

1 Montana Public Service Commission
2 Docket No. 2022.07.078
3 Electric and Natural Gas General Rate Review
4
5
6

7 PRE-FILED DIRECT TESTIMONY
8 OF BLEAU J. LAFAVE
9 ON BEHALF OF NORTHWESTERN ENERGY
10

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19
20
21 Witness Information

22 **Q. Please provide your name, employer, and title.**

23 **A.** My name is Bleau J. LaFave and I am the Director of Long-Term
24 Resources at NorthWestern Energy (“NorthWestern”).
25

1 **Q. Please provide a description of your relevant employment**
2 **experience and other professional qualifications.**

3 **A.** I have been in my current position as Director of Long-Term Resources
4 since 2011. I am responsible for overseeing the long-term natural gas and
5 electric supply strategies for NorthWestern, including large project
6 development and acquisitions. I originally joined NorthWestern as a
7 Project Engineer in 1994. Since then, I have served in many operational
8 and administrative functions of increasing responsibilities addressing
9 matters such as operations management, procurement, logistics,
10 contracts, fleet, facilities, utility engineering, project development, supply
11 development, planning, acquisitions, and customer service. I hold a
12 Bachelor of Science degree in Mechanical Engineering.

13
14 **Purpose of Testimony**

15 **Q. What is the purpose of your testimony in this docket?**

16 **A.** I explain NorthWestern's on-going efforts to meet customers' electric
17 supply and natural gas supply needs. In addition, I provide support for
18 NorthWestern's request for a regulatory asset for natural gas supply
19 acquisitions. I also discuss data associated with the step-down
20 ratemaking treatment of NorthWestern's natural gas production assets.

21
22 **Electric Customer Supply Needs**

23 **Q. Who are NorthWestern's electric supply customers?**

1 **A.** NorthWestern’s electric supply customers include retail customers and
2 non-choice customers. Choice customers elected, under deregulation, to
3 purchase electric commodity service from a supplier other than The
4 Montana Power Company (now NorthWestern). The category of choice
5 customers also now includes new customers with loads that do not qualify
6 for electric supply service from NorthWestern.

7
8 It is important to note that there is no single entity “planning” for the
9 electricity supply needs collectively for the choice customers in Montana.
10 Generally, choice customers rely on the market for their energy supply
11 needs, and as generation in Montana is reduced due to plant closures
12 (e.g., Colstrip Units 1 & 2), there will be more competition for available
13 supply resources and transmission capacity. This increased competition
14 for resources and capacity will increase the risk associated with
15 NorthWestern relying too heavily on the market to import energy to serve
16 our retail and non-choice customers.

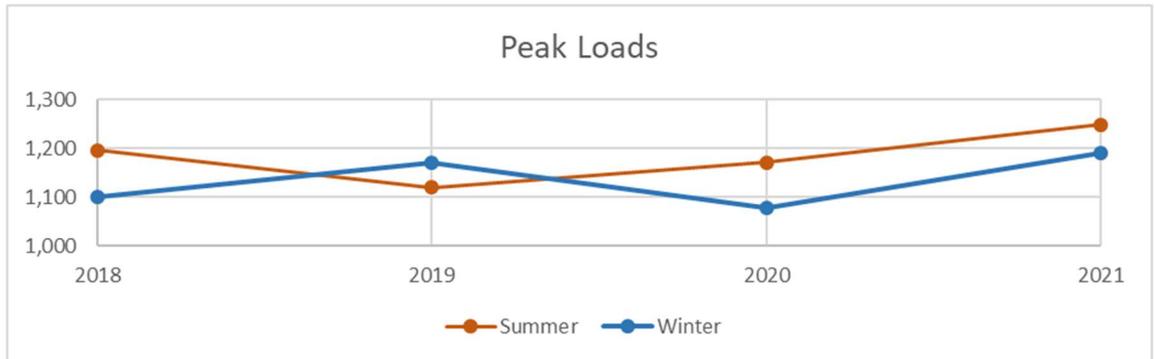
17
18 **Q. Please describe NorthWestern’s electric customer demand.**

19 **A.** Over the course of a year, NorthWestern’s loads for electric customers
20 range from 450 to 1,300 megawatts (“MW”). Since NorthWestern’s last
21 electric rate review in 2018 and through 2021, our annual load reached
22 high points of 1,196 MW, 1,171 MW, 1,171 MW, and 1,248 MW,
23 respectively.

1 Historically, NorthWestern’s loads reach the highest peaks in the winter.
2 However, as Figure 1 shows, NorthWestern’s annual peak has occurred in
3 the summer in recent years.

Figure 1: Peak Months by Year

Year	Peak Month	Peak of Year (MW)	Secondary Month	Secondary Peak (MW)
2018	August	1,196	February	1,099
2019	March	1,171	July	1,119
2020	August	1,171	January	1,077
2021	July	1,248	February	1,190



4 Despite NorthWestern’s annual peak occurring in summer months in
5 recent years, NorthWestern’s winter-time loads remain substantial and
6 NorthWestern needs to plan for those loads. Consequently, NorthWestern
7 is often referred to as a “dual-peaking” utility. For example, as seen in
8 Figure 1, despite NorthWestern’s highest peaks in 2020 and 2021
9 occurring in summer months, each year contains significant load demands
10 in winter months including 1,077 MW in January 2020 and 1,190 in
11 February 2021.

12

1 **Q. What is the significance of the peak load?**

2 **A.** NorthWestern must plan for the peak load and have supply resources to
3 satisfy peak load in order to reliably serve customers. Resources that
4 serve peak loads must have the capability to reliably provide energy for
5 the duration of the peak event. Planning to ensure customers have
6 reliable energy service means planning to have the appropriate amount of
7 energy at the right time to reliably serve load. This is referred to as
8 capacity planning. That appropriate amount of energy should include a
9 buffer in excess of forecasted peak, called a reserve margin, to address
10 any unanticipated changes in customer demand or supply resource
11 failures.

12
13 Capacity planning involves measuring the accredited capacity of a supply
14 portfolio. Accredited capacity is the rating given to a supply resource to
15 reflect the amount of capacity that the resource can reliably contribute to
16 serving load. Accredited capacity considers the capability and
17 characteristics of individual resources as they perform in the total supply
18 portfolio to serve load. Some of those capabilities and characteristics
19 include duration, intermittency, reliability of the resource, fuel supply,
20 dispatchability, and other performance characteristics.

21
22 NorthWestern's current portfolio does not contain sufficient accredited
23 capacity, does not contain the correct mix of capabilities and

1 characteristics, and lacks an appropriate reserve margin to reliably serve
2 load. If planned and expected additions are added to NorthWestern's
3 current portfolio as anticipated, NorthWestern will satisfy a 16% reserve
4 margin requirement for 2023 to 2026, but will be deficient beginning in
5 2027, and therefore, we need to continue to add capacity resources to the
6 portfolio to maintain reliable energy services for our customers thereafter.
7 If these planned and expected additions are not added as anticipated,
8 NorthWestern would be deficient by approximately 100 MW to 400 MW.

9

10 **Q. Is peak load growing?**

11 **A.** NorthWestern's most recent forecast projects growth in our peak loads of
12 approximately 0.6% per year on average from 2022 to 2050. While 0.6%
13 does not sound significant, since NorthWestern is forecasted to be
14 deficient beginning in 2027 if all expected and planned resources are
15 added to the portfolio, any growth only increases that deficiency. If the
16 expected and planned resources do not come online as forecasted, the
17 growth will compound the short-term deficiency.

18

19 **Q. What resources does NorthWestern have in its long-term supply**
20 **portfolio to serve customers?**

21 **A.** NorthWestern serves its customers with a diverse mix of hydro, wind,
22 solar, and thermal generation resources, and Demand Side Management
23 ("DSM"). NorthWestern owns some of these resources in its portfolio and

1 it has contracts for purchases of power with other resource owners.
 2 Figure 2 lists the current generation facilities for the Montana utility. For
 3 contracted generation, the column for the expiration date lists the end date
 4 for the current contract. NorthWestern’s DSM resources are discussed in
 5 the Pre-filed Direct Testimony of Danie L. Williams.

Figure 2: Current Portfolio

Hydro Generation - Online	Nameplate Capacity	Accredited Capacity	Expiration Date
Thompson Falls	94	56	Rate Based
Cochrane	62	37	Rate Based
Ryan	71	43	Rate Based
Rainbow	64	38	Rate Based
Holter	53	32	Rate Based
Morony	49	29	Rate Based
Black Eagle	21	13	Rate Based
Hauser	19	11	Rate Based
Mystic	12	7	Rate Based
Madison	8	5	Rate Based
Turnbull Hydro LLC	13	8	12/31/2032
State of MT DNRC (Broadwater Dam)	10	6	6/30/2024
Tiber Montana LLC	7.5	5	5/31/2025
Flint Creek Hydroelectric LLC	2	1.2	1/16/2037
Hydrodynamics Inc (South Dry Creek)	1.2	0.7	6/30/2041
Wisconsin Creek LTD LC	0.6	0.3	Annual
Boulder Hydro Limited Partnership	0.5	0.3	TBD - Renewal
Lower South Fork LLC	0.5	0.3	1/16/2037
Ross Creek Hydro LC	0.5	0.3	6/30/2032
Gerald Ohs (Pony Generating Station)	0.4	0.2	1/31/2025
Allen R. Carter (Pine Creek)	0.3	0.2	6/30/2024
Donald Fred Jenni (Hanover Hydro)	0.2	0.1	6/30/2034
Hydrodynamics Inc (Strawberry Creek)	0.2	0.1	6/30/2023
James Walker Sievers (Cascade Creek)	0.1	0.0	2/28/2035
James Walker Sievers (Barney Creek)	0.1	0.0	2/28/2035
Total	490	294	

Thermal/Natural Gas Generation - Online	Nameplate Capacity	Accredited Capacity	Expiration Date
Basin Creek	52	49	6/30/2036
DGGS 1	50	49	Rate Based
DGGS 2	50	49	Rate Based
DGGS 3	50	49	Rate Based
Heartland	150	150	12/31/2031
Total	352	345	

Thermal/Coal Generation - Online	Nameplate Capacity	Accredited Capacity	Expiration Date
Colstrip	222	204	Rate Based
Yellowstone Energy Limited Partnership (BGI)	52	50	12/31/2028
Colstrip Energy Limited Partnership	35	34	6/30/2024
Total	309	289	

Wind Generation - Online	Nameplate Capacity	Accredited Capacity	Expiration Date
Judith Gap Energy LLC	135	18	12/31/2026
Stillwater Wind LLC (WKN)	80	10	10/31/2043
South Peak Wind LLC	80	10	4/30/2035
Spion Kop Wind	40	5	Rate Based
Greenfield Wind LLC	25	3	10/31/2041
Big Timber Wind LLC (Greycliff)	25	3	3/31/2043
Two Dot Wind Farm LLC	11	1	Rate Based
Fairfield Wind LLC (Greenbacker)	10	1	12/31/2033
Musselshell Wind Project LLC	10	1	3/24/2036
Musselshell Wind Project Two LLC	10	1	3/24/2036
Gordon Butte Wind LLC	9.6	1	3/21/2036
Cycle Horseshoe Bend Wind LLC	9	1	8/31/2025
71 Ranch LP	2.7	0.4	12/31/2043
DA Wind Investors LLC	2.7	0.4	12/31/2043
Oversight Resources LLC	2.7	0.4	12/31/2043
Two Dot Wind LLC (Broadview East Wind)	1.6	0.2	10/31/2043
Total	455	59	

Solar Generation - Online	Nameplate Capacity	Accredited Capacity	Expiration Date
Green Meadow Solar LLC	3	0.2	3/31/2042
South Mills Solar 1 LLC	3	0.2	3/31/2042
Black Eagle Solar LLC	3	0.2	9/30/2042
Great Divide Solar LLC	3	0.2	9/30/2042
Magpie Solar LLC	3	0.2	9/30/2042
River Bend Solar LLC	2	0.1	3/31/2042
Total	17	1	

Short Term Contracts - Online	Nameplate Capacity	Accredited Capacity	Expiration Date
Morgan Stanley	50	50	10/31/2023
Morgan Stanley	50	50	9/30/2023
Powerex	60	60	12/31/2023
TEA	25	25	7/31/2024
Total	185	185	

1 Figure 3 lists the expected and planned generation facilities for the
2 Montana utility. The expected hydro generation includes expansions to
3 existing facilities that are not yet complete. The expected wind, solar, and
4 hybrid generation includes Qualifying Facilities (“QF”) that have a received

1 an order from the Montana Public Service Commission (“Commission”) for
 2 contract rates and terms. We have executed Power Purchase
 3 Agreements (“PPA”) with MTSun, LLC and Clenera Apex Solar LLC with
 4 contracted target commercial operation dates of July 1, 2022 and
 5 September 27, 2023, respectively. NorthWestern has executed contracts
 6 with Powerex Corp. (“Powerex”), and for the Yellowstone County
 7 Generating Station and Beartooth Battery, but those facilities fall into the
 8 “expected” category because the term of the contract for delivery of power
 9 has not yet begun. The “planned” category includes QFs for which there
 10 is not yet a formally executed PPA or a Commission order.

Figure 3: Expected and Planned Resources

Hydro Generation - "Expected"	Nameplate Capacity	Accredited Capacity	Expiration Date
Black Eagle	2.0	1.2	Rate Based
Hauser	1.0	0.6	Rate Based
Holter	2.0	1.2	Rate Based
Madison	4.0	2.4	Rate Based
Ryan	1.0	0.6	Rate Based
Thompson Falls	4.0	2.4	Rate Based
Total	14	8	

Wind Generation - "Expected"	Nameplate Capacity	Accredited Capacity	Expiration Date
Wheatland Wind LLC	75	4	
Pondera Wind LLC	20	1	
Teton Wind LLC	19	1	
Jawbone	80	4	
Total	194	10	

Solar Generation - "Expected"	Nameplate Capacity	Accredited Capacity	Expiration Date
MTSun LLC	80	4	Est 6/30/2047
Clenera Apex I	80	4	Est 11/26/2043
Total	160	8	

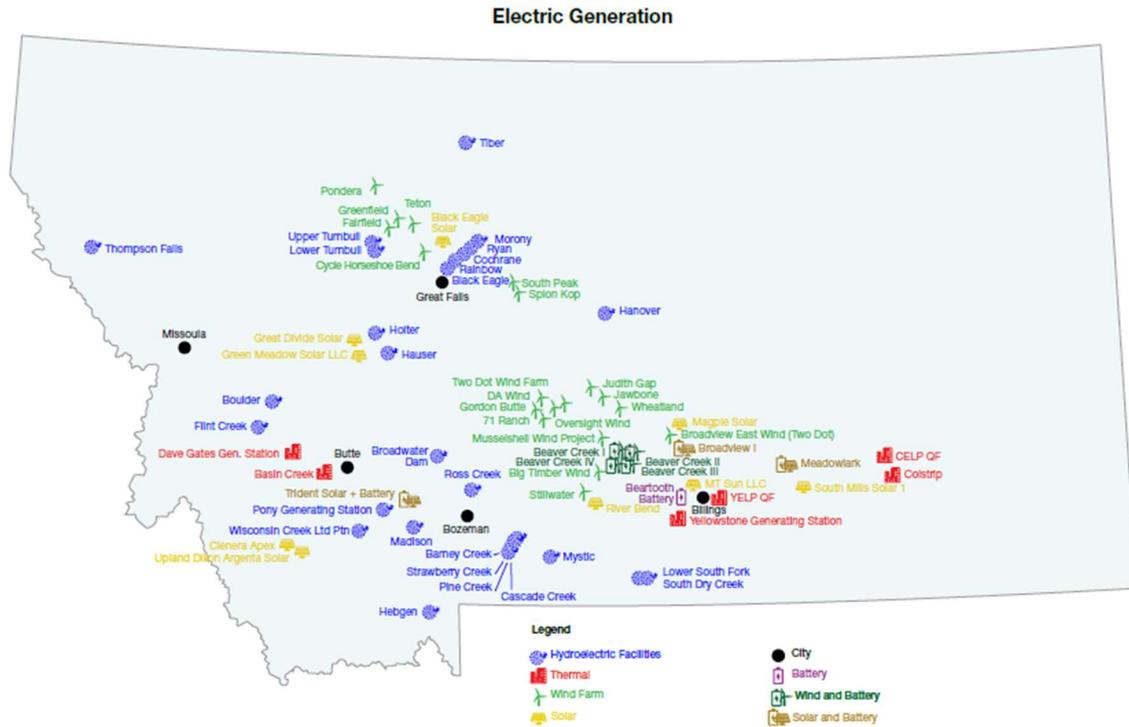
Hybrid QF - "Expected"	Nameplate Capacity	Accredited Capacity	Expiration Date
Caithness Beaver Creek 2 (60 MW Wind)	60	3	
Caithness Beaver Creek 2 (20 MW BESS)	20	10	
Caithness Beaver Creek 3 (60 MW Wind)	60	3	
Caithness Beaver Creek 3 (20 MW BESS)	20	10	
Caithness Beaver Creek 1 (50 MW Wind)	50	23	
Caithness Beaver Creek 1 (30 MW BESS)	30		
Caithness Beaver Creek 4 (50 MW Wind)	50	17	
Caithness Beaver Creek 4 (30 MW BESS)	30		
Total	320	66	

2020 RFP - "Expected"	Nameplate Capacity	Accredited Capacity	Expiration Date
Yellowstone County	165	160	Rate Based
EsVolta (Beartooth Battery)	50	40	Est 12/31/2042
Powerex	100	100	12/31/2027
Total	315	300	

Planned	Nameplate Capacity	Accredited Capacity	Expiration Date
Trident (160 MW Solar)	80	63	
Trident (80 MW BESS)			
Broadview (80 MW Solar)	80	37	
Broadview (50 MW BESS)			
Meadowlark (20 MW Solar)	20	8	
Meadowlark (12.5 MW BESS)	12.5		
Upland Dillon Argenta (80 MW Solar)	80	8	
Total	273	116	

- 1 Figure 4 is a map showing the location of the generation facilities listed in
- 2 Figure 3 that are located in Montana, color-coded by fuel type.

Figure 4: Montana Electric Generation Facilities



1 **Q. What resources did NorthWestern add to its electric supply portfolio**
 2 **since the last electric general rate review in 2018?**

3 **A.** NorthWestern has added approximately 426 MW of nameplate capacity,
 4 which includes 91 MW of online generation from QFs since 2018. As the
 5 result of the January 2020 Request for Proposals (“RFP”), NorthWestern
 6 executed an agreement with Powerex for energy to begin delivery from
 7 January 1, 2023 through December 31, 2027. Also, as a result of the
 8 RFP, NorthWestern anticipates the commercial operation of the Beartooth
 9 Battery in the middle of 2024 and commercial operation of the Yellowstone
 10 County Generating Station in January 2024. As a result of the June 2020
 11 RFP for Short-term Capacity Resources and bilateral negotiations,

1 NorthWestern executed additional short-term agreements. At the end of
 2 2021, NorthWestern executed an agreement with Heartland Generation
 3 Ltd. for the supply of capacity and energy from January 2022 through
 4 December 2031. Figure 5 contains a listing of these new resources.

Figure 5: New Generation since 2018 & RFP Resources

New Online Generation	
Hydro	
Resource	Nameplate Capacity (MW)
Fighting Creek	2.7
Wind	
Resource	Nameplate Capacity (MW)
South Peak Wind LLC	80
71 Ranch LP	2.7
DA Wind Investors LLC	2.7
Oversight Resources LLC	2.7
Short Term Contracts	
Resource	Nameplate Capacity (MW)
Morgan Stanley	50
Morgan Stanley	50
Powerex	60
TEA	25
Heartland	150
Expected Generation	
2020 RFP	
Resource	Nameplate Capacity (MW)
Yellowstone County	165
EsVolta (Beartooth Battery)	50
Powerex	100
QF's	
Resource	Nameplate Capacity (MW)
MTSun LLC	80
Clenera Apex I	80

1 **Natural Gas Customer Supply Needs**

2 **Q. Who are NorthWestern’s natural gas supply customers?**

3 **A.** NorthWestern’s natural gas load is classified into two categories: (1) Core
4 Customers, which are those residential, commercial, and industrial
5 customers whose supply needs are planned for and met by
6 NorthWestern’s Energy Supply Group, and (2) Non-Core Customers, who
7 hold capacity contracts on NorthWestern Gas Transmission and Storage
8 system, but plan for and manage their own natural gas supply needs
9 under NorthWestern’s posted gas transportation and storage tariffs.

10 Included in the Non-Core Customers are the gas-fired electric generation
11 facilities that are a part of the NorthWestern electric generation supply
12 portfolio at Dave Gates Generating Station (“DGGS”) and Basin Creek.

13
14 **Q. Please describe NorthWestern’s Core Customers’ gas supply needs.**

15 **A.** NorthWestern is responsible for meeting its customers’ natural gas
16 demand throughout the course of the year. However, our customers’
17 demand is extremely seasonal with roughly 69.6% of the total yearly
18 volume occurring over the five winter months (November – March).
19 Therefore, in order to ensure reliable service, NorthWestern focuses on
20 ensuring sufficient natural gas to meet our customers’ needs for the
21 important winter season and peak winter requirements. NorthWestern
22 does this through a combination of contracts, the use of storage, and
23 owned natural gas production assets.

1 **Q. What resources does NorthWestern use to serve the load of its Core**
2 **Customers?**

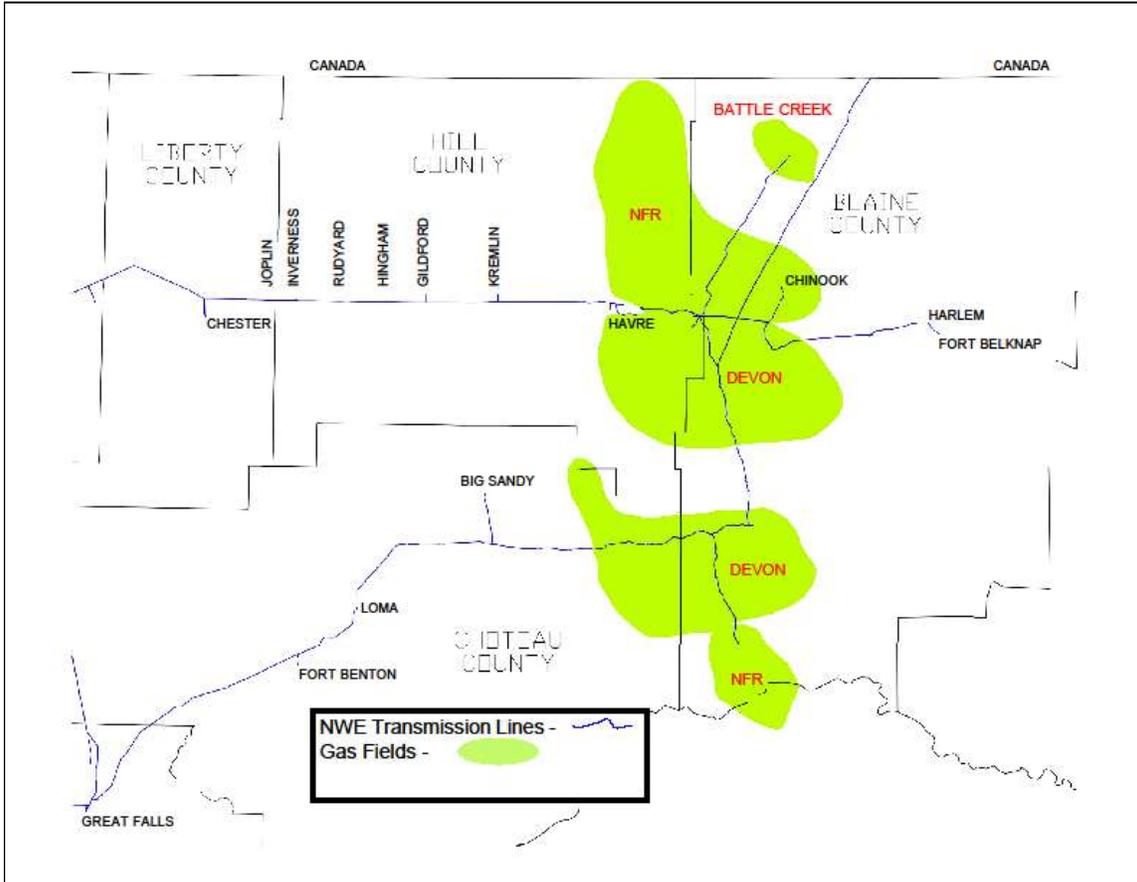
3 **A.** NorthWestern must meet the natural gas demand for its Core Customers
4 using a variety of diverse supply sources. NorthWestern’s natural gas
5 supply flows from three primary sources: (1) interconnections with six
6 pipelines including two major supply points, first with TC Energy’s Nova
7 Gas Transmission Line (NGTL) at Carway and, to a lesser extent,
8 Colorado Interstate Gas (CIG) at Grizzly; (2) natural gas production and
9 reserves located on or near the NorthWestern system, and (3)
10 NorthWestern-owned gas storage.

11
12 **Q. What are NorthWestern’s current natural gas production assets?**

13 **A.** NorthWestern’s current natural gas production assets consist of three
14 distinct large acquisitions from Battle Creek, Bear Paw (NFR), and South
15 Bear Paw (Devon). NorthWestern also has multiple smaller assets that
16 primarily include additional ownership interest in these larger assets. As
17 of January 1, 2022, NorthWestern has ~39 billion cubic feet (“BCF”) of
18 proven reserves and delivers ~11.8 million cubic feet per day onto
19 NorthWestern’s transmission system. The reserve assets are located in
20 north central Montana near the town of Havre. The map below shows the
21 location of these production assets.

22
23

Figure 6: Natural Gas Production Assets



- 1 **Q. What natural gas production and reserve assets has NorthWestern**
2 **acquired since the 2016 natural gas general rate review?**
- 3 **A.** Since the 2016 natural gas general rate review, NorthWestern has
4 acquired two categories of gas production and reserve assets: (1) small-
5 to medium-sized additional interests in our existing owned assets and (2)
6 minor interests usually from individuals wanting to sell their mineral rights
7 and working interests associated with our reserve assets (Battle Creek,
8 Bear Paw, and South Bear Paw).

1 The small- to medium-sized interest purchases were Wilbanks - \$18,000
2 for 0.103 BCF, Montana-Wyoming Reserves - \$32,000 for 0.225 BCF, and
3 Supreme Petroleum for \$18,000 for 0.099 BCF of reserves.

4
5 Again, each of these purchases' reserves were associated with reserve
6 assets where NorthWestern already held a significant interest in the
7 assets. The addition of these small- to medium-sized assets reduced the
8 administrative burden and added owned reserves and daily flow with no
9 additional workload created for operations. The increased percentage of
10 ownership also makes it easier for NorthWestern to operate the wells to
11 better suit the Core Customers' needs and invest accordingly to provide
12 optimal production and deliverability.

13
14 NorthWestern is also regularly approached by minor royalty and working
15 interest owners wishing to sell their interests. NorthWestern has
16 purchased approximately 55 minor interests with the majority of them
17 totaling less than \$100 each. The main incentives for NorthWestern to
18 acquire these minor interests is to reduce administrative burden and
19 increase overall interest in the reserve assets without adding additional
20 workload.

21

22 **Q. Are these natural gas supply resources alone sufficient for**
23 **NorthWestern to continue to provide reliable service?**

1 **A.** No. NorthWestern has seen a decline in natural gas volumes from its
2 Montana sources for natural gas supply (both owned and contracted
3 natural gas supply). The observed decline in natural gas volumes on
4 NorthWestern's system appears to be a function of expected production
5 declines as wells become depleted, are shut-in, and a lack of drilling
6 investment to maintain or enhance production. Therefore, NorthWestern
7 has acquired the noted small production assets and continues to evaluate
8 purchase opportunities for additional production assets to ensure it can
9 provide reliable service to customers in the future.

10

11 **Q. How does NorthWestern's acquisition of natural gas production**
12 **assets provide greater reliability for customers?**

13 **A.** First, it addresses the problem of lack of supply from other sources.
14 Second, the supply of natural gas is firm; this means that it is available
15 during critical or high demand periods. Third, the natural gas production
16 assets are located within our system, lessening deliverability risk to our
17 customers. NorthWestern is able to operate its wells in ways that ensure
18 production is as reliable as possible.

19

20 **Q. Does NorthWestern's continued acquisition of natural gas**
21 **production assets help NorthWestern meet its natural gas supply**
22 **procurement function objectives?**

1 **A.** Partially. NorthWestern’s objectives in operating the natural gas supply
2 procurement function are (1) to provide customers with reliable natural gas
3 supply at reasonable and stable prices that reflect market conditions over
4 time, and (2) to ensure NorthWestern’s cost recovery for all prudently
5 incurred natural gas supply-related expenditures. Acquiring natural gas
6 production assets addresses the first objective. However, the current
7 ratemaking treatment for these assets discourages NorthWestern from
8 making further acquisitions.

9

10 **Regulatory Asset for Natural Gas Acquisitions**

11 **Q.** Please explain how current ratemaking practices discourage the
12 acquisition of small natural gas production assets.

13 **A.** NorthWestern does not have a regulatory mechanism to recover the costs
14 of the natural gas production assets before those assets deplete. First, it
15 must be noted that natural gas production assets “deplete” rather than
16 “depreciate”. Natural gas wells produce more volume of energy the higher
17 the production pressure of the well. Pressure is highest at the beginning
18 of a well’s life/ownership and lowers over time as the well produces
19 natural gas. Therefore, wells produce a higher percentage of their
20 reserves at a higher rate in the beginning and produce less at a slower
21 rate as they age. This “front-end” depletion means that the asset depletes
22 early in its life, and to a large degree before NorthWestern can obtain cost
23 recovery through a general rate review.

24

1 Natural gas that is purchased through a third party is recovered through
2 the natural gas tracker. When a reserve is purchased, it is removed from
3 recovery through the tracker. This means the natural gas serves
4 customers without any recovery from customers for the costs until the
5 reserve is added to rate base at a later time. The inability to recover costs
6 for the initial years of the wells' production creates a disincentive to
7 acquire the resource because cost recovery for the acquisition is not
8 available. Consequently, any transactions between rate reviews, including
9 small transactions, are discouraged due to the magnitude of non-
10 recovered gas value. My reference to "small transactions" includes
11 transactions to acquire natural gas production assets that cost less than
12 \$3 million.

13
14 **Q. What guidelines does NorthWestern use to evaluate the purchase of**
15 **"small transactions" of natural gas resources?**

16 **A.** Similar to the guidelines used for large transactions that were published in
17 the 2020 Natural Gas Procurement Plan filed in Docket 2020.04.046, the
18 small transactions are measured by the same standards as listed below in
19 Table 1.

20

Table 1: Natural Gas Procurement Standards

Natural Gas Utility Acquisition Thresholds to Serve Core Customers			
20-Year Levelized Unit Revenue Requirement	Future Unit Revenue Requirement/ Market Price Crossover – In Years	Percent of Natural Gas Volume	Natural Gas Utility Annual BCF Levels
Less than \$2.04	5 or Less	75%	15.0
\$2.05 to \$2.69	4 or Less	50%	10.0
\$2.70 to \$4.14	3 or Less	25%	5.0

1 Additionally, if the transaction is less than \$50, the purchase is set at \$50
2 to reflect the cost savings of processing interests that have a value less
3 than \$50.

4
5 **Q. What does NorthWestern propose to address this cost recovery**
6 **issue?**

7 **A.** As explained in the Pre-filed Direct Testimony of Jeffrey B. Berzina,
8 NorthWestern is requesting the creation of a regulatory asset for future
9 small natural gas production acquisitions.

10
11 **Step-down Ratemaking Treatment of Natural Gas Assets**

12 **Q. Please describe the ratemaking treatment of natural gas assets.**

13 **A.** In NorthWestern’s 2016 natural gas general rate review, the Commission
14 addressed the cost recovery of natural gas production assets and whether
15 it should apply conventional ratemaking treatment to these assets.
16 Ultimately, the Commission approved a revenue requirement with a
17 percentage step-down each year. As stated in the Pre-filed Direct

1 Testimony of Andrew D. Durkin, the estimated amounts from the 2016
2 docket must be updated to the current level of non-depleted natural gas
3 reserves, the estimate of annual natural gas production volumes to be
4 realized, and the estimated amount of future asset retirement obligations
5 associated with the natural gas production facilities.

6

7 **Q. What are the current levels of non-depleted natural gas reserves?**

8 **A.** When NorthWestern purchased the reserves, initial reserves in place were
9 calculated using accepted engineering practices as part of the overall
10 evaluation. Each month, NorthWestern nets the actual production from
11 the reserves from the remaining non-depleted natural gas reserves. This
12 process has been in place since the reserves were purchased and gives
13 NorthWestern the ability to track the remaining owned reserves. Please
14 refer to the first tab of Mr. Berzina's Exhibit JBB-6 for the Depletion
15 Calculation update.

16

17 **Q. What are the estimated annual natural gas production volumes?**

18 **A.** The estimated annual natural gas production volumes come from the
19 original decline analyses that were done when the fields were purchased
20 as part of the purchase evaluations. The original decline numbers are
21 used to estimate annual natural gas production volumes. At least annually
22 the actuals are compared to the estimated for validity. To date, the

1 models have matched the actuals accurately. Please refer to the second
2 tab of Mr. Berzina's Exhibit JBB-6 for the Natural Gas Supply Projections.

3

4 **Q. What are the estimated amounts for the annual retirement obligation**
5 **("ARO")?**

6 **A.** The ARO for the natural gas assets has five main components: wells,
7 water pits, impacted soil, lines (tie-in points), and compressors. The wells
8 are the net wells for which NorthWestern has an abandonment obligation.
9 The water pits are associated with the well(s) production that will need to
10 be reclaimed. The impacted soils are areas that will need remediation.
11 The lines are above-ground tie-in points for the wells that will be removed
12 when the associated wells are removed. The compressors will need to be
13 removed and the sites reclaimed when they reach the end of their
14 economic life. Please refer to the fourth tab of Mr. Berzina's Exhibit JBB-
15 6 for the ARO cost.

16

17 **Q. Does this conclude your testimony?**

18 **A.** Yes, it does.

VERIFICATION

This Pre-filed Direct Testimony of Bleau J. LaFave is true and accurate to the best of my knowledge, information, and belief.

/s/ Bleau J. LaFave
Bleau J. LaFave