

4
5 DIRECT TESTIMONY
6 OF GREGORY F. BAILLY
7 ON BEHALF OF NORTHWESTERN ENERGY
8

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17 Witness Information

- 18 **Q. Please provide your name, employer, and title.**
- 19 **A.** My name is Gregory F. Bailly. I am NorthWestern Corporation d/b/a
20 NorthWestern Energy’s (“NorthWestern”) Director of Project Management in
21 the Asset Management and Business Development Department.
22
- 23 **Q. Please provide a description of your relevant employment experience**
24 **and other professional qualifications.**

1 **A.** I have over 20 years of experience working for NorthWestern in various
2 engineering, operational, and management roles, within the Electric and Gas
3 Distribution Utility. In my current role, I am the Director of Project
4 Management whose group is involved with activities related to the Wildfire
5 Mitigation Plan (“WMP”). I hold a Bachelor’s degree in Mechanical
6 Engineering and am a Licensed Professional Engineer.

7

8 **Purpose of Testimony**

9 **Q. What is the purpose of your testimony in this proceeding?**

10 **A.** The purpose of my testimony is to provide an update on NorthWestern’s
11 incremental wildfire mitigation activities. In NorthWestern 2022 Rate Review
12 (Docket 2022.07.078) the Commission approved deferred accounting
13 treatment for wildfire mitigation expenses that were part of a Settlement in
14 that proceeding, discussed further by Ms. Rich and Ms. Fang. These
15 incremental wildfire mitigation activities to date include for both established
16 activities and enhanced activities¹ that were first articulated in NorthWestern’s
17 Enhanced Wildfire Mitigation Plan (“EWMP”) that was presented in our 2022
18 Rate Review. In this rate review, Ms. Hellwinkel presents NorthWestern’s
19 updated plan, now referred to as its Wildfire Mitigation Plan.

20

21 **Update on NorthWestern’s Wildfire Activities**

22 **Q. Were you involved in the development of the EWMP?**

¹ The Direct Testimony of Brandi L. Hellwinkel provides definitions of these terms.

1 **A.** Yes. As the Manager of System Assets at the time, my group developed the
2 EWMP. Since the filing of the EWMP in 2022, my role changed to the
3 Director of Project Management. The Project Management Office (“PMO”)
4 was involved with the tracking of and reporting on the enhanced activities in
5 the EWMP and is now performing those functions for the WMP that
6 NorthWestern filed in this rate review. Ms. Hellwinkel presents and discusses
7 in more detail NorthWestern’s WMP.

8

9 **Q. Please provide an update on NorthWestern’s efforts under the EWMP.**

10 **A.** NorthWestern has undertaken many efforts identified in the EWMP. I detail
11 these efforts below by the categories used in the EWMP.

12 **Situational Awareness:**

- 13 • Wildfire Team: NorthWestern hired three full-time positions in the
14 Situational Awareness group: a Manager Wildfire Situational
15 Awareness, a Specialist Wildfire Situational Awareness, and an
16 Analyst Wildfire Geospatial Data.
- 17 • Internal Server/Dashboard and Wildfire Modeling: NorthWestern also:
 - 18 ○ Developed an environmental consequence model from data
19 gathered in performing wildfire spread modeling using third-
20 party vendors.
 - 21 ○ Completed a first phase of a dynamic risk model, with further
22 developments planned for 2024 and beyond.

- 1 ○ Completed a Request for Proposal (“RFP”) and selected a
- 2 vendor for wildfire detection cameras and associated services.
- 3 • Weather Stations: NorthWestern began the initial evaluation of vendors
- 4 for weather monitoring stations.

5 **Operational Practices:**

- 6 • Reliability Operations Engineer: This position was renamed to
- 7 Superintendent System Performance. Asset Management hired an
- 8 additional full-time position in addition to the Superintendent System
- 9 Performance to further develop this team and is evaluating a third
- 10 position.
- 11 • Line Operations Follow-Up: NorthWestern rebranded this to the
- 12 Momentary Interruption Review Program. NorthWestern developed
- 13 this program with the purpose to reduce operational risk and improve
- 14 system performance by investigating transmission and distribution
- 15 momentary line operations and work toward a comprehensive solution.
- 16 A pilot was conducted in 2023 on four transmission segments in the
- 17 Lewistown area, which allowed for further refinement of the Momentary
- 18 Interruption Review Program.

19 **System Preparedness:**

- 20 • Aerial Assessments: NorthWestern is developing a Request for
- 21 Information for drone assessments on distribution facilities that was
- 22 released in June.

- 1
- Ground Assessments: NorthWestern submitted the first RFP for the
2 distribution ground assessment in late 2023. The process was
3 completed, and four vendors were selected. All four vendors were
4 approved and contracts signed in early 2024, allowing for the
5 beginning of the distribution ground assessment activities, and work
6 commenced in April. The Electric Central Maintenance (“ECM”) group
7 also issued an RFP for the transmission ground assessments in Q1
8 2024. NorthWestern selected and approved three vendors, contracts
9 signed, and work began in late May.
 - Assessment Repairs: As of May 31, 2024, NorthWestern was still
10 completing the assessments; therefore, no repairs have been
11 completed.
 - Repairs-Rejected Components/Inventory: A committee made of up of
12 members from Wildfire Operations, Central Construction, ECM,
13 Montana Operations, and Project Management are currently
14 developing the inventory, Cut-Out Refurbishment, and repairs-rejected
15 components programs with field work forecasted to begin late 2024.
 - LiDAR: The segment list for accelerated LiDAR was developed, and
16 NorthWestern initiated in 2024.
 - Substations: An inventory of 688 distribution and 761 substation
17 protective devices was completed by Asset Management to reflect
18 current protection and communication schemes. This inventory will be
19 utilized to determine the locations requiring electronic breaker and
20
21
22
23

1 communication upgrades based on static risk models. Relay and
2 Substations Operations installed new protective technologies in
3 several locations to test functionality and understand opportunities for
4 wildfire mitigation. Identification of optimal relay upgrades in additional
5 locations is currently under way.

- 6 • Section Refurbishment/Reliability: NorthWestern combined these two
7 programs with the existing Forest Management Program and
8 rebranded into the Wildfire Mitigation Program. Asset Management
9 developed a static wildfire risk model, and uses this to prioritize
10 distribution Electric Section IDs (“ESIDs”) and transmission sections for
11 the Wildfire Mitigation Program on a yearly basis. Central Construction
12 evaluates the ESIDs and sections the same year with construction the
13 year following. The program covers approximately 200 miles of
14 transmission sections and distribution ESIDs annually.
- 15 • Repeater Resiliency Zones: Development meetings to outline the type
16 of resource and eligible areas will begin in early 2025.
- 17 • System Preparedness Resource: The original plan was to hire three
18 full-time project managers. With the structure changes identified below
19 in other departments, the PMO hired two full-time project managers for
20 monitoring scope, schedule, and budget. Asset Management hired
21 one full-time position for the Plan Development & Maintenance team.
22 Asset Management has plans for two more employees in 2024, to
23 monitor system data ensuring the mitigation strategies are meeting the

1 objective to reduce overall wildfire risk and adjusting where
2 appropriate. As the plan continues to develop, NorthWestern will
3 evaluate the need for two additional Asset Management employees.
4 Distribution Operations made several organizational structure changes.
5 The EWMP called for 30 employees to be dedicated to the completion
6 of the field engineering and assessment work. A Wildfire Operations
7 department was developed with teams covering Situational
8 Awareness, ECM and Vegetation Management. Wildfire Operations
9 also restructured the ECM group to support increased maintenance
10 activities associated with the EWMP. Central Construction
11 restructured adding leadership positions to account for increased
12 workloads through implementation of the WMP. In 2024, Central
13 Construction is in the process of hiring the first of nine positions to
14 work along with an existing six employees already dedicated to the
15 Wildfire Mitigation Program. A second superintendent in this group is
16 being evaluated this year.

17 **Vegetation Management:**

- 18 • Aerial Assessment and Hotspot: This activity is to take advantage of
19 the distribution drone assessments discussed above in System
20 Preparedness. NorthWestern will complete vegetation hot spotting as
21 the exceptions are identified.
- 22 • Ground Assessment and Hotspot: This activity has started with a
23 certified arborist completing a ground assessment on transmission

1 right-of-ways (“ROW”). NorthWestern will complete vegetation hot
2 spotting as exceptions are identified.

3 • Proactive Maintenance: The existing proactive vegetation maintenance
4 activities continue as they have previously with additional funding to
5 accelerate this effort starting in the fourth quarter of 2023.

6 • Remote Sensing and Analysis: NorthWestern selected a third-party
7 vendor to pilot remote sensing and analysis of the vegetation growth in
8 and around NorthWestern’s ROWs.

9 • Right Tree, Right Place: This is ongoing and is coordinated with the
10 increased proactive maintenance.

11 • Risk Tree Program: The Hazard Tree Program continued as normal.
12 The EWMP planned to accelerate this work and it has been rebranded
13 into the Risk Tree Program in the WMP.

14 • Fuel Reduction Partnerships: Efforts towards fuel reduction
15 partnerships are in process, primarily with the U.S. Department of
16 Agriculture Forest Service through the National Cohesive Wildland Fire
17 Mitigation Strategy Initiative.

18 • ROW Clear Fall Zone: Using the environmental consequence model
19 discussed above in situational awareness, areas are being evaluated
20 for clear fall zones.

21 • Vegetation Analyst and Coordinator: The Vegetation Management
22 department hired one full-time position, a Vegetation Coordinator, to
23 facilitate the enhanced efforts of proactive vegetation management.

1 NorthWestern continues to evaluate the Vegetation Analyst position for
2 multiple responsibilities within ECM and Vegetation Management.

3 **Communication and Outreach:**

- 4 • Enhance Internal Fire Safety Training: Wildfire Operations along with
5 Central Operations began training development for NorthWestern field
6 crews and personnel to cover basic wildland fire terminology,
7 identification of key wildfire components (fuels, weather, topography,
8 etc.), and the use of standard tools, equipment, and methods of
9 extinguishing a fire. This will also include training on system defense
10 strategies, including but not limited to the additional programs of
11 Enhanced Powerline Safety Settings and Public Safety Power Shutoffs
12 (“PSPS”), which are now both part of the WMP.
- 13 • Mobile Units: Scoping meetings for the design and development of
14 these units is scheduled for 2025.

15
16 **Q. Did NorthWestern’s enhanced activities differ than what was identified
17 in the EWMP?**

18 **A.** Yes. While all five categories remained the same in the WMP as those
19 identified in the EWMP, some of the content within those categories changed
20 due to what NorthWestern learned and technological advances, since the
21 original filing of the EWMP and the end of 2023, as well as increasing wildfire
22 risk in the broader utility context, which are discussed further by Mr. Merkel.

23

1 **Q. Please explain the key differences.**

2 **A.** The key differences by category are as follows:

3

4 **Situational Awareness:** NorthWestern's original intent was to set up an
5 internal dashboard, deployment of localized weather stations, establish
6 wildfire modeling, and develop a dedicated Situational Awareness Team. In
7 the WMP, the Situational Awareness Team will provide what is now being
8 called "Predictive Services." This is a combination of Dynamic Risk
9 Dashboard, Fire Forecasting Analytics, and Environmental
10 Monitoring/Remote Sensing Technology in our high risk areas. Originally,
11 NorthWestern focused on installing weather stations where necessary to
12 assist with decision-making on operational practices. The vendor(s) selected
13 for the Dynamic Risk Dashboard and Fire Forecasting Analytics is able to
14 provide the information necessary at a macro level. NorthWestern recognizes
15 that weather stations will still likely be necessary to achieve a localized
16 forecast to provide data for informed decisions regarding operational
17 practices.

18

19 **Operational Practices:** A system performance team working on the
20 Momentary Interruption Review Program is still in process. NorthWestern
21 recognized that this should be three full-time positions instead of two, which
22 NorthWestern is currently in process of hiring. Asset Management is
23 currently developing a Wildfire Risk Index to guide operational decisions,

1 including EPSS and PSPS. Both of these activities are additions since filing
2 of the EWMP. The Wildfire Operations team is leading a group in refinement
3 of standard operating procedures, including work practices, during and after
4 events.

5
6 **System Preparedness:** NorthWestern restructured employees in Distribution
7 Operations to accommodate for the accelerated workloads and refocus of
8 existing items in the departments of Central Construction, Central Operations,
9 and the development of the Wildfire Operations team. The EWMP also called
10 for a full implementation of drone usage on the distribution system for aerial
11 assessments to start in 2024. NorthWestern is now initiating a pilot program
12 for 2024 and full implementation in 2025. Another change includes the timing
13 for corrections from the assessments, which was originally planned for
14 completion within the same calendar year. Understanding the timing issues
15 of getting the field assessments completed and data compiled that will
16 eventually lead to a work packet, NorthWestern changed that timeline to
17 target corrective actions be made no later than 12 months from discovery for
18 any items not posing immediate public safety or risk. A Cut-Out
19 Refurbishment program, where aging porcelain-based insulation cut-outs will
20 be proactively replaced with new polymer-based insulation cut-outs prior to
21 failure, has been added to the enhanced activities.

1 **Communication & Outreach:** Originally, the items identified in this category
2 were internal training and the development of mobile generating units to be
3 used in the aftermath of any event creating prolonged disruption of service to
4 customers. Targeted outreach programs with communities we serve as well
5 as continued and additional partnerships with peer utilities and organizations
6 focused on wildfire mitigation are now called out in the WMP. NorthWestern
7 has actively maintained peer-to-peer relationships with neighboring utilities
8 through virtual meetings and in-person events such as the Western Energy
9 Institute conference and the Pacific Northwest Utility Wildfire Working Group
10 meetings. Public safety partnerships were actively grown through attendance
11 in groups such as Fire Adapted Montana Learning Network, Fire Adapted
12 Gallatin Working Group, Fire Adapted Big Sky, Tri-County Fire Safe Working
13 Group, Fire Safe Montana, and Missoula Fire Science Laboratory. The
14 EWMP did not discuss the development of a PSPS process. NorthWestern
15 has recognized this as a tool in mitigating wildfire risk. NorthWestern
16 developed a PSPS process and it is now included in the WMP.

17

18 **Q. What established activities has NorthWestern completed?**

19 **A.**The established activities include:

- 20 • Periodic Inspections Electric (aerial and ground patrols of the transmission
21 and distribution systems):
 - 22 ○ 2023: NorthWestern inspected 6,808 miles of distribution and 6,822
23 miles of transmission overhead lines.

- 1 ○ 2024 (as of May 31, 2024): NorthWestern inspected 5,285 miles of
2 distribution and 6,822 miles of transmission overhead lines.
- 3 ● Proactive Electric (repairs made on exceptions found during inspections):
 - 4 ○ 2023: NorthWestern has repaired 3,853 exceptions ranging in priority
5 from P1 critical to P3 monitor.
 - 6 ○ 2024 (as of May 31, 2024): NorthWestern repaired 1,164 exceptions
7 ranging in priority from P1 critical to P3 monitor.
- 8 ● Inspection & Maintenance (transmission and distribution pole testing and
9 treating):
 - 10 ○ 2023: NorthWestern has tested 38,067 transmission and distribution
11 poles for remaining pole strength and treated as appropriate.
 - 12 ○ 2023 (as of May 31, 2024): NorthWestern has tested 10,872
13 transmission and distribution poles for remaining pole strength and
14 treated as appropriate.
- 15 ● Line Clearance (transmission and distribution vegetation management):
 - 16 ○ 2023: NorthWestern performed vegetation clearance maintenance on
17 911 miles of transmission and distribution lines.
 - 18 ○ 2023: NorthWestern trimmed 1,639 'hot spot' exceptions (trees
19 touching or very close to touching a line).
 - 20 ○ 2024 (as of May 31, 2024): NorthWestern performed vegetation
21 clearance maintenance on 1,018 miles of transmission and
22 distribution lines.

1 ○ 2024 (as of May 31, 2024): NorthWestern trimmed 707 'hot spot'
2 exceptions.

3

4

Conclusion

5

6 **Q. Does this conclude your direct testimony?**

7 **A.** Yes.

8

Verification

This Direct Testimony of Gregory F. Bailly is true and accurate to the best of my knowledge, information, and belief.

/s/ Gregory F. Bailly
Gregory F. Bailly