and needs to be documented to ensure that everyone impacted understands the process and their role
- Identification of “critical” and “urgent” customers was needed as internal systems did not have a complete and up to date record of them; planners need information about critical and urgent customers to prioritize restoration work

DNV GL Observation: The approach to restoration is highly dependent upon the storm event type and resulting infrastructure damage. Avista effectively changed to a swarm the feeder approach to restoration which sped up the restoration process. Many utilities likewise adjust restoration strategies based on damage characteristics and extent of damage. It is important, however, to document the possible approaches, defining roles and responsibilities, procedures, and practices for each to ensure that everyone understands the approach and their role.

Logistics and Support

The Logistics group did remarkable work by ensuring that materials and supplies required to support restoration was available and properly delivered:

- The on-boarding and off-boarding process worked well; the process should be documented and formally incorporated into the EOP
- Formal policies for generator deployment and management during storm events is needed
- The process for feeder map creation and plotting can be improved

DNV GL Observation: Avista’s EOP logistics section performed well during this windstorm event. The opportunities for improvement are to document many of the logistics processes and practices that were used effectively during the storm.

5 RECOMMENDATIONS

Recommendations listed here are based on DNV GL’s assessment findings and our experience working with other utility clients on similar engagements. These recommended actions and best practices are provided to Avista for consideration.

5.1 Key Objectives for EOP Improvement

In approaching EOP improvement, objectives must be clearly defined. The following is a categorized list of objectives that should be used as a guide for EOP improvements.

Strategy

The EOP is a strategic plan that effectively defines and communicates how varying complexities of incidents are managed.

- The EOP clearly defines the strategy for the management of events
- The EOP is understood throughout the organization
- Specific plans define the tactical approach to accomplishing work within the EOP’s structure
- The EOP is exercised annually

Plan Documentation

A hierarchy of documentation exists that is complete, starting with the EOP and working down to supporting procedures and instructions.

- The EOP serves as the framework for all supporting documents and must be complete
- It uses standard terminology that enables consistent understanding and communications
- The next level of documentation provides the details as to how each part of the EOP is implemented (they include checklists, plans such as the Damage Assessment Packet, policies and procedures)
- These documents are further supported by specific instructions, job aids, and forms
- The EOP contains a catalog of all such documents

Capabilities

The organization’s capabilities are clearly defined and appropriate in executing the EOP

- Processes define the expected way that the EOP is implemented
- Resources are clearly identified and qualified
- Logistics addresses all materials and supplies needed to support restoration.

5.2 Prioritized Recommendations

The following Emergency Operating Plan recommendations are prioritized based on areas to address first. Consideration is given to the effort to implement, sustainability and overall benefit to Avista. The EOP document itself provides the structure and framework for subsequent changes and improvements and is updated based on lessons learned from this recent storm event.

Figure 3 Table of EOP Recommendations

Improvement Area	Recommendation
1.0 The EOP	
1.1 Structure and Detail	Consider developing and adding a RACI Matrix to the EOP that defines each position’s responsibility, who is responsible, those consulted and

Improvement Area	Recommendation
	<p>those informed; as an alternative, create a reference chart of each EOP position with a summary of major responsibility and duties for easy reference; an example RACI matrix is provided in Appendix A.</p> <p>An example from another utility's EOP for the Operations Section Chief position is included in Appendix B and shows the level of detail they have chosen.</p> <p>These recommendations may help improve understanding of the EOP processes and resources' responsibilities and relationships.</p>
1.2 Document Management	Reference all supporting documents in the EOP, including all position check lists, policies, plans, procedures and job aids; all documents that directly support the EOP should be in a standard and consistent format; a document hierarchy diagram is helpful for the user to navigate and identify documents, including where the documents can be retrieved online.
1.3 Back-Up Procedures	<p>Develop and document procedures when certain technologies become inoperable; this should include the EOC itself, radio, cell phone, OMT, DMS, SCADA, and Arcos.</p> <p>For example, if the radio system is inoperable for a while, what contingencies are in place to communicate to field personnel?</p>
1.4 Training	All positions that are part of the EOP, back-ups and those positions identified as "could be called-up" have documented training plans on required procedures, processes, systems, and applications
1.5 Annual EOP Exercise	The EOP is flexible to enable Avista to create units and processes to match the specific event type; the EOP can benefit from an exercise program that defines how the organization would perform their role and responsibility under varying event circumstances; creating scenario descriptions for these exercises with supporting scripts for all groups to perform within the EOP structure may be helpful
2.0 Restoration Strategy	
2.1 Approach to Restoration	Document the most likely restoration strategies that may be deployed. For example, during this windstorm event, a decision was made to swarm feeders and repair all feeder, lateral and services. The procedure for this approach should be documented to ensure understanding by all involved, including specific roles and responsibilities.
3.0 Data and Systems	
3.1 Critical Customers	Maintain critical and urgent customers in CC&B and enable OMT to access this data for restoration planning
4.0 Logistics	
4.1 Customer Generators	Define the strategy for customer generator support; should Avista re-fuel critical and urgent customer generators, and/or provide repair support; determine the potential liabilities to Avista.
4.2 Generator Deployment Policy	Establish a generator deployment and management program for storm events.

Improvement Area	Recommendation
4.3 Predefined Feeder Map Templates and Documents	Pre-define the lay-out template for feeder maps and documents to minimize ad hoc map creation and plotting, speeding up the map production process.

5.3 Leading Practice Methods

Leading practice methods are described based on DNV GL’s experience working with other utilities. Some are based on utility industry surveys we have performed. They are presented here for Avista to consider.

Damage Assessment

DNV GL under KEMA conducted an industry damage assessment and service restoration survey a number of years ago. Ten utilities across the country varying in size and service territory were asked questions regarding their damage assessment methods and what they consider to be leading practices. Below is a summary of these leading practices, many of which Avista already follows.

Leading practice: Draw principal damage assessors from local resources who have direct experience and knowledge associated with field construction

When sourcing damage assessors, the principal damage assessors typically come from those knowledgeable about design of the energy delivery infrastructure. Local knowledge of the system should be the principal driver for this decision. Draw damage assessor candidates from line forces and in particular designers and field engineering or technician ranks. The regularly assigned damage assessors’ primary job should include planning, design or field engineering. After these resources are depleted, the preference should be to draw next from those areas that have direct experience and knowledge associated with design.

DNV GL Comment: Avista follows this practice of drawing from Construction Planning Coordinators (CPC’s) and Area Engineers who have knowledge of the energy delivery infrastructure and have design experience.

Leading practice: Determine resource levels based upon the severity of the event

This practice for determining the number of damage assessors to deploy was identified based on one company which experiences a number of significant annual events. The company feels the level of the event dictates the number of circuits each damage assessor can handle effectively in a given period of time. The company had calculated the number of damage assessors by the number of circuits they will patrol and the intensity of the event. Several other respondents use the severity of the event as a gauge for the number of damage assessors assigned. In all cases, the number of damage assessors is correlated to the event severity and documented.

DNV GL Comment: Avista utilizes a similar process to determine the extent of damage and assign damage assessors accordingly.

Leading practice: Conduct training prior to the commencement of each storm season

It is also important to perform annual exercises at this time.

DNV GL Comment: Avista has a formal training program for damage assessors and conducted training months prior to this recent windstorm event. The Damage Assessment Packet defines responsibilities, procedures, and checklists for Damage Assessors and Wire Guards.



Leading practice: Provide damage assessor kits

The kits contain the material needed by the damage assessors to complete their field work - including circuit maps, gas distribution maps, personal protective equipment, forms and other personal gear. Photographs of construction types and cameras can also be included.

DNV GL Comment: Avista has damage assessor kits that are comprehensive.

Leading practice: Obtain an initial sense of the level of damage extent prior to performing the detailed damage assessment

Specifically, companies are looking for quick count estimates of damaged poles, spans of line down and other equipment damage. In addition, there is a need by some to understand the level of debris and vegetation down which may impede the repair process and which need to be cleared. This initial assessment is performed by line crews.

DNV GL Comment: Avista follows this practice of using 2-person qualified electrical workers to perform initial surveys, combined with incident numbers and transmission and substation issues to gain a sense of what the damage extent may be. Avista's approach to damage assessment was very appropriate for this windstorm event and is in-line with industry leading practice.

Leading practice: Standard practices

Utilities have specific business processes and methods in place that everyone understands and uses for damage assessments, processing of data and reporting.

DNV GL Comment: Avista has a comprehensive Damage Assessment Packet and assessor form that aligns with this practice.

Estimated Restoration Time

Leading practice: Predict a global estimated restoration timeframe based upon historical data in a static model driven by the type of event (e.g., lightning vs. wind vs. heat, etc.) combined with other estimating factors

Several leading utilities make this prediction within 12 hours after the event, and reported high levels of accuracy. One company stated that this prediction became their "stake in the ground" for determining the number of resources (e.g., mutual aid crews) that would be deployed such that they could meet this commitment.

This global estimated restoration time is developed separate (but in parallel) from the detailed damage assessment, since it can be performed by different personnel. For utilities with large territories, the leading practice is to employ the model early and track progress to get a better sense of the level of damage and the potential restoration time.

DNV GL Comment: Avista follows this practice by providing initial global estimates and then refining them as information becomes available. For events that require mutual aid, Avista's EOC coordinates with local operating areas to consider their resource needs based on restoration goals.

Model driven estimated restoration times are in their early stages for energy utilities. There is no industry standard model available due to the many variables required to generate realistic restoration durations.



Supporting Technologies

Leading practice: Utilization of supporting technologies

Leading practice utilized a commercial Outage Management System (OMS) with the ability to associate outages and incidents with customers, and aggregate customer calls to common devices in order to consolidate related calls into a single incident. Another best practice is a system that is specifically designed for damage assessment and restoration planning with interfaces to outage analysis, customer service and work management systems – as well as mobile data terminals for receiving and sending data electronically while in the field.

DNV GL Comment: Avista’s current Outage Management Tool (OMT) provided the necessary functionality to manage the windstorm event. Avista does have an initiative to evaluate and eventually replace OMT with a commercial outage solution.

Leading practice: Use of Mobile Data Terminals

Leading practice collects damage assessment data in the field by entering the information on a Mobile Data Terminal (MDT) and sending the information electronically back to the operations dispatch center.

DNV GL Comment: Avista follows this practice by using laptops with Wi-Fi connection to complete damage assessment forms in the field and sending the information back electronically.



6 APPEDNDIX

Appendix A RACI Matrix (example only)

Emergency Operating Plan				
RACI Matrix				
Action/Activity	Responsible	Accountable	Consulted	Informed
Description>	- Who will perform this activity - Who is assigned to work this activity	- Person who makes the final decision - Person who has the ultimate ownership	- Consult this person before a final decision is made or action taken	- Person(s) to be informed that a decision was made or action has been taken
Activate the EOP	EOC Coordinator	Crisis Management Team	Crisis Management Team VP Customer Solutions VP Energy Resources Operations Section	Organization
EOC Established	EOC Coordinator	VP Energy Delivery	ICS Command Staff	Organization External Agencies
ICS Command Staff Called to EOC	EOC Coordinator	EOC Director	VP Energy Delivery	Organization
Customer Call Center in EOP Mode				
Operations in EOP Mode				
Planning Section Activated in EOP Mode				
Logistics Section Activated in EOP Mode				
Contract Crews Request Made				
Mutual Aid Crews Request Made				
Etc.				



Appendix B. Example EOP Position Roles and Responsibilities

(Note: ERP = EOP)

A. Position Title

Operations Section Chief

B. Reports To

Incident Commander

C. Position Duties and Responsibilities

The duties and responsibilities of the Operations Section Chief which shall include, but not be limited to:

ERP Maintenance Functions:

1. Attend scheduled ERP training
2. Maintain for each Electric Operations Center a tabulation of the number of available Company crews and the distribution of all crews by locations
3. Know the Emergency Restoration Plan, details of the EOC information flows
4. Know how to set-up and operate the ICC computers and communications
5. Monitor approaching weather and determine potential impact
6. Know the provisions of the Union Agreements as they are interpreted under emergency operations
7. Know the plans for ordering and receiving outside personnel
8. Maintain a list of mobile generator vendors
9. Ensure maintenance items assigned to Craft are performed in accordance with "Plan Maintenance and Responsibility" of this ERP Plan

D. Pre-Emergency Preparations

Notify employees of their ERP assignment as listed in the ERP Staffing Plan. The plan is found in the ERP Reference Manual or on the web at ____, under Electric Operations, listing positions that may be required to staff the Electric Operations ERP Organization

- Notify Emergency Operation Center Branch Directors of the impending threat and level of response as required in the response Matrix
- Activate the ECC staff and monitor the set-up of the ECC
- Maintain a chronological log of directives and actions pertaining to the emergency activation and response
- Confirm with the Prepare recommendation for approval of the Incident Commander on the number and type of crews required as well as their anticipated work schedule:

- a. Forward one copy of the recommendation approved by the incident Commander to the ICC Resource Assessment Section Chief to obtain specified outside assistance;
 - b. If necessary request Logistics Section Chief to order lodging arrangements based on the estimated number of crews by type, composition and size and direct the Receiving Center to be activated by the Receiving Center Manager;
 - c. Announce crew shift schedule with the exception of line and tree crews based upon weather and road conditions, 12 hours shifts will be implemented whenever practical for ERP positions. Line and tree crew shifts may vary at the discretion of the Operations Section Chief to facilitate scheduling. For Safety purposes, the target guideline for crew response is 16 hours on with 8 hours off;
 - d. Log all requests.
- Check on the status of Municipal Information reported by the Community Liaisons in each EOC.
 - Request the Logistics Section Chief to verify:
 - Facility generators are operable
 - Vehicles (including possible rentals). gas and/or fuel is available for facilities & vehicles
 - Chains are or are not being utilized (ice/snow emergency use)
 - Batteries are stocked and charged
 - Mechanical coverage is available for repairs
 - Adequate stock (poles, transformers. etc.) is available and reasonably distributed
 - Verify phone checks in all EOC's have been performed to ensure that they are working and that published numbers are correct
 - Have EOC's verify that radios in vehicles and bases are operating correctly. Notify the Logistics Section Chief of any that are not functioning
 - Request System Control Supervisors for all EOCs to assist in the dispatching of crews and keep track of switching, if decentralized
 - Request the Communication Section Chief to verify that a check of all communications lines to all EOC's has been performed by the Voice/Data Support Team and/or by the ECC Technical Support Staff
 - Request the ECC Crew Coordinator, Tree Manager and Service Crew Manager check availability of mutual aid and contractors' line and tree crews, as previously requested
 - Verify that facilities are sufficiently staffed; ensure that arrangements are made for continuous coverage
 - Attain a preliminary assessment of the number of customers affected
 - Verify emergency accounting and work orders have been published
 - Contact _____ Authority, for toll road conditions
 - Inform the Incident Commander and ECC staff when field facilities are operational.

E. Duties, Responsibilities, and actions During An Emergency Event

- Direct the restoration operations
- Plan with the Resource Assessment Section Chief the distribution of outside crews among the service centers, using the Restoration Status Coordinator to inform each EOC Manager of the initial distribution of outside crews
- Control the distribution of crews among service centers based on the estimated time of restoration for each EOC. Equalize resources to optimize the restoration within a 48-hour window
- Ensure the EOC Directors are tracking and supplying the ICC with circuits out and number of customers out
- Ensure EOC Administrative Supervisors are managing the flow of information to and from the EOCs
- Closely monitor outage information from each EGC provided by the Technical Support Team
- Provide continual assessment of restoration progress and allocate resources where necessary.



F. Post Emergency Event Responsibilities and Reports

- Ensure that all forms and documentation are properly completed and forwarded to the Manager of Emergency Preparedness
- Conduct demobilization process to return to normal business operation.

G. Equipment Required

- Mobile Device

H. Position Work Location

I. Work Period

- Pre Emergency Preparation, Duration of ERP and Post Reporting Period

J. Activation Notification

- On-Call



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