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BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for Approval of the 2027-2029 Natural Disaster Protection Plan.	Docket No. 26-02___

VOLUME 2 OF 2

NEVADA POWER COMPANY D/B/A NV ENERGY AND SIERRA PACIFIC POWER COMPANY D/B/A NV ENERGY

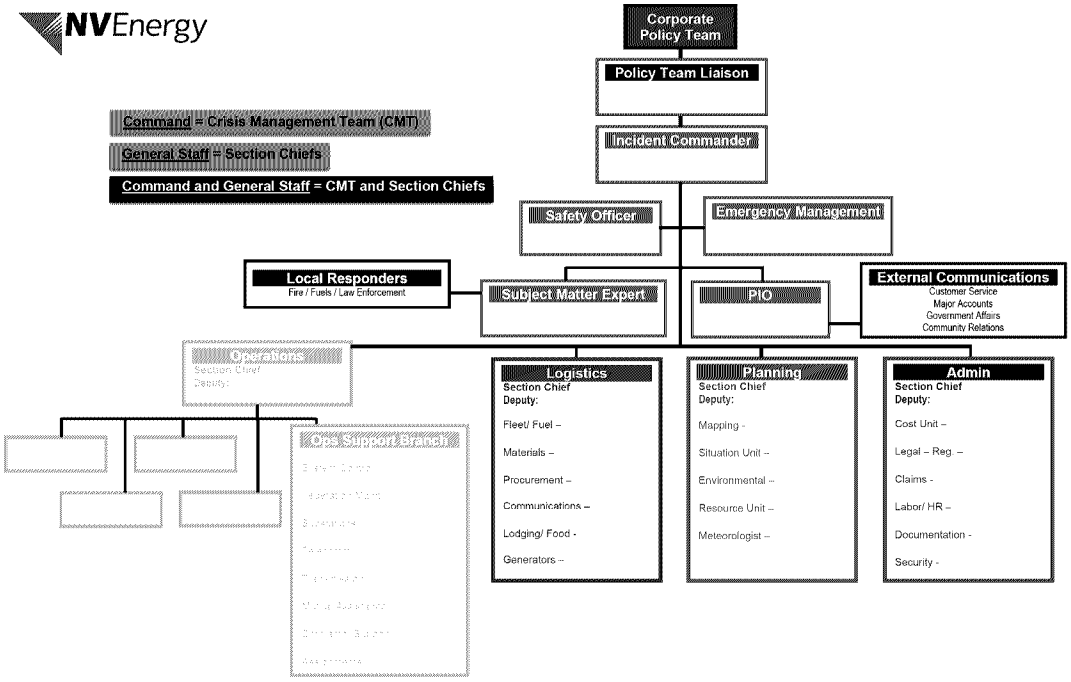
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2026 NATURAL DISASTER PROTECTION PLAN TRIENNIAL UPDATE PART 2

PSOM INCIDENT MANAGEMENT TEAM

The Companies use the national standard Incident Command System for a structured approach to PSOM. This provides a common approach and hierarchical structure to complete required actions. The Companies' IMT structure is included in Figure 4. The IMT is expanded and contracted as conditions warrant. The IMT fits within the Companies' overall leadership for seamless coordination within the organization. This is effectuated by establishing a Crisis Management Team ("CMT") that represents the core functions of the IMT. The Incident Commander ("IC"), Emergency Management Officer, Public Information Officer ("PIO"), Safety Officer and Subject Matter Experts collaborate with company executives represented in the Policy Team through the Policy Team Liaison.

Figure 80. Incident Management Team Organization



PSOM STAGES DETAILED ACTION STEPS

This section provides detailed information about monitoring, notifications, and activation timeline beginning up to 5 days from event. Because fire weather conditions may materialize quickly best approximations are used. Tier 3 criteria are more rigid.

Table 7. CRI to Inform Action Steps

Risk Tier	BI	Wind Gust (mph)	CRI
Tier 3: North PDZs (Greater Lake Tahoe)	> 70	> 40 mph (60 mph max)	> 287
Tier 3: South PDZs (Angel Peak and Kyle Canyon)	> 70	> 45 mph (60 mph max)	> 363
Tier 2	> 70	> 60 mph	> 645
Balance of Territory including Tier 1E, Tier 1 WUI	> 70	> 70 mph	> 878

Conditions = Monitor (~3-5 Days out)

Enter **Monitor** if CRI reaches or exceeds 80%
The monitor stage is used when conditions are approaching levels that could reach CRI levels.

Actions to Take Under Monitor Conditions

- Schedule daily situational awareness calls with CMT. IMT considers resource availability (communications, contract fire resources, crews, etc.)
  - Meteorology provides daily weather report during IMT Calls and email to on-call IMT when there are no IMT calls or MS Teams event channel

Conditions = Watch (~2-3 days out)

Enter **Watch** if CRI reaches or exceeds 90%
Consider mitigation efforts including patrols, corrections in the field, fire resources, and determine level of IMT activation

Actions to Take Under Watch Conditions

- Notification and daily situational awareness update meetings scheduled with IMT
  - IMT considers resource availability (communications, contract fire resources, crews, etc.)
    - Provide daily weather report during IMT Calls and email or MS Teams event channel to IMT on-call when there are no scheduled IMT calls
    - Section Chiefs begin building and communicating with their Sections as needed for a possible PSOM, if necessary
  - IMT Goals/ Tasks
    - Establish cadence for daily situational awareness Calls
    - Update the Companies' Policy Team
    - Start gathering PSOM Scorecard information (Appendix C)
  - Crisis Management Team ("CMT")
  - Notify external stakeholders about a possible PSOM
    - PIO – Follow communications procedures for PSOM (Appendix E)
  - Increase resources to notify customers at the 72- and 48-hour mark
  - Customer Operations will make calls to Green Cross Customers
  - Provide notification to Telecommunication Providers
    - Fire Liaison – Verify availability of fire resources
    - Emergency Management – As needed, a liaison will be established with Liberty, Plumas Sierra, and TDPUD[11] and Appendix D Utility Communication Plan will be followed.
  - Communicate with local emergency managers (emails, phone calls, texts, and/or jurisdictions common operating picture)
  - Planning – Develop IAP planning timeline, situation updates, and meeting schedule
  - Admin – Continue administrative actions as directed by the IC
  - Logistics – Schedule generators (if necessary), Cellular on Wheels ("COW"), and determine Customer Resource Center ("CRC") deployment. CRC vendor requires 48 hours' notice
  - Operations – Prepare operational crews (lines, substation, telecommunications, gas, etc.), as necessary
  - Review the Companies' Playbooks and switching orders

Conditions = Warning (~24 hours or less)

Enter **Warning** if CRI reaches or exceeds 100% (or with IC discretion)
Prepare for de-energization in impacted service areas

[11] See Appendix E inter-agency coordination

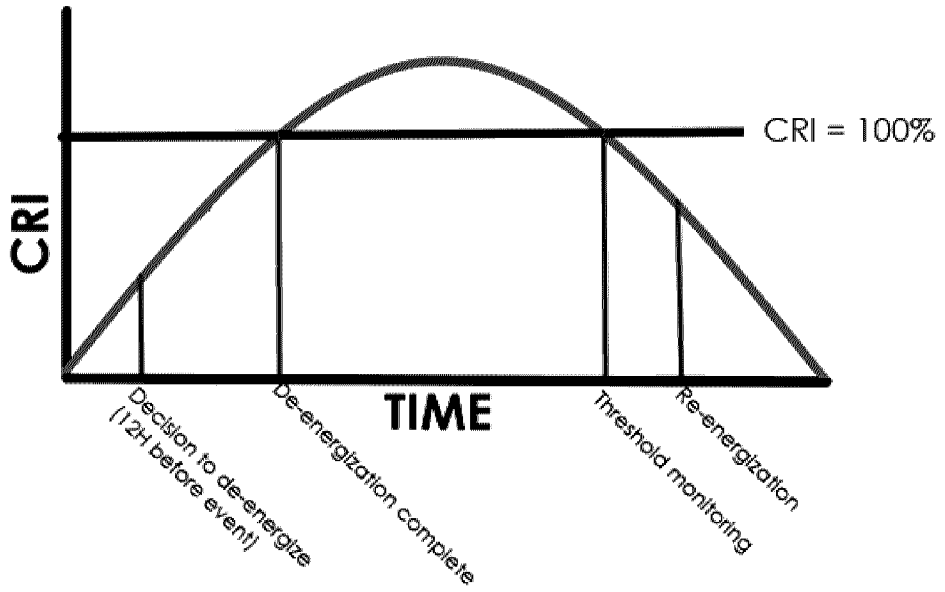
Continue analysis for de-energization in all other areas
Implement mitigation efforts including patrols, corrections, fire resources
Customer Resources Centers, and communicate with local emergency managers

Actions to Take Under Warning Conditions

- Notify Policy Team
- Activate IMT and fill staff as necessary
- Execute IAP planning meetings
- Review PSOM Scorecards in Foundry for all affected PDZs, as available, to inform PSOM decisions
- Open the EOC
- Notify external stakeholders and customers
- CMT
    - PIO – Follow communications procedures for PSOM (Appendix E)
    - Provide daily weather report during IMT Calls and email to on-call IMT if there are no IMT calls or MS Teams event channel
    - Section Chiefs begin identifying support personnel and communicating as needed for a possible PSOM

- IMT Goals/ Tasks
    - Determine estimated time of CRI exceedance
    - Decision to de-energize should be established no later than 12 hours of the threshold exceedance – considerations include wind speeds (forecasted and actual), fuel moistures, relative humidity, time to de-energize, and resources
    - Event summary will be given to the Policy Team Liaison to share with the Policy Team, which will include analytics from risk modeling, the Companies' meteorologists, and PSOM Scorecard information as available
    - Continue threshold monitoring
    - Determine and communicate time of estimated re-energization
    - Based on circuits/PDZ(s) actual conditions and meeting thresholds, determine if areas require full patrol and communicate to Operations and, for transmission related matters, the WECC Regional Entity
- CMT continue tasks
- Planning – IAP completed and shared
- Admin – Continue tasks
- Logistics – Continue tasks

Figure 81. Decision and Monitoring Timeline for a PSOM Event Within 24 Hours Using CRI



Conditions = PSOM Underway

After time to de-energize is established:

1. Share service area affected by PSOM and timeframes with affected operational groups to provide situational awareness shared with their personnel
2. IMT will be advised of the de-energization and communications and updates will be distributed per the IAP
3. IC will request a confirmation of orders from the following groups
    a. Operations Section Chief
        i. System Control Lead
        ii. Lines Department Lead(s)
    b. Fire Mitigation Liaison

Actions to take PSOM Underway

- IMT Goals/ Tasks
    - Update time of exceedance (CRI), if necessary
    - Notify local emergency managers about the event
- PIO – Follow communications procedures for PSOM event (Appendix E)
- Event summary will be given to the Policy Team Liaison to share with the Policy Team, which will include fire risk analytics from the Companies' meteorologists and PSOM Scorecard(s)[12] information as available
- Continue threshold monitoring
- Determine and communicate time of re-energization
    - Based on circuits/PDZ(s) actual conditions and meeting thresholds, determine areas requiring full patrolling and communicate to Operations and, for transmission related matters, the WECC Regional Entity
        - Crisis Management Team – Continue tasks
        - Planning – IAP completed and shared
- Creation of the PSOM Scorecard as determined by the IC for each affected transmission line and/or PDZ(s)
    - Admin – Continue tasks
    - Logistics – Continue tasks

[12] The Event Evaluation Scorecard is Appendix C.

- Operations – Plan for de-energization
  - Share IAP with crews
  - Review playbooks
  - Stage resources
  - Verify switching orders

RE-ENERGIZATION PLAN

After CRI is below threshold and it has been determined to be safe to perform patrols.

- IC authorizes and announces the start of re-energization process. IC will request a confirmation of orders from the following groups:
- Wildfire Mitigation Specialist
- IMT will be advised of the re-energization; communications and updates will be distributed as outlined in the communication timeline
- Status of the line restoration will be input by the Operations Section, and it will be tracked and shared by the Planning Section in the Situation Report
- Situation Report is available in real time in situational awareness tool in Foundry
- Operations Section Chief will announce that the circuits in impacted PDZs have all been re-energized and all customers should be back in power
- IMT will be advised of the re-energization and communications and updates will be distributed as outlined in the communication timeline/ media plan (Appendix E)

Actions to Take Patrolling – Restoration

- IMT Goals/ Tasks
  - The CRC if deployed, Operations, and EOC will remain in constant contact during this time
- Operations –
  - Conduct patrols on all circuits identified by Operations, at a minimum Tier 3 de-energized circuits will be patrolled
  - Any findings during the patrol will be followed by a detailed inspection
  - Corrections from the detailed inspections will be completed so the system is safe to re-energize
  - Share status of PDZ restoration through the MS Teams event channel
  - Notify external stakeholders about the restoration
    - PIO – Follow communications procedures for PSOM event
  - Increase in resources needed to notify customers
  - Provide notification to telecommunications providers

Conditions = PSOM Ended

Upon re-energization complete, enter PSOM Ended

Actions to take PSOM Ended

IMT Goals/ Tasks

- The IMT will de-activate and close any open EOC once all customers have been restored to power, crews are demobilized, and the CRCs are shut down if deployed
- PIO – Follow communications procedures for PSOM ended (Appendix E)
- EM – Closeout PSOM event in Foundry. Provide the Foundry event closeout form to IC and Legal.

Complete the following requirements within the required timeframes

PSOM Ended + 24 hours

Actions to Take

- Legal submits a copy of the final external stakeholder notification form to Public Utilities Commission of Nevada ("PUCN") which gets shared to internal and external stakeholders at the time of complete restoration of customers.

PSOM Ended + 14 days (Internal)

Actions to Take

- Emergency Management completes After Action Report for the PSOM event.

PSOM Ended+ 30 days
Actions to Take

- IC or designee will prepare a full report and submit to Legal to review and submit to PUCN.

DEMOBILIZATION

When the event has slowed, more customers' power has been restored, and the need for extensive coordination has decreased, the IC can scale the response to meet the needs of the event.

Demobilization of resources will be decided at the operational level.

All these efforts will be documented and tracked in the IAP completed by the Planning Section.

DOCUMENTATION

Information to be documented and tracked for reporting and compliance purposes:

- Forecast information before and during the event
- Notes from meetings that determine if/when decisions were made
- The notification that was provided to External Stakeholders and Green Cross customers
- Number of customers involved
- Time for re-energization – any issues that occurred (i.e., information on any debris in the lines, issues encountered in the field, etc.)
- Information on CRCs – how many people used them (if available)
- Information on EWG engagement
- What infrastructure was used/brought to the site – and cost (if available)
- Lessons learned or issues encountered

CONTACTS

Verizon Crisis Response Team
1(800) 981-9558 24/7 Line

Verizon Area Manager
1(415) 385-6015 mobile
1(925) 279-6119 office

AT&T/First Net Emergency Number - 1(800) 574-7000

The Companies' FirstNet Specialist Local Contact 1(858) 200-5496

REVISIONS

Rev	Date	Description of Changes	Approved By
1	05/24/2024	Clarification on wildfire season needed to implement PSOM plan. Communication to CIP from Emergency Management personnel. Communications plan update.	Alex Hoon
2	2/9/2026	Adjustments to PSOM verbiage. Revised PSOM stages to align the IMTs actions with the PSOM process. Adjustment to PSOM Warning threshold to have discretion by Incident Commander.	Macy Campbell

APPENDIX A: Incident Command Post ("ICP") and Staging Area Locations

Preparedness Planning Meeting Areas will be opened approximately 24 hours prior to an event. These are subject to change

- Pre-Planning Meeting area (24 hours before event and can accommodate 50-70 people)
  - Incline Fire Protection District (FPD) Fuels Building - 71 Carry Way Mound House, NV 89706
  - Carson office for smaller events
  - Ohm for Reno area
  - Elko Office for Elko
  - Winnemucca Office for Winnemucca

Staging Area Locations:

- Incline Village
  - Diamond Peak Ski – CRC and ICP
- Tahoe Douglas
  - Whittell High Schol (The Old School) – CRC, Staging Area, ICP
- Mt Charleston
  - Staging Area – Spring Mountain Visitor Center
  - ICP – The Retreat at Mt Charleston

APPENDIX B: PSOM Event Notification Form

NVEnergy

Report Date		Report Time	
Report Number	**PSOM- YYYY - N/S - Event # - Report #**		

PSOM De-Energization Potential		De-Energization Initiated	
All Lines Re-Energized		De-Energization Event Canceled	

Is this an update notification?	Yes		No		
If "yes", provide an update number:					

Maps of impacted areas:	https://www.nvenergy.com/safety/psom

Potential Impact

County	Zone	# Of Customers/ GCC	Estimated De-energization Time	Actual Time of De-energization	Estimated Time of Re-energization
Total Number of Customers:					
Number of Green Cross Customers (GCC):					

Zone	Description of Infrastructure	Estimated Time of Restoration

Public/ Customer Notification Information and Report

Local Stakeholders/ First Responders		

Telecommunications Providers		
Major Accounts		
Public Information Officers (PIO)		
Green Cross Customers		
Customers (Text, Call, and/ or Email)		
Social Media/ Media Outreach		
Website Updated		

Disclaimer

This document and the data included herein are intended for the sole use of the intended recipient(s). The above data is based on an assessment in wildfire risk tiers in NV Energy's service territory. NV Energy is not responsible for any missing data. Supporting data is collected by NV Energy personnel and its agents using several different data sources. Notwithstanding that, NV Energy makes no representations or warranties, express or implied, of the accuracy or completeness of the information herein. NV Energy is not liable for any use or reliance upon any of the information.

APPENDIX C: PSOM - Event Evaluation Scorecard

Based on the forecasted conditions and the identified circuits(s) from Foundry, input a score for each individual parameter shown below.

The PSOM event evaluation scorecard is a tool that allows the Incident Commander to take information into consideration when determining to execute a PSOM.

The scores range from zero to ten with ten being highest confidence and zero being low confidence. Some elements of the scorecard have comments from the impacted jurisdiction instead of a numerical value.

Section Chiefs will start gathering information to populate the PSOM Scorecard when the decision is made to move into PSOM Watch stage. Answers will be provided to Emergency Management to be input into Foundry.

EXPLANATION:
Assessing the consequence of de-energization compared with leaving the grid energized
10 – High confidence NVE infrastructure will fare well without de-energization
0 – Low confidence NVE infrastructure will fare well without de-energization

Comments – Any sections that have comments needs to be reviewed be the IC on a case-by-case basis.

	Score
1. Vegetation Management: Based on the last tree vegetation management cycle completed Responsible owner: Operations (Vegetation Management) Received input from:	0-10
2. Patrol/Detailed Inspection: Based on the last patrol or inspection completed Responsible owner: Operations (Lines) Received input from:	0-10
3. Local Fire District Input and Fire Resources: Available fire resources in the area and response capability, give detailed response if needed. Responsible owner: Fire Management Received input from:	0-10
4. Fuels Mitigation Work: Assessment of field conditions near impacted infrastructure, last time **ground fuels** management was completed Responsible owner: Fuels/ Fire Management Received input from: Did a FBAN develop possible fire behavior information: Yes / No	
5. Large Event/Visitor Status: If a significant event is projected during the potential PSOM event duration	

Responsible owner: PIO (Major Accounts) Received input from:	
6. Utility Infrastructure Readiness: Any critical water or sewage treatment facilities will have any issues Responsible owner: Emergency Management Received input from:	
7. Communication Infrastructure Provider Readiness: to include "any company that provides Broadband Internet Access Service (BIAS), Personal Communications Service ("PCS"), local exchange service, or Voice over Internet Protocol service, or is a Telephone Company. Responsible owner: PIO (Major Accounts) Received input from:	
8. Radio Communications: Any radio communication concerns regarding the 800mHz radio system Responsible owner: Logistics (Telecommunications) Received input from:	
9. Infrastructure Design – Distribution: Input based on the base design of overhead infrastructure and its expected resiliency Responsible owner: Planning (Distribution Design) Received input from:	0-10
10. Infrastructure Design – Transmission: Input based on the base design of overhead infrastructure and its expected resiliency Responsible owner: Planning (Distribution Design) Received input from:	0-10
11. Customer Resource Centers: Readiness levels for the customer resource centers Responsible owner: Logistics Received input from:	
12. Restoration Readiness – Distribution: Based on the restoration readiness for the affected circuits Responsible owner: Operations (Lines, Substations and System Control) Received input from:	0-10
13. Restoration Readiness – Transmission: Based on the restoration readiness for the affected circuits Responsible owner: Operations (Lines, Substations and System Control) Received input from:	0-10
14. Local Emergency Management Input: Their assessment of field conditions and immediate concerns for a PSOM execution Responsible owner: Emergency Management Received input from:	
15. Customer/ Public Communications: Resource/ timeline readiness to get information out to customers Responsible owner: PIO (Corporate Communication)	

Received input from:	
16. OTHER: Include any other topics or concerns to be considered for the event – *there will be no score associated with this section. (Example: Air Quality Index, Extreme heat, Extreme cold or other weather conditions)* Responsible owner: All Section Chiefs	N/A

The final decision to initiate a PSOM event is made by the IC. If there are any comments in the non-scored sections, they will need to be considered on a case-by-case basis.

Recommendation to Initiate PSOM Event: YES / NO

Score Card completed on:	
Reasoning behind recommendation:	
Summary of any changes from previous score card:	
Brief summary of additional mitigation efforts being implemented for the event:	

Recommendation/ Additional Mitigation Approved by:

_____

Incident Commander

APPENDIX D: Utility to Utility Coordination Plan

Purpose: To outline a communication and coordination timeline between NV Energy, Truckee Donner Public Utility (TDPUD), Plumas Sierra Utility, and Liberty during a possible PSOM event that would impact TDPUD and Liberty's electric distribution grid.

Impacted Lines by Utilities

TDPUD – North Truckee to Cal Substation 101 Transmission line (Verdi PDZ), Summit Metering Stations 102 Transmission line (Verdi PDZ), 133 North Truckee to Summit Transmission line, 132 North Truckee to Squaw Valley Transmission line and Truckee Summit Metering Station 607 Transmission
Liberty - North Truckee to Cal Substation 101 Transmission line (Verdi PDZ), Summit Metering Stations 102 Transmission line (Verdi PDZ), Truckee Summit Metering Station 607 Transmission, Buckeye-Meyers 111, Incline Village PDZ, Stateline PDZ, California 204, Muller 1296, and Topaz 1261, 133 North Truckee to Summit Transmission line, 132 North Truckee to Squaw Valley Transmission line and 112 Buckeye to Roundhill, Kingsbury 2800 (Heavenly PDZ)
Plumas Sierra – 619 Transmission Line

Notification Timeline

- 2-3 Days out from event:
    - An email notification with an external stakeholder form from NV Energy will be sent to TDPUD/ Liberty/ Plumas Sierra contacts.
      Note: Information will be added to the email about additional communication to be held within 48 hours of the event.
    - IMT communicates to TDPUD/ Liberty/ Plumas Sierra representative about the incoming weather.
    - *Note: TDPUD/ Liberty will ensure the other is informed and will be available and on the update call.*

- 0-2 Days out from event:
    - A daily call from an NV Energy Point of Contact (POC) to TDPUD/ Liberty/ Plumas Sierra contacts to discuss the event and provides the following information (as available).
        - Agenda
            - Estimated de-energized time and duration
            - Probability
            - Impacted area or lines
    - See above listed possible impacted lines for each utility
        - TDPUD/ Liberty/ Plumas Sierra to identify a single POC for NVE to communicate directly with through the remaining steps of the event.

Note: Set standard time for daily update calls
Note: Cannot have call between 1600-1700 due to Liberty restrictions

- De-energization – at time of actual de-energization
    - NVE will make a phone call directly to TDPUD/ Liberty/ Plumas Sierra POC that has been pre-established

- Weather decreased notification
    - NVE will make a phone call directly to TDPUD/ Liberty/ Plumas Sierra POC that has been pre-established
        - NVE will let TDPUD/ Liberty/ Plumas Sierra know that the weather decreased around the transmission line and NVE is preparing to patrol

- Patrols

    - NVE will make a phone call directly to TDPUD/ Liberty/ Plumas Sierra POC that has been pre-established to let them know NVE has begun patrols of the transmission line

- Ready to re-energize
    - NVE will make a phone call directly to TDPUD/ Liberty/ Plumas Sierra POC that has been pre-established to let them know NVE has finished patrols and are ready to re-energize the transmission line.

Appendix E: PSOM Communications Plan

PSOM AWARENESS

Targeted for completion by May 1:

- Confirm existing PSOM zones and customer lists for each zone/subzone
- Confirm Green Cross list for each zone (Customer Operations)
- Update website and customer lists to reflect any new PSOM zones or changes to zones
- Send communication to impacted customers to alert them they are in a PSOM zone and why NVE performs PSOM
    - Include name of PSOM Zone
    - Invite to relevant community outreach event(s)
- Send press release to notify media to the "start" of PSOM season, and explain why NVE will PSOM
- Activate PSOM paid media plan – radio, social, out of home elements
- NDPP Update to Stakeholders

PSOM CUSTOMER OUTREACH OVERVIEW

PSOM Monitoring (3-5 Days Prior)

- Send informal notification to Incident Command Team PIO group (Corporate Communications, Customer Service, Major Accounts, Government Affairs, Community Relations, Regulatory Affairs, and Emergency Management)
    - Potential Impacted Zones
    - Timing of potential event
- Confirm PSOM zone customer list readiness
- PIO to pull list of potential Green Cross customer impacts and provides to Customer Operations – NV Energy tries to give at least 72 hours notification of a PSOM event, when forecast permits

PSOM Watch Issued – 2-3 Days Prior to Potential Event

- Create incident talking points, to be approved by Incident Commander or their designee:
    - PSOM notification level
    - Description of conditions
    - Timing of potential event
    - Impacted zone(s) and number of customers including Green Cross Customers
    - CRC details, if available
- PIO Posts talking points in Incident Management Team Common Operating Picture Teams Channel for PSOM event
- Share talking points with IMT PIO group (Corporate Communications, Customer Service, Major Accounts, Government Affairs, Community Relations, Regulatory Affairs, and Emergency Management)
- Utilize appropriate communications procedures to notify impacted customers via phone, text, and email
- Update PSOM event information on www.nvenergy.com/psom
- Draft and send PSOM WATCH press release to appropriate media
- Notify area PIOs, Governor's PIO, if needed
- Post PSOM WATCH on social media channels
- PIO to pull list of potential Green Cross customer impacts and provides to Customer Operations – NV Energy tries to give at least 72 hours notification of a PSOM event, when forecast permits
- Notify Telecom and Emergency Management (Informal from Major Accounts and EM)

PSOM WATCH Continues - 2 Days Prior

- Update talking points, if needed, to reflect changes to impacted zones or other information
- Post talking points in IMT Teams Channel for PSOM event
- Share talking points with IMT PIO group (corporate communications, customer service, major accounts, government affairs, community relations, regulatory affairs)
- For zones still impacted, utilize appropriate communications procedures to notify impacted customers via phone, text, and email

- For zones no longer impacted, utilize appropriate communications procedures to notify customers via phone, text, and email
- Update PSOM event information on www.nvenergy.com/psom
- Draft and send PSOM WATCH press release to appropriate media
- Alert PIOs of impacted areas, Governor's PIO
- Post PSOM WATCH on social media channels
- Consider updating paid radio and out of home in impacted PSOM areas to communicate PSOM WATCH

PSOM WARNING – 1 Day Prior

- Update talking points to reflect PSOM Warning and any change to impacted zones and customer count, timing, or other significant information. Finalize and include CRC information
- Post talking points in IMT Teams Channel for PSOM event
- Share talking points with IMT PIO group (Corporate Comm, Customer Service, Major Accounts, Government Affairs, Community Relations, Regulatory Affairs, and Emergency Management)
- For zones still impacted, utilize appropriate communications procedures to notify impacted customers via phone, text, and email
- For zones no longer impacted, utilize appropriate communications procedures to notify customers via phone, text, and email
- Update PSOM event information on www.nvenergy.com/psom
- Draft and send PSOM Warning press release to appropriate media
- Alert PIOs of impacted areas, Governor's PIO
- Post PSOM Warning on social media channels
- Consider updating paid marketing in impacted PSOM areas to communicate PSOM Warning

PSOM UNDERWAY

- Update talking points to reflect PSOM Underway
    - Impacted zones and customer count
    - Event Start Time and Planned End Time
- Post talking points in IMT Teams Channel for PSOM event
- Share talking points with IMT PIO group (corporate comm, customer service, major accounts, government affairs, community relations, regulatory affairs)
- For zones still impacted, utilize appropriate communications procedures to notify impacted customers via phone, text, and email
- For zones no longer impacted, utilize appropriate communications procedures to notify customers via phone, text, and email
- Update PSOM event information on www.nvenergy.com/psom
- Draft and send PSOM Underway press release to appropriate media
- Alert PIOs of impacted areas, Governor's PIO
- Post PSOM Underway on social media channels

PSOM Ended

- Update talking points to reflect PSOM Ended
    - Impacted zones and customer count
    - Event Start Time and End Time
- Post talking points in IMT Teams Channel for PSOM event
- Share talking points with IMT PIO group (Corporate Comm, Customer Service, Major Accounts, Government Affairs, Community Relations, Regulatory Affairs, and Emergency Management)
- Utilize appropriate communications procedures to notify impacted customers via phone, text, and email
- Update PSOM event information on www.nvenergy.com/psom
- Draft and send PSOM Ended press release to appropriate media
- Alert PIOs of impacted areas, Governor's PIO
- Post PSOM Ended on social media channels
- Resume general paid PSOM awareness campaign

APPENDIX F: Table of Abbreviations

BHE	**Berkshire Hathaway Energy**
BI	**Burning Index**
BIAS	**Broadband Internet Access Service**
COW	**Communications on Wheels**
CRC	**Customer Resource Center**
CRI	**Composite Risk Index**
EOC	**Emergency Operations Center**
ESCC	**Electricity Subsector Coordinating Council**
FBAN	**Fire Behavior Analyst**
FPD	**Fire Protection District**
IAP	**Incident Action Plan**
IC	**Incident Commander**
ICS	**Incident Command System**
IMT	**Incident Management Team**
NDP	**Natural Disaster Protection**
NDPP	**Natural Disaster Protection Plan**
NV	**Nevada**
NVE	**NV Energy**
PDZ	**Proactive De-energization Zone**
PIO	**Public Information Officer**
POC	**Point of Contact**
PSOM	**Public Safety Outage Management**
PUCN	**Public Utilities Commission of Nevada**
RAWS	**Remote Access Weather Station**
TDPUD	**Truckee Donner Public Utility District**
WRMAG	**Western Region Mutual Assistance Group**

APPENDIX D. NDPP COST BENEFIT CALCULATOR

This section presents the methodology, analyses and references for elements of the NDPP. It intends to respond to the Commission's Directive 3, Docket No. 23-03003 to demonstrate the measures the Companies have taken to ensure program activity is coordinated to provide the necessary NDPP mitigation at the least cost to customers. It also intends to be responsive to new requirements found in Docket No. 19-06009.

NDPP COST BENEFIT CALCULATOR METHODOLOGY

This section presents the Companies' methodology and backup detail regarding its NDPP cost benefit calculator. Consistent with the regulations adopted in Docket No. 19-06009, this methodology seeks to measure the reduction in risk of natural disaster resulting from implementation of each plan element.

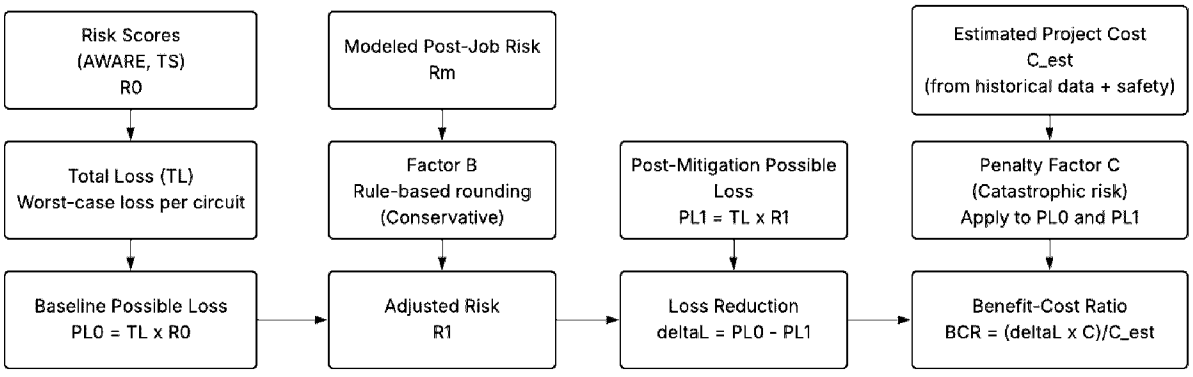
Conceptual Design and Operating Methodology

Purpose and Scope

The NDPP Cost Benefit Calculator ("Calculator") is a decision-support framework the Companies are developing to evaluate and prioritize wildfire mitigation investments at the Companies' circuit-segment level. Its purpose is to identify value-driven risk reduction by translating changes in wildfire risk driven by mitigation projects into quantified avoided losses and to compare those benefits against project costs in a consistent, transparent, and conservative manner. Qualitative supporting information is considered in the assessments. The Calculator supports planning and regulatory needs by evaluating the benefit of capital investments in vegetation management, conductor hardening, pole replacement, rebuilds, and undergrounding using a data-driven methodology aligned with NDPP risk estimates.

Figure 1 below shows the Calculator inputs and process flows.

Figure 1



Risk Scores and Loss Definitions

Each circuit segment will be assigned a wildfire risk score $R \in [0,1]$, derived from NDPP risk models, representing the relative likelihood and severity of wildfire ignition and impact.

Two loss metrics will be defined:

- Total Loss (TL) - The worst-case maximum loss associated with a catastrophic wildfire on a circuit. This represents the full financial exposure, including asset damage, community impacts, restoration costs, and potential liabilities. Currently, the total loss metric is based on the Nevada risk assessment presented in Docket 25-01019 by Mr. Nathan Pollak, Partner, Scidan Consulting Group. In the future, this metric will be calculated via the Companies' AWARE model in consultation with Technosylva and CloudFire risk analyses.
- Possible Loss (PL) - The risk-weighted loss for the circuit:

$$PL = TL \times R$$

Possible Loss represents the expected exposure given the current wildfire risk and serves as the baseline for benefit estimation.

Project Cost Estimation

Project costs are estimated using NDPP Triennial budget forecasts (2027–2029) and include:

1. Unit-cost derivation by mitigation type and scale.
2. Scope adjustment and engineering review to reflect project-specific conditions.
3. Safety factor to address uncertainty, escalation, and potential underestimation.

This produces a conservative project cost estimate:

$$C_{est}$$

which represents the capital required to execute the mitigation activity.

Modeled Risk Reduction from Mitigation

For each project, engineering and risk-model expectations will define a modeled post-mitigation risk score R_m, reflecting how the mitigation affects the circuit's wildfire risk drivers.

- R_0 represents the baseline risk score
- R_m represents the modeled risk score after mitigation.

The modeled reduction is:

$$\Delta R_m = R_0 - R_m$$

However, this modeled value is not used directly in benefit calculations. To avoid optimistic assumptions, a conservative adjustment is applied through Factor B.

Conservative Adjustment: Factor B (Rule-Based Rounding)

Factor B will be implemented as a rule-based rounding mechanism applied to the modeled post-mitigation risk score. Its purpose is not to cap the magnitude of risk reduction, but to ensure that final scores reflect uncertainty and avoid overstating mitigation effectiveness.

Specifically:

$$R_1 = RoundUp_B(R_m)$$

where:

- R_1 is the adjusted post-mitigation risk score used in calculations, and
- $RoundUp_B(\cdot)$ rounds the modeled score up to the nearest predefined risk band or threshold.

For example:

- R_0 = 0.80
- Modeled R_m= 0.47
- After rule-based rounding: R_1= 0.50

The rounding rules may align with:

- Discrete risk bins (e.g., 0.10 increments), or
- Operational risk categories used in NDPP planning.

This approach embeds a conservative buffer, acknowledging that:

- Other unmodeled factors may sustain higher risk, and
- Field performance may not achieve the full theoretical reduction.

Thus, the effective reduction is:

$$\Delta R = R_0 - R_1$$

with $R_1 \geq R_m$.

Loss Reduction from Risk Reduction

Using the baseline and adjusted post-mitigation risk scores:

$$PL_0 = TL \times R_0$$

$$PL_1 = TL \times R_1$$

The loss reduction (benefit) attributable to the project is:

$$\Delta L = PL_0 - PL_1 = TL \times (R_0 - R_1)$$

This represents the conservative estimate of avoided loss for the circuit segment due to the mitigation activity.

Catastrophic Adjustment: Penalty Factor C

To explicitly incorporate tail risk from rare but extreme wildfire events, the framework will include Penalty Factor C.

Assumptions:

- A catastrophic wildfire may occur, on average, once every 10 years,
- Such an event would involve exceptionally high losses and potential litigation.

Rather than modeling this as a discrete decadal shock, the expected impact is annualized and embedded through:

$$PL_{adj} = PL \times C$$

where C > 1 inflates possible loss to reflect the annualized contribution of catastrophic risk.

The adjusted loss reduction becomes:

$$\Delta L_{adj} = (PL_0 \times C) - (PL_1 \times C)$$

This ensures that mitigation benefits reflect both routine wildfire exposure and the expected share of catastrophic loss.

Benefit–Cost Ratio (BCR)

The project's economic value will be summarized using the Benefit–Cost Ratio (BCR):

$$BCR = \frac{\Delta L_{adj}}{C_{est}}$$

Where:

1. ΔL_{adj} = conservative, catastrophe-adjusted avoided loss
2. C_{est} = estimated project cost with safety margin.

Interpretation:

- BCR > 1 indicates benefits exceed costs.
- Projects are prioritized by descending BCR.

This metric enables consistent comparison across mitigation types, costs, and circuit segments.

The sections below quantify risk reduction profiles for each element of the NDPP. These risk reduction values are derived from literature review analyses conducted by the Companies' Data Science department.

Situational Awareness--Wildfire Cameras Program

The Wildfire Cameras Program is a proactive, intelligence-driven mitigation strategy focused on reducing wildfire consequences (fire size, damage, and liability) rather than ignition probability alone. Based on an in-depth review of available literature, utilities and agencies across the western U.S. have deployed AI-enabled pan–tilt–zoom ("PTZ") camera networks (e.g., ALERTCalifornia/ALERTWildfire, Pano AI) as part of integrated situational awareness systems for early detection, verification, and tracking of wildfires.

While cameras do not directly reduce ignition frequency, AI-enabled early detection and verification can materially reduce time-to-detection and time-to-initial-attack, which are key drivers of final fire size, suppression cost, and damage. Empirical information and modeling studies show that shorter detection and reporting delays are associated with lower suppression costs and a reduced likelihood of fires transitioning into larger size classes, supporting the role of early detection as a cost-effective mitigation investment even though its effect on burn area may be nonlinear and context dependent.

For Nevada conditions, a correctly sited wildfire camera network concentrated in high-threat corridors and wildland–urban interface areas can plausibly reduce large-fire escalation risk and associated consequence (asset damage and liability exposure) on the order of tens of percent, particularly when integrated with rapid dispatch protocols and other mitigation measures. Based on the review of similar programs, the Companies estimate a 20-35% risk reduction for the Wildfire Cameras Program. Precise percentage reductions are scenario- and model-dependent and should be treated as planning estimates. Higher-density camera deployments increase overlapping coverage, visual cross-validation, and operational confidence, which in turn can reduce false positives, improve resource allocation, and enhance the probability of catching small incidents before they escape initial control, yielding disproportionate benefits relative to incremental capital cost in high-consequence corridors. All quantitative ranges reported here are derived from the Companies' own analysis and calculations, informed but not directly specified by the cited sources.

Situational Awareness--Weather Stations Program

The Weather Stations Program provides foundational situational awareness for emergency managers, power system operations, and the hazard awareness desk, including Public Safety Outage Management (PSOM), and wildfire risk forecasting, supporting both real-time and predictive risk assessments.

Weather stations do not directly prevent ignitions but rather enable higher-quality operational decisions for fast-trip and protection settings, PSOM thresholds and timing, crew staging, and resource allocation by providing high-resolution, locally calibrated wind, humidity, and fuel-moisture data. Utilities in California and other western states now operate dense networks of utility-owned and partner stations (often >1000 stations for large service territories) precisely to support data-driven wildfire mitigation, improve burn probability and consequence modeling,

and demonstrate regulatory defensibility for PSOM and other risk-reduction actions. In Nevada, a well-designed weather-station network can indirectly reduce wildfire and outage risk, by improving forecast accuracy, identifying critical wind corridors, reducing unnecessary de-energizations, and avoiding delayed response during rapidly evolving events. The Companies estimate a risk reduction range from 10-20% for the NDPP Weather Station Program. Specific percentage reductions should be understood as model-based planning values rather than direct empirical measurements and should be periodically recalibrated against updated burn probability and outage-risk models. All quantitative ranges and unit-cost estimates reported here are derived from our own analysis and calculations, informed but not directly specified by the cited sources.

Integrated Program Value

When combined, wildfire cameras and weather stations form a situational awareness backbone that materially enhances the performance of other mitigation strategies such as targeted vegetation management, adaptive protection settings, inspection prioritization, and emergency response. Co-locating cameras and weather stations within the same viewshed, or otherwise integrating their data into a unified analytics platform, enables consistent risk scoring, better fire-behavior forecasting, and faster, higher-confidence detection and verification, which strengthens the value of investments in grid hardening and operational controls. Although the recommended cost scenarios increase near-term capital and O&M expenditures, integrated networks of AI-enabled cameras and densely spaced weather stations have been adopted by multiple western utilities and agencies as core elements of leading wildfire mitigation programs, providing earlier detection, faster and more targeted response, improved operational decision-making, and reduced catastrophic loss exposure over the long term.

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Operating Practices

The Operational Practices Program consists of the combination of FTFM, PSOM, emergency operations, and distribution automation practices. Layering FTFM, PSOM, emergency operations, and distribution automation produces a combined effect on wildfire risk that is larger than any single program within Operational Practices, but the effects are complementary rather than simply additive. Below is a concise, literature-grounded description of the risk reduction from Operational Practices.

The combined analysis treats wildfire risk as the product of (1) fault/ignition probability and (2) consequence (spread, damage, and loss), then maps each program to the part of the risk chain it primarily affects, with explicit attention to overlap so benefits are not double-counted.

- FTFM: reduces the probability that an electrical fault becomes an ignition by limiting fault energy and arc duration. California Utilities (e.g., PG&E EPSS) report about 60–70% reductions in reportable ignitions on fast-trip circuits relative to pre-program baselines or matched controls, measured as the percentage reduction in ignitions per circuit-mile over comparable fire-weather periods.
- PSOM/PSPS: addresses residual ignition risk under the most extreme fire-weather conditions by de-energizing selected circuits, reducing ignition probability to near zero on de-energized segments during events, with post-event patrols documenting damaged or downed equipment that would otherwise likely have produced ignitions.
- Emergency Operations: primarily reduces consequences (spread and loss) rather than ignition probability, by accelerating detection, response, and coordination with fire agencies; in quantitative terms this is typically represented as a reduction in expected fire size or damage conditional on ignition, calibrated from California Utility historical response-time and containment data and from wildfire mitigation plans and reference guides.
- Distribution automation (protective devices sectionalizing, automated switching): indirectly contributes to ignition reduction by enabling more precise isolation and targeted de-energization (reducing the length of energized high-risk exposure) and directly reduces customer and reliability impacts of PSOM/FTFM by shortening outage duration and limiting the number of customers affected.

In practice, when calibrated to western-utility experience (PG&E, SCE, SDG&E and others) and then adjusted with conservative safety factors for Nevada conditions, a combined FTFM, PSOM, Emergency Operations, and Distribution Automation portfolio can reasonably be represented as achieving a program-level ignition-risk reduction estimated around the 40–60% range (depending on PSOM trigger frequency and coverage).

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Vegetation Management Program

Based on an in-depth review of available literature, targeted pole clearing and selective tree pruning and hazard tree removals in backcountry rights-of-way ("ROW") can lower the risk of vegetation-related ignition risk by about 20–40%. These treatments are relatively inexpensive and provide cost effective, localized risk reduction.

In comparison, backcountry span clearing treatments remove significant vegetation within a widened easement, delivering greater benefits. These more fulsome treatments can reduce ignition risk across an entire circuit by roughly 40–60%. Similar results have been observed from other enhanced vegetation management ("EVM") utility programs in high fire risk areas.

In urban areas, targeted pole clearing work provides about a 20–40% reduction in ignition risk on treated spans. More intensive span clearing treatment in developed, high consequence zones can reduce modeled ignition risk by about 50–65% on treated spans.

Overall, performing balanced EVM practices supports risk reductions in the range of 50–60%.

All quantitative risk reduction ranges are derived from the Companies' analysis and calculations, informed but not directly specified by the cited sources.

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Circuit Patrols, Detailed Inspections and Corrections

Consistent with findings that routine and advanced wood pole inspections measurably lower the likelihood of pole failures and fire starts, a correctly executed program of this type is expected to provide on the order of a 20–35% reduction in risk in high fire risk service territories such as Nevada, with the precise benefit dependent on baseline condition, inspection intrusiveness, and follow through on repairs. This risk reduction range is derived from the Companies' own analysis and calculations, informed but not directly specified by the cited sources.

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Pole Replacement Program (GRC-only)

While Tier 1 replacements in Nevada primarily address aging or substandard poles and provide incremental reliability improvements and localized safety benefits, Tier 3 replacements are typically targeted to the oldest, or highest-consequence assets and therefore deliver greater value per pole by reducing failure rates, downed-conductor probability, and associated ignition potential in high-fire-threat corridors. Drawing on documented experience with pole and equipment failure as a contributor to faults and ignitions, as well as utility wildfire mitigation planning, correctly performed pole replacement and associated hardening measures in Nevada-like systems can reasonably be assumed to reduce risk by on the order of about 20–30 % in lower-risk Tier 1 areas and up to roughly 40–55 % in Tier 3 segments where baseline risk is highest, when replacements are prioritized using condition and risk-based criteria.

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Undergrounding Program

Although more expensive than overhead hardening alternatives, undergrounding can reduce vegetation related ignition risk by roughly 85–95% in high fire risk areas. Risk reduction is realized toward the lower end of this range in lower-risk valley segments and at the high end of this range for higher-risk areas like Tahoe. Consequently, while options in areas like Tahoe significantly increase near term capital expenditures compared with overhead construction, both valley and high consequence undergrounding programs can deliver substantial long-term benefits through reduced wildfire ignition risk, improved reliability, lower vegetation management, lower vegetation maintenance needs, and decreased exposure to outage costs as well as catastrophic wildfire liability.

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Overhead Rebuild Program

Overhead rebuilds target high-consequence, high-ignition-rate corridors, where hardening measures that reduce structural failures and vegetation or debris contact can deliver disproportionate benefits in terms of avoided ignitions and outages. Across western utilities, empirical evaluations of system hardening, covered conductor deployment, and related overhead rebuild initiatives suggest that, when correctly designed and implemented, such programs can reduce wildfire-related risk exposure on treated line segments by roughly 35–55%, with effectiveness toward the upper end of this range in high-risk mountain or wildland–urban interface areas like Tahoe and toward the lower end in more benign valley environments.

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Tree Attachment Removal Program

A review of the available literature indicates that by removing nonstandard tree mounted equipment and minimizing direct vegetation–conductor contact, the program helps reduce tree- caused faults, pole loading, and conductor slap, which are recognized ignition pathways for utility- caused wildfires in the wildland–urban interface. In line with observed effects of enhanced vegetation management and hazard tree removal programs, a cautious but realistic estimate is that targeted tree attachment removal on the most exposed distribution segments could reduce risk by roughly 10–20%, with relatively higher benefits in densely vegetated corridors and in areas with extensive third-party attachments. All quantitative ranges and unit cost estimates reported here are derived from our own analysis and calculations, informed but not directly specified by the cited sources. References:

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Expulsion Fuse Replacement Program (Trip Savers and Fault Tamers):

Based on an in-depth review of available literature for the expulsion fuse replacement program, field deployments and vendor data indicate that modern current limiting or spark reducing devices significantly limit fault energy, reduce hot particulate ejection, and shorten or eliminate sustained faults, thereby addressing a known ignition source associated with expulsion fuse operation during high impedance or line down events. Drawing on documented performance of fast-trip schemes, non-expulsion protection, and broader wildfire mitigation portfolios, a prudent estimate is that well targeted expulsion fuse replacement programs in high-risk Nevada circuits can reduce risk by approximately 15–35% on treated segments.

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Gridware Pilot Program

Because Gridware's Gridscopes provide detailed situational awareness and fault awareness regarding fault locations down to the pole level, risk identification based on fault signatures is greatly improved and restoration times are significantly reduced. A targeted Gridware scenario can materially reduce time-to-detection and time-to-initial-attack. Based on an in-depth review of available literature, deploying Gridscopes only on the highest-risk Tier 2–3 overhead feeders would plausibly reduce risk on those instrumented circuits by roughly 20–35%. A broad "most expensive" scenario, extending Gridscopes and Active Grid Response ("AGR") across essentially all high-risk overhead territory and tightly integrating them with fast-trip and wildfire operations, with system-wide rate impacts on the order of around 1% in line with published benefit–cost work on dynamic grid management. This scenario is forecasted to achieve approximately 30–45% risk reduction on the AGR-covered network, approaching the risk reduction of capital-intensive hardening at much lower cost. Taken together, these ranges imply that a correctly designed and executed Gridware program can realistically deliver an average wildfire ignition-risk reduction of about 25–40% on the high-risk circuits where it is deployed, with especially strong cost effectiveness when targeted to the feeders with the highest combination of ignition likelihood and wildfire consequence.

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APPENDIX E. DIRECTIVES RESPONSE – GROUND FUELS SUBSTATION POLICY

Response to Directive 4 of Docket No. 23-03003 is included below, providing the Commission the report of the Vegetation Management – Ground Fuels Substation Policy that was updated in November of 2025.

NVEnergy	Vegetation Management – Ground Fuels Substation Policy
	Effective Date: November 10, 2025
	Issue/Revision Date: November 10, 2025

A. Purpose

This internal Natural Disaster Protection Plan (NDPP) Vegetation Management policy is in response to the following Directive, issued by the Public Utilities Commission of Nevada (PUCN):

> *101. The Commission finds that NV Energy has not complied with Directive 3 and Directive 4 of the Commission's August 28, 2023, Order in Docket 23-03003. NV Energy has not yet prepared a report on what measures it has taken to ensure program activity is coordinated to provide the necessary NDPP mitigation at the least cost to customers, as required by Directive 3.*
>
> ***NV Energy has also not yet established specific clearance guidelines for creating Resilient Corridors surrounding its substations in coordination with agency partners, such as the U.S. Forest Service, as required by Directive 4.*** *The Commission notes that NV Energy acknowledges it needs to comply with Directive 3 and Directive 4 and that it intends to provide an update with its 2025 NDPP Progress Report, which the Commission directs as well.*

The scope of this policy lays out the means and methods by which resilient corridors are achieved around the Company's substations located in high wildfire risk tiers, involving both NV Energy (NVE) personnel and contracted partners.

B. Definitions/Terms

Authority Having Jurisdiction (AHJ): An organization, office, or individual responsible for enforcing codes, standards, and regulations within a specific area.

Rights-of-Way (ROW): specifically grants the legal right to travel across a landowner's property for utility purposes.

Best Management Practices (BMP): are the principal means of controlling utility arboriculture activities. These voluntary conservation practices help protect the environment, adjacent trees, and native vegetation.

High Wildfire Risk Tier: A designated wildfire risk area designated by NVE as wildfire risk Tiers (i.e. from lowest to highest risk, Tier 1, Tier 1E, Tier 2, and Tier 3).

Integrated Vegetation Management (IVM): a combination of techniques, industry standards, and BMP to develop region-specific treatments.

Natural Disaster Protection Plan (NDPP): For the scope of this document, the acronym "NDPP" refers to the department within NV Energy responsible for ground fuels vegetation mitigation.

Nevada Division of Forestry (NDF): A branch of the State of Nevada government dedicated to natural resource stewardship and wildfire management.

Scope-of-Work (SOW): a detailed plan outlining tasks and responsibilities involved in managing vegetation to achieve specific objectives. It includes the identification of the project, the objective metrics, documents existing conditions, and the actionable IVM BMPs to accomplish those objectives. The SOW, sets expectations for achieving both short- and long-term vegetation goals.

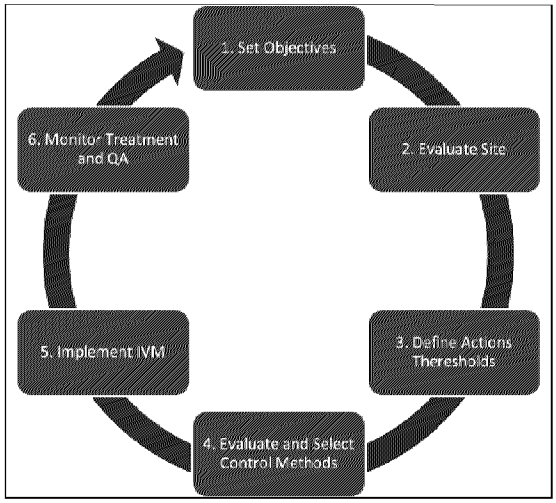
International Wildland Urban Interface Code (IWUIC): establishes regulations to protect life and property from wildland fire hazards, focusing on building construction, defensible space, and fire safety measures.

C. Ground Fuels Program Strategy

As it applies to substations, the program uses the Integrated Vegetation Management (IVM) approach, shown in Figure 1 to manage ground fuels around the perimeter of the site. The IVM steps are:

1. *Set objectives*: risk reduction and wildfire mitigation.
2. *Evaluate the corridor*: remove/ reduce dead vegetation, identify and remove incompatible species, and thin native/ fire-resistant vegetation within the ROW.
3. *Determine tolerance and action thresholds*: a combination of IWUIC, industry standards, and internal protocol.
4. *Identify, develop, and evaluate select control methods*: use vegetation classifications, fire Tier, and other ROW factors to prioritize treatment plans.
5. *Implement vegetation control methods*: manual/ mechanical, biological, chemical, cultural, and prescribed burn (burn piles).
6. *Assess IVM impact*: does the treatment reduce wildfire risk?

Figure 1: IVM Flowchart - ANSI A300



D. Substation Site Clearing Process – Utilizing the IVM Strategy

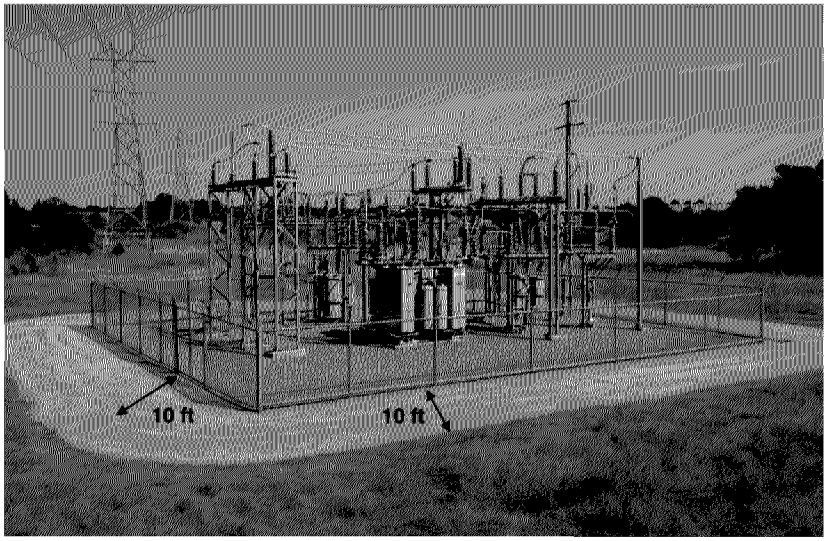
1. Site Goals and Objectives

Reduce wildfire risk around substations. The combustible free space includes all areas within the substation footprint and extends 10 feet beyond the perimeter or perimeter fence. Vegetation shall be removed mechanically and/or manually, with the requirement that the perimeter be cleared to bare mineral soil, or clear vegetation growth within existing rock riprap.

To maintain this 10-foot vegetation free perimeter, where permitted by the AHJ, the buffer area will receive a residual pre-emergent herbicide application. Utilizing the liquid formulated products and rates listed in the project specific SOW instructions, shown in Figure 2.

Specifications for substation clearances are outlined in the IWUIC, section *A102.3.1 Support Clearance.*

Figure 2 - Substation perimeter clearance requirement



2. Evaluate the Corridor

Visual inspection, by either NVE personnel or contracted crews, identifies the need for ground fuels removal around a substation. NVE requests a vegetation management SOW from NDF. NDF has performed this service for ground fuels management along NVE transmission and distribution circuits; the scope of their assistance has been expanded to include substation clearing.

3. *Prepare the Plan*

The NDF Forester prepares a vegetation management SOW and submits it to NVE via portable document format (*.pdf):

- Adheres to Federal and State statutes – specifically, that NVE substations maintain ten-foot perimeter exteriors free of all vegetation.
- Specifies the exact location, latitude/longitude of the site, surrounding terrain, and which fire tier it is within.
- Includes photographs and descriptions of vegetation and biomass to be removed.
- Specifies ownership of the surrounding property, also describing where access to the site requires traversing over land owned by others and who those landowners are.
- Makes recommendations for type of equipment or clearing approach based on findings. Suggests methods by which vegetation should be removed (i.e.; mastication, weed whacking, or removal by hand tools).
- Specifies debris removal protocols.
- Specifies herbicide treatment details – recommended blend and time of year.

NVE includes this SOW along with overview maps and a summary cover sheet in a workbook for the field crews.

4. *Execute the Plan – Clear the Perimeter*

The Project Manager and/or Vegetation Management Administrator arrange with the selected contractor to schedule and perform the work, according to the NVE workbook.

Around substations, recommended vegetation control methods consist of a combination of them:

- Physical – masticate, mow, and/or hand clear with tools to physically remove vegetation.
- Chemical – selective use of herbicide to limit noxious weed and invasive grass growth.
- Biological – use of living organisms, such as targeted grazing to manage unwanted vegetation.
- Cultural – use of seeds, plants, mulch, weed barrier, or other items to control vegetation or promote a desirable plant community.
- Prescribed burn – prescribed or pile burn to reduce fuel load.

Typically, the NDF Forester will take on the task of applying the recommended herbicide, or work with NVE to assign the task to another licensed or certified herbicide application contractor, after all vegetation and debris have been removed from the substation site, down to bare mineral soil.

5. *Monitor and Report*

The NDF Forester and the NVE Vegetation Management Administrator will act as field liaison, overseeing the work, providing weekly and monthly status updates, and updating the field maps.

6. *Ongoing Maintenance*

After successful completion of initial treatment, the substation will be patrolled and inspected along with the circuit it serves. Maintenance of the 10-foot perimeter will be scheduled and conducted on an as-needed basis, to ensure compliance with the bare mineral soil requirement.

Note that IVM is a long-term approach to vegetation management that drives reduced vegetation management as the program matures over time. The program, and this policy, are subject to continuous improvement and future edits.

E. Record Of Changes

REVISION	DATE	DESCRIPTION	AUTHOR
1.0	11/10/2025	Initial release	Dawnne Hirt, Project Manager

APPENDIX F. DIRECTIVES RESPONSE – CONTRACTOR CHARGES REASONABLENESS REVIEW

In the September 19, 2025, Order in Docket No. 25-02032, the Commission directed the Companies to expand documentation of the verification of the reasonableness of the personnel hours and vehicle and equipment milage and usage hours charged by contractors for consistency with the work performed. The documentation must provide a methodology by which these costs are clearly compared to the contracted work and compared cumulatively to the project budget and contract. The documentation must also include all reviewer notes, follow-up on any discrepancies and reviewer sign-off. This Appendix outlines the Companies' expanded processes and requirement for detailed documentation using a standardized "Form 297" to address the Directive.

Expanded Documentation and Verification of Charges

In Docket No. 25-02032 the Commission directed the expansion of the documentation and verification as to the reasonableness of personnel hours, vehicle mileage, and equipment usage hours for fire agency ("FA") contracts. The Companies implemented Master Professional Service Agreements ("MPSA") with FAs and created a clear process for invoice submissions. FAs have been used for pole and ground clearing, herbicide treatments and fire standby and suppression services. The Companies awarded vegetation management contracts to qualified third parties through a competitive bidding process. These companies are performing a majority of the vegetation work.

The Commission issued this Directive in response to Staff Data Request 51 Docket No. 25-02032, where the Companies indicated that the rates charged by contractors are validated for consistency with contracts but did not affirm that personnel hours or vehicle and equipment mileage and usage hours are validated.

The Companies have expanded the invoice review process to address this directive. In addition to validating the rates charged by contractors, which are detailed in the MPSA's, additional validation steps are required. Invoices are verified for completion of the specified scope of work, and then a Company subject matter expert validates the content of the invoice, including personnel labor hours, vehicle and equipment mileage, shown in Figure 1 below. This review includes comparing the hours indicated on invoices to the work assigned by the Company to be performed by the contractor to ensure that the amount of work performed is reasonable given the scope of work. Additionally, since October 6, 2025 the Companies' Wildfire Mitigation Specialists have significantly expanded field verification activities to support the enhanced invoice review and work validation process required by the Commission. Field personnel conducted vegetation management field verifications on 18 fire agency projects, performing 15-30 percent pole and rights of way (ROW) clearing verification sampling, based on circuit length and project complexity. Direct inspections included the Fire Protection Districts of Tahoe Douglas, Central Lyon County, Lincoln County, Elko County, and Truckee Meadows. In-the-field joint reviews of the Statement of Work (SOW) were conducted to confirm understanding and alignment of requirements. Any discrepancies identified during joint verification sessions were promptly communicated to the agencies, with requests for clarification or re-work issued where appropriate.

The Companies' pre-established work requirements are reflected in a clear Statement of Work for contractors. As work is completed, documentation utilizes a "two reviewer" system that includes subject matter experts qualified to provide professional reviews to verify the accuracy and reasonableness of invoiced amounts. A standardized "Form 297," also referred to as an Emergency Equipment Shift Ticket is required. This form includes equipment hours, miles, rate multipliers, and personnel information. The detailed supporting documentation addresses all of the items required from the directive in Docket No. 25-02032. Invoices are not paid until the expanded documentation has been reviewed and approved by the Companies' personnel. To support

accuracy and reasonableness of contractor charges, the Companies staff has increased in-field coordination with fire agency crews. Company personnel met with Tahoe Douglas Fire Protection District, Central Lyon County Fire Protection District, Lincoln County Fire Protection District, Elko County Fire Protection District, and Truckee Meadows Fire Protection District to walk project locations, review applicable SOW requirements, and observe active work to compare contractor reporting with actual field conditions. This coordination ensures alignment between contracted tasks, invoiced personnel/equipment hours, and documented work progress.

Beyond invoice review, the Companies have implemented robust field verification protocols. Ground fuels audits and close-out documentation demonstrate that the Company conducts systematic, randomized field verification of approximately 15% of completed pole grubbing and ROW clearing locations, confirming accuracy of work relative to GIS data and contract requirements. The audit and close-out documentation further confirms that location records contain photographic documentation, accurate treatment data, and evidence of risk-reduction work completed in alignment with NDPP requirements.

Several program refinements have been implemented as a direct result of recent field audits and project closeouts. The Companies are standardizing treatment specifications (e.g., required bare-mineral-soil clearances at poles with expulsive devices), enhancing contractor documentation expectations, and improving authorization processes to reduce incomplete work caused by limited landowner access. The Company is also strengthening requirements for documenting customer contacts, herbicide application notes, and site-specific observations to ensure more thorough field records.

Figure 1. Detailed Documentation Form Example

Emergency Equipment Shift Ticket

1. Agreement Number:	2. Contractor/Agency Name:		3. Resource Order Number:
4. Incident Name:	5. Incident Number:		6. Financial Code:
7. Equipment Make/Model:	8. Equipment Type:	9. Serial/VIN Number:	10. License/ID Number:

11. If applicable check and complete the following boxes. Use MILITARY TIME and/or real odometer reading. | 12. Transport Retained? Yes ☐ No ☐

Equipment

13. Is this a First/Last Ticket? (Check if yes) Mobilization ☐ Demobilization ☐			14. Miles ☐ Hours ☐ (Applies to blocks 16-18 below)	Blocks 19-20 Special Rates, indicate type and quantity (ex: 1 Day)		
15. Date	16. Start	17. Stop	18. Total	19. Quantity	20. Type	21. Note Travel/Other remarks

Personnel

22. Date	23. Operator Name (First & Last)	24. Start	25. Stop	26. Start	27. Stop	28. Total	29. Note Travel/Other remarks

30. Remarks – Provide details of any equipment breakdown or operating issues. Include other information as necessary.

31. Contractor/Agency Representative (Printed Name)	32. Contractor/Agency Representative (Signature)
33. Incident Supervisor (Printed Name & Resource Order number)	34. Incident Supervisor (Signature)

OPTIONAL FORM 297 (REV. 5/2024)
USDA/USDI

APPENDIX G. EMERGENCY DE-ENERGIZATION POLICY

Emergency De-Energization Wildfire Encroachment Policy

Natural Disaster Protection and System Operations Procedure 4920

Document Information	
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Approved Location	
File Number-Name	
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Summary of Policy	Wildfire Encroachment Action Description
Affected Departments	Grid Operations, Electric Delivery and Natural Disaster Protection (Power Safe NV)
Effective Date	2/20/2026

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			BES Cyber System Security (BCSI)

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0	7/3/24	Approved Policy
1.0	9/6/24	Clarifying revisions
2.0	2/20/2026	Policy Review and Updates

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1. PURPOSE

This document defines Sierra Pacific Power Company dba NV Energy and Nevada Power Company dba NV Energy's (together, "NV Energy" or "NVE") escalation and response protocols when a wildfire is approaching NV Energy owned or operated transmission and/or distribution facilities. As set forth in Section 2, this procedure requires de-energization of facilities when a wildfire encroachment occurs within defined distances to NV Energy facilities.

2. REFERENCES

ESCC 4910	Fire Season Operating Procedure
	NVE Wildland Fire Preparedness and Mitigation Plan
	NDPP: Emergency De-Energization Reactive Comms Plan
	NDPP: Emergency De-Energization Proactive Comms Plan

3. COMMON ACRONYMS

See Appendix C.

4. DEFINITIONS

Wildfire encroachment – an active wildfire that is uncontrollable and unpredictable and at risk of encroaching established safety boundaries from electric facilities, thereby increasing the risk of additional ignitions if the fire impacts energized facilities. Safety distances are pre-defined and encroachment occurs when an uncontrollable and unpredictable wildfire is within the safety distances from facilities outlined in this policy.

Uncontrollable and unpredictable – Active wildfire that has moved beyond the immediate area of ignition and exceeds the capabilities of current suppression activities, including both direct and indirect tactics. A wildfire may not be uncontrollable and unpredictable if fire control measures have mitigated the threat of the wildfire's continued spread, for example where responding agencies have implemented a fire line that is effectively preventing the wildfire's spread toward electric facilities or where the fire's behavior otherwise demonstrates that it is not progressing in the direction of the electric facilities. For avoidance of doubt, unless there is credible information confirming that the threat of spread is mitigated, the fire is deemed to be uncontrollable and unpredictable.

Electric facilities – includes overhead facilities, such as conductors, equipment on poles, substations and generation facilities.

Management Action Point(s) - Geographic points on the ground or specific points in time where an escalation or alternative management actions are warranted. These points are defined and the management actions to be taken are clearly described in Foundry and/or the Wildfire Encroachment Exception Approval Form. When a fire reaches defined Management Action Points, timely implementation of actions is critical to implementation of the Emergency De-energization Wildfire Encroachment policy and/or mitigation efforts to protect NV Energy facilities.

Mature Fire Response Condition – occurs when a fire response has matured such that sufficient information becomes available to better evaluate and understand the extent to which there is or is not a likely threat that the fire will impact NV Energy's electric facilities. To meet this condition, the following criteria must be met:

- A dedicated incident command structure ("ICS") is established by authorities to respond to the fire;
- Direct communication has been established between the ICS and a designated utility employee (either a wildfire specialist or technical field employee); and
- The ability to de-energize threatened circuits in the vicinity within [redacted] has been established via direct communication between the designated ICS communication employee and the control room with [redacted].

Effective Control Measures – An existing or constructed physical barrier to fire spread, such as fire line, road, body of water, area of sparse vegetation, recently burned area, etc., which responding fire agencies have or plan to use, to stop the spread of fire in a particular direction or area.

5. SCOPE

Wildfires can spread and move quickly based on many variables. This procedure outlines emergency de-energization of transmission and distribution facilities to minimize additional fire ignitions and to support emergency response activities. The policy outlines the boundary distances for de-energization, a standardized process for re-energization, and the reporting and communication protocols used to facilitate this enhanced emergency response measure.

*NOTE: Foundry is the official system of record for notifications, communications, documentation, and decision making.

6. IMMEDIATE ACTION: FIRE LOCATION RELATIVE TO FACILITIES

The NV Energy Hazard Awareness Desk and/or on-call Fire Duty Officer, in consultation with NV Energy's meteorologists, are responsible for monitoring any wildfires. The Hazard Awareness Desk and/or on-call Fire Duty Officer may monitor for and learn of new wildfires through reporting from external sources and through monitoring of internal tools (i.e. wildfire cameras, satellite hot spot detection, or other application alerts).

Outside of normal business hours, the Hazard Awareness Desk, System Operators and/or Trouble Dispatch shall promptly notify the on-call Fire Duty Officer by telephone upon receiving notice of any new wildfire within [redacted] of an NV Energy facility.

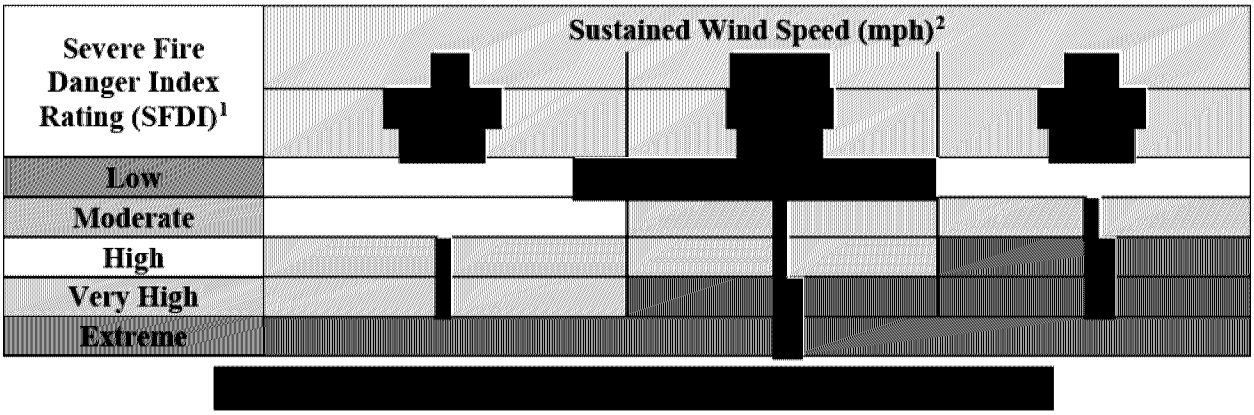
Multiple technologies (i.e. wildfire cameras, satellite hot spot detection, etc.), fire agency information, and external and internal observations will be monitored and used to support early credible wildfire detection and determination of general size, spread potential, and location of the fire. If there is credible information that the wildfire is within the encroachment boundary distance and deemed uncontrollable and unpredictable, NV Energy facilities within the wildfire encroachment boundary shall be de-energized pursuant to the guidelines presented in Table 1 as

quickly as is feasible, with a maximum [redacted] assessment period (unless otherwise indicated in Table 1 below) from the time of an initial report to NV Energy, taking into account the specific circumstances and impacts of a particular event. This includes joint- or foreign-owned facilities under the operational control of NV Energy (example cases are provided in Appendix B to help clarify edge cases).

Sources for credible wildfire information within the distance and timeline threshold established, include but are not limited to 911, Transmission & Distribution ("T&D") field operations, Emergency Management, on-call Fire Duty Officer, Grid Operations, and Reliability Coordinator ("RC West"). Additional sources that possess information about the incident may also be acted upon as appropriate. Wind speed information at the fire location or nearest weather station will be obtained using **nvenergy.westernweathergroup.com** before de-energization to determine which wildfire encroachment boundary applies. **However, when weather data is not available or in doubt, the on-call Fire Duty Officer will utilize all available sources of information to determine course of action based on the criteria within Table 1.**

In the event of a wildfire encroachment and after a maximum of [redacted] assessment time (unless otherwise indicated in Table 1 below), **subject facilities will be de-energized. A wildfire encroachment has occurred if there is credible information that a wildfire encroachment has breached the minimum safety distance in the table below.**

Table 1 – Identified Wildfire Risk Level and Encroachment Boundary Distances



***NOTE:** The distances in Table 1 are based on the fact that it will take some time for the System Operator to assess the data being reported and study the potential impacts before de-energizing. The expectation is that de-energization procedures will begin within the noted times however, select facilities and situational grid impacts (such as controlled shutdown of a powerplant) may require additional time to completely de-energize all impacted electric facilities.

[1] As defined on the daily SFDI risk matrix on nvfireweather.com/forecast and https://m.wfas.net/dev/wfas_sfwp_map_sacc.php.
[2] Use nvenergy.westernweathergroup.com to determine wind speed.
[3] Use iConnect, ESRI, ArcGIS, etc. to determine approximate distance from fire to NV Energy facility.

The on-call Fire Duty Officer will consult with internal resources such as Hazard Awareness, Meteorology, and GIS to gather information on the fire size and location, current SFDI rating, wind speed, and proximity to electric facilities. These consultations provide supporting information only; determinations regarding whether de-energization criteria are met and the timeframes to de-energize are made in accordance with the established criteria outlined in this policy. The Fire Duty Officer will then communicate the assessment to the designated System Operator, who will execute de-energization actions within the wildfire encroachment area based on the best available credible information at the time.

If a Mature Fire Response Condition exists, alternate boundaries may be established based on management action points for de-energization. Management action points would be documented in Foundry and communicated between involved personnel such as agency Incident Command, NVE Fire Management Officer, and/or NVE System Control Operator. Such action points must follow the established guidelines:

Table 2 - Guidelines to Establish Management Action Points during Mature Fire Response Condition

Encroachment boundary may be no less than [redacted] from the fire boundary
Must be established in cooperation with the fire Incident Commander or designee
Must be reevaluated if a management action point has been reached or once every [redacted] hours (maximum [redacted] hours overnight only), whichever occurs first
Allows re-energization if facilities have been previously de-energized

If effective control measures are lost or if any of the Mature Fire Response Condition criteria are no longer met, de-energization must immediately be re-initiated within the predetermined encroachment boundaries established in Table 1.

If transmission facilities are identified within the de-energization zone, the Transmission System Operator shall perform studies to identify impacts and plan for any required mitigation. Performing studies in EMS will ideally take a [redacted] if there are a small number of transmission lines or substations involved and are expected to be completed to execute de-energization within the timelines required in Table 1. In cases where a more extensive study is needed, the Transmission System Operator will perform the study diligently without delay in order to understand the impacts and de-energize as quickly as practical. If generation facilities are identified within the de-energization zone, the Transmission System Operator shall notify the Balancing Authority Operator. The Balancing Authority Operator will study the impact, plan for any required mitigation, and coordinate with the impacted generating facilities. Enough time should be provided to each Generating Station so each unit can be safely ramped down before being de-energized from the transmission system. Providing approximately [redacted] should be sufficient in most cases, however, there may be instances where additional time is required. In cases where generation facilities will need to ramp down, transmission may need to remain energized for longer than the [redacted] window. Refer to Table 1 for timelines.

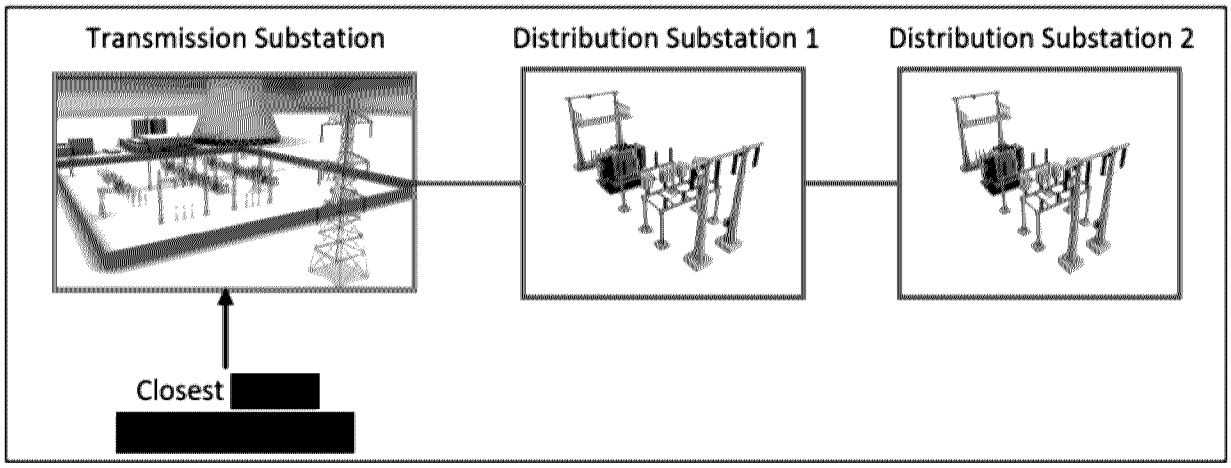
Localized de-energization will be executed without prior notice from leadership. Localized events generally range from individual distribution circuits up to full substation de-energization including associated transmission lines. System Operators will notify Vice President, Transmission (or an authorized delegate) when it is anticipated that de-energization may result in elevated system impacts, as described below.

For elevated impacts and depending on the specific circumstance of an event, the Vice President, Transmission (or an authorized delegate) may notify the President & CEO (or an authorized delegate) to provide the opportunity to direct that some or all electric facilities remain in service despite a wildfire encroachment. In such circumstances, one attempt will be made to contact the President & CEO, or the authorized delegate, to seek approval to keep facilities in service despite an identified wildfire encroachment. If contact is not successful, the full de-energization radius will be executed. Only approval of the President & CEO of NV Energy, or a delegate authorized in writing, is authorized to keep facilities energized if a wildfire encroachment has occurred. Examples of situations where facilities might remain energized, notwithstanding a wildfire encroachment, might include public safety or system stability.

The System Operator is expected by this procedure to act as quickly as feasible and ***shall de-energize*** all electrical facilities supporting transmission and distribution facilities within the wildfire encroachment boundaries (outlined in Table 1) via the closest [redacted]. Additionally, if NV Energy does not obtain credible information until the fire is already inside the right-of-way, that facility shall be de-energized as quickly as feasible. If the responding fire agency having jurisdiction requests de-energization of NV Energy facilities, the request shall be enacted as quickly as feasible and may occur outside the parameters set forth by Table 1. In some cases, de-energization from the closest available [redacted] may result in the initial de-energization of a larger number of facilities to achieve the quick [redacted] outage to a smaller target. For example, [redacted]. In this case, even though more customers will be impacted, initiating an immediate [redacted] at the transmission substation is required to complete de-energization as shown in Figure 1.

Once personnel are available and visual assessment has been verified on impacted facilities, the System Operator(s) have the authority to begin restoration pursuant to the re-energization guidelines in **Appendix D: Re-Energization Authorization Form** of this policy. Facilities that did not require de-energization but were subsequently de-energized due to location of the nearest [redacted], may be restored once visual assessment has been made.

Figure 1 – Wildfire Encroachment [redacted] Protocol



The following actions will occur immediately following de-energization:

Trouble Dispatcher:

1. Trouble Dispatcher will dispatch field personnel to the site to assess the situation.
2. If Hazard Awareness is unstaffed, Trouble Dispatch will log new active incident into Foundry and notify the on-call Fire Duty Officer by phone.
3. Notify T&D Operations Manger

System Operator

1. System Operator will mitigate any contingencies noted during the assessment or contingencies that show up in real time.
2. System Operator will follow normal operating procedures, including contacting and informing other impacted utilities of the situation (i.e., Reliability Coordinator (RC), neighboring TOPs, Public Utility Districts, IOUs, generators, etc.).
3. System Operator will place close inhibit tags on applicable breakers.
4. System Operator will log the actions taken in iTOA.

T&D Operations Manager

1. T&D Operations Manager will notify the on-duty Emergency Manager at the 24/7 number. If the on-duty Emergency Manager is not already engaged in work related to the specific wildfire, advise them of the de-energization/area impacted and wildfire location.
2. T&D Operations Manager or delegate will file a DOE-417 form, depending on the impact of de-energizations (if needed).

Fire Duty Officer/Assigned Wildfire Mitigation Specialist

1. The on-call Fire Duty Officer/Assigned Wildfire Mitigation Specialist will log significant events in Foundry, including but not limited to; how the information was received (field personnel, 911, Fire Duty Officer, Emergency Management, etc.), when it was received, status of the general location, impact information (substations, circuits, customer numbers, etc.) and any other data required to report and track event history.

Real-Time Analytics Engineer

1. The Real Time Analytics Engineer ("RTA") will mark all resulting outages with the following:
    - Cause Type: Forced
    - Subtype: Distribution or Transmission
    - Category: Nature
    - Cause: Fire Encroachment

    The codes above will result in an outage message to customers of "Shutdown for Fire Encroachment" and "A wildfire is in the vicinity of NV Energy's electrical equipment and power has been shut off to allow a safe response." RTAs will need to enter these cause codes within approximately five minutes of the start of the outage so that the information is presented in the emails to customers.

    The estimated time of restoration ("ETR") can remain blank for these outages. Once more information is known from the field teams and/or Incident Management Team ("IMT"), the RTA should update the ETRs for individual outages.

Emergency Manager

Upon notification of de-energization, the on-duty Emergency Manager shall do the following:

1. Emergency Manager will notify on-call IMT Incident Commander ("IC") and Public Information Officer ("PIO").
    a. Determine the need to activate the IMT based upon review of external notifications received from emergency responders and fire simulations. The IMT should only be activated if the de-energization is of a size or complexity beyond that normally handled by routine operations, as per the Corporate Emergency Response Plan.
    b. Create and distribute External Notifications to key impacted stakeholders including, but not limited to:
        i. Public Utility Commission of Nevada ("PUCN");
        ii. State, county, city and local official;
        iii. Emergency Managers;
        iv. Impacted telecommunication providers; and
        v. Major Accounts.

The on-call Fire Duty Officer will engage with the fire Incident Command Organization to understand the full situation and begin the re-energization evaluation, including documenting incident status and re-energization determination rationale in foundry.

7. DE-ENERGIZATION REQUESTS FROM EXTERNAL PARTIES

Pursuant to current protocol, if at scene fire personnel or Incident personnel requests the de-energization of facilities, the System Operator will de-energize the facilities following the same steps and timeframes outlined in Table 1 for Immediate De-energization, using the closest

upstream [redacted]. Upon de-energization, the System Operator will follow the steps outlined in operations procedure ESCC 4920 –Emergency De-energization Wildfire Encroachment.

When at-scene fire personnel or Incident personnel requests de-energization of facilities, the System Operator will attempt to clarify the timeframe requested ([redacted]. If time allows, the System Operator will notify the RC of the impending action, complete contingency analysis [redacted], and plan post contingency actions. If the fire suppression authorities request an immediate de-energization and time does not allow studying the impacts first, the System Operator will immediately de-energize the facility(ies) and notify the RC (if required), verify potential impacts to the system, and then resolve those impacts.

Facilities that are de-energized pursuant to a request from at scene fire personnel or an Incident Commander shall be re-energized pursuant to the process outlined in this policy if those facilities would have otherwise been de-energized under the policy absent a request.

8. MONITORING AND REPORTING: NON-IMMEDIATE ENCROACHMENT

When active, the NV Energy Hazard Awareness Desk is primarily responsible for monitoring wildfires. The Hazard Awareness Desk may monitor and learn of new wildfires through reporting from external sources and monitoring of internal tools (i.e. wildfire cameras, satellite wildfire hot spot warning, or other application alerts). When the Hazard Awareness Desk is not staffed, monitoring responsibilities reside with the on-call Fire Duty Officer and Meteorologist.

Outside of normal business hours when the Hazard Awareness Desk is not staffed, System Operators or Trouble Dispatcher shall promptly notify the on-call Fire Duty Officer by telephone upon receiving notice of any new wildfire within [redacted] of any NV Energy facilities and enter the new incident into Foundry.

If the wildfire fire encroachment may impact Bulk Electric System (BES) elements or if a proactive de-energization occurs on a BES element, the Transmission Operator shall notify and coordinate with RC West per their procedure RC0410B, and the Department of Energy (if required) through form DOE-417.

The following provides guidance on how/when to respond to fires that are a potential threat to NV Energy infrastructure that are outside the immediate de-energization criteria from Table 1.

- **More than [redacted].** Wildfires more than [redacted] from the nearest NV Energy facilities will be monitored for potential growth and potential impact by the Hazard Awareness Desk or on-call Fire Duty Officer and Meteorologist. If the wildfire movement is in the direction of company facilities and/or is growing, a regular communication cadence to internal company personnel on the wildfire status will be established by the IMT if activated.

- **Greater than [redacted] up to [redacted].** The Hazard Awareness Desk will enter wildfire information in Foundry. Foundry distributes notifications to all pertinent personnel via SMS text.

- **Within [redacted].** The Hazard Awareness Desk or on-call Fire Duty Officer shall notify by phone call, the Director, Grid Operations and Reliability, or an authorized delegate (who may escalate such information through normal channels, including the on-call IMT) of any new wildfire that is less than [redacted] of NV Energy facilities.

- **Severe Fire Danger Index ("SFDI") is less than extreme.** Wildfires may be outside of the de-energization circle based on wind speed but should still be monitored by the Hazard Awareness Desk or Fire Duty Officer. As an example, if a fire is within [redacted] when SFDI is high and wind speed is [redacted] then no immediate de-energization is needed, but the wildfire will be monitored. The Hazard Awareness Desk or on-call Fire Duty Officer shall notify the Director by phone, Grid Operations and Reliability, or an authorized delegate (who may escalate such information through normal channels, including the on-call IMT).

- **Preliminary Spread Assessment.** Upon receiving notice of a new wildfire, the Hazard Awareness Desk or on-call Fire Duty Officer will assess the situation based on available information. If needed, the Fire Duty Officer will promptly obtain a preliminary spread assessment from the on-duty meteorologist regarding the probability of the fire damaging NV Energy facilities and shall supplement the original email notification to the Director, Grid Operations and Reliability, (or an authorized delegate with the preliminary spread assessment) as soon as it is available. If the preliminary spread assessment indicates that the fire will likely reach NV Energy facilities at any time prior to the end of the next business day, the on-call Fire Duty Officer will promptly telephone the Director, Grid Operations and Reliability, or an authorized delegate to confirm receipt of the preliminary spread assessment. Otherwise, the on-call Fire Duty Officer may telephone the Director, Grid Operations and Reliability, or an authorized delegate to confirm receipt at the beginning of the next business day.

If a wildfire transitions from a monitoring and reporting condition to a de-energization condition, System Operations follows their procedure **ESCC 4920 – Emergency De-energization Wildfire Encroachment**, and NDP personnel follow the workflow found in **Appendix A: Flowchart for Fire Encroachment and Emergency De-energization Assessments**.

9. WILDFIRE THREAT TRACKING

If a preliminary spread assessment concludes that a wildfire will likely grow into the encroachment boundary within 48 hours, the on-call Fire Duty Officer, in consultation with the Meteorologist, shall promptly document an incident analysis and determined actions in Foundry.

If a preliminary spread assessment concludes that wildfire contact with NV Energy facilities is not likely to occur within 48 hours, the Hazard Awareness Desk or on-call Fire Duty Officer will

continue to monitor the new wildfire and request a new preliminary assessment if there are any material changes in the fire. The incident analysis and action determination documentation will typically include:

- Name of Fire Duty Officer submitting the incident information and general analysis
- Fire location, including a description of the source of such information
- Current fire size, including a description of the source of such information
- Proximity to the nearest NV Energy facility(ies), with mapping as appropriate. If needed, a Fire Spread assessment will be completed by NV Energy Meteorology, including:
    - Estimated fire growth rate and pattern;
    - Maturity of fire response (initial, extended, major/campaign);
    - Forecasted weather conditions which may impact fire spread;
    - Physical terrain between the fire and the facilities; and
    - Estimated duration regarding when the fire may reach company facilities.
- Other information regarding the fire and the company's potential response, including:
    - Location of company field personnel;
    - Monitoring capabilities of field personnel; and
    - Any communications with fire Incident Command

The Hazard Awareness Desk or on-call Fire Duty Officer In conjunction with ongoing monitoring, the on-call Fire Duty Officer shall:

- Open communications regarding status with fire agencies having jurisdiction;
- Coordinate with on-scene field personnel;
- Confer with the on-duty Meteorologist to evaluate fire conditions and update fire spread assessments;
- Update the incident information in Foundry; and
- Manage an ongoing exchange of information between System Operations, Emergency Management, and Meteorology until there is no threat to NV Energy facilities

10. CUSTOMER AND STAKEHOLDER NOTIFICATIONS

In all cases of wildfire encroachment de-energization, System Operators will provide notice to the T&D Operations Manager. The T&D Operations Manager will notify the on-call Fire Duty Officer (if not already aware) and the on-call Emergency Manager.

The NV Energy Fire Duty Officer will notify the jurisdictional fire agencies of the de-energization. The NV Energy assigned Emergency Manager will notify the responding emergency managers.
Short duration de-energization notifications will be managed by Major Account Representatives following the same routine for unplanned outages.

Longer duration de-energization will be communicated using the on-call PIO communication process. The PIO is responsible for external communications to customers. If time allows before de-energization, the PIO will communicate to customers of the potential de-energization. If time

does not allow, a post event customer notification will provide customers with information related to the de-energization.

11. RE-ENERGIZATION (See Appendix D: Re-Energization Authorization Form)

As information is obtained concerning the wildfire encroachment event, it may be possible to begin re-energizing portions or all facilities that were initially de-energized.

The System Operator has authority to re-energize under the following conditions:

1. Facilities that were de-energized based on a [redacted] location; once isolation is in place the facilities are outside the encroachment boundary and no longer required to be de-energized. The boundary will be identified in Foundry.
2. On-call Fire Duty Officer has completed an incident assessment and determined that there are effective control measures being implemented for the incident, and/or there are barriers to fire spread which will adequately protect NV Energy facilities from being directly impacted by the incident. The determination will be documented in Foundry. If the fire did not move through a facility's right-of-way, then that facility can be re-energized without a patrol.
3. If the fire did move through the line right-of-way and the line has been patrolled by Lines/Troubleshooter to ensure no damage needs to be addressed prior to re-energization.

The President and CEO, or their authorized designee, has the sole discretion to direct re-energization of facilities in the absence of the above criteria being met. Refer to **Appendix E: Wildfire Encroachment Exception Approval Form**.

12. SITUATIONAL AWARENESS TOOLS

The Hazard Awareness Desk, Fire Duty Officers and Specialists, System Operators, IMT, etc. will primarily use Foundry as the situational awareness tool for making determinations associated with encroachment de-energization. Other situational awareness tools that may be used are:

ALERTNevada - Operations – Fire Cameras
NVE Wildfire Map (arcgis.com)
WECC Wildfire Dashboard
Wildland Fire Assessment System – SFDI
Western Weather Group – real time wind speeds

13. EMPLOYEE OBLIGATION

Intentional non-compliance with the requirements outlined in this procedure may result in disciplinary action up to and including termination.

14. TRAINING

The following personnel shall be trained during the initial implementation and then annually.

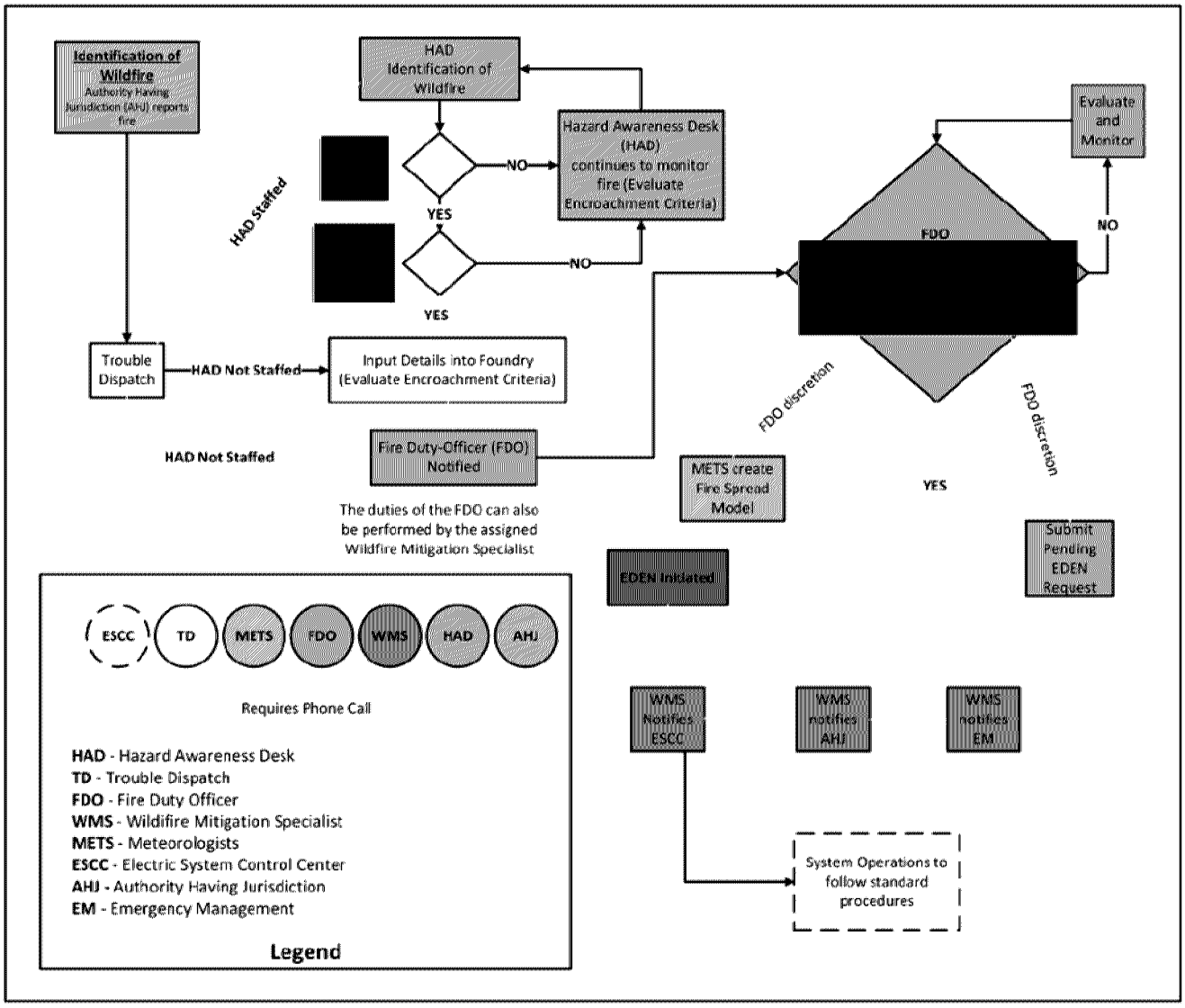
- Power Safe (Fire Duty Officers, Meteorologists)

- Grid Operations (Balancing Authority Operators, Transmission Operators, Distribution Operators, Trouble Dispatchers, Real Time Analytics Engineers)
- Lines (Troubleshooters, Linemen)
- Telecommunications
- Substations (Inspectors)
- Generation
- Corporate Communications Specialist

15. PERIODIC REVIEW

This procedure should be reviewed annually and updated as needed.

APPENDIX A: FLOWCHART FOR FIRE ENCROACHMENT AND EMERGENCY DE-ENERGIZATION ASSESSMENTS



APPENDIX B: EXAMPLES OF JOINT-OWNED OR CONTROLLED FACILITIES

Director(s), Grid Operations and Reliability, should contact the third parties listed below ahead of each season to notify them about this procedure.

Southern Nevada

- Crystal – McCullough 500 kV: NVE is 26.1% owner. Los Angeles Department of Water and Power (LADWP) is the majority owner and has operational control. Both LADWP and NVE have the ability to control the Crystal breakers [redacted].
- Crystal – Navajo 500 kV: NVE is 26.1% owner. LADWP is the majority owner and has operational control. Both LADWP and NVE have the ability to control the Crystal breakers [redacted].
- Harry Allen – Eldorado 500 kV: NVE is 20% owner. CAISO has operational control. [redacted]
- Harry Allen – Red Butte: NVE owns and controls from Harry Allen to the Utah state line.
- Southern California Edison (SCE).
- PacifiCorp (PAC).
- Western Area Power Administration (WAPA).
- Overton Power District.
- Lincoln County Power District.
- Valley Electric Association (VEA).
- Lead lines to generation plants or loads: NVE generally owns the first switch outside the [redacted].

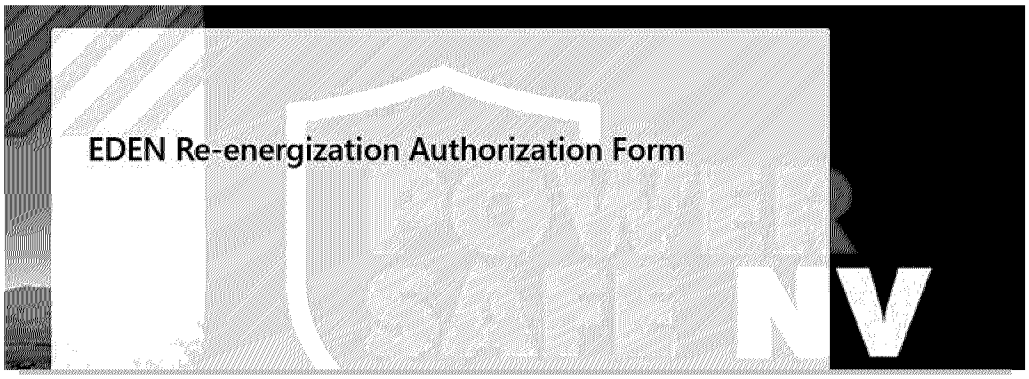
Northern Nevada

- Bonneville Power Administration (BPA)
- Pacific Gas and Electric (PG&E)
- PacifiCorp (PAC)
- Idaho Power (IPC)
- Southern California Edison (SCE)
- LADWP
- Liberty Utilities
- City of Fallon
- Truckee Donner Public Utility District (TDPUD)
- Plumas-Sierra Rural Electric Co-Op (PSREC)
- Mt Wheeler Power
- Wells Rural Electric Company (WREC)

APPENDIX C: TABLE OF ACRONYMS

AHJ	Authority Having Jurisdiction
BCSI	BES Cyber System Security
BES	Bulk Electric System ≥ 100 kV
CAISO	California Independent System Operator
CEO	Chief Executive Officer
DMS	Distribution Management System
DOE-417	Dept. of Energy Electric Emergency Incident and Disturbance Report
EDEN	Emergency De-Energization
EOC	Emergency Operations Center
ESCC	Electric System Control Center (Grid Operations)
ETR	Estimated Time of Restoration
FDO	Fire Duty Officer
HAD	Hazard Awareness Desk
IC	Incident Commander
ICS	Incident Command Structure
iTOA	IT Operations Analytics
IMT	Incident Management Team
IOU	Investor-Owned Utility
METS	Meteorologists
NDP	Natural Disaster Protection
NDPP	Natural Disaster Protection Plan
NVE	NV Energy
PIO	Public Information Officer
PUCN	Public Utility Commission of Nevada
PUD	Public Utility District
RC	Reliability Coordinator = RC West
RTA	Real Time Analytics Engineer
RTCA	Real Time Contingency Analysis
SCADA	Supervisory Control and Data Acquisition
SFDI	Severe Fire Danger Index
T&D	Transmission and Distribution
TOPs	Transmission Operations
WMS	Wildfire Mitigation Specialist

APPENDIX D: RE-ENERGIZATION AUTHORIZATION FORM



Section 1

1. Incident Name *

Enter your answer

2. Date

Please input date (M/d/yyyy)

3. Emergency De-energization number

Enter your answer

Section 2

WEATHER OBSERVATIONS

Wildland Fire Assessment System - Severe Fire Danger Mapping Tool (WFAS-SFWF)

4. SFDI from Foundry *

Enter your answer

5. Wind Speed (Sustained & Gusts)

Enter your answer

6. Wind Direction

Enter your answer

7. General weather conditions.

Enter your answer

Section 3

Fire Conditions

8. Fire Contained or controlled

- ◯ Yes
- ◯ No
- ◯ Other

9. Description of Effective Control Measures in place

Enter your answer

10. Name of Agency Representative providing information

Enter your answer

11. Fire or Emergency Management Agency

Enter your answer

12. Were proposed re-energized circuits damaged or impacted by the fire

- ◯ Yes
- ◯ No

13. Impacted circuits have been patrolled by NV Energy Trouble Shooter or Qualified Person

- ◯ YES
- ◯ NO
- ◯ Not required

14. Comment

Enter your answer

15. Damaged equipment is isolated to support safe restoration

- ◯ YES
- ◯ NO
- ◯ No Equipment Damaged

16. Comment

Enter your answer

Section 4 ...

Notifications

17. Confirmed re-energization request with System Control

- ◯ Yes
- ◯ No
- ◯ Other

18. Comments for Other

Enter your answer

19. AHJ has been notified *

- ◯ YES
- ◯ NO

20. Foundry workflow completed

- ◯ YES
- ◯ NO
- ◯ Not required

Add new question

APPENDIX E: WILDFIRE ENCROACHMENT EXCEPTION APPROVAL FORM

NV Energy Wildfire Encroachment Exception Approval Form

This approval form is intended to provide data and information to support management action points, which temporarily establish different thresholds than the 4920 Emergency De-energization Wildfire Encroachment policy distances. Approval is obtained by the CEO or their designee and applied through approval of this form. See 4920 Emergency De-energization Wildfire Encroachment policy for detailed procedures regarding management action points.

Exception Justification:	

Definitions	
ICS	Incident Command Structure
WMS	Wildfire Mitigation Specialist
FDO	Fire Duty Officer
Effective Control Measures	An existing or constructed physical barrier to fire spread, such as fire line, road, body of water, area of sparse vegetation, recently burned area, etc., which responding fire agencies have or plan to use to stop the spread of fire in a particular direction or area.
Management Action Point	Geographic points on the ground or specific points in time where an escalation or alternative management actions are warranted. These points are defined and the management actions to be taken are clearly described in Foundry and/or this Wildfire Encroachment Exception Approval Form. When a fire reaches defined Management Action Points, timely implementation of actions is critical to implementation of the Emergency De-energization Wildfire Encroachment policy and/or mitigation efforts to protect NV Energy facilities.

Fire Name and Location	
Ignition Point (estimated	
Acres	
Transmission or Distribution asset/area	
Asset Voltage	
Asset Type of Construction	
Bulk Electric Y/N	
Asset Ownership	
Closest Community	
Community Population	
Responder On-site/En-Route	

Management Action Points for Fire Response	
Field Responder	
Current Encroachment Boundary Distance	
Modified Distance or Area of De-energization due to specific conditions	
Direct Contact with Fire ICS	
Wildfire Mitigation Specialist or other NVE representative	
24/7 Monitoring (Y/N)	

24-hour forecast in the area of the asset and fire, per National Weather Service
▪ **Humidity & Rain:** Periods of light rain and scattered thunderstorms early this evening will boost relative humidity -helping to suppress ongoing fire activity
▪ **Winds:** Expect calm to moderate winds tonight. Slower wind speeds and increasing stability once storms pass, will lower fire spread risks.
▪ **Dry-down Tomorrow:** As skies clear overnight, humidity will drop and fuels (grasses, brush) will begin to dry. This overnight drying increases fire potential come morning.

Provide details of impacts to NV Energy load service	
Per Grid: Would still be able to meet load service obligations, but would require repurchase/redirection transmission to alternative paths. *Is system reliability at risk and what actions are being prepared (if yes).	
Provide details of impacts to NV Energy generation	
Generation Impacts (in MW)	
Provide details of impacts to The Western Interconnect	
Short-term impacts to WECC entities, would have to request MW from the Power Pool. After that, no significant impacts.	

* Notes are utilized as examples of form inputs, not the actual language that is applied for each event.

Situational Awareness Visualization and Fire Simulation

Fire simulation models provide additional visualization of current proximity and analysis of fire growth and spread potential. The fire simulation models impacts in the absence of suppression, and provides an index from 1-5 for the four categories outlined in the table below. This is intended to support decision making and can be updated if and when Management Action Points change and additional approvals may be required.

Fire Simulation Values and Definitions (Values 1-5) 1: Low, 2: Moderate, 3: Active, 4: Very Active, 5: Extreme	
Fire Behavior Index	Summarizes the rate of spread and flame length
Growth Potential Index	Summarizes the potential for perimeter growth absent any suppression
Terrain difficulty Index	Summarizes the operational complexity of accessing the fire
Initial Attack Assessment	Establishes a difficulty index for managing the incident by combining the terrain difficulty and fire behavior

WFA Simulation for

Test - 09082024 154811

Sim Start: 09/08/24 • 13:00 • 12hr sim

Sim Ignition: 39.3376, -119.8114 • Approximate Location: 65 Southwind Dr, New Washoe City, NV 89704, USA

Generated by: Wildfire

Initial Attack Assessment

4 Very High

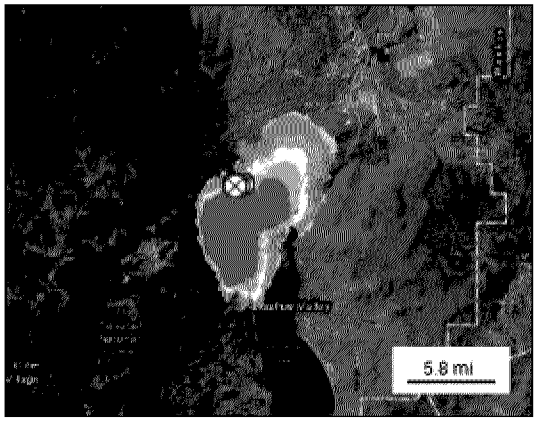
The Initial Attack Assesment (IAA) evaluates the difficulty of the incident considering the first hour of spread. Values range from 1(Low) to 5 (Extreme).

Fire Behavior Index

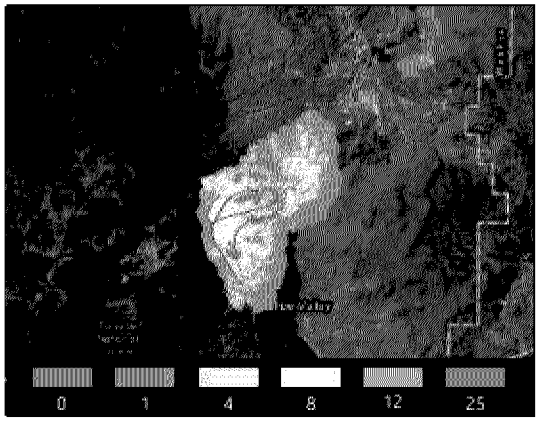
4 Very High

Fire spreads very rapidly presenting extreme resistance to control. Indirect attack may be effective. Safety of firefighters in the area becomes a concern. Values range from 1(Low) to 5 (Extreme).

Simulation Image (12hr)



Flame Length (ft)



Simulation Results & Weather Conditions (FORECAST)

Time	Hours From Start	Acres (ac)	Acc. Acres (ac)	Bldgs.	Pop.	Wind Sp. (mph)	Wind Dir.	1h/FM (%)	Herb. (%)	Woody (%)
09/08/24 • 13:00	1	1,951.3	1,951.3	71	200	17.2	W	5	40	77
09/08/24 • 15:00	3	651.9	3,610.3	58	130	17.8	SW	6	40	77
09/08/24 • 17:00	5	405.9	4,526.8	39	82	9.8	SW	7	40	77
09/08/24 • 19:00	7	414	5,374.1	28	42	5.3	S	8	40	77
09/08/24 • 21:00	9	258.6	5,988	18	17	6	N	8	40	77
09/09/24 • 00:00	12	283.8	7,280.7	10	16	4.6	N	9	40	77
			Total:	450	902					

This report was generated at 09/08/24 • 15:57

If you wish to view the full WFA report for this incident, please email paul.fremeau@nvenergy.com

This simulation does not take into consideration any suppression effort.

JESSE MURRAY

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan
Docket No. 26-02___

Prepared Direct Testimony of

Jesse Murray

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is Jesse Murray. My current position is Senior Vice President, Energy Delivery for Nevada Power Company d/b/a NV Energy ("Nevada Power") and Sierra Pacific Power Company d/b/a NV Energy ("Sierra" and, together with Nevada Power, the "Companies"). My business address is 6100 Neil Road in Reno, Nevada. I am filing testimony on behalf of the Companies.

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I hold a Bachelor of Science degree in Chemical Engineering and a Master of Business Administration degree from the University of Nevada, Reno. I joined the Companies in 2008 as an Engineer at Frank A. Tracy Generating Station. Since that time, I have held several positions in the Companies, including Plant Engineering Manager, Maintenance Manager, Asset Management Programs Manager, and Renewable Energy Programs Director. I assumed the role of Vice President, Gas Delivery in November 2017 and assumed oversight of the Natural Disaster Protection Plan ("NDPP") in April 2021. I assumed my current position in

December 2024. Before joining the Companies, I worked in several engineering positions, including as a nuclear and chemical waste technical specialist. I also served as a design lead and project manager in manufacturing and commercial building construction. I am a licensed Professional Chemical Engineer in Nevada. I was also an intern with the Companies before starting my professional career. More details regarding my professional background and experience are set forth in **Exhibit Murray-Direct 1**.

3. Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. I am responsible for overseeing the operations and maintenance of the electric and gas transmission and distribution systems for the Companies. I also oversee the emergency management, vegetation management, and other delivery support functions for the Companies. Finally, I oversee the strategic development and execution of the Companies' NDPP as directed by Senate Bill 329 (2019) of the Nevada Legislature and codified in NRS 704.7983. The NDPP drives the mitigation of potential wildfires and other natural disasters that could impact or be caused by the Companies' electric facilities.

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE PUBLIC UTILITIES COMMISSION OF NEVADA ("COMMISSION")?

A. Yes, I have submitted testimony and appeared before the Commission many times. A complete list can be found in **Exhibit Murray-Direct-1**.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to describe the policy objectives of the Companies' 2026 Natural Disaster Protection Plan Triennial Update (the "Plan") and the Companies' path to execute the Plan. In addition, I am sponsoring the Plan's Executive Summary.

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. I am sponsoring or co-sponsoring the following Exhibits:

Exhibit Murray-Direct-1 – Statement of Qualifications

Exhibit B - The 2026 Natural Disaster Protection Plan Triennial Update, Executive Summary

7. Q. WHAT IS YOUR ROLE IN DEVELOPING AND PRESENTING THE TRIENNIAL PLAN?

A. I am the executive sponsor for submittal of this Plan and for the overall execution of the program. I am responsible for ensuring this Plan complies with NRS 704.7983 and the regulations contained in LCB File No. R181-24 approved by the Commission on October 11, 2024, in Docket No. 19-06009. I support the proposed policy direction of this Plan and ensure consistency with the policy direction previously provided by the Commission.

I have served in the specific capacity of NDPP executive sponsor for the Companies since 2021. In that time, I have gained important historical knowledge and context that informs and guides this Plan. As the executive also responsible for the remainder of the Companies' Transmission and Distribution operations, I reaffirm

that mitigating the potential impacts of natural disasters through this Plan remains the top operational priority for the Companies.

8. Q. WHAT POLICY OBJECTIVES ARE THE COMPANIES SEEKING TO ACHIEVE IN THIS TRIENNIAL PLAN?

A. The overall policy objectives of this Plan remain as they have since the first plan submittal: to reduce the risk of wildfire and other natural disasters by implementing preventive measures and programs in a cost effective, prudent, and reasonable manner. This Plan is the third such triennial plan filed with the Commission, so its structure and main elements are familiar to all stakeholders. This is largely a continuation of now well-established programs in vegetation management, infrastructure inspections, grid ruggedization, situational awareness, and operational practices, including de-energizations and enhanced relay protection settings.

The Plan also includes selected modifications and additions that the Companies believe will enhance NDPP program effectiveness going forward. These include a new cost benefit analysis for NDPP program elements, updated wildfire Tier area designations, and new technology adoption. The supporting testimony filed with this Plan focuses on providing additional details regarding new or modified program elements, while the Plan itself provides a comprehensive overview of planned NDPP programs for the triennial period.

9. Q. HOW DOES THE PROPOSED TRIENNIAL PLAN COMPARE WITH THE 2024-2026 TRIENNIAL PLAN?

A. The Companies are not requesting significant budgetary increases or changes to execute this Plan compared to the costs of the 2024-2026 triennial plan. This reflects the fact that a level of maturity has been reached within the NDPP. This also acknowledges prior concerns from stakeholders regarding costs have been reflected to minimize additional impacts going forward. Finally, it acknowledges that there are real limitations for the communities and environments where much of this work is located to absorb that work given physical space limitations, right of way access, weather, permitting, scheduling, enjoyment of property, and other external factors.

I am also pleased to report that this Plan reflects the completion of the initial vegetation management work for many of the Companies' Tier 3 wildfire risk areas. As the Companies have communicated in the past, initial treatments were likely to be more expensive than the subsequent recurring treatments, and we have now started to reach that point, reflecting some cost efficiency.

10. Q. ARE THERE ANY SPECIFIC TRIENNIAL PLAN PROGRAMS OR UPDATES THAT YOU WOULD LIKE TO HIGHLIGHT?

A. Yes. First, the Companies present a quantitative cost-benefit analysis methodology consistent with the regulations approved since the Companies last presented a plan for approval. This methodology is supported by Companies' witness Francesco Zuniga and incorporates extensive learning over six years of executing on the program.

Additionally, the Companies present modification to the Wildfire Tier areas, including a significant increase in Tier 1 areas. This reclassification is based on updated information that better captures the areas subject to heightened risk of wildfire as required in NRS 704.7983(2)(a). Witness Alexander Hoon covers the Wildfire Tier analysis in detail, but I note that this update incorporates learnings regarding efficiencies and advanced analytical techniques to better characterize risk and apply appropriate resources. The Tier 1 area expansion does not represent NDPP "scope creep," but rather presents a more realistic and more efficient framework to mitigate wildfire impacts in areas with known risk. Notably, the Tier 1 expansion primarily impacts only the NDPP vegetation management, and patrols and inspections programs. Even in those programs, the proposed Tier 1 expansion will have limited budgetary impacts, due to more efficient planning and targeted use of technology to identify and treat problem areas.

The partnerships with participating fire agencies will also continue in this Plan, along with established relationships with for-profit vegetation management firms specializing in both tree trimming and ground fuels work. As directed by the Commission in Docket No. 25-02032, such vegetation management work will be released and managed consistent with the low-cost methodology outlined in the order under that docket.

The Companies have consistently demonstrated a commitment to exploring and adopting technologies that can further the benefits and efficiencies of the program, and this plan incorporates the conversion of previous technology pilots into fully operational programs while proposing other new pilots that the Companies hope will deliver positive results.

Finally, I would highlight the sections discussing the Mt. Charleston microgrid, which had some significant updates in the weeks prior to this filing. While the Companies are unable to articulate preferred solutions and paths forward at this time based on this information, the Companies provide the information with full transparency so that the Commission may understand the circumstances and provide input and direction as it sees fit.

11. Q. HAVE NDPP ACTIVITIES BECOME NORMAL COURSE OF BUSINESS FOR THE COMPANIES?

A. Many elements of the program are now fully incorporated into daily operations and are normal course of business. All vegetation management activities are now consolidated under the leadership of the vegetation management team with significant milestones now achieved. Several cycles of patrols and inspections have been completed, providing a better understanding of conditions on electric infrastructure. Meteorology, situational awareness, and fire prevention procedures are a part of daily activities of the Companies' field crews. Operational practices including seasonal fire modes, fast trip fire modes, emergency de-energizations, and PSOMs are deployed frequently as tools. The Companies still seek improvements in these areas, but the experience gained is now at a mature level.

One other area to highlight is the implementation of the first amendment to the 2024-2026 triennial plan ("First Amendment") that was approved by the Commission in Docket No. 24-12016, as that plays an important role in moving toward the normal course of business for this program. As articulated to the Commission, the First Amendment was designed to be implemented over the next 12-18 months. Important roles have been filled in compliance, distribution design,

vegetation management, and fire mitigation. The Companies are now focused on continuing to add internal resources in project management, lines inspection, system operations, hazards awareness, and distribution automation.

Some areas of the program are still in a developing phase, articulated as proposals in this Plan. First, the project execution component for complex retrofit rebuilds and undergrounding is still a challenge to get to steady state due to land easement, permitting, and resource availability constraints. As the First Amendment resources are brought to bear, the Companies anticipate significant improvements in 2026 and leading into the 2027-2029 plan years. Additionally, technological advancements continue at an accelerated pace in the industry. The Companies continue to review and assess potential capabilities and benefits of those technologies. Finally, the continued assessment of risk, costs, and benefits is an emerging area. Leveraging internal experience and industry developments, the Companies have now synthesized a cost benefit methodology proposed in this plan.

Finally, notwithstanding the directions given by the Commission in the First Amendment filing in Docket No. 24-12016, the transition from regulatory asset recoverable costs to forward looking general rate case ("GRC") recoverable costs is still in a transitional phase. The Companies have not yet filed a GRC to start incorporating those costs, and as such, those costs should still be recoverable through a regulatory asset mechanism until such time as the Companies filed their respective GRCs. It is important to note that NRS 704.7983(6) still affirms that "all prudent and reasonable expenditures made by an electric utility to develop and implement a plan submitted pursuant to subsection 1 must be recovered as a separate monthly rate charged to the customers of an electric utility." As directed

through the new regulation, the Companies are not filing a regulatory asset recovery filing for the 2025 plan year. The Commission should expect that the Companies will file to recover prudent and reasonable costs for this program as such time that those future contemplated GRCs are filed.

12. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT MURRAY-DIRECT-1

Statement of Qualifications
for
JESSE E. MURRAY, P.E.

Summary of Qualifications

25 plus years of engineering and utility leadership experience. Broad experience in process design, utility operations, problem analysis, project management, business operations, risk analysis, and financial analysis. Extensive knowledge in energy market fundamentals, combustion and steam turbines, contract negotiation/administration, and commercial construction techniques.

Professional Experience

Senior Vice President, Energy Delivery
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
February 2022 – Present

Responsible for overseeing the operations and maintenance of the electric and gas transmission and distribution systems for the Companies. Also includes the emergency management, vegetation management, and other delivery support functions for the Companies. Also responsible for executing the Natural Disaster Protection Plan as required by SB 329 of the 2019 Nevada Legislature and NRS 704.7983.

Vice President, Electric Delivery and Natural Disaster Protection
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
February 2022 – Present

Responsible for overseeing lines operations and maintenance, meter operations, operations support, emergency management, and vegetation management activities for NV Energy's electric transmission and distribution assets. Also responsible for executing the Natural Disaster Protection Plan as required by SB 329 of the 2019 Nevada Legislature and NRS 704.7983.

Vice President, Gas Delivery and Natural Disaster Protection
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
November 2017 – February 2022

Responsible for overseeing the operations, engineering, construction, compliance, service, and financial activities of NV Energy's gas distribution utility. Responsible for executing the Natural Disaster Protection plan as required by SB 329 of the 2019 Nevada Legislature and NRS 704.7983. The plan addresses and mitigates wildfire and other natural disaster risks that could impact or be caused by electric facilities in high risk areas (natural disaster protection added April 2021).

Director, Renewable Energy Programs
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
March 2015 - November 2017

Responsible for the implementation of several behind the meter customer renewable generation programs as required by NRS 701B. This included overseeing the development of the annual plan, management of the customer incentive process, interfacing with community stakeholders, and ensuring compliance with regulations.

Manager, Maintenance
Sierra Pacific Power Company d/b/a NV Energy
March 2014 – March 2015

Responsible for leading the engineering and maintenance organization at Frank A. Tracy and Fort Churchill generating stations. Managed a staff that provided plant maintenance and engineering support, equipment performance testing, and execution of plant betterment projects. Responsible for developing and executing long term business plans, including capital and O&M budgeting, workforce design, and major maintenance scheduling.

Manager, Asset Management Programs, Power Generation
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
June 2013 – March 2014

Responsible for designing and implementing an Asset Management Program for NV Energy's 6,000MW natural gas and coal fired generation fleet. Responsible for all aspects of the program, including strategic planning, financial justification, quantitative risk assessment, resource prioritization, outage scheduling, and alliance contracting.

Manager, Plant Engineering and Technical Services
Sierra Pacific Power Company d/b/a NV Energy
August 2011 – June 2013

Responsible for leading the engineering and maintenance organization at Frank A. Tracy and Fort Churchill generating stations. Managed a staff that provided engineering support, equipment performance testing, and execution of plant betterment projects. Responsible for developing and executing long term business plans, including capital and O&M budgeting, and major maintenance scheduling.

Staff Engineer
Sierra Pacific Power Company d/b/a NV Energy
January 2008 – August 2011

Provided plant engineering services at Frank A. Tracy and Fort Churchill Generating Stations. Included a focus on process design, water treatment, major maintenance, and plant betterment.

Engineer III
International Game Technology
October 2003 - January 2008

Responsible for managing major construction and space planning projects. Directed major real estate transactions on commercial buildings and undeveloped land. Managed major capital improvement projects throughout the project life cycle. Conducted property searches for new offices in developing markets, and negotiated the lease terms for these new properties. Managed existing leases at 40 locations in North America.

Associate Engineer
Bechtel BWXT Idaho – Idaho National Engineering Laboratory
June 2002 - October 2003

Characterized and managed chemically hazardous radioactive waste as prescribed by the Resource Conservation and Recovery Act (RCRA). Initiated and coordinated commercial disposition shipments to reduce nuclear and hazardous waste inventory within the State of Idaho.

Education

Master of Business Administration, University of Nevada, Reno, December 2007

Bachelor of Science with High Distinction in Chemical Engineering, University of Nevada Reno, June 2002

State of Nevada Professional Engineering License 21314, Chemical Engineering

Appearances in front of the Public Utilities Commission of Nevada

- 15-07041/2 Net Metering Cost of Service Docket
- 16-02006 Renewable Generations Annual Plan
- 16-03003 Nevada Power Annual Deferred Energy Accounting Adjustment
- 16-03004 Sierra Pacific Power Annual Deferred Energy Accounting Adjustment
- 16-03005 Sierra Pacific Gas Annual Deferred Energy Accounting Adjustment
- 16-07001 Sierra Pacific Power Company Triennial Integrated Resource Plan
- 16-08027 Nevada Power Second Amendment to the Triennial Integrated Resource Plan
- 17-02007 Renewable Generations Annual Plan
- 17-03001 Nevada Power Annual Deferred Energy Accounting Adjustment
- 17-03002 Sierra Pacific Power Annual Deferred Energy Accounting Adjustment
- 17-03003 Sierra Pacific Gas Annual Deferred Energy Accounting Adjustment
- 21-03004 Natural Disaster Protection Plan 2020 Regulatory Asset Recovery
- 22-03006 Natural Disaster Protection Plan 2021 Regulatory Asset Recovery
- 22-08001 2nd Amendment to the 2020-2023 Natural Disaster Protection Plan
- 23-03003 2024-2026 Natural Disaster Protection Plan
- 23-03004 Natural Disaster Protection Plan 2022 Regulatory Asset Recovery
- 24-03006 Natural Disaster Protection Plan 2023 Regulatory Asset Recovery
- 24-12016 1st Amendment to the 2024-2026 Natural Disaster Protection Plan Update
- 25-02016 Nevada Power General Rate Case
- 25-02032 Natural Disaster Protection Plan 2024 Regulatory Asset Recovery

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, JESSE MURRAY, states that he is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of his knowledge and belief; and that if asked the questions appearing therein, his answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

JESSE MURRAY

MACY CAMPBELL

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan
Docket No. 26-02___

Prepared Direct Testimony of

Macy Campbell

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is Macy Campbell. My current position is Director of Natural Disaster Protection Compliance and Operations Support for Nevada Power Company d/b/a NV Energy ("Nevada Power") and Sierra Pacific Power Company d/b/a NV Energy ("Sierra" and, together with Nevada Power, the "Companies"). My business address is 6100 Neil Road in Reno, Nevada. I am filing testimony on behalf of the Companies.

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I have more than 15 years of experience in the utility industry, serving in a range of technical, operational, and compliance roles within NV Energy. I began my career in Electric Meter Operations, progressing from engineering positions to Supervisor with responsibility for large commercial, industrial, and transmission-level metering programs. I later transitioned to gas operations, where I held management and director-level roles overseeing gas transmission and distribution compliance, workforce training, system operations, and adherence to

state and federal pipeline-safety requirements. In 2025, I assumed my current role as Director, Natural Disaster Protection Compliance & Operations Support, where I oversee implementation and governance of the Natural Disaster Protection Plan, including wildfire-mitigation activities, Public Safety Outage Management and emergency de-energization processes, situational-awareness functions, and associated regulatory compliance and reporting. My statement of qualifications is attached as **Exhibit Campbell-Direct 1**.

3. Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. As Director of Natural Disaster Protection Compliance and Operations Support, I am responsible for the fire mitigation, situational awareness, and emergency management teams, supporting electric system operations and ensuring compliance with the Natural Disaster Protection Plan ("NDPP"). This includes overseeing the Companies' emergency response to natural disaster events, mitigating the risk of wildfires and other natural disasters, the Emergency De-Energization Program, and the Public Safety Outage Management ("PSOM") program. In addition, from May 2025 to February 2026, I fulfilled the responsibilities of the Director of Natural Disaster Protection Plan Program Execution. These responsibilities included oversight and management of the vegetation management program, projects and programs focused on inspections, patrols and corrections as well as the project management and construction of the various system hardening efforts contained within the NDPP.

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE PUBLIC UTILITIES COMMISSION OF NEVADA ("COMMISSION")?

A. Yes. I submitted testimony and appeared before the Commission in the 2024 NDPP Regulatory Asset Recovery filing in Docket No. 25-02032.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to sponsor elements of the Companies' 2026 Natural Disaster Protection Plan Triennial Update (the "Plan") related to specific projects and programs. The specific programs that I sponsor, and my testimony addresses, are:

- Emergency De-Energization Policy
- Emergency Operations
- Specialized Safety Training
- Operational Practices Budget Forecast
- Distribution Automation
- Conditional Awareness: Circuit Patrols, Detailed Inspections and Corrections
- System Hardening Strategy
- Sierra Undergrounding
- Sierra Overhead Rebuilds
- Non-Expulsion Equipment
- Tree Attachment Removal
- Copper Wire Replacement
- Substation Hardening
- Nevada Power Line Ruggedization

- Fire Mesh Pole Wrap
- Mt Charleston Rebuild
- Advanced Technologies
- Resource Sufficiency

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. I am sponsoring or co-sponsoring the following Exhibits:

Exhibit Campbell-Direct-1 – Statement of Qualifications

Exhibit B, The 2026 Natural Disaster Protection Plan Triennial Update; specifically, I sponsor or co-sponsor the following portions of the Plan:

- Section 2.2 – Operating Practices (co-sponsored with Mr. Alex Hoon)
- Section 2.4 – Conditional Awareness: Circuit Patrols, Detailed Inspections and Corrections
- Section 2.5 – Grid Resilience and System Hardening
- Section 3 – Communications and Outreach
- Section 4 – Advanced Technologies
- Section 5 – Metrics
- Section 6 – Resource Sufficiency
- Section 7 – Financials
- Appendix E – Critical Crossings Table
- Appendix F – Copper Wire Variance Table
- Appendix H – Directives Response – Contractor Charges Reasonableness Review
- Appendix G – Emergency De-Energization Policy

7. Q. PLEASE PROVIDE A HIGH-LEVEL OVERVIEW OF THE COMPANIES' 2027-2029 PLAN.

A. The 2027–2029 Plan continues and operationalizes the programs approved in prior Triennial Plans and Amendments. It incorporates the first system-wide refresh of wildfire risk Tiers since the inaugural plan, formalizes learnings from pilots (e.g., Foundry and AiDash), and advances construction in system hardening, inspections, and undergrounding where design and permitting are complete.

8. Q. HOW DOES THE OVERALL 2027-2029 PLAN BUDGET COMPARE TO THE PRIOR TRIENNIAL PLAN?

A. The 2027-2029 Plan budget is largely a continuation, with increases driven by: (1) a new advanced technology pilot (Gridware); (2) a shift from pilot/start-up for several advanced technologies to sustained construction and deployment; (3) maturing programs such as the Mt. Charleston Rebuild and Distribution Automation ("DA"); and (4) previously delayed undergrounding projects being continued in this Plan. These increases are partially offset by elimination or reduction of certain legacy efforts and efficiencies gained through condition-based work.

9. Q. PLEASE DESCRIBE THE COMPANIES' PLAN TO PROVIDE GROUND FUELS VEGETATION MANAGEMENT WORK TO THE LOWEST BIDDER, CONSISTENT WITH THE COMMISSION'S ORDER IN DOCKET NO. 24-12016.

A. Consistent with the Commission's Order in Docket No. 24-12016, the Companies will not apply the "ten percent rule," which awarded fire agencies ground fuels vegetation management contracts if their bids were within ten percent of third-party

contractor bids. Instead, all ground fuels vegetation management work will be issued through the competitive bid process as directed and supported by the Companies' procurement department, and will include third-party contractors and local fire agencies as bidders in that process.

10. Q. PLEASE DESCRIBE THE TESTIMONY STRUCTURE AND THE ROLE OF THE COMPANIES' WITNESSES.

A. My testimony focuses on cross-functional programs including Operating Practices (co-sponsored with Mr. Alexander Hoon), Conditional Awareness, and System Hardening. Mr. Hoon sponsors the updated hazard and wildfire Tier assessments and co-sponsors Operating Practices. Mr. John Donovan sponsors Vegetation Management and Resilient Corridors. Mr. Francesco Zuniga sponsors the cost-benefit and risk-spend efficiency analyses and overall value-driven risk reduction details. Ms. Haley Stewart sponsors the rate impact analysis. Mr. Christopher Lautenberger sponsors Appendix B – Updated Wildfire Risk Assessment. Consistent with the Plan's theme, each witness primarily addresses changes from prior plans and newly operationalized elements.

11. Q. WHAT UPDATES ARE PROPOSED TO OPERATING PRACTICES FOR THE 2027-2029 PERIOD?

A. Operating Practices remain consistent and incorporate the refreshed wildfire Tier mapping in the day-to-day use of indices such as the Severe Fire Danger Index ("SFDI") and Composite Risk Index ("CRI"). Deployment of Fast Trip Fire Mode ("FTFM") remains unchanged, with minimal changes to the Public Safety Outage Management ("PSOM") protocols, such as inclusion of Incident Commander ("IC") discretion to activate PSOMs, with continued emphasis on calibrated, data-

informed decision making and a human-in-the-loop for activation and restoration. These minor refinements to PSOM protocols are discussed further in the prepared direct testimony of Mr. Hoon.

12. Q. PLEASE SUMMARIZE THE STATUS OF THE EMERGENCY DE-ENERGIZATION POLICY.

A. The Companies continue to implement the Emergency De-Energization Policy as presented in Docket No. 24-12016. Emergency De-Energization Policy refinements in this Plan formalize the role of the Hazard Awareness Desk in wildfire monitoring and situational awareness for clearer, more consistent operational decision-making. The Companies use structured management action points during mature fire response conditions. Updated documentation and decision-tracking have been improved through the use of Foundry, enhancing the re-energization process with visualization tools that improve evaluation and action planning. The Companies aim to improve clarity, coordination, and implementation during fast-moving wildfire events.

DISTRIBUTION AUTOMATION

13. Q. WHAT ARE THE COMPANIES' RECOMMENDATIONS FOR THE DISTRIBUTION AUTOMATION PROGRAM?

A. In Docket No. 24-12016, the Commission approved a dedicated Distribution Automation ("DA") group within NDPP. NDPP DA staffing will begin in 2026, including a leader and engineer to perform and complete studies and facilitate installations, including communications. The Companies recommend the onboarding of the additional technical resources as outlined in Docket No. 24-12016 by the third quarter of 2027. In 2027, the Companies anticipate the DA team

will complete a comprehensive strategic plan and feeder-level coordination studies that standardize settings and communications architecture across wildfire risk Tiers. For 2028 and 2029, the Companies recommend the DA team perform and complete studies, integration, and field installations for up to 15 initial line devices per year, inclusive of communications.

CONDITIONAL AWARENESS: CIRCUIT PATROLS, DETAILED INSPECTIONS AND CORRECTIONS

14. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE CONDITIONAL AWARENESS CIRCUIT PATROLS, DETAILED INSPECTIONS AND CORRECTIONS PROGRAMS?

A. Yes. The Companies are proposing to utilize drone inspections in conjunction with the current detailed ground inspections to acquire a 360° view of all poles and pole connections within the Tier boundaries. The Companies have also incorporated the recommended expansion of the fire Tiers into the counts for circuit patrols and detailed inspections. Otherwise, the recommended conditional awareness circuit patrol, detailed inspections and corrections program is a continuation of the approved program in the second triennial NDPP.

15. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE CONDITIONAL AWARENESS CIRCUIT PATROLS, DETAILED INSPECTIONS AND CORRECTIONS BUDGETS?

A. Yes. The Companies' recommended Operations, Maintenance, Administrative and General ("OMAG") budget for the program is $18.7 million compared to $30.9 million in the second triennial NDPP. As a result, the budget for this cycle is significantly reduced, even with the proposed Wildfire Tier area expansion. The

proposed $18.7 million budget includes costs for drone inspection and expansion of the wildfire Tiers. This triennial plan period represents a reduction in total patrols, inspections and corrections budget of approximately $12.2 million, or 40 percent. While plan-on-plan costs for the detailed inspection element are estimated to be higher, circuit patrol and corrections repair costs are forecasted to be significantly lower. The overall reduction is due to a variety of factors, including efficiencies in the patrols and inspection processes, competitively awarded, unit-cost based service contracts, and elimination of the repairs backlog.

16. Q. WHAT WOULD THE PROGRAM BUDGET BE WITHOUT THE COSTS FOR THE DRONE INSPECTIONS AND EXPANSION OF THE WILDFIRE TIERS?

A. Without the costs for the drone inspections and expansion of the wildfire Tiers, the Companies' recommended OMAG budget for the program would be $11.6 million.

17. Q. WHAT WOULD BE THE ADDITIONAL COSTS IF ONLY THE DRONE INSPECTIONS COMPONENT WAS ADDED TO THE PROGRAM?

A. If only the drone inspection component was added to the program without the expansion of the wildfire Tiers, the additional costs would be approximately $1.2 million.

18. Q. WHAT WOULD BE THE ADDITIONAL COSTS IF ONLY THE EXPANSION OF THE WILDFIRE TIERS COMPONENT WAS ADDED TO THE PROGRAM?

A. If only the expansion of the wildfire Tiers component was added to the program without the drone inspections, the additional costs would be approximately $5.5 million.

SYSTEM HARDENING

19. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE SYSTEM HARDENING STRATEGY?

A. No. The Companies' recommended system hardening strategy is similar to the strategy established in the second triennial NDPP. No new programs are recommended; however, the Lightning Arrester Replacement program has been eliminated from the plan as a standalone program within the NDPP and is being addressed within the expulsion fuse replacement program as referenced in Docket No. 25-02028, Section 2.6.3, and the Mt. Charleston rebuild work has been moved from the Undergrounding sub-section to a standalone Mt. Charleston rebuild sub-section

20. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE SYSTEM HARDENING BUDGETS RECOMMENDED FOR SIERRA?

A. No. The Companies' recommended capital budget for system hardening at Sierra is $114.8 million compared to a recommended $116.4 million in the second triennial NDPP. This reduction is not attributable to any one program, but rather the variable nature of system hardening. Many of the projects within the system hardening programs have relatively lengthy, difficult to predict timelines that

extend through planning, permitting and final construction, with construction years incurring the majority of the cost. Given these variable timelines, relatively large year-to-year variances in program expenditures are normal and are to be expected. The Companies' strategy is to minimize the impacts of the specific project timing variances on the Plan by managing the recommended system hardening budget across the multiple system hardening programs.

Fire mesh pole wrap and non-expulsion equipment are the only system hardening programs that include an OMAG budget component. The Companies' recommended total OMAG budget for these two programs is $18.7 million compared to $10.1 million in the second triennial NDPP. This increase is mainly attributable to increased plan-on-plan device counts, material costs and labor costs associated with the non-expulsion equipment program, which is forecasted to be completed by year-end 2029.

21. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE SYSTEM HARDENING BUDGETS RECOMMENDED FOR NEVADA POWER?

A. Yes. The Companies' recommended capital budget for system hardening at Nevada Power is $79.2 million compared to the $39.3 recommended budget for the second triennial NDPP, including the approved first amendment in Docket No. 24-12016. This is a plan-on-plan increase of $39.9 million. Approximately $900,000 of the increase is attributable to an increase in total budget for the copper wire replacement, critical crossings, and pole stoppers programs. The significant portion of the plan-on-plan increase is attributable to the $39 million increase in budget for the Mt. Charleston Rebuilds program, which is discussed in Q&A 30 of my testimony.

Fire mesh pole wrap is the only Nevada Power system hardening program in the Plan with an OMAG budget. The recommended OMAG budget for fire mesh pole wrap at Nevada Power is $928,000 compared to $2,018,000 in the second triennial NDPP, a decrease of $1,090,000.

SIERRA UNDERGROUNDING

22. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE UNDERGROUNDING STRATEGY?

A. No. The Companies' recommended undergrounding strategy is similar to the strategy established in the second triennial NDPP. The Plan continues to address the 32 line segments identified in the NDPP Selective Underground Prioritization Plan by moving projects forward into active workflows. The Plan also continues to support three identified underground cost sharing projects. With all the Angel Peak undergrounding segments having been completed in prior years, the Plan no longer contains any recommended undergrounding projects at Nevada Power.

The Companies note that in the Order in Docket No. 23-03003, the Commission approved design and permitting costs only for the projects included in Phase 3 of Sierra's undergrounding plan, with additional information required to be filed with the Commission prior to commencement of construction. The Companies confirm that the Sierra Phase 3 undergrounding projects remain in design and permitting status for the triennial plan period.

SIERRA OVERHEAD REBUILDS

23. Q. WHAT ARE THE COMPANIES' RECOMMENDATIONS FOR THE SIERRA OVERHEAD REBUILDS PROGRAM?

A. The Companies recommend continuing the work on the Curry 1280, Incline 4100, and Muller 1295 circuits that began under the second triennial NDPP. Recommendations include design, permitting and construction of approximately six miles of line rebuilds. In addition, the Companies recommend design and permitting begin on a total of approximately fifteen miles of rebuilds on five additional Tier 1/1E circuits that were not part of the prior plan. These additional circuits are in Sierra's Northeast operating region and include the Dutch Flat 208, Dutch Flat 209, Dutch Flat 210, Grass Valley 2517, and Grass Valley 2518 circuits.

NON-EXPULSION EQUIPMENT

24. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE NON-EXPULSION EQUIPMENT PROGRAM?

A. Yes. While the Companies' recommended non-expulsion equipment program is a continuation of the approved non-expulsion fuse replacement program in the second triennial NDPP, the expansion of wildfire Tier 1E in the Plan resulted in approximately 2,400 additional devices to replace. The Companies still anticipate the completion of this program by year-end 2029.

25. Q. WHAT ARE THE ADDITIONAL PROGRAM COSTS ASSOCIATED WITH THE EXPANSION OF WILDFIRE TIER 1E?

A. For the non-expulsion equipment program, the additional capital costs associated with the expansion of wildfire Tier 1E are approximately $5.4 million. The additional OMAG costs are approximately $4.5 million.

TREE ATTACHMENT REMOVAL

26. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE TREE ATTACHMENT REMOVAL PROGRAM?

A. No. The Companies' recommended tree attachment removal program is a continuation of the approved program in the second triennial NDPP.

COPPER WIRE REPLACEMENT

27. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE COPPER WIRE REPLACEMENT PROGRAM?

A. No. The Companies' recommended copper wire replacement program is a continuation of the approved program in the second triennial NDPP.

SUBSTATION HARDENING

28. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE SUBSTATION HARDENING PROGRAM?

A. No. The Companies' recommended substation hardening program is a continuation of the approved substation hardening investments program in the second triennial NDPP. The Companies do anticipate the completion of this program by year-end 2029.

NEVADA POWER LINES RUGGEDIZATION

29. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE NEVADA POWER LINES RUGGEDIZATION PROGRAMS?

A. No. The Companies' recommended Nevada Power lines ruggedization programs, which include the critical crossing program and pole stoppers program, are a continuation of the approved programs in the second triennial NDPP.

FIRE MESH POLE WRAP

30. Q. ARE THERE ANY SIGNIFICANT CHANGES TO THE FIRE MESH POLE WRAP PROGRAM?

A. No. The Companies' recommended fire mesh pole wrap program is a continuation of the approved fire mesh (pole wrapping) program in the second triennial NDPP.

MT. CHARLESTON REBUILD

31. Q. WHAT ARE THE COMPANIES' RECOMMENDATIONS FOR THE MT. CHARLESTON REBUILD PROGRAM?

A. In Docket No. 23-03003, the Companies proposed a four-phase Mt. Charleston Rebuild program. In the Order, the Commission approved the requested approximate $15.9 million budget for the program but limited their approval to design and permitting activities only. In Docket No. 24-12016, the Companies proposed a modified, four-phase Mt. Charleston Rebuild program. Phase 1 was modified from the original program and included the development and installation of a clean energy microgrid. Phase 2 was unchanged and included the ruggedization of the Kyle Canyon 1201 feeder. Phase 3 was modified from the original program and included the ruggedization of the Kyle Canyon substation and Angel Peak 3402 feeder. Phase 4 was unchanged and included the Canyon 3401 feeder rebuild. In the Order, the Commission approved the modifications to Phase 1 of the program with additional requirements, including a 50 percent renewable profile microgrid, and the requested increased total budget through 2026 of $19.4 million.

In this Plan, the Companies recommend a reduced-scope, three-phase Mt. Charleston Rebuild program. The Companies recommend completion of the Phase 1 clean energy microgrid and Phase 2 ruggedization of the Kyle Canyon 1201

feeder as approved in Docket No. 24-12016 and Docket No. 23-03003. The Companies' recommended Phase 3 include only the completion of the Kyle Canyon substation ruggedization project with the rebuild of the Angel Peak 3402 feeder removed from the proposed scope approved in Docket No. 24-12016. The Phase 4 rebuild of the Canyon 3401 feeder has been removed from the scope of the Plan. The Companies intend to pursue the rebuilds of the Angel Peak 3402 and Canyon 3401 feeders outside of the Plan through GRC recoverable projects. The total recommended budget for the triennial plan period for the Mt. Charleston Rebuild program is $58.4 million. Of this amount, approximately $14.9 million is a carryover from the $19.4 million budget approved in Docket No. 24-12016. The carryover is due to delays in the execution of the Phase 1 clean energy microgrid. The Companies anticipate the completion of all phases of the Mt. Charleston Rebuild program by year-end 2029.

32. Q. WHAT UPDATES ARE PROPOSED TO THE COMMUNICATIONS AND OUTREACH PROGRAM FOR THE 2027-2029 PERIOD?

A. Communication and outreach efforts for 2027–2029 will continue building on the channels that have proven most effective, while introducing targeted enhancements to improve customer reach and understanding of NDPP activities. The Companies will maintain their community meetings, stakeholder engagement, customer emails, social media updates, proactive media outreach, and evolving website content. To expand the reach of key information the Companies are expanding their outreach methods to ensure broader and more equitable access to information. New efforts include improved informational handouts and branded event materials to support in-person education, recognizing that high-quality printed resources and preparedness giveaways help reinforce key messages during community

interactions. The Companies will also introduce an annual postcard mailing to all customers who reside in fire tiers and enhance their website with detailed project-specific information, increasing transparency and ensuring customers can easily access updates about planned NDPP work in their area.

33. Q. WHY ARE THE COMPANIES PROPOSING TO IMPLEMENT GRIDWARE AS A NEW ADVANCED TECHNOLOGY?

A. As covered conductor becomes standard in wildfire risk areas, detecting high-impedance faults is increasingly important. GridWare's pole-mounted sensors provide electrical, mechanical, and smoke detection to shorten response time and further reduce ignition risk. The Plan proposes installation where covered conductor has already been installed and potential expansion based on performance.

34. Q. ARE THE COMPANIES PROPOSING CHANGES TO NDPP METRICS?

A. Not at this time. The Companies are continuing to evaluate the current NDPP reporting metrics to ensure they remain aligned with the overall program objectives and reflect industry-appropriate categories and practices. As part of this evaluation, the Companies anticipate the need to re-assess and refine specific metrics in future filings to better represent program performance and project effectiveness. By design, any expansion of wildfire risk tiers will be fully captured within the existing reporting framework, and the annual metrics will incorporate activities and outcomes associated with all designated tiers as they evolve.

35. Q. ARE THERE ANY SIGNIFICANT CHANGES TO RESOURCE SUFFICIENCY?

A. No. Resource sufficiency remains a foundational program that enables the successful implementation of all other elements of the NDPP. It continues to provide the necessary support and capabilities required to carry out system-hardening, operational, and emergency-response activities.

36. Q. HOW ARE FINANCIALS PRESENTED IN THIS FILING?

A. The detailed OMAG and capital budgets appear in the Plan. My testimony explains program-level drivers and references those tables for amounts and annual phasing.

37. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT CAMPBELL-DIRECT-1

Statement of Qualifications
MACY CAMPBELL

NEVADA POWER COMPANY d/b/a NV Energy
SIERRA PACIFIC POWER COMPANY d/b/a NV Energy
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Reno, Nevada 89511
(775) 834-3790
macy.campbell@nvenergy.com

Summary of Qualifications

Director-level utility leader with more than 15 years of experience in electric and gas operations, regulatory compliance, emergency management, and natural disaster mitigation. Demonstrated expertise in utility system operations, business process development, project management, and cross-functional leadership. Extensive background in regulatory audits and reporting, state and federal compliance requirements, procedure documentation, asset management, and contract administration. Certified in National Incident Management System (NIMS) and Incident Command System (ICS) protocols and actively engaged in emergency management programs at the company, county, and state levels. Provides strategic oversight and governance for NV Energy's Natural Disaster Protection Plan (NDPP), including risk mitigation programs, operational controls, emergency response coordination, and regulatory alignment.

Professional Experience

Director, Natural Disaster Protection Compliance & Operations Support
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
May 2025 – Present

Responsible for overseeing implementation and governance of the Natural Disaster Protection Plan (NDPP) programs and projects, including program execution, operational readiness, and regulatory compliance. Provides leadership across operational and regulatory teams to ensure adherence to wildfire mitigation statutes, codes, and regulations. Supports Public Safety Outage Management (PSOM), Emergency De-energization processes, situational awareness functions, and coordination with internal operations and external emergency response partners. Facilitates NDPP controls, reporting, and continuous improvement efforts to strengthen mitigation outcomes.

Director, Gas Compliance and Training
Sierra Pacific Power Company d/b/a NV Energy
April 2023 – May 2025

Led gas transmission and distribution compliance and training activities in the Truckee Meadows service territory, including installation and maintenance operations, system procedures, staff

qualifications, and federal/state regulatory adherence. Oversaw implementation of gas delivery programs, ensured performance under applicable regulatory requirements, and supported emergency response readiness through training and coordination activities.

Manager, Gas Compliance and Operations
Sierra Pacific Power Company d/b/a NV Energy
August 2021 – April 2023

Managed gas transmission and distribution operations, including leak surveys, pressure management at regulator stations and city gates, and workforce training programs. Ensured compliance with all state and federal regulations across the gas delivery division and supported regulatory audits, field inspections, and system performance assessments.

Supervisor, Electric Meter Operations
Sierra Pacific Power Company d/b/a NV Energy
December 2014 – August 2021

Oversaw industrial and commercial electric meter design, installation, maintenance, testing, and bi-directional net metering across Northern Nevada. Directed operational and technical functions for large customer metering and ensured accuracy, reliability, and compliance in support of power quality and operational planning.

Associate/Engineer II, Electric Meter Operations
Sierra Pacific Power Company d/b/a NV Energy
May 2010 – December 2014

Performed installation, maintenance, testing, and configuration of large commercial and industrial electric metering systems, including transmission-level intertie points. Supported smart meter deployment and the implementation of bi-directional net metering programs.

Education

Bachelor of Science in Electrical Engineering, University of Nevada Reno, 2010

Professional License, Certifications, Affiliation

Federal Emergency Management Agency (FEMA) – National Incident Management System (NIMS) / Incident Command System (ICS) Courses:
IS-100.c: Introduction to the Incident Command System
IS-200.c: ICS for Single Resources and Initial Action Incidents
IS-700.b: National Incident Management System, An Introduction
IS-800.d: National Response Framework, An Introduction
ICS-300: Intermediate ICS for Expanding Incidents
ICS-400: Advanced ICS for Command and General Staff
O0305 AHIMT: U.S. Fire Administration (USFA) Type 3 Incident Management Team (IMT)

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, MACY CAMPBELL, states that she is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of her knowledge and belief; and that if asked the questions appearing therein, her answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

Macy Campbell
MACY CAMPBELL

JOHN DONOVAN

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan
Docket No. 26-02xxx

Prepared Direct Testimony of

John Donovan

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is John Donovan. My current position is Director of Natural Disaster Protection Project Execution for Nevada Power Company d/b/a NV Energy ("Nevada Power") and Sierra Pacific Power Company d/b/a NV Energy ("Sierra," and together with Nevada Power, the "Companies"). My business address is 6100 Neil Road in Reno, Nevada. I am filing testimony on behalf of the Companies.

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I began working for Companies in 2017, in the supply chain department. During my time at the Companies I have served in the Electric Delivery Organization as an analyst, then as the Manager over Reliability Programs. I then moved into Transmission Business Services supporting Generator Interconnection and now hold my current Position as Director of Natural Disaster Protection Project Execution. My qualifications are described in **Exhibit Donovan-Direct-1**.

3. Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. My responsibilities include oversight and management of the vegetation management program, projects and programs focused on inspections, patrols and corrections as well as the project management and construction of the various system hardening efforts contained within the Natural Disaster Protection Plan ("NDPP").

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE PUBLIC UTILITIES COMMISSION OF NEVADA ("COMMISSION")?

A. I have not previously filed testimony with the Commission.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to sponsor the element regarding Vegetation Management of the Companies' 2026 Natural Disaster Protection Plan Triennial Update (the "Plan"). My testimony specifically addresses:

- Vegetation Management
  - Aerial line clearance activities
  - Ground fuels mitigation activities

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. I am sponsoring or co-sponsoring the following:

Exhibit Donovan-Direct-1, Statement of Qualifications

Exhibit B, The 2026 Natural Disaster Protection Plan Triennial Update, specifically I sponsor or co-sponsor the following portions of the Plan:

- **Section 2.3** – Vegetation Management
- **Appendix E** - Vegetation Management – Ground Fuels Substation Policy

7. Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. I provide an overview of the NDPP vegetation management programs presented in Section 2.3 of the Plan. My testimony focuses on identifying specific changes to methodology from prior triennial plans. I also address how the Companies are complying with the Commission's August 28, 2023, Order in Docket No. 23-03003 regarding substation resilient corridors.

8. Q. DESCRIBE HOW THE COMPANIES WILL ACCOMPLISH THE VEGETATION MANAGEMENT CYCLES, GIVEN AN INCREASE IN LINE MILES IN TIER 1.

A. The Companies anticipate being able to perform the additional work in the expanded fire Tiers without seeking additional funding. The Companies anticipate that the benefits of remote satellite imagery and targeted vegetation evaluation will assist in identifying the areas of the greatest density of ground fuels to focus resources on the highest risk, most manageable areas. This represents a shift from prior plans based on experience and introduction of new technologies. As a result, the Companies will be able to conduct more targeted vegetation management within the expanded wildfire tier areas, resulting in a relatively flat triennial budget despite the increase in Tier size. The Companies anticipate this strategy will increase the efficiency of vegetation management cycles and focus on areas of higher risk.

The Companies' prior methodologies for clearing rights-of-way ("ROWs") will be updated based on experience in prior planning cycles. While bare mineral soil does

not burn, creating such conditions is impractical to implement given permitting and land use restrictions as well as the need to respect environmental conservation. The Companies must comply with permitting from Authorities Having Jurisdiction ("AHJs") or work with private landowners to remove vegetation on private property, even if an easement exists. If the Companies masticate the ROW and clear poles (formerly called pole grubbing) but are unable to apply herbicide, the ROWs tend to fill in with fast-growing, highly flammable invasive vegetation, particularly cheatgrass. Based on this finding and the ability to leverage satellite imagery, the Companies will implement more strategic approach for ROW clearing in this cycle. This strategic approach will require evaluating existing vegetation in the ROW and determining in advance whether herbicide can be applied before proceeding to mastication. Evaluating the ROW for species type, density, and possibility of herbicide treatment will allow the Companies to make the most impact on risk while keeping costs consistent.

9. Q. EXPLAIN HOW NV ENERGY HAS COMPLIED WITH DIRECTIVE NO. 4 FROM DOCKET NO. 23-03003 REGARDING RESILIENT CORRIDORS AROUND SUBSTATIONS.

A. The Commission's August 28, 2023, Order in Docket No. 23-03003 requires the Companies to establish specific clearance guidelines for creating Resilient Corridors surrounding substations. To address this directive, Vegetation Management prepared the Vegetation Management – Ground Fuels Substation Policy ("Policy") included as Appendix E to the Triennial Plan. The Policy outlines how substations will be patrolled and cleared. At a high level, the Policy requires a Nevada Division of Forestry Forester to prepare a vegetation management scope of work for each substation. The scope of work includes detailed information

regarding property ownership around the substation and recommendations for equipment clearing and herbicide treatment. The scope of work is submitted to the Companies and a project manager works with contractors to execute the plan. Resilient corridors must practically be limited to the areas where the Companies hold rights to clear vegetation on property within existing easements. The Companies will always seek permission from AHJs or property owners to clear the fully recommended areas if not covered by existing easements. Currently, any issued work to a third-party contractor that involves a substation is performed according to the Policy. All subsequent field audits will include inspection of the substations and ensure clearances are met and exceptions justified and documented.

10. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT DONOVAN-DIRECT-1

STATEMENT OF QUALIFICATIONS

John Donovan
Director, Natural Disaster Protection Program Execution
NV Energy
6100 Neil Rd, Reno, NV 89511
(702)482-5073 john.donovan@nvenergy.com

Mr. Donovan has been an employee of NV Energy since 2017. He brings over 13 years of progressive experience across diverse industries and functions, including human resources, finance (accounting, financial planning and analysis), analytics, supply chain, electric delivery operations, and transmission. He has a Bachelor of Science degree in Business Administration, Finance and a Master of Business Administration degree.

PROFESSIONAL EXPERIENCE

NV Energy – Natural Disaster Protection Program Execution | 2026 – Present

- Leading the teams responsible for the design and project execution of grid resilience and system hardening projects, and vegetation management.

NV Energy — Transmission Interconnection Manager | *2024 – 2026*

- Led end-to-end customer and stakeholder engagement for transmission grid integration, ensuring alignment with federal regulations and corporate strategy.
- Designed and executed cross-functional decision-making frameworks to accelerate project delivery, cutting timelines by 10%.
- Provided strategic counsel to leadership on regulatory developments, enabling proactive risk mitigation and policy alignment.
- Developed cadence for leadership updates, enabling informed decision-making and clear tracking of high-priority initiatives.

NV Energy — Manager, Reliability Programs | *2022 – 2024*

- Directed a 15+ person team with a $100M+ budget, delivering system reliability improvements that exceeded performance targets.
- Established annual objectives, KPIs, and operational plans that aligned with corporate priorities.
- Managed organizational transformation initiatives, resolving complex conflicts between policy, federal regulations, and vendor constraints.
- Negotiated $350M+ in strategic contracts, securing cost savings and performance gains of 20%.
- Partnered with HR to recruit, mentor, and onboard high-performing employees, creating a scalable structure for leadership engagement.

NV Energy — Operations Analyst | *2021 – 2022*

- Built operational metrics dashboards enabling executive visibility into performance trends and capital expenditures.

- Partnered with leadership teams to identify bottlenecks, implementing process improvements that increased efficiency and customer satisfaction.
- Developed reporting cadence for operational initiatives, enabling informed strategic planning.

NV Energy — Category Manager, IT & Telecom | *2019 – 2021*

- Oversaw $100M+ annual spend for IT, Telecom, and DSM categories, aligning procurement strategy with corporate objectives.
- Negotiated 50+ high-value contracts with compliance to state, federal, and industry standards.
- Established collaborative frameworks with executive stakeholders across affiliates, driving consistent adoption of enterprise processes.

NV Energy — Sr. Procurement Analyst | *2017 – 2019*

- Delivered $40M+ in cost savings annually through strategic sourcing and vendor performance optimization.
- Created real-time operational tracking tools to improve decision-making cadence for procurement leadership.
- Led cross-functional training to enhance sourcing policy adherence and communication effectiveness.

Nationwide Security & Building Services — Business Analyst | *2015 – 2017*

- Designed KPI frameworks and financial forecasting models to support strategic decision-making.
- Built organizational reporting cadence that improved executive visibility into operational performance.
- Developed pricing strategies that improved profitability for new accounts.

Zirtual, Inc. — Payroll & Finance Manager (promoted from HR & Payroll Manager) | *2013 – 2015*

- Managed financial operations, payroll, and billing for 2,000+ clients and 500+ employees across 42 states.
- Created and implemented organizational policies ensuring compliance with multi-jurisdictional regulations.
- Produced executive-level financial reports for CEO and Board, enabling strategic budget allocation.

EDUCATION

University of Nevada, Las Vegas

• Master of Business Administration 2020

• Bachelor of Science in Business Administration, Finance 2012

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, JOHN DONOVAN, states that he is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of his knowledge and belief; and that if asked the questions appearing therein, his answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

JOHN DONOVAN

FRANCESCO ZUNIGA

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Joint Application of Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan

Docket No. 26-02___

Prepared Direct Testimony of

Francesco Zuniga

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is Francesco Zuniga. My current position is Senior NDPP Data Scientist for Nevada Power Company d/b/a NV Energy ("Nevada Power") and Sierra Pacific Power Company d/b/a NV Energy ("Sierra" and, together with Nevada Power, the "Companies"). My business address is 6100 Neil Road in Reno, Nevada. I am filing testimony on behalf of the Companies.

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I have worked for the Companies since January 2024 as Senior Data Scientist for the Natural Disaster Protection Plan ("NDPP") department. In my role, I leverage advanced statistical methods and machine learning algorithms to analyze data and forecast extreme events. My statement of qualifications is attached as **Exhibit Zuniga-Direct-1**.

3. Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. As Senior NDPP Data Scientist , my primary duties and responsibilities include:

- Developing advanced statistical and machine learning models to analyze large and complex datasets related to system performance, asset conditions, and external hazards.
- Forecasting extreme events relevant to the department's planning and operational needs, using probabilistic modeling, time-series analysis, and predictive analytics.
- Designing, validating, and implementing analytical frameworks that support risk assessment, wildfire mitigation, system reliability improvements, and long-term planning.
- Collaborating with engineers, planners, and subject-matter experts to translate operational challenges into data-driven solutions and actionable insights.
- Conducting end-to-end data workflows, including data acquisition, cleaning, transformation, feature engineering, and model deployment.
- Communicating analytical findings through clear reports, dashboards, presentations, and visualizations to support decision-making at both technical and leadership levels.
- Improving and maintaining analytical tools and pipelines, ensuring reproducibility, accuracy, and alignment with applicable standards.
- Supporting regulatory filings and strategic initiatives by providing quantitative evidence, scenario modeling, and benefit-cost analyses.

- Evaluating program effectiveness, such as wildfire-risk-reduction programs, by integrating statistical methods, risk models, and program cost data.

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE PUBLIC UTILITIES COMMISSION OF NEVADA ("COMMISSION")?

A. No.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide an overview of the NDPP Cost Benefit Calculator presented in the Companies' 2026 Natural Disaster Protection Plan Triennial Update (the "Plan"). The NDPP Cost Benefit Calculator provides a benefit-to-cost ratio ("BCR") for each program element consistent with the regulations adopted in the Commission's January 30, 2020 Order, as amended on October 11, 2024, in Docket No. 19-06009.

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. As I am sponsoring or co-sponsoring the following Exhibits:

Exhibit Zuniga-Direct-1, Statement of Qualifications

Exhibit B, The 2026 Natural Disaster Protection Plan Triennial Update, specifically I sponsor or co-sponsor the following portions of the Plan

- Section 2.6 – NDPP Cost Benefit Calculator
- Appendix D – NDPP Cost Benefit Calculator

7. Q. PLEASE EXPLAIN YOUR ROLE IN DEVELOPING THE NDPP COST BENEFIT CALCULATOR.

A. I serve as the lead in developing the NDPP Cost Benefit Calculator. My work includes developing the overall framework, identifying risk reduction from NDPP programs, and quantifying the benefits associated with avoiding wildfire events. I continue to support the Companies in refining the NDPP Cost Benefit Calculator to provide results that are more specific to the Companies' respective service territories and their proposed NDPP mitigation efforts.

8. Q. PLEASE EXPLAIN THE NDPP COST BENEFIT CALCULATOR RESULTS FOR THE NDPP PROGRAM ELEMENTS.

A. The analysis presented for this Plan shows that each wildfire-related NDPP element provides benefits that exceed program costs on a probability-based risk reduction basis. The NDPP Cost Benefit Calculator primarily quantifies potential benefits associated with avoiding catastrophic wildfire events and it does not currently quantify other benefits such as improved reliability and resilience or more generalized public safety benefits. Despite this, the BCRs for each program element exceed the 1.0 threshold based on the Companies' quantification of risk reduction and risk of loss.

Table Zuniga Direct-1 presents the initial cost benefit analysis for each element of the NDPP.

TABLE ZUNIGA DIRECT-1

A	B	C	D	E	F	G	H	I	J	K	L
Program	Triennial Program OMAG	Triennial Program Capital	Total Triennial Program Cost	Risk Reduction - Low	Risk Reduction - High	Annual Risk	Triennial Risk	$ Loss Reduction (Low)	$ Loss Reduction (High)	BCR (Low)	BCR (High)
Vegetation Management	119,580,600	0	119,580,600	0.5	0.6	92,000,000	276,000,000	138,000,000	165,600,000	1.15	1.38
Situational Awareness											
Weather Stations	1,708,063	1,546,456	3,254,519	0.1	0.2	92,000,000	276,000,000	27,600,000	55,200,000	8.48	16.96
Wildfire Cameras	3,107,364	2,661,292	5,768,656	0.2	0.35	92,000,000	276,000,000	55,200,000	96,600,000	9.57	16.75
Operational Practices											
FTFM, PSOM, Emergency Operations, plus Distribution Automation	10,368,536	6,546,347	16,914,883	0.4	0.6	92,000,000	276,000,000	110,400,000	165,600,000	6.53	9.79
Circuit Patrols, Detailed Inspections and Corrections	18,673,494	0	18,673,494	0.2	0.35	92,000,000	276,000,000	55,200,000	96,600,000	2.96	5.17
Pole Replacements (GRC-only)	0	30,850,000	30,850,000	0.4	0.55	92,000,000	276,000,000	110,400,000	151,800,000	3.58	4.92
System Hardening											
Undergrounding Program	0	57,755,866	57,755,866	0.85	0.95	92,000,000	276,000,000	234,600,000	262,200,000	4.06	4.54
Overhead Rebuild+Copper Wire Replacement	0	85,387,465	85,387,465	0.35	0.55	92,000,000	276,000,000	96,600,000	151,800,000	1.13	1.78
Tree Attachment Program	0	6,960,000	6,960,000	0.1	0.2	92,000,000	276,000,000	27,600,000	55,200,000	3.97	7.93
Expulsion Fuse Replacement Program	17,200,000	17,600,000	34,800,000	0.15	0.35	92,000,000	276,000,000	41,400,000	96,600,000	1.19	2.78
*Substation Hardening	0	8,732,437	8,732,437								
*Pole Coatings	2,536,779	0	2,536,779								
**Critical Crossings Program	0	6,590,000	6,590,000								
**Pole Stoppers	0	7,875,000	7,875,000								
Risk Based Approach											
Gridware Pilot Program	0	9,565,525	9,565,525	0.25	0.4	92,000,000	276,000,000	69,000,000	110,400,000	7.21	11.54
***Resource Sufficiency	4,007,007	0	4,007,007								

Footnotes

*Substations and Pole Coatings-- The Companies' are still working on quantifying the estimated wildfire risk reduction for these.

**Critical Crossings and Pole Stoppers -- The Companie's are still working on quantifying the natural disaster risk reduction for these. (not wildfire related)

***Resource Sufficiency enables each of the programs listed above, though it does not yield an independent risk reduction metric. Rather, this spending serves as a catalyst that enhances other programs' performance.

The NDPP Cost Benefit Calculator results show that the program elements provide more value than their respective costs. Certain specific programs within the System Hardening elements do not currently include BCR calculations, either due to the unique nature of the risk (i.e., non-wildfire risk addressed by critical crossing and pole stoppers) or the lack of information regarding the risk and loss reduction (i.e., for substation hardening and pole coatings).

9. Q. HOW ARE THE COMPANIES PLANNING TO REFINE THE NDPP COST BENEFIT CALCULATOR GOING FORWARD?

A. The NDPP Cost Benefit Calculator will be refined to provide risk-to-loss translation by linking circuit-segment wildfire risk scores directly to financial exposure, enabling risk reduction to be expressed as avoided loss. It will also standardize cross-project comparability by allowing for fundamentally different mitigation strategies (vegetation work, rebuild, or undergrounding) to be evaluated under the same benefit–cost metric. The Companies anticipate that, over time, experience with the NDPP Cost Benefit Calculator will reveal opportunities to iterate and improve the Calculator to provide more refined results.

10. Q. HOW WILL THE NDPP BENEFIT FROM THE COST–BENEFIT CALCULATOR?

A. The NDPP will benefit from the Cost Benefit Calculator by gaining a scalable tool for investment prioritization and portfolio optimization. This will allow improved project prioritization, as projects will be ranked using a consistent BCR methodology, enabling the Companies to allocate budget toward actions that produce the highest avoided-loss impact. The calculator will provide a transparent, repeatable methodology linking expenditures to quantified risk and loss reduction,

directly supporting justification of NDPP investments. It will also provide consistency across planning groups by establishing a shared quantitative framework across Vegetation Management, Asset Management, Public Safety Outage Management and other programs, reducing subjectivity in decision-making. This will lead to better long-term strategic planning with mitigation portfolios that address both routine wildfire exposure and high-consequence tail events.

11. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT ZUNIGA-DIRECT-1

Francesco Zuniga, Ph.D.

(775)230 8885 | dr.fzuniga@gmail.com

Core Competencies:

Machine Learning | Statistical Modeling | Critical Thinking | Python | SQL | Azure, AWS & GCP | Risk Analysis

Education

Ph.D., Statistics and Data Science, University of Nevada, Reno (January 2017 – December 2021)

- Academic interest: Data Visualization and Statistical Modeling
- Extensive coursework in Mathematical Statistics and Machine Learning
- Graduate Dean Merit Scholarship (Cumulative GPA 3.95).

Lean Six Sigma Green Belt Certification, (SSGI) - (July 2021).

Lean Six Sigma Black Belt Certification, (SSGI) – (Oct 2023)

M.S., Civil Engineering, Structural, University of Nevada, Reno (January 2015– December 2016).

B.S., Civil Engineering, Construction & Renewable Energy, University of Tor Vergata, Rome (2009 – 2013).

Professional Experience

Senior Data Scientist at NV Energy, Reno (NV) – Hybrid, Jan 2024 – Present

- Developed the Advanced Wildfire Assessment and Risk Evaluation (AWARE) ML model to forecast wildfire risk for the Natural Disaster Protection Department.
- Designed the structure for a Cost Benefit Analysis Calculator to allow managers and executives to plan and estimate cost-benefits associated with a project and analyze the impact of each project to the risk profile of the associated circuit.
- Supports the development and maintenance of a data lake in MS Azure for the company. Sorted and merged 20 different data sources to create a state-of-the-art dynamic database to enhance the capability of using ML for estimating and assessing wildfire risk across designated Tier zones in Nevada.
- Developed a wildfire risk reduction assessment for each program in the NDPP, using an in-depth literature review to align with the other Utility Companies.
- Lead a project to improve and automize the invoice process for the vegetation management department: this task involves Data Science and Lean Six Sigma skills. The goal was to reduce the invoice processing time by at least 50%.
- Works with CloudFire developing a ML model to calculate a bias correction for wind gusts at a 95th percentile level, improving the actual values by more than 25% (research paper developed from this project).

Data Scientist II | HO3 COE Property DS at Homesite, Boston (MA) - Remote, Jan 2022 – Jan 2024

- Developed an innovative Insurance model for New Business Exterior Inspection (NBIM) to prevent loss events. The new model allowed the company to maintain the same number of inspected properties, cutting costs of 40% compared to previous model (originally requested target 10-12%).
- Supported the IT team to put the model in production respecting the requested timeline and submitting an excellent product.
- Developed a Stream Lit App that allows State managers to apply the NBI Model to new business data, perform statistical analysis at a state level, change possible scenarios and download the input setting.

Intern | HO3 COE Property Data Science at Homesite, Boston (MA) - Remote, May 2021 – Aug 2021

- Tested an AutoML platform comparison during a summer project for an insurance company.
- Technical Experience: DataRobot, H2O DriverlessAI, H2O AutoML, GCP AutoML, Tables and Vertex.

Lecturer (Temporary Faculty) | University of Nevada, Reno | Jan 2022 – Aug 2024

- Working as Lecturer for graduate and undergrad courses in Mathematics and Statistics.
- Design and Conducting core courses in Mathematics and Statistics.

Graduate Research Assistant | University of Nevada, Reno | Jan 2019 - Dec 2021

- Created statistical models for extreme events forecasting and classification in climate, engineering and finance, applying features engineering and providing 92% model accuracy.
- Developed a R code to train a two-layer neural network to predict heart disease in South-African countries and provided a graphic comparison for error rate using cross validation method.
- Developed code and implemented algorithms in R for predicting systems and risk analysis, resulting in an overall 85% prediction accuracy, an improvement of 12% from previous model.
- Improved machine learning model that predicted the average number of crimes per block in major US cities on a monthly basis with an accuracy of 91%.
- Presented poster on ML applications at university workshop winning the prize for best research poster.

- Won a competitive scholarship from Reading University (London, UK) for a summer research program in mathematics and statistics applied to climate change.
- Publications: 3 papers published, 2 submitted for publication and 3 in progress, available on my google scholar account:

https://scholar.google.com/citations?user=E0u2Ad8AAAAJ&hl=en&authuser=2&oi=ao

Graduate Teaching Assistant | University of Nevada, Reno | Aug 2015 – Dec 2021

- Preparing and Conducting weekly discussion sections for undergraduate courses in Mathematics and Statistics.

President | University student chapter of the Society for Industrial and Applied Mathematicians | Jan 2019 – Dec 2021)

- Organized coding workshop and hackathons involving over 80% of the students and professors in the Department.

Civil Engineer and Structural Designer Assistant | G.F.C. s.r.l., Rome, Italy | March 2008 – Dec 2014

- Designed reinforced concrete structures and x-braced steel structures for industrial buildings.
- Energy saving design and green design.
- Cad and Revit technical and graphic design.

Conferences

- "Multivariate model of precipitation events in California: the role of atmospheric rivers, topography, and climate change", CMStatistics 2021, the 14th International Conference of the ERCIM WG on Computational and Methodological Statistics (A.K. Panorska, I. Vinci*, F. Zuniga*, A. Weyant*, A. Gershunov*, T.J. Kozubowski*).
- "A New Trivariate Model for Stochastic Episodes with Generalized Linear Model" within the "Recent Advances in Distribution Theory" Session for the WTA Conference 2021, July 02-2021. (F. Zuniga*, A.K. Panorska, and T.J. Kozubowski).
- "A generalized linear model for extreme events: New goodness of fit measures" at the Special Session "Statistical models: Recent developments" within the 13th International Conference of the ERCIM WG on Computational and Methodological Statistics Conference, December 19-21, 2020. (F. Zuniga*, A.K. Panorska, and T.J. Kozubowski).
- "Stochastic models for climatic and hydrologic extreme events", at the ESCO 2020 - 7th European Seminar on Computing, University of West Bohemia. (A.K. Panorska, I. Vinci*, and F. Zuniga*).

Technical Aptitude

Statistics: Testing hypothesis, T-test, Hierarchical models, A/B testing, Variance reduction techniques, Analysis of variance, General linear models, non-parametric testing, Time series analysis, Peak over threshold theory, Risk analysis, Statistical Learning, Probability, Inferential statistics, Mathematical statistics, Stochastic modeling, Pareto Analysis, Bayesian Analysis.

Applied Experience: Managing large scale multi-dimensional databases, submitted challenging projects developing complex business infrastructure meeting deadlines, experience dealing with stakeholders and understanding business requirements, Designing ML pipelines for Engineering projects, Developing supervised and unsupervised machine learning algorithms, Experience with IoT and wearables techniques.

Programming Languages: Python, R.

Technical Experience: SQL, Spark, Tableau, Markdown, Latex, Power BI, Dockers, Data Bricks, H2O, AWS, Azure, DataRobot, GCP, Azure ML.

Data Science Tool kit PyTorch, NumPy, Scikit-learn, PySpark, Plotly, Pandas, Caret, kernLab, ggplot2, randomForest, DataExplorer, data.frame, data.table, Tensorflow.

Data Analysis & ML: Neural networks, Classification, Tree-based methods, Machine learning algorithms, Linear regression, Logistic regression, Non-linear model fitting, Data Manipulation, Decision trees, Random forests, Gradient Boosting Models, Principal Component Analysis, Multivariate Analysis, Representational similarity analysis, Multidimensional scaling, CNN, Image Recognition.

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, FRANCESCO ZUNIGA, states that he is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of his knowledge and belief; and that if asked the questions appearing therein, his answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

FRANCESCO ZUNIGA

ALEXANDER HOON

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Joint Application of Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan
Docket No. 26-02___

Prepared Direct Testimony of

Alexander Hoon

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is Alexander Hoon. My current position is Principal Meteorologist - Natural Disaster Protection for Nevada Power Company d/b/a NV Energy ("Nevada Power") and Sierra Pacific Power Company d/b/a NV Energy ("Sierra" and, together with Nevada Power, the "Companies"). My business address is 6100 Neil Road in Reno, Nevada. I am filing testimony on behalf of the Companies.

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I joined the Companies in October 2021. For the previous 15 years I worked for the National Weather Service in Reno, Nevada where I was the Fire Weather Program Manager and Incident Meteorologist. I have been deployed to more than 25 major wildfires across the western United States. My experience is primarily in fire weather, fire behavior, and operational weather decision support.

My statement of qualifications is attached as **Exhibit Hoon-Direct-1.**

3. Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. As Principal Meteorologist, I provide key decision support to leadership and operations for extreme weather that could result in natural disasters, including wildfires. I serve as the Companies' subject matter expert for all weather-related matters, including fire weather, and advanced risk modeling. I lead a team of three meteorologists at the Companies, responsible for short- and long-term weather forecasting. I am responsible for technical leadership for the Companies' Situational Awareness programs. As a lead for the situational awareness systems, my expertise includes weather stations, wildfire cameras, artificial intelligence ("AI") and wildfire risk modeling technologies.

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE PUBLIC UTILITIES COMMISSION OF NEVADA ("COMMISSION")?

A. Yes. I submitted testimony and appeared before the Commission in Docket Nos. 23-03003, 24-03006, 24-07003, 24-12016, 25-01019, 25-01018, and 25-02032.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to sponsor elements of the Companies' 2026 Natural Disaster Protection Plan Triennial Update (the "Plan") related to specific projects and programs. The specific programs that I sponsor or co-sponsor, and my testimony addresses are:

- Natural Disaster Threats
- Situational Awareness
- Operational Practices

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. I am sponsoring or co-sponsoring the following Exhibits:

Exhibit Hoon-Direct-1, Statement of Qualifications

Exhibit B, The 2026 Natural Disaster Protection Plan Triennial Update, specifically I sponsor or co-sponsor the following portions of the Plan:

- Section 1 – Risk Based Approach -- Natural Disaster Risk Analysis and Drivers
- Section 2.1 – Situational Awareness
- Section 2.2 – Operational Practices (co-sponsored with Ms. Macy Campbell)
- Appendix A – Natural Disaster Heightened Threat Area Maps
- Appendix C – PSOM Plan

7. Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. My testimony consists of the following: (i) an overview of Fire Risk Tier updates that inform risk-based planning; (ii) a concise summary of Natural Disaster Threats with emphasis on whether any material changes affect the Plan; (iii) a description of Situational Awareness program elements and updates; and (iv) an overview of Operating Practices that translate planning and real-time conditions into operational decision-making. Each section focuses on changes from prior triennials and how those changes are reflected in the Plan.

8. Q. WHAT PORTIONS OF THE PLAN DOES YOUR TESTIMONY SUPPORT, AND HOW DO THEY RELATE TO THE BROADER NATURAL DISASTER PROTECTION PLAN ("NDPP") FILING?

A. I support Exhibit B (the Plan) with respect to Section 1 – Risk-Based Approach: Natural Disaster Risk Analysis and Drivers, Section 2.1 – Situational Awareness, and Section 2.2 – Operating Practices (co-sponsored with Ms. Campbell). These

sections provide the analytical foundation for where risk is located (tiers and hazards), the capabilities to monitor and forecast dynamic conditions (situational awareness), and the protocols to respond operationally (operating practices). Together, they align with the broader filing by directing vegetation management, inspections, construction, and communications to the highest-risk locations and time periods, and by maintaining continuity with previously approved NDPP frameworks.

9. Q. HOW DOES YOUR TESTIMONY COORDINATE WITH THE TESTIMONY OF OTHER COMPANY WITNESSES?

A. My testimony establishes the risk context and operational triggers that underpin other witnesses' programs. In short, my sections explain why and where risk-informed actions occur; the other witnesses explain what is built or performed, how it is funded, and how outcomes are measured.

FIRE RISK TIER UPDATES

10. Q. WHY DID THE COMPANIES CONDUCT AN UPDATED FIRE RISK TIER ANALYSIS FOR THIS TRIENNIAL NDPP?

A. The Companies updated the Fire Risk Tiers to ensure the Plan reflects current conditions and aligns mitigation activities with the best available data. This analysis is based on the results of the CloudFire System Wide Fire Risk Assessment in Appendix B of Exhibit B. This update keeps the tiering current and actionable—by refreshing inputs and validating outputs—without altering the previously approved tiering approach. After having some utility caused wildfires outside of

established wildfire tiers, the Companies desired to have a systemwide analysis of wildfire risk that would capture the full picture.

Additionally, there have been issues with the current Tier 1 areas. The previous Tier 1 areas were created by a rasterized GIS file that came from the Nevada Division of Forestry ("NDF") as part of the West Wide Wildfire Risk Assessment ("WWA") that was developed in 2011-2013 by the Council of Western State Foresters and the Western Forestry Leadership Coalition.[1] This WWA was the background for the NDF Wildfire Risk Mapping that was discussed in detail in Mark Regan's Testimony in the last Triennial NDPP, Docket No. 23-03003. [2]

After the last Triennial NDPP, the Tier 1 areas were added, but this created a discontinuous patchwork in the GIS layers that has caused major issues for vegetation management, system hardening, and wildfire response. The pixelization of raster GIS polygons caused significant issues for the Companies when trying to complete work. The pixelization was brought in due to the fuel mapping that was available in 2011-2013 at a 30 meter by 30 meter resolution in the WWA/NDF Wildfire Risk Rating Map.

For example, there are many instances of pole clearing or vegetation work completed directly adjacent to other poles that were not cleared, simply because the adjacent areas were not included in Tier 1 in the GIS mapping, even though the fuel bed is similar. Please see Figure 1 for one example of pixelized, rasterized GIS mapping. This same issue has happened many other times in the last 3 years, and

[1] Oregon Dept of Forestry, Western Forestry Leadership Coalition, Council of Western State Foresters, *West Wide Wildfire Risk Assessment Final Report*, Mar. 31, 2013, available at https://dffm.az.gov/sites/default/files/WWA-FinalReport.pdf

[2] See Docket No. 23-03003, Prepared Direct Testimony of Mark Regan at pages 204-206.

this is a major reason why the Companies have requested a "refresh" of the Tier 1 areas in this updated Triennial Plan.

Figure 1. Example of Current Pixelized Tier 1 Mapping, Spanish Springs 274

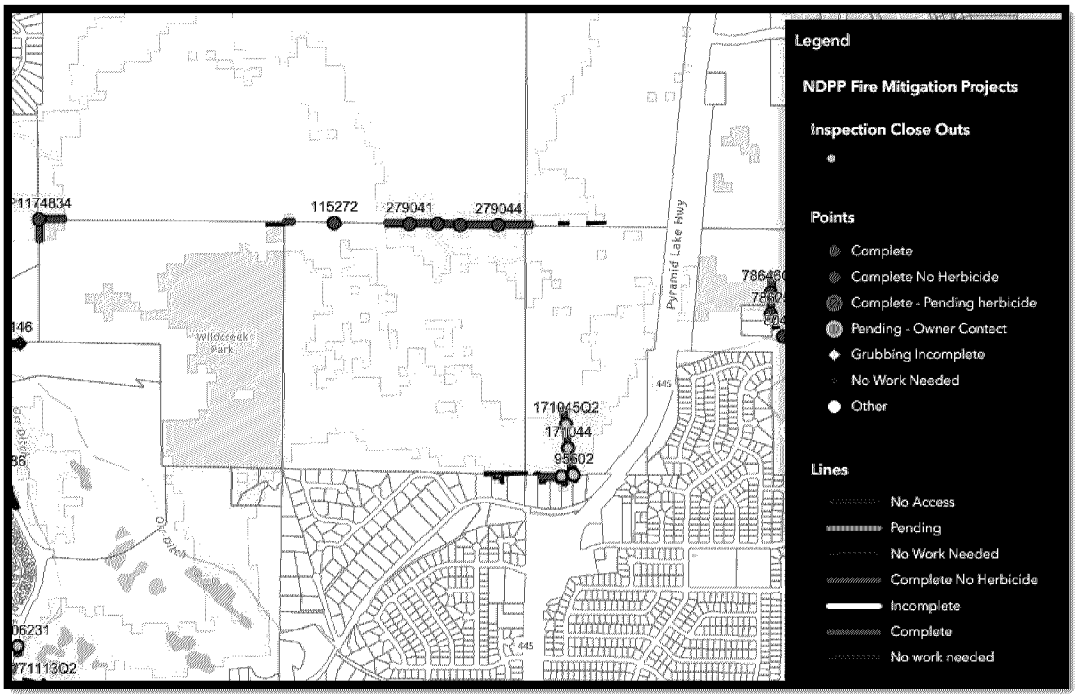


Figure 1 depicts the work completed on Spanish Springs 274 in February 2025. The pixelized nature of current Tier 1 mapping did not capture the full risk of this circuit. Vegetation work on this circuit was only partially completed (as represented by the green dots on the map). As shown in Figure 1, there were several poles in between that were not completed, because they were considered "non-tier." The wildfire risk on this circuit could not be fully mitigated, even though the areas in between were a similar profile of fuels/weather/topography. In addition, the pixelized nature of the current mapping leads to inefficiency, as treatment crews must bypass non-tier area infrastructure despite the fact that crews are mobilized in the area.

Figures 2 and 3 show Pole #279044 on the Spanish Springs 274 circuit, before and after completion. The grass vegetation coverage in this area before completion was significant. The poles adjacent to this location, were not treated because those poles were mapped in "non-tier" areas. This is just one example of many that shows the weakness of the current Tier 1 mapping, as well as the need for a refreshed Tier 1 across the service territory.

Figure 2. Example of Vegetation Spanish Springs 274 Pole #279044 (before completion)



Figure 3. Example of Vegetation Spanish Springs 274 Pole #279044 (after completion)



11. Q. DID YOU INCORPORATE TECHNOSYLVA WILDFIRE RISK ANALYSIS INTO THIS TIER ANALYSIS?

A. Yes. The Companies used Technosylva's FireSight wildfire risk analysis to corroborate the initial CloudFire-informed results and to support the tiering recommendations. Technosylva outputs were applied as an independent line of evidence to confirm patterns indicated by CloudFire, while CloudFire remained the primary external geospatial input to the previously approved tiering methodology.

The wildfire risk data from Technosylva's FireSight Model are limited to smaller subsets of the service territory that cover the highest risk areas (Tier 3, Tier 2, and Tier 1E) around Reno-Carson-Tahoe, Winnemucca, Elko, and the area west of Las Vegas. Please refer to Figures 4 and 5 below for comparison between the current

Technosylva Model Domain and this latest CloudFire Risk Assessment included in Appendix B of Exhibit B.

The Companies approached Technosylva to do a system-wide analysis in 2024, but this solution was nearly four times more than the current and proposed Technosylva annual costs. To save costs, the Companies decided to use the CloudFire Analysis to update the fire tiers at more reasonable cost.

Figure 4. Current Technosylva FireSight Model Domain

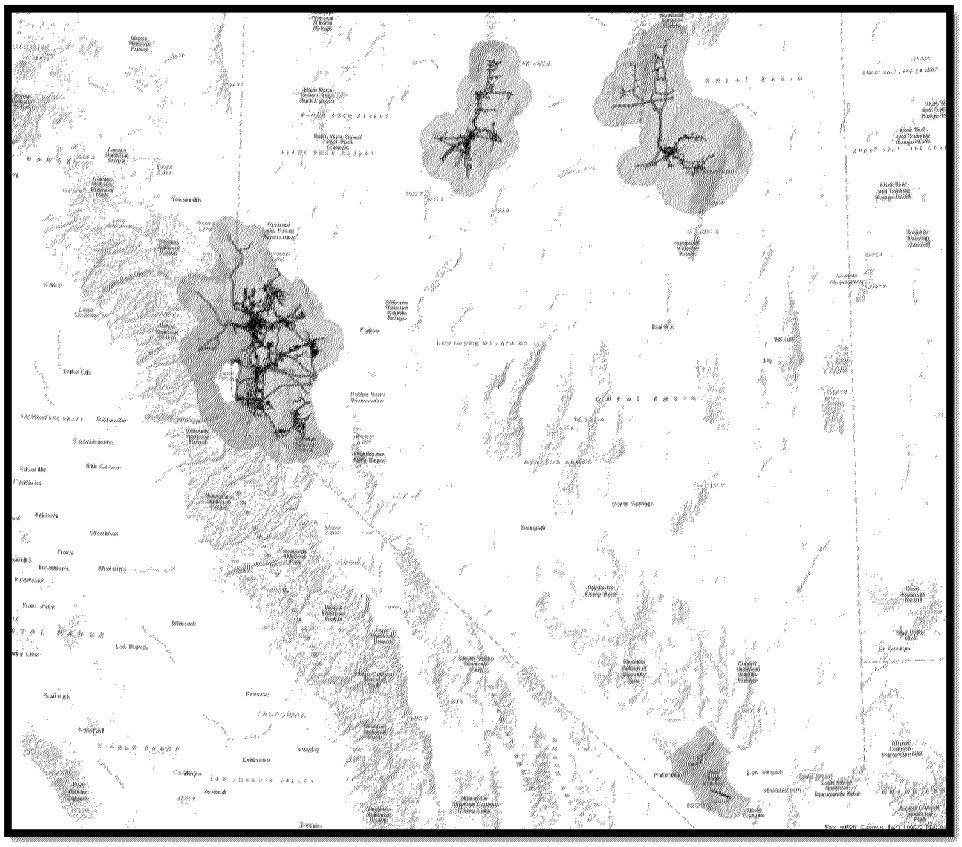
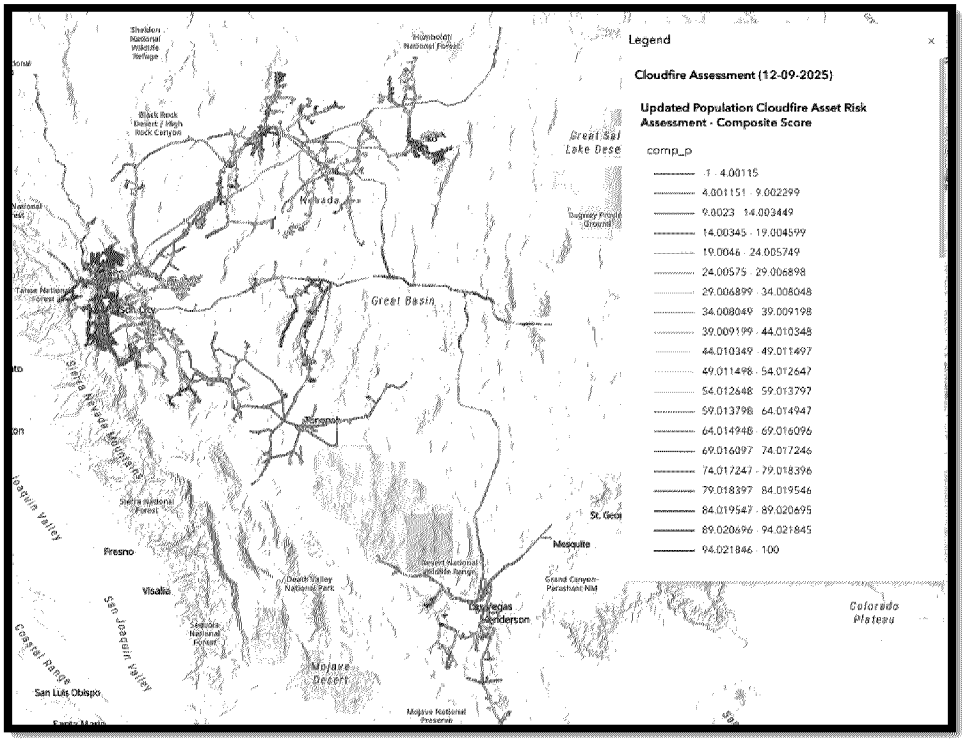


Figure 5. CloudFire System Wide Wildfire Risk Assessment



12. Q. WHAT NEW DATA SOURCES, MODELING TECHNIQUES, OR EVALUATION CRITERIA WERE INCORPORATED INTO THE UPDATED TIER ANALYSIS?

A. The Companies did not change the underlying tier methodology. For this cycle, the Companies refreshed inputs and calibrated parameters using outputs from the CloudFire Risk Assessment—which aggregates standard wildfire-risk drivers (wind and fire-weather climatology, vegetation and fine fuel indicators, ignition density, and local exposure/topography) into geospatial layers—together with Company observations and operational experience. CloudFire's curated layers were used as inputs to the Companies' existing approach, supporting an updated but method consistent tier map.

13. Q. WHAT ARE THE MAJOR CHANGES TO THE FIRE RISK TIER BOUNDARIES OR CLASSIFICATIONS COMPARED TO THE PREVIOUS NDPP?

A. The tier hierarchy is unchanged—with Tier 3 (Extreme) as the highest risk, followed by Tier 2 (High), Tier 1E (Elevated), Tier 1 (Moderate), and Non-Tier (lowest risk). Guided by CloudFire outputs and internal validation:

Tier 3 (Extreme): No changes.

Tier 2 (High): Expanded where CloudFire indicated a higher composite risk; in practice, some Tier 1E segments were promoted to Tier 2.

Tier 1E (Elevated): Expanded where updated data indicated increased relative risk; some Tier 1 segments were promoted to Tier 1E.

Tier 1 (Moderate): Significantly expanded and refreshed, reflecting (i) areas where CloudFire identified previously unclassified baseline risk and (ii) corrections to mapping/gridding artifacts in legacy sources that had masked similarly situated segments.

Non-Tier: Remains the lowest-risk residual category; some Non-Tier segments were promoted to Tier 1 where warranted by the updated analysis.

14. Q. PLEASE SUMMARIZE THE LINE MILE CHANGES PROPOSED TO THE COMPANIES' FIRE RISK TIERS IN THIS NDPP.

A. The Companies propose targeted refinements to Fire Risk Tiers to better align tier boundaries with updated wildfire consequence modeling, wildland urban interface ("WUI") exposure, and operational experience. The proposal consolidates and simplifies Tier 1, Tier 1E, and Tier 2 polygons and corrects mapping gaps; no Tier 3 modifications are proposed. In Nevada Power's service territory, Tier 1 increases from 291 to 820 line miles and Tier 1E increases from 0 to 35 line miles. In Sierra' service territory, Tier 1 increases from 2,064 to 6,605 line miles, Tier 1E from 1,430 to 1,679 line miles, and Tier 2 from 451 to 501 line miles. These changes reflect updated modeling and boundary clean-up rather than a change in underlying hazard definitions.

Table 1. Summary of Line Miles Change Nevada Power[*]

Tier	Current Line Miles	Proposed Line Miles	Line Miles Change	Percent Change
3	20	20	0	0 %
2	0	0	0	0 %
1E	0	35	35	–
1	291	820	529	181.8 %
Total	**311**	**875**	**564**	**181.3 %**

[*]No percent change was calculated for Tier 1E because there are currently zero Nevada Power Tier 1E line miles.

Table 2. Summary of Line Miles Change Sierra

Tier	Current Line Miles	Proposed Line Miles	Line Miles Change	Percent Change
3	268	268	0	0 %
2	451	501	50	11.1 %
1E	1,430	1,679	249	17.4 %
1	2,064	6,605	4,541	220 %
Total	**4,213**	**9,053**	**4,840**	**114.9 %**

15. Q. ARE THERE ANY MAPPING CORRECTIONS OR CLEAN-UPS INCLUDED?

A. Yes. The proposal rectifies small non-tier slivers adjacent to Tier 1E or Tier 2 in several locations—including Elko, Sun Valley, Pyramid Lake, Carson City/Dayton, and Winnemucca—by assigning them to the appropriate adjacent tier, improving map usability for planning and operations.

16. Q. HOW DO THESE TIER UPDATES INTERACT WITH SITUATIONAL AWARENESS AND OPERATIONS?

A. The tiers identify where baseline risk is highest and therefore where monitoring and readiness provide the greatest benefit. The updates improve alignment between tier boundaries and modeled consequence/WUI exposure, which in turn guides prioritization for weather stations, wildfire cameras, and analytic tools (e.g., Technosylva in Foundry) during elevated conditions. Real-time conditions still govern *when* operational escalations occur; the tiers strengthen the where.

17. Q. HOW DO THE UPDATED FIRE RISK TIERS INFLUENCE THE COMPANIES' VEGETATION MANAGEMENT CYCLES, INSPECTIONS, AND OPERATING PRACTICES?

A. The tiers determine the frequency, sequencing, and prioritization of mitigation activities. Where Tier 2 (High) or Tier 1E (Elevated) expanded, affected line segments move into more frequent vegetation cycles, detailed inspections, and patrols. The expansion and refresh of Tier 1 (Moderate) establishes a more complete baseline for planning and scheduling. These tier signals also inform operational readiness, ensuring day-to-day operations align with the updated

planning view. John Donovan explains how the proposed modifications to the tier areas will have limited impact on projected vegetation management costs.

18. Q. HOW DO THE UPDATED TIERS IMPROVE THE COMPANIES' RISK-BASED PLANNING APPROACH?

A. By incorporating CloudFire's tier refinement recommendations—corroborated by Technosylva FireSight analysis (where available)—within the existing methodology, the updated tiers provide a more current, data-driven map of relative wildfire consequence and exposure. The refinements also correct mapping gaps and better recognize additional Tier 2 and Tier 1E segments while maintaining overall tiering structure (including no Tier 3 changes). This improves targeting for inspections, vegetation management, and operational focus, and better aligns mitigations with the locations where they are expected to reduce risk most effectively, consistent with Nevada's risk-based NDPP framework.

NATURAL DISASTER THREATS

19. Q. HAVE THERE BEEN ANY SIGNIFICANT CHANGES TO THE NATURAL DISASTER THREAT ASSESSMENT SINCE THE PREVIOUS NDPP?

A. No. The Companies' assessment of natural disaster threats remains materially consistent with the previous NDPP. The primary hazards—wildfire, extreme winds, winter storms, thunderstorms, and temperature-driven fuel aridity—continue to represent the most consequential natural disaster risks to the Companies' service territories. While the Companies have refreshed underlying datasets and observations, no fundamental change to the overall threat picture necessitated revisions to the structure or content of this section of the Plan.

20. Q. IF THE COMPANIES MADE ANY UPDATES TO THE NATURAL DISASTER THREAT ASSESSMENT, WHAT WERE THE PRIMARY DRIVERS FOR THOSE CHANGES?

A. Updates were limited to data refreshes, including additional history, expanded weather records, and a new technique the Companies' GIS team used for overlaying National Weather Service Warnings and utility assets. These updates ensure the threat assessment reflects current observations, but they do not alter the identified set of natural disaster hazards or the relative contribution of each hazard to system risk. The Companies' conclusions regarding the dominant risks—particularly wildfire and wind—remain unchanged.

21. Q. HOW DO THE COMPANIES VALIDATE THE NATURAL DISASTER THREAT ASSESSMENT TO ENSURE IT REMAINS ACCURATE AND RELEVANT?

A. The Companies validate the natural disaster threat assessment through ongoing comparison of observed conditions against modeled expectations. This includes reviewing recent wildfire activity, extreme wind events, Red Flag Warnings, Severe Thunderstorm Warnings, Winter Storm Warnings, High Wind Warnings, and similar data to determine whether observed trends materially diverge from historical climatology or prior NDPP findings. The Companies also incorporate input from internal operations personnel and external partners—including the National Weather Service, Nevada Division of Forestry, local emergency managers, and federal land management agencies—to ensure that the assessment reflects real-world hazard behavior. No deviations identified during this validation process necessitated changes to the hazard set or overall threat characterization for this NDPP cycle.

SITUATIONAL AWARENESS

22. Q. PLEASE DESCRIBE THE PURPOSE AND STRUCTURE OF THE SITUATIONAL AWARENESS PROGRAM.

A. The Situational Awareness program provides the Companies with continuous visibility into weather, fire environment, and system conditions that may affect operational risk. Its purpose is to ensure that operators have timely and accurate information to support hazard monitoring, operational readiness, and potential Public Safety Outage Management ("PSOM") or Emergency De-Energization decisions when warranted. The program integrates utility-owned weather stations, wildfire cameras, Technosylva's Wildfire Analyst software, Foundry, and the Hazard Awareness Desk. This structure ensures that the Companies maintain consistent, data-driven and risk-based situational awareness across all regions of the service territories.

23. Q. WHAT CHANGES, IF ANY, ARE PROPOSED IN THIS TRIENNIAL NDPP TO THE SITUATIONAL AWARENESS PROGRAM?

A. Only limited changes are proposed in this NDPP cycle. The primary update is a budget realignment: Foundry and Technosylva, which were previously included in the Risk-Based Approach Advanced Technologies and Strategies in the prior triennial plan and First Amendment, are now reflected within Situational Awareness to better align with their operational use. Similarly, satellite imagery (AiDash pilot) has been moved to Vegetation Management because that better aligns with its use case; Mr. Young addresses satellite imagery in his testimony in this docket.

Aside from these alignment updates, changes are incremental and include continued O&M for existing weather stations and wildfire cameras, modest capital enhancements for weather stations and wildfire cameras to help coverage issues in future years, and continued integration of both Technosylva and Foundry for real-time monitoring and decision support.

24. Q. HOW IS FOUNDRY USED TO INTEGRATE SITUATIONAL AWARENESS DATA AND SUPPORT OPERATIONS?

A. Foundry serves as the Companies' primary data integration platform for Situational Awareness, consolidating information from weather stations, fire camera networks, grid monitoring systems, satellite detections, and external agency feeds. By providing a unified operational dashboard, Foundry ensures that all operational groups—including the Hazard Awareness Desk, Distribution Operations, Transmission Operations, Emergency Management, Customer Communications, and the Companies' leadership teams—view consistent, validated, real-time information. The platform supports (but does not create) automated alerts, geospatial asset overlays, wildfire-behavior projections, and cross-functional coordination during high-risk conditions. The details of the Foundry Pilot were covered in much detail in the First Amendment of the Second Triennial Plan Docket[3] and HOWARD-DIRECT[4], as well as in the 2025 NDPP Progress Report[5].

25. Q. WHAT CHANGES, IF ANY, ARE PROPOSED IN THIS NDPP FOR THE COMPANIES' FOUNDRY PROGRAM?

A. No change is proposed for this NDPP. The Companies found the pilot program effective in increasing situational awareness by improving coordination during

[3] See Docket No. 24-12016, Section 2.4.2, page 22.
[4] See Docket No. 24-12016, Prepared Direct Testimony of Danyale Howard at pages 33-35.
[5] See Docket No. 25-08028 Appendix B—Item 3 Comprehensive Analysis of NV Energy's Technology Portfolio.

PSOM events, integrating diverse weather information from different platforms into a single consolidated view, improving customer communications and notification response times, and improving efficiency for Fast-Trip Fire Mode ("FTFM") settings. The Companies plan to continue evaluating the Foundry program and refine the current use cases.

26. Q. IS FOUNDRY STILL A PILOT PROGRAM, OR IS IT NOW TRANSITIONING INTO A REGULAR PROGRAM FOR NDPP?

A. The scope of Foundry, as defined in the pilot, will transition into a regular program for NDPP. The Foundry pilot has been extremely successful. The applications in Foundry have helped the Companies manage over 250 wildfires, four PSOM events involving almost 10,000 customers, as well as 13 Emergency De-Energization events. In the Companies' evaluation of Foundry, there has been a 402 percent increase in fires tracked and heightened awareness of wildfire incidents within the Companies' service territory.

The pilot has resulted in improved situational awareness, improved coordination, and streamlined customer communication and reporting. Upon conclusion of the pilot, Foundry will now transition into a regular program for NDPP.

27. Q. WHAT IS THE ROADMAP FOR FOUNDRY IN THIS TRIENNIAL PERIOD? ARE THERE ANY NEW USE CASES?

A. Foundry is expected to stay within its current scope for the Triennial plan. No new use cases are proposed for this plan, and maintenance on the current program is planned. Although no additional use cases have been identified in this triennial plan, the Companies will continue to evaluate new use cases that will improve

situational awareness and wildfire mitigation and, if justified, will submit a request in a future filing regarding any other use cases that the Companies believe will enhance the NDPP.

28. Q. ARE THERE ANY OTHER OPTIONS THAT HAVE BEEN EXPLORED FOR A SIMILAR SOLUTION TO FOUNDRY?

A. Other options have not been explored; the Companies will explore future use cases and compare alternatives and if justified submit a request in a future filing.

29. Q. HOW DO THE COMPANIES USE TECHNOSYLVA TO SUPPORT SITUATIONAL AWARENESS?

A. Technosylva provides real-time and forecast-based fire-behavior modeling that enhances the Companies' ability to evaluate potential fire spread, rate of growth, and infrastructure exposure. During elevated fire weather periods and active wildfire events, Technosylva outputs help identify potential impact zones for PSOM, support internal readiness actions, and inform potential wildfire spread that may threaten the Companies' assets. Some of this data is now being integrated into Foundry. Technosylva does not replace operational thresholds or PSOM criteria; instead, it provides supplemental analysis that helps the Companies better understand evolving wildfire dynamics.

30. Q. WHAT CHANGES, IF ANY, ARE PROPOSED IN THIS NDPP FOR THE COMPANIES' TECHNOSYLVA PROGRAM?

A. No changes are presented in this Plan for the scope of Technosylva in 2027-2029. The Companies will continue to utilize Technosylva through this triennial plan, within the previously described model domain in Figure 4 in Q&A 11 above. The

increased costs in the NDPP reflect an increase in prices with inflation, not a change in scope.

31. Q. PLEASE PROVIDE A GENERAL OVERVIEW OF THE COMPANIES' EFFORTS TO IMPROVE SITUATIONAL AWARENESS THROUGH THE USE OF WEATHER STATIONS AND WILDFIRE CAMERAS.

A. With heightened wildfire and extreme-weather risk across the Companies' service territories, the Companies continue to strengthen situational awareness by maintaining and incrementally expanding their network of weather stations and wildfire cameras. Weather stations provide localized, real-time measurements of wind, humidity, temperature, and precipitation that improve detection of rapidly changing conditions and support operational readiness, including enhanced monitoring during elevated fire-weather periods. Wildfire cameras improve early identification of smoke and fire starts, help confirm incident location and growth, and support coordinated response by providing continuous visual intelligence during active events. Data from these sources are integrated into the Companies' situational awareness systems to provide a consistent operating picture, improve alerting and decision support, and support evaluation of conditions in higher-risk areas. The Companies' efforts also include continued evaluation of AI-enabled tools to enhance camera-based detection and accelerate incident awareness, while maintaining appropriate human review and operational judgment. Finally, the Companies' collaboration and information sharing with public-agency partners—including fire and emergency management organizations—remains critical to validating observations, aligning on developing conditions, and improving coordinated response during incidents.

32. Q. WHAT CHANGES, IF ANY, ARE PROPOSED IN THIS NDPP FOR THE COMPANIES' WEATHER-STATION AND WILDFIRE-CAMERA PROGRAMS?

A. The Companies are not proposing any structural changes to either program in this NDPP cycle. The request primarily continues operations and maintenance funding for previously approved weather stations and wildfire cameras, including calibration, telemetry/communications, software and licensing, and routine lifecycle maintenance. In addition, the Companies are requesting capital funding for up to ten (10) new weather stations per year and ten (10) new wildfire cameras per year during this triennial period. This annual authorization is intended to address emerging coverage needs—particularly in higher-risk or data-sparse areas—without requiring additional NDPP amendment filings. The proposed approach preserves program continuity while providing measured flexibility to enhance monitoring where risk and operational experience indicate additional assets will provide meaningful benefit.

33. Q. ARE THERE ANY SUBSTANTIVE CHANGES TO THE COMPREHENSIVE ANALYSIS OF THE COMPANIES' TECHNOLOGY PORTFOLIO THAT WAS FILED IN THE NDPP PROGRESS REPORT IN FALL 2025?

A. No. There are no substantive changes to the Comprehensive Analysis of the Companies' Technology Portfolio that was included in the 2025 NDPP Progress Report[6]. The Companies reviewed the proposed technologies in 2025 in preparation for this triennial plan and for the purpose of this Plan the assessment filed in Docket No. 25-08028 is still valid.

[6] See Docket No. 25-08028 Appendix B—Item 3 Comprehensive Analysis of NV Energy's Technology Portfolio.

HAZARD AWARENESS DESK

34. Q. WHAT IS THE FUNCTION OF THE HAZARD AWARENESS DESK WITHIN THE COMPANIES' OPERATIONS?

A. The Hazard Awareness Desk serves as the centralized point within Operations for monitoring real-time environmental conditions, synthesizing hazard intelligence, and providing timely situational updates to operational leadership. Staff assigned to the Hazard Awareness Desk collect and evaluate weather data, fire-environment indicators, emergency-agency information, and system telemetry to identify conditions that may elevate operational risk. The Hazard Awareness Desk plays a key role during periods of heightened fire weather, wildfire activity, or extreme weather by supporting decision making, coordinating information flows, and ensuring that relevant operational groups have up-to-date hazard assessments.

35. Q. ARE ANY STRUCTURAL CHANGES OR COST CHANGES PROPOSED FOR THE HAZARD AWARENESS DESK IN THIS PLAN?

A. No. There are no structural changes proposed in this NDPP cycle. The Hazard Awareness Desk continues to operate under the same framework and staffing model approved in the First Amendment of the Second Triennial NDPP[7]. Costs remain materially consistent with the First Amendment and reflect ongoing labor, training, and data-platform needs necessary to maintain the Desk's monitoring and analysis functions. Any cost changes are minimal and stem from normal program maintenance and incremental improvements to the Situational Awareness platform, rather than expansion of scope.

[7] See Docket No. 24-12016, Section 2.4.1, page 19-20.

SITUATIONAL AWARENESS COSTS

36. Q. WHY IS THE SITUTATIONAL AWARENESS BUDGET HIGHER IN THIS TRIENNIAL PLAN COMPARED TO THE LAST TRIENNIAL PLAN?

A. The primary driver of the increase is an internal reclassification of costs, rather than an expansion of the Situational Awareness program. In prior NDPP filings, the licensing and support costs for Foundry and Technosylva were included in the Risk-Based Approach program. For this triennial filing, those costs have been reassigned to Situational Awareness to more accurately reflect how the tools are used in daily operations. Foundry serves as the Companies' real-time data-integration environment, and Technosylva provides fire-behavior and fire spread modeling that directly supports situational monitoring and operational readiness. Consolidating these costs under the Situational Awareness program improves transparency and aligns budget categories with program function. Aside from this accounting alignment, the underlying program structure and scope remain materially consistent with the previous NDPPs.

37. Q. WHERE CAN THE COMMISSION FIND THE DETAILED SITUATIONAL AWARENESS PROGRAM DESCRIPTION AND ASSOCIATED COSTS?

A. The full program description and cost details for the Situational Awareness program are provided in Section 2.1 of the Plan. These sections outline the program's purpose, structure, and cost components for the current NDPP cycle. Section 2.1.4 has a table for the total Situational Awareness Program Budget Forecast.

OPERATING PRACTICES

38. Q. PLEASE SUMMARIZE THE COMPANY'S OPERATING PRACTICES THAT RELATE TO RISK-BASED NATURAL-DISASTER MITIGATION.

A. The Companies' Operating Practices establish the procedures used to monitor, evaluate, and respond to risk-based natural disaster risks, including wildfire, and extreme wind events. These practices provide the operational framework for adjusting field activities, adjusting system protection settings such as FTFM, enhancing situational monitoring, conducting system patrols, and implementing PSOM and Emergency De-Energization when warranted. The practices integrate real-time environmental data, operational thresholds, and cross functional coordination to ensure that the Companies maintain a consistent and risk informed operational posture during elevated hazard conditions. The Operating Practices remain largely consistent with previous NDPP cycles, reflecting their established effectiveness and alignment with industry standards.

39. Q. WHAT UPDATES OR REFINEMENTS WERE MADE TO THRESHOLDS, TRIGGERS, OR PROCEDURES FOR PSOM AND SYSTEM SETTINGS FOR THIS TRIENNIAL NDPP?

A. There are no major changes to thresholds, triggers, or procedures. There were some minor changes in verbiage in the PSOM Plan (included in Appendix C of Exhibit B on Page 8 and Page 12). This verbiage reaffirms the Incident Commander's authority to move into a PSOM Warning at their discretion, instead of having to wait until 100 percent Composite Risk Index ("CRI"). There is also updated verbiage that allows the Incident Commander to move into a PSOM Watch up to four days ahead of an event, instead of three days, for earlier customer notification for high-confidence PSOM events. In addition to the minor wording refinements

referenced, the updated PSOM Plan more clearly aligns PSOM stages with the Incident Management Team ("IMT) workflow, providing clearer expectations for situational awareness, resource readiness, and communications at each stage. The 2026 plan also enhances documentation requirements, including expanded use of Foundry for decision tracking and inclusion of the PSOM Scorecards in Foundry. These refinements improve clarity, transparency, and coordination during a potential PSOM event, while thresholds and triggers themselves remain unchanged. The updated plan also strengthens communication sequencing to customers, emergency managers, and utilities, and better defines IMT responsibilities and cadence during Monitor, Watch, and Warning stages.

Even though the Companies rely on technology tools for guidance and decision support, the ultimate decision for PSOM lies with the IMT (human-in-the-loop), not in the dashboards.

40. Q. HOW ARE THE OPERATING PRACTICES ALIGNED WITH THE REVISED FIRE RISK TIERS?

A. The revised Fire Risk Tiers help identify areas where heightened operational vigilance provides the greatest benefit. Operating Practices will reference the updated tiers to guide prioritization of operational practices such as System Operating Modes (Seasonal Fire Mode and FTFM), PSOM, and Emergency De-Energization. While the Operating Practices apply across all service territories when conditions warrant, the Tier 1E, Tier 2, and Tier 3 circuits receive elevated operational focus due to the higher potential consequence of ignitions in those areas. The new proposed fire risk tiers refine the geographic focus of operational practices without changing the underlying procedures.

41. Q. ARE THESE PRACTICES CONSISTENT WITH PRIOR COMMISSION EXPECTATIONS AND PREVIOUS TRIENNIAL PLANS?

A. Yes. The Operating Practices for this NDPP cycle remain consistent with the expectations established by the Commission and with the structure approved in previous NDPP filings. The Companies have retained the core approach to risk-based operational decision-making, implementing only modest refinements where updated data or operational experience justify improvements. The Companies' operational posture, escalation processes, and PSOM procedures remain aligned with Commission guidance and continue to reflect a prudent and measured approach to mitigating weather driven natural disaster risk.

42. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT HOON-DIRECT-1

STATEMENT OF QUALIFICATIONS OF

Alexander D. Hoon
Principal Meteorologist, Natural Disaster Protection
NV Energy
6100 Neil Rd. Reno, NV 89511
(775) 298-9050 alexander.hoon@nvenergy.com

Mr. Hoon has been an employee of NV Energy since 2021, but has 20 years of operational weather forecasting experience. He has worked in many positions through his career, from the U.S. Air Force to the National Weather Service, specializing in fire weather and emergency response. Mr. Hoon has a Bachelor of Science degree in Atmospheric Science. He is also a veteran Incident Meteorologist and has deployed to over 25 major wildfire incidents across the Western U.S. to provide critical weather data to fire leadership and firefighters in field.

Professional Experience

Principal Meteorologist, Natural Disaster Protection – NV Energy, Reno, NV ▪ 2023 – present

- Provides technical leadership on the most complex and business critical projects.
- Provides routine and non-routine operational weather forecasts to the utility.
- Leads large projects to develop, deploy and improve operational forecasting methods and models. Guides and leads projects that improve operational decision-making during storm and fire weather events.
- Participates in cross functional teams, including other meteorologists in and outside the company, data scientists, project and product managers, leadership, and subject matter experts to develop data driven solutions.
- Oversees a wide range of meteorological data to provide continuously updated weather information from a variety of sources to better manage the impacts of weather on the electric distribution and transmission system to identified vulnerabilities.
- Serves as the company's subject matter expert for all fire weather-related matters.

Senior Meteorologist, Natural Disaster Protection – NV Energy, Reno, NV ▪ 2021 – 2023

- Prepared and disseminated operational weather reports prior to and during significant weather events, including Public Safety Outage Management (PSOM) events.
- Integrated a wide range of meteorological data to provide continuously updated weather information to better manage the impacts of weather on the electric system and identified vulnerabilities.
- Monitored and reported to upper management real-time and forecast weather conditions on a recurring basis during storm events and major construction operational events.
- Continually maintained and enhanced procedures for monitoring the company's weather network and associated alerting, including the siting of new weather stations and fire cameras.
- Improved all real-time and operational forecasts through process improvements via new technologies and advancements.
- Worked closely with engineering and operational organizations to integrate weather information into fire risk mitigation and system hardening projects.
- Served as the company's subject matter expert for all fire weather-related matters.

Senior Meteorologist and Incident Meteorologist – National Weather Service, Reno, NV ▪ 2010 – 2021

- Served as the shift leader responsible for quality and timeliness of all National Weather Service (NWS) forecast and service products, warnings, and advisories prepared and issued by the Weather Forecast Office (WFO).
- As incident meteorologist, embedded with Incident Management Teams to work with operations, logistics, safety, and planning of emergency situations. Briefed teams, cooperators, community leaders, public safety, and general public on the weather threats that are specific to their areas of concern.

General Meteorologist – National Weather Service, Reno, NV ▪ 2006 – 2010

- Conducted a weather watch which involved interpretation of Doppler radar data, satellite imagery, and the analysis of other hydrometeorological data for the preparation of all WFO warning, forecast and service products, including individual briefings.
- Served as primary contact with other Federal, state, and local agencies such as Federal Aviation Administration (FAA), Federal Emergency Management Agency (FEMA), and emergency management and law enforcement officials over matters involving the initiation and implementation of immediate or emergency public health and safety measures based on NWS forecasts, warnings and watches.

Weather Officer, Lead Forecaster – U.S. Air Force, Scott AFB, IL ▪ 2003 – 2006

- Directed complex forecast production processes through detailed weather analysis and numerical model interpretations.
- Provided written forecast guidance and daily weather briefings to squadron and field unit forecasters that was leveraged in producing and disseminating tailored regional graphics, DOD installation forecasts, weather watches, warnings, and advisories, as well as air crew mission forecasts.

Education and Certifications

Bachelor of Science in Atmospheric Science – Texas A&M University, College Station, TX ▪ 2003
Type 1 Incident Meteorologist – National Wildland Coordinating Group ▪ 2011

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, ALEXANDER HOON, states that he is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of his knowledge and belief; and that if asked the questions appearing therein, his answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

ALEXANDER HOON

HALEY STEWART

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan
Docket No. 26-02___

Prepared Direct Testimony of

Haley Stewart

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is Haley Stewart. My current position is Regulatory Reporting Manager for Nevada Power Company d/b/a NV Energy ("Nevada Power") and Sierra Pacific Power Company d/b/a NV Energy ("Sierra" and, together with Nevada Power, the "Companies"). My business address is 6100 Neil Road in Reno, Nevada. I am filing testimony on behalf of the Companies.

2. Q. WHAT ARE YOUR DUTIES IN YOUR CURRENT POSITION?

A. I am responsible for the review and oversight of the accounting for regulatory assets and liabilities. I am also responsible for the oversight and preparation of various filings with the Public Utilities Commission of Nevada ("Commission") and Federal Energy Regulation Commission ("FERC").

3. Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. I hold a Bachelor of Science degree in Business Administration from the University of Nevada, Reno and a Bachelor of Science degree in Accounting from Western Governors University. I joined the Companies in 2024 as the

Regulatory Reporting Specialist. I assumed the role of Regulatory Reporting Manager in January 2026. My statement of qualifications is attached as **Exhibit Stewart-Direct-1.**

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE COMMISSION?

A. No.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support the anticipated rate impact calculations for the Natural Disaster Protection Plan ("NDPP") for plan years 2027, 2028, and 2029 in compliance with the Regulations in File No. R181-24.

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. I am sponsoring the following Exhibits:

Exhibit Stewart-Direct- 1 Statement of Qualifications

Exhibit Stewart-Direct-2 NDPP Rate Calculations

Exhibit Stewart-Direct-3 Residential Bill Impacts

7. Q. PLEASE DESCRIBE THE RATE COMPONENTS CONSIDERED IN THIS NDPP RATE IMPACT ANALYSIS.

A. The NDPP rate impact components include: The NDPP Operations, Maintenance, Administrative and General ("OMAG") Component and the NDPP Capital Component. The OMAG Component for each company consists of the total NDPP OMAG Distribution costs and the NDPP allocated OMAG Transmission costs. The NDPP Capital Component for each company

is the total NDPP Capital Distribution costs and the NDPP allocated Capital Transmission Costs.

8. Q. PLEASE DESCRIBE THE RATE IMPACT CALCULATION FOR THE NDPP TRIENNIAL PERIODS 2027-2029 BASED UPON THE COMPANIES' PROPOSED COSTS ALLOCATION.

A. **Table Stewart-Direct-1** reflects the proposed NDPP rate impacts for Nevada Power and Sierra customers, respectively, based upon the Companies' proposal in this filing

TABLE STEWART -DIRECT -1

NDPP Rates per kWh

	Nevada Power	Sierra
2027	$ 0.00064	$ 0.00430
2028	$ 0.00073	$ 0.00422
2029	$ 0.00086	$ 0.00421

9. Q. DID YOU CALCULATE A MONTHLY TYPICAL BILL IMPACT FOR RESIDENTIAL CUSTOMERS?

A. Yes. **Table Stewart-Direct-2** shows the typical monthly bill impacts for single-family monthly bills.

TABLE STEWART -DIRECT -2

Monthly Bill Impact – Single-Family

	NPC	SPPC
2027	$0.64	$3.21
2028	$0.73	$3.15
2029	$0.86	$3.14

10. Q. DID YOU MAKE ANY CHANGES TO THE ASSUMPTIONS IN DEVELOPING THE RATE IMPACT CALCULATIONS COMPARED TO PREVIOUS CALCULATIONS?

A. No. The assumptions that were made in Docket No. 24-12016, the First Amendment to the 2023 NDPP Triennial Plan, were kept the same for consistency purposes in comparison to what has been filed in prior plans. Those assumptions are:

- The OMAG and capital costs follow what has been presented in this plan and would actually be incurred as planned.
- The recovery of the NDPP costs from customers does not result in any over- or under-recovery of these costs from customers.
- The transmission and distribution OMAG costs are allocated to each company based on where the expenditures occurred in compliance with Section 7, subsection 3 of the Regulations File No. R181-24 by the Commission on October 11, 2024.
- The OMAG transmission costs for NDPP recovery are allocated for recovery from Nevada customers based on the Nevada jurisdictional transmission allocator established in the most recent general rate case ("GRC") proceeding for each company.
- Transmission and distribution capital and OMAG costs have been allocated between transmission and distribution based on how these costs have been incurred/recorded.
- The projected sales forecast filed in Docket No. 24-05041 was used to calculate the per kWh rates.
- The rates, for the purpose of this rate impact, are still being calculated based on the balancing account recovery mechanism.

11. Q. DO YOU BELIEVE THESE ASSUMPTIONS ARE REASONABLE, DESPITE THE COST RECOVERY MECHANISM BEING REVISED AND FINALIZED?

A. I believe these assumptions are reasonable and allow the Commission to see the rate impact of the NDPP for plan years 2027-2029. Because the Companies have not yet submitted NDPP costs for recovery through a GRC, the kWh rate that is calculated based on prior approved methodologies provides a reasonable basis to evaluate the impact of this filing.

12. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT STEWART-DIRECT-1

Statement of Qualifications
for
Haley Stewart

Summary of Qualifications

10 years of accounting experience. Experience in various accounting areas including, revenue recognition, fixed assets, prepaids, accounts payable, accounts receivable, SEC reporting.

Professional Experience

Regulatory Reporting Manager
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
January 2026 - Present

Responsible for the oversight of the accounting for regulatory assets and liabilities, as well as the completion of various state and FERC reporting requirements. Responsible for the oversight of the preparation and review of documentation and schedules that support state and FERC general rate case filings, including statements, testimony, and management analysis.

Regulatory Reporting Specialist
Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy
October 2024 – January 2026

Responsible for managing all aspects of general rate case projects, including planning, organizing, and delivering prepared statements, schedules, data request responses, and testimony on time. Responsible for overseeing regulatory communications, reviewing journal entries and reconciliations, delegating and validating team work, and developing policies, procedures, and best-practice sharing.

Senior Accountant
Aqua Metals
August 2023 – October 2024

Responsible for assisting in the preparation of the 10-K and 10-Q, managing fixed assets, coordinating monthly close activities, and overseeing accounts payable operations. Responsible for reviewing customer contracts to identify and account for performance obligations, preparing financial reports and analyses, supporting ERP implementation, and assisting with tax filings.

Senior Accountant
Figure Technologies
January 2023 – August 2023

Responsible for coordinating the full month-end close process, including preparing financial statements, recording revenue, performing account reconciliations, and delivering P&L fluctuation analyses and forecasts to senior management. Responsible for supporting the annual SOX audit, preparing compliance reporting, and ensuring accuracy by reviewing the work of junior accountants.

Senior Accountant
Intuit
March 2022 – January 2023

Responsible for managing the accounting for prepaid agreements, including recognizing amortization and monitoring risks related to minimum commitments and overages. Responsible for supporting the month-end close by preparing journal entries and account reconciliations in accordance with GAAP and

corporate policies. Responsible for ensuring the accuracy of ledger entries and performing fluctuation analyses to maintain reliable financial reporting.

Staff Accountant
Intuit
February 2020 – March 2022

Responsible for accounting for revenue-share agreements and ensuring proper revenue recognition in accordance with ASC 606. Responsible for preparing daily bank reconciliations, identifying variances and root causes, analyzing data with professional skepticism, and clearly communicating findings to management. Responsible for owning the residual reporting process and providing accurate program updates and insights to leadership.

Staff Accountant
IGT
August 2018 – February 2020

Responsible for reviewing contracts to identify, track, and account for performance obligations, and for leading related cross-functional meetings. Responsible for assisting with quarterly balance sheet analysis, supporting accounts receivable and cash application processes, and contributing to workflow automation initiatives. Responsible for reviewing the work of an Accountant I to ensure accuracy and completeness.

Accounts Payable Specialist
Klondex Mines
July 2017 – August 2018

Responsible for processing and reviewing invoices, managing payments, reconciling accounts, and ensuring timely and accurate accounts payable operations while maintaining strong vendor relationships and supporting overall financial reporting.

Accounting Associate
Resource Action Programs
August 2015 - July 2017

Responsible for providing accounting support, including processing transactions, maintaining accurate financial records, performing reconciliations, and assisting with daily accounting operations to ensure timely and reliable financial reporting.

Education

Western Governors University
Bachelor of Science in Accounting June 2019

University of Nevada, Reno
Bachelor of Science in Business Administration December 2015

EXHIBIT STEWART-DIRECT-2

NV ENERGY
2027-2029 NATURAL DISASTER PROTECTION PLAN ("NDPP")
NDPP RATES PER kWh

Ln	(a) Year	(b) Reference	(c) NPC	(d) SPPC	Ln
1					1
2	2027	Pg 2, Ln 18	$ 0.00064	$ 0.00430	2
3	2028	Pg 3, Ln 18	$ 0.00073	$ 0.00422	3
4	2029	Pg 4, Ln 18	$ 0.00086	$ 0.00421	4

NV ENERGY
2027-2029 NDPP
CALCULATION OF NDPP RATE
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2027
(IN THOUSANDS)

Ln	(a) Description	(b) Reference	(c) NPC	(d) SPPC	Ln
1					1
2	**NDPP OMAG Component**				2
3	Total NDPP OMAG Distribution Costs	Pg 5 & 6, Col (o), Ln 27	$ 7,896	$ 50,873	3
4	NDPP Allocated OMAG Transmission Costs	Pg 5 & 6, Col (o), Ln 28	846	5,533	4
5					5
6	Total NDPP OMAG Costs		$ 8,742	$ 56,406	6
7					7
8	**NDPP Capital Component**				8
9	Total NDPP Capital Distribution Costs	Pg 5 & 6, Col (o), Ln 13	$ 7,227	$ 17,288	9
10	NDPP Allocated Capital Transmission Costs	Pg 5 & 6, Col (o), Ln 14	476	99	10
11					11
12	Total NDPP Capital Costs		$ 7,703	$ 17,386	12
13					13
14	**Total NDPP Costs for Recovery** (Ln 6 + Ln 12)		**$ 16,444**	**$ 73,792**	14
15					15
16	kWh Sales [(1)]	Pg 7, Col (b) & (c), Ln 3	25,638,055,202	17,145,293,990	16
17					17
18	**NDPP per kWh** (Ln 14 ÷ Ln 16)		**$ 0.00064**	**$ 0.00430**	18
19				To Pg 1, Col (c) & (d), Ln 2	19
20	[(1)] Total kWh includes all customers - Retail and DOS, based on forecasted sales				20
21					21
22					22

NV ENERGY
2027-2029 NDPP
CALCULATION OF NDPP RATE
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2028
(IN THOUSANDS)

Ln	(a) Description	(b) Reference	(c) NPC	(d) SPPC	Ln
1					1
2	**NDPP OMAG Component**				2
3	Total NDPP OMAG Distribution Costs	Pg 5 & 6, Col (o), Ln 56	$ 7,350	$ 53,062	3
4	NDPP Allocated OMAG Transmission Costs	Pg 5 & 6, Col (o), Ln 57	928	6,418	4
5					5
6	Total NDPP OMAG Costs		$ 8,278	$ 59,480	6
7					7
8	**NDPP Capital Component**				8
9	Total NDPP Capital Distribution Costs	Pg 5 & 6, Col (o), Ln 42	$ 9,923	$ 21,781	9
10	NDPP Allocated Capital Transmission Costs	Pg 5 & 6, Col (o), Ln 43	654	124	10
11					11
12	Total NDPP Capital Costs		$ 10,577	$ 21,905	12
13					13
14	**Total NDPP Costs for Recovery** (Ln 6 + Ln 12)		**$ 18,855**	**$ 81,385**	14
15					15
16	kWh Sales [(1)]	Pg 7, Col (b) & (c), Ln 4	26,001,052,034	19,271,961,815	16
17					17
18	**NDPP per kWh** (Ln 14 ÷ Ln 16)		**$ 0.00073**	**$ 0.00422**	18
19				To Pg 1, Col (c) & (d), Ln 3	19
20	[(1)] Total kWh includes all customers - Retail and DOS, based on forecasted sales				20
21					21
22					22

NV ENERGY
2027-2029 NDPP
CALCULATION OF NDPP RATE
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2029
(IN THOUSANDS)

Ln	(a) Description	(b) Reference	(c) NPC	(d) SPPC	Ln
1					1
2	**NDPP OMAG Component**				2
3	Total NDPP OMAG Distribution Costs	Pg 5 & 6, Col (o), Ln 85	$ 8,196	$ 53,737	3
4	NDPP Allocated OMAG Transmission Costs	Pg 5 & 6, Col (o), Ln 86	1,090	6,354	4
5					5
6	Total NDPP OMAG Costs		$ 9,286	$ 60,091	6
7					7
8	**NDPP Capital Component**				8
9	Total NDPP Capital Distribution Costs	Pg 5 & 6, Col (o), Ln 71	$ 12,546	$ 25,637	9
10	NDPP Allocated Capital Transmission Costs	Pg 5 & 6, Col (o), Ln 72	827	146	10
11					11
12	Total NDPP Capital Costs		$ 13,372	$ 25,783	12
13					13
14	**Total NDPP Costs for Recovery** (Ln 6 + Ln 12)		**$ 22,659**	**$ 85,875**	14
15					15
16	kWh Sales [(1)]	Pg 7, Col (b) & (c), Ln 5	26,319,902,752	20,384,388,377	16
17					17
18	**NDPP per kWh** (Ln 14 ÷ Ln 16)		**$ 0.00086**	**$ 0.00421**	18
19				To Pg 1, Col (c) & (d), Ln 4	19
20	[(1)] Total kWh includes all customers - Retail and DOS, based on forecasted sales				20
21					21
22					22

Ln	{a}	{c}	{d}	{e}	{f}	{g}	{h}	{i}	{j}	{k}	{l}	{m}	{n}	{o}	Ln	
1	Carry Charge	7.48% effective 10/01/2025				2.48% excluding equity component effective 10/01/2025									1	
2															2	
3		January	February	March	April	May	June	July	August	September	October	November	December	Summary of Annual Activity	3	Reference
4															4	
5	**PERIOD 9 (2027 Cost Recovery)**														5	
6	**Account No. 182-3XXX**														6	
7	**Capital Costs**														7	
8	Depreciation Expense	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 163,724	$ 1,964,684	8	
9	Return on Rate Base	415,441	428,358	441,276	454,193	467,110	480,027	492,945	505,862	518,779	531,697	544,614	557,531	5,837,832	9	
10	Subtotal	579,165	592,082	604,999	617,917	630,834	643,751	656,668	669,586	682,503	695,420	708,337	721,255	7,802,517	10	
11															11	
12	Beginning Balance	$ -	$ 571,763	$ 1,156,278	$ 1,753,545	$ 2,363,564	$ 2,986,336	$ 3,621,860	$ 4,270,135	$ 4,931,164	$ 5,604,944	$ 6,291,476	$ 6,990,761	$ -	12	
13	Distribution - 92.62%	536,410	548,374	560,338	572,301	584,265	596,229	608,193	620,156	632,120	644,084	656,047	668,011	7,226,528	13	To: Pg 2, Col (c), Ln 9
14	Transmission - 7.38% (Demand Allocator 82.69%)	35,353	36,141	36,929	37,718	38,506	39,295	40,083	40,872	41,660	42,449	43,237	44,026	476,270	14	To: Pg 2, Col (c), Ln 10
15															15	
16	2027 Total Capital Balance for Recovery	$ 571,763	$ 1,156,278	$ 1,753,545	$ 2,363,564	$ 2,986,336	$ 3,621,860	$ 4,270,135	$ 4,931,164	$ 5,604,944	$ 6,291,476	$ 6,990,761	$ 7,702,798	$ 7,702,798	16	
17															17	
18	**OMAG Costs**														18	
19	Beginning Balance	$ -	$ 720,224	$ 1,441,936	$ 2,165,139	$ 2,889,838	$ 3,616,034	$ 4,343,730	$ 5,072,931	$ 5,803,639	$ 6,535,857	$ 7,269,588	$ 8,004,835	$ -	19	
20	Distribution - 90.32%	649,189	649,189	649,189	649,189	649,189	649,189	649,189	649,189	649,189	649,189	649,189	649,189	7,790,271	20	
21	Transmission - 9.68%	69,549	69,549	69,549	69,549	69,549	69,549	69,549	69,549	69,549	69,549	69,549	69,549	834,588	21	
22	Subtotal	718,738	1,438,962	2,160,674	2,883,878	3,608,576	4,334,772	5,062,469	5,791,669	6,522,377	7,254,595	7,988,326	8,723,573	8,624,859	22	
23															23	
24	Carrying Charge Period 9 - Dist	1,342	2,686	4,033	5,383	6,736	8,092	9,450	10,811	12,175	13,542	14,912	16,284	105,446	24	
25	Carrying Charge Period 9 - Trans	144	288	432	577	722	867	1,012	1,158	1,304	1,451	1,598	1,745	11,297	25	
26															26	
27	Total OMAG - Distribution	650,531	651,875	653,223	654,573	655,925	657,281	658,639	660,000	661,364	662,731	664,101	665,473	7,895,718	27	To: Pg 2, Col (c), Ln 3
28	Total OMAG - Transmisssion	69,693	69,837	69,981	70,126	70,271	70,416	70,561	70,707	70,853	71,000	71,146	71,294	845,884	28	To: Pg 2, Col (c), Ln 4
29															29	
30	2027 Total OMAG Balance for Recovery	$ 720,224	$ 1,441,936	$ 2,165,139	$ 2,889,838	$ 3,616,034	$ 4,343,730	$ 5,072,931	$ 5,803,639	$ 6,535,857	$ 7,269,588	$ 8,004,835	$ 8,741,602	$ 8,741,602	30	
31															31	
32	**2027 Ending Balance for Recovery**	$ 1,291,986	$ 2,598,213	$ 3,918,684	$ 5,253,402	$ 6,602,369	$ 7,965,590	$ 9,343,067	$ 10,734,802	$ 12,140,801	$ 13,561,064	$ 14,995,596	$ 16,444,400	$ 16,444,400	32	
33															33	

Ln	(a)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	Ln	
1	Carry Charge	7.48% effective 10/01/2025				2.48% excluding equity component effective 10/01/2025									1	
2															2	
3		January	February	March	April	May	June	July	August	September	October	November	December	Summary of Annual Activity	3	Reference
4															4	
34	**PERIOD 10 (2028 Cost Recovery)**														34	
35	**Account No. 182-3XXX**														35	
36	**Capital Costs**														36	
37	Depreciation Expense	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 225,875	$ 2,710,504	37	
38	Return on Rate Base	570,448	588,000	605,552	623,105	640,657	658,209	675,761	693,313	710,865	728,417	745,969	763,521	8,003,816	38	
39	Subtotal	796,324	813,876	831,428	848,980	866,532	884,084	901,636	919,188	936,740	954,292	971,844	989,396	10,714,320	39	
40															40	
41	Beginning Balance	$ -	$ 786,146	$ 1,589,621	$ 2,410,423	$ 3,248,552	$ 4,104,010	$ 4,976,795	$ 5,866,908	$ 6,774,348	$ 7,699,117	$ 8,641,213	$ 9,600,636	$ -	41	
42	Distribution - 92.62%	737,538	753,795	770,051	786,307	802,564	818,820	835,077	851,333	867,589	883,846	900,102	916,358	9,923,380	42	To: Pg 3, Col (c), Ln 9
43	Transmission - 7.38% (Demand Allocator 82.69%)	48,608	49,679	50,751	51,822	52,894	53,965	55,036	56,108	57,179	58,250	59,322	60,393	654,008	43	To: Pg3, Col (c), Ln 10
44															44	
45	2028 Total Capital Balance for Recovery	$ 786,146	$ 1,589,621	$ 2,410,423	$ 3,248,552	$ 4,104,010	$ 4,976,795	$ 5,866,908	$ 6,774,348	$ 7,699,117	$ 8,641,213	$ 9,600,636	$ 10,577,388	$ 10,577,388	45	
46															46	
47	**OMAG Costs**														47	
48	Beginning Balance	$ -	$ 682,008	$ 1,365,425	$ 2,050,255	$ 2,736,500	$ 3,424,164	$ 4,113,248	$ 4,803,757	$ 5,495,693	$ 6,189,058	$ 6,883,857	$ 7,580,092	$ -	48	
49	Distribution - 88.79%	604,326	604,326	604,326	604,326	604,326	604,326	604,326	604,326	604,326	604,326	604,326	604,326	7,251,909	49	
50	Transmission - 11.21%	76,276	76,276	76,276	76,276	76,276	76,276	76,276	76,276	76,276	76,276	76,276	76,276	915,308	50	
51	Subtotal	680,601	1,362,609	2,046,027	2,730,857	3,417,102	4,104,765	4,793,850	5,484,358	6,176,294	6,869,660	7,564,458	8,260,693	8,167,217	51	
52															52	
53	Carrying Charge Period 10 - Dist	1,249	2,500	3,755	5,011	6,271	7,532	8,797	10,064	11,334	12,606	13,881	15,159	98,159	53	
54	Carrying Charge Period 10 - Trans	158	316	474	633	791	951	1,110	1,270	1,431	1,591	1,752	1,913	12,389	54	
55															55	
56	Total OMAG - Distribution	605,575	606,826	608,080	609,337	610,596	611,858	613,123	614,390	615,660	616,932	618,207	619,485	7,350,068	56	To: Pg 3, Col (c), Ln 3
57	Total OMAG - Transmisssion	76,433	76,591	76,750	76,908	77,067	77,226	77,386	77,546	77,706	77,867	78,028	78,189	927,697	57	To: Pg 3, Col (c), Ln 4
58															58	
59	2028 Total OMAG Balance for Recovery	$ 682,008	$ 1,365,425	$ 2,050,255	$ 2,736,500	$ 3,424,164	$ 4,113,248	$ 4,803,757	$ 5,495,693	$ 6,189,058	$ 6,883,857	$ 7,580,092	$ 8,277,765	$ 8,277,765	59	
60															60	
61	**2028 Ending Balance for Recovery**	$ 1,468,154	$ 2,955,046	$ 4,460,678	$ 5,985,053	$ 7,528,173	$ 9,090,043	$ 10,670,665	$ 12,270,041	$ 13,888,175	$ 15,525,070	$ 17,180,728	$ 18,855,153	$ 18,855,153	61	
62															62	

Ln	(a)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	Ln	
1	Carry Charge	7.48% effective 10/01/2025			2.48% excluding equity component effective 10/01/2025										1	
2															2	
3		January	February	March	April	May	June	July	August	September	October	November	December	Summary of Annual Activity	3	Reference
4															4	
63	**PERIOD 11 (2029 Cost Recovery)**														63	
64	**Account No. 182-3XXX**														64	
65	**Capital Costs**														65	
66	Depreciation Expense	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 275,611	$ 3,307,335	66	
67	Return on Rate Base	781,073	794,184	807,294	820,405	833,515	846,626	859,737	872,847	885,958	899,068	912,179	925,290	10,238,176	67	
68	Subtotal	1,056,684	1,069,795	1,082,905	1,096,016	1,109,127	1,122,237	1,135,348	1,148,458	1,161,569	1,174,680	1,187,790	1,200,901	13,545,511	68	
69															69	
70	Beginning Balance	$ -	$ 1,043,180	$ 2,099,302	$ 3,168,368	$ 4,250,376	$ 5,345,328	$ 6,453,223	$ 7,574,061	$ 8,707,842	$ 9,854,565	$ 11,014,232	$ 12,186,842	$ -	70	
71	Distribution - 92.62%	978,679	990,822	1,002,965	1,015,107	1,027,250	1,039,393	1,051,536	1,063,678	1,075,821	1,087,964	1,100,107	1,112,249	12,545,570	71	To: Pg 4, Col (c), Ln 9
72	Transmission - 7.38% (Demand Allocator 82.69%)	64,501	65,301	66,101	66,901	67,702	68,502	69,302	70,102	70,903	71,703	72,503	73,304	826,825	72	To: Pg 4, Col (c), Ln 10
73															73	
74	2029 Total Capital Balance for Recovery	$ 1,043,180	$ 2,099,302	$ 3,168,368	$ 4,250,376	$ 5,345,328	$ 6,453,223	$ 7,574,061	$ 8,707,842	$ 9,854,565	$ 11,014,232	$ 12,186,842	$ 13,372,395	$ 13,372,395	74	
75															75	
76	**OMAG Costs**														76	
77	Beginning Balance	$ -	$ 765,090	$ 1,531,762	$ 2,300,018	$ 3,069,862	$ 3,841,297	$ 4,614,326	$ 5,388,953	$ 6,165,180	$ 6,943,012	$ 7,722,452	$ 8,503,502	$ -	77	
78	Distribution - 88.26%	673,867	673,867	673,867	673,867	673,867	673,867	673,867	673,867	673,867	673,867	673,867	673,867	8,086,400	78	
79	Transmission - 11.74%	89,646	89,646	89,646	89,646	89,646	89,646	89,646	89,646	89,646	89,646	89,646	89,646	1,075,750	79	
80	Subtotal	763,513	1,528,603	2,295,275	3,063,531	3,833,375	4,604,809	5,377,839	6,152,465	6,928,693	7,706,525	8,485,964	9,267,014	9,162,151	80	
81															81	
82	Carrying Charge Period 11 - Dist	1,393	2,788	4,187	5,588	6,992	8,399	9,809	11,222	12,638	14,057	15,479	16,903	109,455	82	
83	Carrying Charge Period 11 - Trans	185	371	557	743	930	1,117	1,305	1,493	1,681	1,870	2,059	2,249	14,561	83	
84															84	
85	Total OMAG - Distribution	675,259	676,655	678,053	679,455	680,859	682,266	683,676	685,089	686,505	687,924	689,345	690,770	8,195,855	85	To: Pg 4, Col (c), Ln 3
86	Total OMAG - Transmisssion	89,831	90,017	90,203	90,389	90,576	90,763	90,951	91,139	91,327	91,516	91,705	91,894	1,090,311	86	To: Pg 4, Col (c), Ln 4
87															87	
88	2029 Total OMAG Balance for Recovery	$ 765,090	$ 1,531,762	$ 2,300,018	$ 3,069,862	$ 3,841,297	$ 4,614,326	$ 5,388,953	$ 6,165,180	$ 6,943,012	$ 7,722,452	$ 8,503,502	$ 9,286,166	$ 9,286,166	88	
89															89	
90	**2029 Ending Balance for Recovery**	$ 1,808,270	$ 3,631,064	$ 5,468,386	$ 7,320,239	$ 9,186,625	$ 11,067,549	$ 12,963,014	$ 14,873,022	$ 16,797,578	$ 18,736,684	$ 20,690,344	$ 22,658,561	$ 22,658,561	90	
91															91	

Ln	{a}	{c}	{d}	{e}	{f}	{g}	{h}	{i}	{j}	{k}	{l}	{m}	{n}	{o}	Ln	
1	Carry Charge	7.38% effective 10/01/2024					2.33% excluding equity component effective 10/01/2024								1	
2														Summary of	2	
3		January	February	March	April	May	June	July	August	September	October	November	December	Annual Activity	3	Reference
4															4	
5	**PERIOD 9 (2027 Cost Recovery)**														5	
6	**Account No. 182-3XXX**														6	
7	**Capital Costs**														7	
8	Depreciation Expense	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 404,472	$ 4,853,661	8	
9	Return on Rate Base	909,156	934,573	959,991	985,409	1,010,827	1,036,244	1,061,662	1,087,080	1,112,498	1,137,915	1,163,333	1,188,751	12,587,438	9	
10	Subtotal	1,313,627	1,339,045	1,364,463	1,389,881	1,415,298	1,440,716	1,466,134	1,491,552	1,516,969	1,542,387	1,567,805	1,593,223	17,441,099	10	
11															11	
12	Beginning Balance	$ -	$ 1,309,495	$ 2,644,327	$ 4,004,497	$ 5,390,005	$ 6,800,851	$ 8,237,034	$ 9,698,556	$ 11,185,415	$ 12,697,612	$ 14,235,147	$ 15,798,019	$ -	12	
13	Distribution - 99.12%	1,302,060	1,327,254	1,352,448	1,377,642	1,402,836	1,428,030	1,453,224	1,478,418	1,503,612	1,528,805	1,553,999	1,579,193	17,287,520	13	To: Pg 2, Col (d), Ln 9
14	Transmission - 0.88% (Demand Allocator 64.27%)	7,435	7,578	7,722	7,866	8,010	8,154	8,298	8,442	8,585	8,729	8,873	9,017	98,710	14	To: Pg 2, Col (d), Ln 10
15															15	
16	2027 Total Capital Balance for Recovery	$ 1,309,495	$ 2,644,327	$ 4,004,497	$ 5,390,005	$ 6,800,851	$ 8,237,034	$ 9,698,556	$ 11,185,415	$ 12,697,612	$ 14,235,147	$ 15,798,019	$ 17,386,230	$ 17,386,230	16	
17															17	
18	**OMAG Costs**														18	
19	Beginning Balance	$ -	$ 4,650,564	$ 9,310,148	$ 13,978,770	$ 18,656,449	$ 23,343,200	$ 28,039,042	$ 32,743,993	$ 37,458,070	$ 42,181,291	$ 46,913,674	$ 51,655,236	$ -	19	
20	Distribution - 90.19%	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	4,186,227	50,234,720	20	
21	Transmission - 9.81%	455,334	455,334	455,334	455,334	455,334	455,334	455,334	455,334	455,334	455,334	455,334	455,334	5,464,004	21	
22	Subtotal	4,641,560	9,292,124	13,951,708	18,620,331	23,298,009	27,984,760	32,680,603	37,385,554	42,099,631	46,822,852	51,555,234	56,296,796	55,698,724	22	
23															23	
24	Carrying Charge Period 9 - Dist	8,120	16,256	24,407	32,575	40,758	48,957	57,172	65,403	73,650	81,913	90,192	98,487	637,888	24	
25	Carrying Charge Period 9 - Trans	883	1,768	2,655	3,543	4,433	5,325	6,219	7,114	8,011	8,910	9,810	10,712	69,383	25	
26															26	
27	Total OMAG - Distribution	4,194,347	4,202,482	4,210,634	4,218,801	4,226,985	4,235,184	4,243,399	4,251,630	4,259,876	4,268,139	4,276,418	4,284,713	50,872,608	27	To: Pg 2, Col (d), Ln 3
28	Total OMAG - Transmisssion	456,217	457,102	457,988	458,877	459,767	460,659	461,552	462,448	463,345	464,243	465,144	466,046	5,533,387	28	To: Pg 2, Col (d), Ln 4
29															29	
30	2027 Total OMAG Balance for Recovery	$ 4,650,564	$ 9,310,148	$ 13,978,770	$ 18,656,449	$ 23,343,200	$ 28,039,042	$ 32,743,993	$ 37,458,070	$ 42,181,291	$ 46,913,674	$ 51,655,236	$ 56,405,995	$ 56,405,995	30	
31															31	
32	**2027 Ending Balance for Recovery**	$ 5,960,058	$ 11,954,475	$ 17,983,267	$ 24,046,454	$ 30,144,051	$ 36,276,077	$ 42,442,549	$ 48,643,485	$ 54,878,903	$ 61,148,821	$ 67,453,255	$ 73,792,225	$ 73,792,225	32	
33															33	

Ln	{a}	{c}	{d}	{e}	{f}	{g}	{h}	{i}	{j}	{k}	{l}	{m}	{n}	{o}	Ln	
1	Carry Charge	7.38% effective 10/01/2024					2.33% excluding equity component effective 10/01/2024								1	
2														Summary of	2	
3		January	February	March	April	May	June	July	August	September	October	November	December	Annual Activity	3	Reference
4															4	
34	**PERIOD 10 (2028 Cost Recovery)**														34	
35	**Account No. 182-3XXX**														35	
36	**Capital Costs**														36	
37	Depreciation Expense	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 498,642	$ 5,983,700	37	
38	Return on Rate Base	1,214,169	1,235,690	1,257,212	1,278,734	1,300,255	1,321,777	1,343,299	1,364,821	1,386,342	1,407,864	1,429,386	1,450,907	15,990,456	38	
39	Subtotal	1,712,810	1,734,332	1,755,854	1,777,375	1,798,897	1,820,419	1,841,941	1,863,462	1,884,984	1,906,506	1,928,027	1,949,549	21,974,156	39	
40															40	
41	Beginning Balance	$ -	$ 1,707,422	$ 3,436,298	$ 5,186,627	$ 6,958,411	$ 8,751,649	$ 10,566,341	$ 12,402,487	$ 14,260,086	$ 16,139,140	$ 18,039,648	$ 19,961,610	$ -	41	
42	Distribution - 99.12%	1,697,728	1,719,060	1,740,392	1,761,725	1,783,057	1,804,389	1,825,721	1,847,053	1,868,386	1,889,718	1,911,050	1,932,382	21,780,661	42	To: Pg 3, Col (d), Ln 9
43	Transmission - 0.88% (Demand Allocator 64.27%)	9,694	9,816	9,937	10,059	10,181	10,303	10,425	10,546	10,668	10,790	10,912	11,034	124,365	43	To: Pg 3, Col (d), Ln 10
44															44	
45	2028 Total Capital Balance for Recovery	$ 1,707,422	$ 3,436,298	$ 5,186,627	$ 6,958,411	$ 8,751,649	$ 10,566,341	$ 12,402,487	$ 14,260,086	$ 16,139,140	$ 18,039,648	$ 19,961,610	$ 21,905,026	$ 21,905,026	45	
46															46	
47	**OMAG Costs**														47	
48	Beginning Balance	$ -	$ 4,904,046	$ 9,817,603	$ 14,740,692	$ 19,673,330	$ 24,615,536	$ 29,567,329	$ 34,528,726	$ 39,499,747	$ 44,480,410	$ 49,470,734	$ 54,470,738	$ -	48	
49	Distribution - 89.21%	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	4,366,408	52,396,894	49	
50	Transmission - 10.79%	528,144	528,144	528,144	528,144	528,144	528,144	528,144	528,144	528,144	528,144	528,144	528,144	6,337,725	50	
51	Subtotal	4,894,552	9,798,597	14,712,155	19,635,244	24,567,882	29,510,088	34,461,880	39,423,277	44,394,298	49,374,962	54,365,286	59,365,290	58,734,619	51	
52															52	
53	Carrying Charge Period 10 - Dist	8,470	16,955	25,458	33,977	42,512	51,064	59,633	68,218	76,820	85,438	94,074	102,726	665,344	53	
54	Carrying Charge Period 10 - Trans	1,024	2,051	3,079	4,110	5,142	6,177	7,213	8,251	9,292	10,334	11,379	12,425	80,477	54	
55															55	
56	Total OMAG - Distribution	4,374,877	4,383,363	4,391,866	4,400,385	4,408,920	4,417,472	4,426,041	4,434,626	4,443,228	4,451,846	4,460,481	4,469,133	53,062,238	56	To: Pg 3, Col (d), Ln 3
57	Total OMAG - Transmisssion	529,168	530,195	531,223	532,253	533,286	534,320	535,357	536,395	537,436	538,478	539,523	540,569	6,418,203	57	To: Pg 3, Col (d), Ln 4
58															58	
59	2028 Total OMAG Balance for Recovery	$ 4,904,046	$ 9,817,603	$ 14,740,692	$ 19,673,330	$ 24,615,536	$ 29,567,329	$ 34,528,726	$ 39,499,747	$ 44,480,410	$ 49,470,734	$ 54,470,738	$ 59,480,441	$ 59,480,441	59	
60															60	
61	**2028 Ending Balance for Recovery**	$ 6,611,467	$ 13,253,901	$ 19,927,320	$ 26,631,742	$ 33,367,185	$ 40,133,669	$ 46,931,213	$ 53,759,833	$ 60,619,550	$ 67,510,382	$ 74,432,348	$ 81,385,466	$ 81,385,466	61	
62															62	

Ln	{a}	{c}	{d}	{e}	{f}	{g}	{h}	{i}	{j}	{k}	{l}	{m}	{n}	{o}	Ln	
1	Carry Charge	7.38% effective 10/01/2024					2.33% excluding equity component effective 10/01/2024								1	
2														Summary of	2	
3		January	February	March	April	May	June	July	August	September	October	November	December	Annual Activity	3	Reference
4															4	
63	**PERIOD 11 (2029 Cost Recovery)**														63	
64	**Account No. 182-3XXX**														64	
65	**Capital Costs**														65	
66	Depreciation Expense	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 583,274	$ 6,999,287	66	
67	Return on Rate Base	1,472,429	1,490,557	1,508,684	1,526,812	1,544,939	1,563,067	1,581,195	1,599,322	1,617,450	1,635,578	1,653,705	1,671,833	18,865,571	67	
68	Subtotal	2,055,703	2,073,831	2,091,958	2,110,086	2,128,213	2,146,341	2,164,469	2,182,596	2,200,724	2,218,851	2,236,979	2,255,107	25,864,857	68	
69															69	
70	Beginning Balance	$ -	$ 2,049,236	$ 4,116,542	$ 6,201,919	$ 8,305,366	$ 10,426,884	$ 12,566,473	$ 14,724,132	$ 16,899,862	$ 19,093,662	$ 21,305,533	$ 23,535,475	$ -	70	
71	Distribution - 99.12%	2,037,601	2,055,569	2,073,537	2,091,505	2,109,473	2,127,441	2,145,409	2,163,377	2,181,345	2,199,313	2,217,281	2,235,249	25,637,102	71	To: Pg 4, Col (d), Ln 9
72	Transmission - 0.88% (Demand Allocator 64.27%)	11,634	11,737	11,840	11,942	12,045	12,147	12,250	12,353	12,455	12,558	12,660	12,763	146,385	72	To: Pg 4, Col (d), Ln 10
73															73	
74	2029 Total Capital Balance for Recovery	$ 2,049,236	$ 4,116,542	$ 6,201,919	$ 8,305,366	$ 10,426,884	$ 12,566,473	$ 14,724,132	$ 16,899,862	$ 19,093,662	$ 21,305,533	$ 23,535,475	$ 25,783,487	$ 25,783,487	74	
75															75	
76	**OMAG Costs**														76	
77	Beginning Balance	$ -	$ 4,954,396	$ 9,918,403	$ 14,892,038	$ 19,875,320	$ 24,868,268	$ 29,870,901	$ 34,883,238	$ 39,905,298	$ 44,937,098	$ 49,978,659	$ 55,029,999	$ -	77	
78	Distribution - 89.43%	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	4,421,909	53,062,907	78	
79	Transmission - 10.57%	522,896	522,896	522,896	522,896	522,896	522,896	522,896	522,896	522,896	522,896	522,896	522,896	6,274,750	79	
80	Subtotal	4,944,805	9,899,201	14,863,207	19,836,842	24,820,125	29,813,073	34,815,706	39,828,043	44,850,102	49,881,903	54,923,464	59,974,804	59,337,658	80	
81															81	
82	Carrying Charge Period 11 - Dist	8,577	17,171	25,781	34,409	43,053	51,713	60,391	69,085	77,796	86,524	95,269	104,031	673,801	82	
83	Carrying Charge Period 11 - Trans	1,014	2,030	3,049	4,069	5,091	6,115	7,141	8,169	9,199	10,232	11,266	12,302	79,678	83	
84															84	
85	Total OMAG - Distribution	4,430,486	4,439,080	4,447,690	4,456,318	4,464,962	4,473,622	4,482,300	4,490,994	4,499,705	4,508,433	4,517,178	4,525,940	53,736,708	85	To: Pg 4, Col (d), Ln 3
86	Total OMAG - Transmisssion	523,910	524,926	525,945	526,965	527,987	529,011	530,037	531,065	532,095	533,127	534,162	535,198	6,354,428	86	To: Pg 4, Col (d), Ln 4
87															87	
88	2029 Total OMAG Balance for Recovery	$ 4,954,396	$ 9,918,403	$ 14,892,038	$ 19,875,320	$ 24,868,268	$ 29,870,901	$ 34,883,238	$ 39,905,298	$ 44,937,098	$ 49,978,659	$ 55,029,999	$ 60,091,137	$ 60,091,137	88	
89															89	
90	**2029 Ending Balance for Recovery**	$ 7,003,632	$ 14,034,944	$ 21,093,956	$ 28,180,686	$ 35,295,153	$ 42,437,374	$ 49,607,370	$ 56,805,159	$ 64,030,760	$ 71,284,192	$ 78,565,473	$ 85,874,623	$ 85,874,623	90	
91															91	

NV ENERGY
2027-2029 NDPP
FORECASTED ANNUAL kWh SALES INCLUDING DOS CUSTOMERS

Ln	(a)	(b)	(c)	Ln	Reference
1				1	
2		NPC	SPPC	2	
3	2027	25,638,055,202	17,145,293,990	3	To: Pg 2, Col (c) & (d), Ln 16
4	2028	26,001,052,034	19,271,961,815	4	To: Pg 3, Col (c) & (d), Ln 16
5	2029	26,319,902,752	20,384,388,377	5	To: Pg 4, Col (c) & (d), Ln 16

EXHIBIT STEWART-DIRECT-3

NV Energy
Residential Monthly Typical Bill Impacts

Ln	(a) Year	(b) NPC	(c) SPPC	Ln
1				1
2		**Single Family Residential**		2
3				3
4	2027	$ 0.64	$ 3.21	4
5	2028	$ 0.73	$ 3.15	5
6	2029	$ 0.86	$ 3.14	6
7				7
8		**Multi-Family Residential**		8
9				9
10	2027	$ 0.41	$ 1.92	10
11	2028	$ 0.47	$ 1.88	11
12	2029	$ 0.55	$ 1.88	12

NV Energy
Residential Monthly Typical Bill Impacts

Ln	(a) Year	(b) NPC		(c) SPPC			Ln
1							1
2			**Single Family Residential**				2
3							3
4	2027	$ 0.64	*From 2.0, column (d), line 3*	$	3.21	*From 3.0, column (d), line 3*	4
5	2028	$ 0.73	*From 2.0, column (d), line 4*	$	3.15	*From 3.0, column (d), line 4*	5
6	2029	$ 0.86	*From 2.0, column (d), line 5*	$	3.14	*From 3.0, column (d), line 5*	6
7							7
8			**Multi-Family Residential**				8
9							9
10	2027	$ 0.41	*From 2.0, column (d), line 8*	$	1.92	*From 3.0, column (d), line 8*	10
11	2028	$ 0.47	*From 2.0, column (d), line 9*	$	1.88	*From 3.0, column (d), line 9*	11
12	2029	$ 0.55	*From 2.0, column (d), line 10*	$	1.88	*From 3.0, column (d), line 10*	12

Exhibit Stewart-Direct-3
Calculation of NPC Residential Monthly Typical Bill Impacts

Ln	(a)	(b) NPC NDPP Rate per kWh		(c) Average Monthly Usage		(d) Monthly Bill Impact (b) x (c)		Ln
1								1
2			**Single Family Residential - Schedule RS**					2
3	2027	$ 0.00064	*From Table Stewart - Direct-1*	996	*From Q4 2025 NPC Exhibit G Page 5*	$ 0.64	*To 1.0, column (b), line 4*	3
4	2028	$ 0.00073	*From Table Stewart - Direct-1*	996		$ 0.73	*To 1.0, column (b), line 5*	4
5	2029	$ 0.00086	*From Table Stewart - Direct-1*	996		$ 0.86	*To 1.0, column (b), line 6*	5
6								6
7			**Multi-Family Residential - Schedule RM**					7
8	2027	$ 0.00064	*From Ln 3*	640	*From Q4 2025 NPC Exhibit G Page 5*	$ 0.41	*To 1.0, column (b), line 10*	8
9	2028	$ 0.00073	*From Ln 4*	640		$ 0.47	*To 1.0, column (b), line 11*	9
10	2029	$ 0.00086	*From Ln 5*	640		$ 0.55	*To 1.0, column (b), line 12*	10

Exhibit Stewart-Direct-3
Calculation of SPPC Residential Monthly Typical Bill Impacts

Ln	(a)	(b) SPPC NDPP Rate per kWh		(c) Average Monthly Usage		(d) Monthly Bill Impact (b) x (c)		Ln
1								1
2			**Single Family Residential - Schedule D-1**					2
3	2027	$ 0.00430	*From Table Stewart - Direct-1*	747	*From Q4 2025 SPPC Exhibit G Page 5*	$ 3.21	*To 1.0, column (c), line 4*	3
4	2028	$ 0.00422	*From Table Stewart - Direct-1*	747		$ 3.15	*To 1.0, column (c), line 5*	4
5	2029	$ 0.00421	*From Table Stewart - Direct-1*	747		$ 3.14	*To 1.0, column (c), line 6*	5
6								6
7			**Multi-Family Residential - Schedule DM-1**					7
8	2027	$ 0.00430	*From Ln 3*	446	*From Q4 2025 SPPC Exhibit G Page 5*	$ 1.92	*To 1.0, column (c), line 10*	8
9	2028	$ 0.00422	*From Ln 4*	446		$ 1.88	*To 1.0, column (c), line 11*	9
10	2029	$ 0.00421	*From Ln 5*	446		$ 1.88	*To 1.0, column (c), line 12*	10

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, HALEY STEWART, states that she is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of her knowledge and belief; and that if asked the questions appearing therein, her answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

HALEY STEWART

CHRIS LAUTENBERGER

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Nevada Power Company d/b/a NV Energy
and Sierra Pacific Power Company d/b/a NV Energy

2026 Natural Disaster Protection Plan
Docket No. 26-02___

Prepared Direct Testimony of

Chris Lautenberger

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, BUSINESS ADDRESS AND PARTY FOR WHOM YOU ARE FILING TESTIMONY.

A. My name is Christopher William Lautenberger. I am the President and Chief Executive Officer at CloudFire Inc. My business address is 1111 High Street Suite B; Auburn, CA 95603. I am a fire scientist. I am filing testimony on behalf of Sierra Pacific Power Company d/b/a NV Energy ("Sierra") and Nevada Power Company d/b/a NV Energy ("Nevada Power" and, together with Sierra, the "Companies").

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I have more than 25 years of experience in fire modeling and have been actively involved in utility-specific fire risk modeling for more than 15 years. I am a licensed California Fire Protection Engineer with expertise in fire science, fire dynamics, fire modeling, and forensic fire reconstruction, and utility-caused fires. I hold a PhD in Mechanical Engineering (Major area: combustion; minors: wildland fire science and fluid mechanics) from University of California - Berkeley. I began working on quantifying risk from powerline fires in 2010 and was a co-lead of the Peer Development Panel ("PDP") tasked by the California Public Utilities Commission

with developing the state's High Fire Threat District regulatory maps. More recently, I have supported the California Department of Insurance in review of catastrophic wildland fire models used by providers for setting residential insurance rates in California. I have been admitted as an expert witness on utility fire causation in both state and federal court. I have conducted utility fire risk modeling ("planning modeling") for over 50 utilities in the Western US, ranging from co-ops to public utility districts and investor-owned utilities. I also developed CloudFire's fire weather dashboard which has been operational for seven fire seasons and is currently used by approximately 15 utilities for fire situational awareness and to inform public safety power shutoff decision-making. I led a project funded by the California Energy Commission to develop next generation open-source fire modeling tools for grid resiliency, which resulted in PyreCast (https://pyrecast.org), the first platform to make fire spread forecasts of ongoing fires publicly available. In 2025, PyreCast forecasts were incorporated into WatchDuty.

My statement of qualifications is attached as **Exhibit Lautenberger-Direct-1**.

3. Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. My primary responsibilities are development and deployment of open-source wildfire spread and risk models, assisting utilities with quantifying risk over long periods of time, forecasting short-term risk from utility-caused wildfires ("operational modeling"), forecasting the spread of active fires, and managing a team of scientists and engineers to assist with the above.

4. Q. HAVE YOU PREVIOUSLY SUBMITTED PRE-FILED TESTIMONY WITH THE PUBLIC UTILITIES COMMISSION OF NEVADA ("COMMISSION")?

A. No.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present the updated wildire risk assessment presented with the 2026 Natural Disaster Protection Plan Triennial Update ("Plan").

6. Q. WHAT EXHIBITS AND APPENDICES ARE YOU SPONSORING?

A. I am sponsoring the following Exhibits:

Exhibit B, the 2026 Natural Disaster Protection Plan Triennial Update; Specifically I sponsor Appendix B – Updated Wildfire Risk Assessment.

7. Q. PLEASE EXPLAIN YOUR ROLE WITH RESPECT TO PREPARING THE UPDATED WILDFIRE RISK ASSESSMENT.

A. In 2025, CloudFire Inc. was engaged by the Companies to propose recommendations to its wildfire risk tier designations. My role was to conduct the updated wildfire risk assessment contained in Appendix B of the Plan and assist with interpretation of its outputs for the purposes of adjusting The Companies' existing wildfire risk tiers.

8. Q. PLEASE SUMMARIZE THE RESULTS OF THE UPDATED WILDFIRE RISK ASSESSMENT.

A. At a high level, the updated wildfire risk assessment provides asset-level Geographic Information Systems data that quantifies risk from utility-caused fires based on potential impacts to population and structures, timber, as well as fire size. The results of the updated wildfire risk assessment are described in Appendix B to the Plan.

Tier-specific changes in overhead line miles for Nevada Power are shown in **Table Lautenberger-Direct-1**. Changes for Sierra are shown in **Table Lautenberger-Direct-2**.

Table Lautenberger-Direct-1. Summary of Line Miles Change Nevada Power*

Tier	Current Line Miles	Proposed Line Miles	Line Miles Change	Percent Change
3	20	20	0	0 %
2	0	0	0	0 %
1E	0	35	35	–
1	291	820	529	181.8 %
Total	**311**	**875**	**564**	**181.3 %**

*No percent change was calculated for Tier 1E because there are currently zero Nevada Power Tier 1E line miles.

Table Lautenberger-Direct-2. Summary of Line Miles Change Sierra

Tier	Current Line Miles	Proposed Line Miles	Line Miles Change	Percent Change
3	268	268	0	0 %
2	451	501	50	11.1 %
1E	1,430	1,679	249	17.4 %
1	2,064	6,605	4,541	220 %
Total	**4,213**	**9,053**	**4,840**	**114.9 %**

The proposed refinements are based primarily on utility fire risk/consequence modeling, expert judgment, and other factors such as fire history, meteorological conditions, and configuration of the Wildland Urban Interface. Additionally, simplification and consolidation of existing Tier 1, Tier 1E, and Tier 2 polygons was proposed to streamline fire tier maps for deploying appropriate fire mitigations. No Tier 3 modifications were identified as part of this work.

9. Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

EXHIBIT LAUTENBERGER-DIRECT-1

Chris Lautenberger, PhD, PE(CA)

CloudFire Inc.
1111 High Street, Suite B
Auburn, CA 95603

530-202-9057
chris@cloudfire.com

Professional Profile

Chris Lautenberger is a licensed Fire Protection Engineer with expertise in fire science, fire dynamics, fire modeling, and forensic fire reconstruction. Lautenberger's professional activities involve applying fire dynamics and combustion principles to analyze various aspects of fire and combustion processes, ranging from small-scale smoldering combustion to large-scale wildland fire dynamics. He has published on several aspects of combustion and fire, including flammability, pyrolysis, ignition, fire spread, and fire modeling. Lautenberger has over 25 years of experience applying fire dynamics calculations and fire models in support of scientific research, fire protection engineering design, and forensic fire reconstruction. Chris has developed computer models to analyze trajectories and ignition potential of metallic and woody particles generated by conductor clashing and interactions between vegetation and overhead electrical utilities, wildland fire propagation, and wildland fire risk. Lautenberger has provided expert testimony at deposition and trial on more than 30 occasions for litigation matters related to both wildland and structure fires, including several fires with losses in excess of $100M. Dr. Lautenberger has co-taught Masters-level courses in Fire Dynamics and Fire Modeling in the Department of Fire Protection Engineering at California Polytechnic State University, San Luis Obispo.

Education

PhD – Mechanical Engineering, University of California at Berkeley
- Dissertation title: "A Generalized Pyrolysis Model for Combustible Solids"
- Major field: Combustion
- Minor fields: Wildland Fire Science and Fluid Dynamics

MS – Fire Protection Engineering, Worcester Polytechnic Institute
- Thesis title: "CFD Simulation of Soot Formation and Flame Radiation"

BS – Mechanical Engineering, Worcester Polytechnic Institute

Professional Licensure

Licensed Professional Engineer, State of California, # FP1676 (Fire Protection Engineering)

Professional Experience

2023 – current **CloudFire Inc.** Incline Village, NV *President & CEO*

Representative projects:
- *Real-time wildfire forecasting*: Under funding from the United States Forest Service, tasked with forecasting the spread of large fires in the Continental US through 2027.
- *Wildland Urban Interface (WUI) fire spread modeling*: Currently collaborating with UC Berkeley and University of Maryland researchers to develop a model for structure to structure fire spread in WUI fires under funding from the Gordon & Betty Moore Foundation.
- *Hazard modeling for quantification of parcel-specific fire risk in the continental US*: Currently developing scalable operational fire spread modeling techniques to model hundreds of millions of fires across the continental US and provide fire hazard outputs for use in quantifying parcel-level fire risk.
- *Wildfire consequence / risk modeling for utility-caused fires*: Working with several utilities, quantified wildfire consequence/risk from utility fires using wildfire modeling. Established real-time fire weather monitoring & wildfire modeling to quantify risk under forecasted wind and weather conditions up to 8 days in the future.

2008 – 2023 **Reax Engineering Inc.** Berkeley, CA and Auburn, CA *Founding Partner and Principal Engineer*

Representative projects:

- *Next Generation Open Source Wildfire Models for Grid Resiliency*: Led the real-time wildfire spread and risk forecasting component of this $5M project funded by the California Energy Commission. This project provides utilities and other stakeholders with real-time forecasts of active wildland fires as well as landscape-scale burn probabilities up to one week in the future. It also models ignition probability, fire size, and impacts from utility-caused fires under forecasted wind and weather conditions to inform proactive de-energization decisions.
- *California Public Utilities Commission (CPUC) High Fire Threat District Mapping*: Co-led (along with Pacific Gas & Electric and San Diego Gas & Electric) the Peer Development Panel tasked by the CPUC with developing high fire threat districts that identify areas where overhead electrical utilities present elevated or extreme risks of igniting damaging wildland or wildland urban interface (WUI) fires. This map was adopted by the CPUC for regulatory purposes in 2018 and is currently used to promulgate regulations related to electrical utility fire safety in California.

Selected wildland fire hazard analysis and modeling project work:

- Determined maximum reasonably foreseeable Santa Ana wind speed in Malibu Canyon using wind modeling and pole-mounted anemometers installed specifically for this project
- High resolution smoke plume modeling to assess potential for Libby Amphibole Asbestos (LAA) to be transported by large-scale wildland fires
- Developed de-energization criteria and associated weather monitoring analytics for utilities in California and Nevada
- Analyzed fire hazard/risk associated with major housing developments in San Diego County including Otay Ranch and Newland Sierra
- Developed ELMFIRE (Eulerian Level Set Model of Fire Spread), a parallelized model for simulating wildland fire spread and quantifying wildland fire risk via Monte Carlo simulation
- Conducted high resolution wind/weather modeling to analyze historical fire weather in Southern California
- Assisted utility clients with data requests and analytics associated with preparation of Senate Bill 209 Wildfire Mitigation Plans

Selected wildland fire forensic reconstructions and analyses:

- Reconstruction of initial spread of the 2017 Starbuck Fire near Beaver, OK
- Reconstruction of initial spread of the 2011 Bastrop Complex Fire (Bastrop, TX)
- Analyzed ignition dynamics associated with the 2012 Sheep Fire near Lucille, ID
- Analysis of ignition, initial spread, and smoke transport from the 2009 Murrindindi Bushfire (Victoria, Australia)
- Reconstruction of the spread of the 2008 Iron Complex Fire in Northern California and assessment of the impact of firing activities on timber loss in private inholdings
- Calculation of trajectory and temperature histories of metallic particles allegedly generated by clashing between aluminum and copper electrical conductors and analysis of grass-fire ignition potential, initial spread rate, and plume dynamics (Victoria, Australia)
- Analysis of wildland fires ignited by exhaust particles from a locomotive including analysis of particle trajectories and fuel ignitability (Victoria, Australia)

Selected structure fire forensic reconstructions and analyses:

- Analysis of a methane generation, transport, and ignition from decomposing manure in a fatal pig barn fire
- Analysis of diesel fuel ignitability by hot surfaces in a fracking rig fire
- Reconstruction of fatal apartment fire where smoke alarms failed to activate (Long Beach, CA)
- Analysis of crude oil ignitability and time to incapacitation in a fatal fire where the cab of a truck was engulfed in flames from burning crude oil released during an accident.

- Analysis of ignitability of water/antifreeze mixture discharged from residential sprinkler system, analysis of initial fire spread, and assessment of burn injuries (Herriman, UT)
- Origin hypothesis testing for fatal alleged arson fire (Calcasieu Parish, Louisiana)
- Fire cause hypothesis testing and analysis of residential LPG explosion for alleged arson fire (Round Mountain, CA)

Selected Fire Protection Engineering project work:

- Calculation of Light Rail Vehicle heat release rates in the San Francisco Central Subway using fire growth modeling and fire testing (San Francisco, CA)
- Analysis of rail vehicle design fires, testing, and modeling for Los Angeles County Metropolitan Transit Authority (Los Angeles, CA)
- Development of automatic sprinkler protection criteria and analysis of flammable liquids processes at semiconductor plant (Santa Rosa, CA)
- Analysis of wildland urban interface fire and life safety concerns at proposed subdivisions in Oakland, CA, St. Helena, CA, and Encinitas, CA
- Development of a model for ignition of HEPA filters by embers at the Hanford nuclear waste treatment plant (Richland, WA)

2010 – 2021 **California Polytechnic State University, San Luis Obispo** *Instructor*

- Fire Protection Engineering Instructor in Cal Poly's Masters degree program
- Teaching responsibilities included FPE 502 Fire Dynamics and FPE 504 Fire Modeling

2007 – 2011 **University of California at Berkeley** *Post Doctoral Researcher*

- Conducted research on NSF Grant 0730556, "Tackling CFD Modeling of Flame Spread on Practical Solid Combustibles"
- Assessed predictive capabilities of Fire Dynamics Simulator (FDS) for simulating flame spread and fire growth
- Modified subroutines to improve predictive capabilities of FDS for flame spread modeling
- Developed pyrolysis model and material property estimation techniques needed to simulate the pyrolysis of real-world solid fuels
- Developed computer model for ignition of fuel beds by hot particles and fire brands to predict ignition of fuel beds and initiation of spot fires

2002 – 2008 **Arup Fire** San Francisco, CA *Fire Protection Engineer*

- Assisted clients with fire safety design and achieving code compliance or performance-based solutions for hospitals, casinos, malls, libraries, schools, museums, airports, and offices
- Assessed fire performance of buildings using fire modeling and egress analyses in support of alternate methods of design
- Developed and programmed a CFAST-based Monte-Carlo fire simulator
- Simulated fire development in a rail vehicle and calibrated the model with large-scale experimental fire test data

2000 – 2001 **FM Global Research (formerly Factory Mutual Research Corporation)** Norwood, MA

- Examined existing soot formation and oxidation models in the literature and used this research to postulate a new engineering soot model that is compatible with FDS
- Worked with FM Global and NIST scientists to add this new model for soot formation and oxidation to FDS, and performed simulations of laminar and turbulent diffusion flames

Dissertation and Thesis

2003 – 2007 **PhD Dissertation** *University of California, Berkeley*

- Developed a generalized pyrolysis/material decomposition model (Gpyro) to simulate the gasification, pyrolysis, and combustion of condensed-phase fuels
- Developed an optimization technique that uses a genetic algorithm to extract material pyrolysis properties needed for simulation of solid-phase pyrolysis from bench-scale fire tests

- Performed FDS-based simulations of ignition, flame spread, and fire growth in normal and reduced gravity environments as part of a NASA-sponsored project

2000 – 2001 **MS Thesis** *Worcester Polytechnic Institute*
- Developed a model for soot formation/oxidation in non-premixed flames
- Implemented model in FDS to calculate soot formation and flame radiation

Peer Reviewed Publications

1. Lautenberger, C., de Ris, J., Dembsey, N.A., Barnett, J.R. & Baum, H.R., "A Simplified Model for Soot Formation and Oxidation in CFD Simulation of Non-premixed Hydrocarbon Flames," *Fire Safety Journal* **40**: 141-176 (2005).
2. Lautenberger, C., Zhou, Y.Y. & Fernandez-Pello, A.C., "Numerical Modeling of Convective Effects on Piloted Ignition of Composite Materials," *Combustion Science and Technology* **177**: 1231-1252 (2005).
3. Lautenberger, C. & Fernandez-Pello, A.C., "Approximate Analytical Solutions for the Transient Mass Loss Rate and Piloted Ignition Time of a Radiatively Heated Solid in the High Heat Flux Limit," *Fire Safety Science* **8**: 445-456 (2005).
4. Lautenberger, C., Rein, G. & Fernandez-Pello, A.C., "Application of a Genetic Algorithm to Estimate Material Properties for Fire Modeling from Bench-Scale Fire Test Data," *Fire Safety Journal* **41**: 204-214 (2006).
5. Rein, G., Lautenberger, C., Fernandez-Pello, A.C., Torero, J.L. & Urban, D.L., "Application of Genetic Algorithms and Thermogravimetry to Determine the Kinetics of Polyurethane Foam in Smoldering Combustion," *Combustion and Flame* **146**: 95-108 (2006).
6. Rich, D., Lautenberger, C., Torero, J.L., Quintiere, J.G. & Fernandez-Pello, C., "Mass Flux of Combustible Solids at Piloted Ignition," *Proceedings of the Combustion Institute* **31**: 2653-2660 (2007).
7. Kwon, J.-W., Dembsey, N.A., & Lautenberger, C.W., "Evaluation of FDS v4: Upward Flame Spread," *Fire Technology* **43**: 255-284 (2007).
8. Avila, M.B., Dembsey, N.A., Kim, M.E., Lautenberger, C., & Dore, C., "Fire Characteristics of Polyester FRP composites with Different Glass Contents," *Composites Research Journal* **2**: 1-14 (2008).
9. Lautenberger, C., Kim, E., Dembsey, N. & Fernandez-Pello, C., "The Role of Decomposition Kinetics in Pyrolysis Modeling – Application to a Fire Retardant Polyester Composite," *Fire Safety Science* **9**: 1201-1212 (2008).
10. Dodd, A.B., Lautenberger, C. & Fernandez-Pello, A.C., "Numerical Examination of Two-Dimensional Smolder Structure in Polyurethane Foam," *Proceedings of the Combustion Institute* **32**: 2497-2504 (2009).
11. Lautenberger, C. & Fernandez-Pello, A.C., "Generalized Pyrolysis Model for Combustible Solids," *Fire Safety Journal* **44**: 819-839 (2009).
12. Lautenberger, C. & Fernandez-Pello, A.C., "A Model for the Oxidative Pyrolysis of Wood," *Combustion and Flame* **156**: 1503-1513 (2009).
13. Hadden, R., Scott, S., Lautenberger, C., & Fernandez-Pello, A.C., "Ignition of Combustible Fuel Beds by Hot Particles: an Experimental and Theoretical Study," *Fire Technology* **47**: 341-355 (2011).
14. Fereres, S., Lautenberger, C., Fernandez-Pello, C., Urban, D.L., & Ruff, G.A., "Mass Loss Rate at Ignition in Reduced Pressure Environments," *Combustion and Flame* **158**: 1301-1306 (2011).
15. Lautenberger, C. & Fernandez-Pello, C., "Optimization Algorithms for Material Pyrolysis Property Estimation," *Fire Safety Science* **10**: 751-764 (2011).
16. Dodd, A.B., Lautenberger, C., & Fernandez-Pello, A.C., "Computational Modeling of Smolder Combustion and Spontaneous Transition to Flaming," *Combustion and Flame* **159**: 448–461 (2012).
17. Matala, A., Lautenberger, C., & Hostikka, S., "Generalized direct method for pyrolysis kinetics parameter estimation and comparison to existing methods," *Journal of Fire Sciences* **30**: 339-356 (2012).
18. Fereres, S., Lautenberger, C., Fernandez-Pello, A.C., Urban, D.L., and Ruff, G.A., "Understanding ambient pressure effects on piloted ignition through numerical modeling," *Combustion and Flame* **159**: 3544–3553 (2012).
19. Wong, W., Alston, J., Lautenberger, C., and Dembsey, N., "CFD Flame Spread Model Validation: Multi-component Data Set Framework," *Journal of Fire Protection* Engineering **23**: 85-134 (2013).
20. Lautenberger, C., "Wildland Fire Modeling with an Eulerian Level Set Method and Automated Calibration," *Fire Safety Journal* **62**: 289-298 (2013).
21. Lautenberger, C., "Gpyro3D: A Three Dimensional Generalized Pyrolysis Model," *Fire Safety Science* **11**: 193-207 (2014).
22. Fernandez-Pello, A.C., Lautenberger, C., Rich, D., Zak, C., Urban, J., Hadden, R., Scott, S., and Fereres, S., "Spot fire ignition of natural fuel beds by hot metal particles, embers, and sparks," *Combustion Science and Technology* **187**: 269-295 (2015).

23. Yashwanth, B.L., Shotorban, B., Mahalingam, S., Lautenberger, C.W., and Weise, D.R., "A numerical investigation of the influence of radiation and moisture content on pyrolysis and ignition of a leaf-like fuel element," *Combustion and Flame* **163**: 301–316 (2016).
24. Lautenberger, C., "Mapping Areas at Elevated Risk of Large-Scale Structure Loss Using Monte Carlo Simulation and Wildland Fire Modeling," *Fire Safety Journal* **91**: 768-775 (2017).
25. Fawaz, M., Lautenberger, C., and Bond, T., "Prediction of organic aerosol precursor emission from the pyrolysis of thermally thick wood," *Fuel* **269**: 117333 (2020).
26. Kearns, E.J., Saah, D., Levine, C.R., Lautenberger, C., *et al.*, "The Construction of Probabilistic Wildfire Risk Estimates for Individual Real Estate Parcels for the Contiguous United States. *Fire* **5**: 117 (2022).
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28. Melecio-Vázquez, D., Lautenberger, C., et al., "A Coupled Wildfire-Emission and Dispersion Framework for Probabilistic PM2.5 Estimation," *Fire*: **6** 220-236 (2023).
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32. Altintas, I., Purawat, S., Crawl, D., Block, J., Lee, J., Breland, A., Perez, I., Combs, J., Al Rawaf, R., Lautenberger, C., Johnson, G., Saah, D., "Actionable Fire Modeling in Firemap for Extended Attack Decision Support," *International Conference on Computational Science* (pp. 327-335). Springer Nature Switzerland (2025).
33. Zamanialaei, M., San Martin, D., Theodori, M., Purnomo, D., Tohidi, A. Lautenberger, C., Qin, Y., Trouve, A., Gollner, M., "Fire risk to structures in California's Wildland-Urban Interface," *Nature Communications* **16**, 8041 (2025).

Book Chapters

1. Lautenberger, C., Torero, J.L. & Fernandez-Pello, A.C., "Understanding Materials Flammability," in *Flammability Testing of Materials Used in Construction, Transport and Mining*, Edited by V. Apte, Woodhead Publishing, Cambridge, UK pp. 1-21, 2006.
2. Lautenberger, C. & Fernandez-Pello, A.C., "Pyrolysis Modeling, Thermal Decomposition, and Transport Processes in Combustible Solids," in *Transport Phenomena in Fires*, Edited by M. Faghri and B. Sunden, WIT Press, Billerica, MA pp. 209-248, 2008.
3. Lautenberger, C. & Fernandez-Pello, A.C., "Spotting Ignition of fuel beds by firebrands," in *Computational Methods and Experimental Measurements XIV*, Edited by C.A. Brebbia and G.M. Carlomango, WIT Press, Billerica, MA pp. 603-612, 2009.
4. Lautenberger, C. & Hostikka, S., "Large Scale Fire Modeling," in *Flame Retardancy of Polymeric Materials*, Second Edition, Edited by C.A. Wilkie and A.B. Morgan, Marcel Dekker pp. 551 – 585, 2010.
5. Lautenberger, C., Tien, C.L., Lee, K.Y., and Stretton, A.J., "Radiation Heat Transfer," in *SFPE Handbook of Fire Protection Engineering*, 5th Edition, Springer, pp. 102-137 (2016).
6. Lautenberger, C., "Pyrolysis," in *Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires*, Ed. Manzello, S.L., Springer (2018).
7. Lautenberger, C., Theodori, M., and Seeburger, D., "Modeling Wildland Fires and WUI Fires," in *SFPE Handbook of Fire Protection Engineering*, 6th Edition, Springer (in press, 2025).

Short Courses

1. *Lawrence Livermore National Laboratories Fire Modeling Short Course – A Short Course Presented to Fire Protection Engineers*. Co-taught, with Professor James Milke (University of Maryland) and Professor Frederick Mowrer (California Polytechnic State University), a 3-day short course on fire dynamics and fire modeling for Lawrence Livermore and Lawrence Berkeley National Laboratories employees (March 20 – 22, 2012).
2. *First Asia-Pacific Combustion Institute Summer School – Fundamental Combustion Problems in Fire*. Co-taught sessions related to fire science and pyrolysis modeling in Valparaiso, Chile (November 11 – 15, 2019).

Publication and Presentation Awards

- Best Paper Overall at *Composites & Polycon 2007*, Tampa, FL, October 2007 for Dembsey, N. *et al.*, "Fire Characteristics of Polyester FRP Composites with Different Glass Contents," presented by N. Dembsey.
- Best paper (second prize) at the *Fifth International Seminar on Fire and Explosion Hazards*, Edinburgh, UK, April 2007 for Lautenberger, C. & Fernandez-Pello, C., "Generalized Pyrolysis Model for Simulating Charring, Intumescent, Smoldering, and Noncharring Gasification," presented by C. Lautenberger.
- 2011 International Association for Fire Safety Science Best Thesis Award (Americas Region) for 2007 PhD Dissertation entitled "Generalized Pyrolysis Model for Combustible Solids". This IAFSS award recognizes the best research dissertation at the PhD and Masters levels in the field of fire safety science and engineering that was completed between 2007 and 2010.
- International Association for Fire Safety Science Best Paper Award (honorable mention) for 2008 paper entitled "The Role of Decomposition Kinetics in Pyrolysis Modeling – Application to a Fire Retardant Polyester Composite," by Lautenberger, C., Kim, E., Dembsey, N. & Fernandez-Pello, C. [*Fire Safety Science* **9:** 1201-1212 (2008)].
- 2014 Society of Fire Protection Engineer's Jack Bono Award for the paper from Volume 23 of the *Journal of Fire Protection Engineering* that has most contributed to the advancement and application of professional Fire Protection Engineering for the paper entitled "CFD Flame Spread Model Validation: Multi-component Data Set Framework," by Wong, W., Alston, J., Lautenberger, C., and Dembsey, N., [*Journal of Fire Protection Engineering* **23**: 85-134 (2013)].
- 2017 Philip Thomas Medal of Excellence. This is awarded to the author(s) of the best paper presented at the previous International Association for Fire Safety Science (IAFSS) Symposium. It is based on five criteria that are used to identify the best paper: pertinence, utility, significance, rationality, and eloquence.

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, CHRIS LAUTENBERGER, states that he is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of his knowledge and belief; and that if asked the questions appearing therein, his answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 27, 2026

Chris Lautenberger

CHRIS LAUTENBERGER