DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

In the Matter of NorthWestern Energy's Application For: (1) Approval of Deferred Cost Account Balances for Electricity Supply, CU4 Variable Costs/Credits, and DGGS Variable Costs/Credits; and (2) Projected Electricity Supply Cost Rates, CU4 Variable Rates, and DGGS Variable Rates	))))))	Regulatory Division Docket No. D2012.5.49

NORTHWESTERN ENERGY'S POST-HEARING BRIEF

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Pursuant to the Montana Public Service Commission's ("Commission") order, NorthWestern Corporation d/b/a NorthWestern Energy ("NorthWestern") hereby submits this *Post-Hearing Brief* ("Brief") in the above-captioned docket.

I. Introduction

The evidence in this docket supports NorthWestern's request to increase electricity supply rates during the tracker period July 1, 2011 to June 30, 2012. Except for two issues contested by the Montana Consumer Counsel ("MCC"), NorthWestern's costs related to electricity supply were uncontested. The MCC contested two[1] issues in this docket: (1) NorthWestern's request to recover the replacement regulation costs related to the outage that occurred at the Dave Gates Generating Station ("DGGS") in January of 2012; and (2) NorthWestern's use of off-system fixed price transactions associated with its hedging strategy. With respect to the first issue, NorthWestern argues that the MCC failed to present any evidence that the costs incurred by NorthWestern were imprudent, and thus should be disallowed by the Commission. With respect to the second issue, the MCC has failed to present any evidence to refute that the use of off-system fixed price transactions, as a hedging strategy, benefits customers, and therefore, these transactions should be used by NorthWestern as part of its hedging strategy in the future.

As discussed more fully below, the replacement regulation costs incurred by NorthWestern as a result of the outage were prudently incurred. The MCC argued at hearing that NorthWestern's failure to inquire into the possibility of outage insurance was imprudent and

[1] The MCC's Pre-hearing Memorandum identified a third contested issue, DSM Lost Revenues. *See* MCC Pre-hearing Brief, p. 2. However, at the hearing, the MCC did not present any testimony that challenged NorthWestern's DSM Lost Revenues.

thus, the Commission should disallow the replacement regulation costs.[2] In its pre-filed testimony, the MCC also argued that because NorthWestern waived consequential damages in its contract with Pratt & Whitney Power Systems ("PWPS"), NorthWestern should not be permitted to recover the replacement regulation contracts in customers' rates.[3] Based on the evidence in this docket, the Commission should find that NorthWestern prudently and cost-effectively managed the costs resulting from the outage at DGGS.

NorthWestern also asserts that the use of off-system fixed price transactions, as part of the hedging strategy to reduce price volatility, is appropriate and should not be discontinued as requested by the MCC. NorthWestern's use of these types of transactions is prudent as they lower risk to NorthWestern's customers.[4] If NorthWestern is unable to use off-system fixed price transactions as part of its hedging strategy, it will have 25% of its supply needs exposed to the spot market and it "will be forced to go to the dominant supplier in Montana."[5] The latter result would allow the dominant supplier to sell power to NorthWestern at a price it determines.[6] Eliminating off-system fixed price transactions from NorthWestern's hedging strategy would expose customers to greater risk of price volatility.

NorthWestern requested recovery of Demand-Side Management ("DSM") program costs and lost revenues associated with DSM and Universal System Benefits ("USB") programs ("Lost Revenues"). In its rebuttal testimony, NorthWestern modified its request to agree with the response testimony of the MCC regarding Lost Revenues related to NorthWestern owned facilities and certain other adjustments to Lost Revenues. Although no party otherwise actively

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[2] Tr., p. 575.
[3] Exhibit MCC-1a and 1b.
[4] Tr., p. 462.
[5] *Id.* at p. 462: 21-22.
[6] Tr., p. 462.

contested or presented evidence that contested NorthWestern's DSM program costs or Lost Revenues, NorthWestern responds to questions from and statements made by Commissioners at the hearing. NorthWestern addresses the following points in this brief:

- The Commission has issued orders that require NorthWestern to aggressively acquire DSM resources;
- NorthWestern's DSM process and results are excellent;
    - SBW and Research Into Action were independent actors; and
    - The proper net to gross ratio is 1.0.

1. Procedural History

On May 31, 2012, NorthWestern submitted its Application for (1) Approval of Deferred Cost Account Balances for Electricity Supply, Colstrip Unit 4 ("CU4") Variable Costs/Credits, and DGGS Variable Costs/Credits; and (2) Projected Electricity Supply Cost Rates, CU4 Variable Rates, and DGGS Variable Rates ("Application").

On June 15, 2012, the Commission issued a Notice of Application and Intervention Deadline. Human Resource Council District XI/Natural Resources Defense Council ("HRC/NRDC") and the MCC petitioned for and were granted intervention.[7] On August 1, 2012, the Commission issued Procedural Order No. 7219b. On November 16, 2012, the Commission issued a Notice of Commission Action and Limited Intervention Deadline ("Notice"). The Notice directed NorthWestern to supplement its original filing with testimony on (1) the comprehensive DSM program evaluation performed by SBW Consulting, Inc. ("SBW"), and (2) the efficient scheduling and dispatching of electricity supply resources. As a result of the additional issues, the Commission issued Modified Procedural Order No. 7219e.

[7] PWPS and Powerex Corp. were granted limited intervention by the Commission for the purpose of seeking protective orders.

As noticed, on June 11, 2013, the Commission held the public hearing in this docket. NorthWestern presented the following witnesses at the hearing: Mr. David E. Fine, Mr. William T. Rhoads, Mr. Fred Lyon, Mr. Michael R. Cashell, Mr. Casey E. Johnston, Mr. Kevin J. Markovich, Mr. Frank V. Bennett, Ms. Cheryl A. Hansen, Mr. William M. Thomas, Mr. Michael H. Baker, Ms. Faith DeBolt, and Dr. Marjorie R. McRae. The MCC called as its witnesses: Mr. George L. Donkin, Dr. John W. Wilson, and Mr. Jamie Stamatson. HRC/NRDC called as its only witness, Dr. Thomas M. Power. At the close of the hearing, the parties agreed to submit briefing according to the following schedule: NorthWestern's opening brief is due on or before July 24, 2013, intervenors' response briefs are due on or before August 14, 2013, and NorthWestern's reply brief is due on or before August 28, 2013.

II. Argument

1. The third party regulation service costs that NorthWestern incurred from February-April 2012 were prudently incurred.

On January 12, 2012, NorthWestern experienced a vibration alarm in Unit 2B at DGGS. The vibration was due to mechanical damage inside the unit's power turbine and NorthWestern took Unit 2 offline. Later that month, inspection of Unit 1 showed signs that mechanical distress of a similar nature was beginning to occur in the unit's two power turbines. Although a vibration problem had not developed in Units 1 and 3, on January 31, 2012, based on PWPS's recommendation, NorthWestern voluntarily took Units 1 and 3 out of service to prevent any further damage to the power turbines. While PWPS and NorthWestern were able to get all three units running by May 1, 2012, in the interim, in order to meet federal reliability requirements and to assure the reliable operation of the transmission system, NorthWestern purchased regulation service from two parties, Avista and Powerex. The net cost to retail customers, as a result of

those third party regulation service purchases, is $1,419,172.[8] It is these costs that NorthWestern seeks to include in its electricity supply rates. These costs were prudently incurred, and they are appropriately included in rates.

The MCC raised two challenges to the inclusion of these costs in rates. First, the MCC suggested that ratepayers should not have to pay these costs as NorthWestern waived consequential damages in its contract with PWPS. Second, the MCC insinuates that ratepayers should not have to pay these costs because NorthWestern failed to obtain outage insurance.[9] However, as more fully discussed below, the record demonstrates that neither of these challenges should bar NorthWestern from including its third party regulation service costs in rates. With respect to consequential damages, the record demonstrates that NorthWestern did not have a realistic, commercial option to have consequential damages covered as turbine manufacturers do not sign contracts allowing consequential damages. With respect to outage insurance, the record demonstrates that it is common knowledge in the utility industry that outage insurance is uneconomical. For that reason, it is not typically procured. Moreover, in this case, the evidence demonstrates that even had NorthWestern been able to purchase such insurance, it would have cost ratepayers significantly more than the cost of acquiring regulation service. Therefore, it would not have been cost effective for NorthWestern's customers and the net effect would in fact have been increased costs for NorthWestern customers had NorthWestern procured outage insurance.

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[8] This represents 80% of the costs that are allocated to retail customers as 20% of the costs are assigned to the FERC jurisdictional customers. Tr., pp. 340-341.

[9] Exhibit MCC-1a and 1b, pp. 8-10 and 15. Dr. Wilson modified his position on this issue at the hearing, where he testified that he does not fault NorthWestern for not procuring it. Tr., p. 575. Rather, his position was that NorthWestern was imprudent for not looking into it. *Id.*

In *Section A* below, NorthWestern summarizes the facts surrounding the outage and the costs. In *Section B* below, NorthWestern addresses the MCC's two arguments as to why NorthWestern should not recover its third party regulation service costs in rates. In *Section C* below, NorthWestern summarizes the evidence in this docket demonstrating that NorthWestern prudently and cost-effectively managed, on behalf of customers, the outage at DGGS, further supporting the inclusion of NorthWestern's third party regulation service costs in electricity supply rates.

A. *Relevant Facts and the Costs of the Outage*

DGGS began commercial operations on January 1, 2011. Its purpose is to provide regulation service, which balances the difference between all customer loads and all resources, on a moment-by-moment basis, in NorthWestern's balancing authority. NorthWestern constructed DGGS because, by 2006, when NorthWestern integrated a large wind project into its transmission system, it was becoming more and more difficult, as well much more expensive, to purchase regulation service. At the same time, NorthWestern faced severe financial penalties if it did not meet federal reliability standards and specifically Control Performance Standards ("CPS"). NorthWestern must achieve at least a 90% level of compliance with the CPS2 criteria on a monthly basis or be subject to penalties that can reach $1 million per period of non-compliance.[10]

When negotiating the contract with PWPS, for the purchase of the six turbines and associated equipment, NorthWestern understood that equipment failures were possible as power plant components sometimes fail.[11] NorthWestern addressed this risk in numerous ways, the

[10] Exhibit NWE-2, p. 6; Tr., pp. 343-345.
[11] Exhibit NWE-2, p. 21; Tr., pp. 113, 235-236.

most important of which are detailed below. However, above all, the most critical tool for addressing this risk on behalf of customers was to negotiate an extended warranty because, to NorthWestern, the extended warranty "was an insurance policy ... for our customers."[12] Therefore, although the PWPS contract provided for a one year warranty, NorthWestern negotiated and paid a modest price for a second year of warranty coverage on the turbines. The original warranty, which was intended to run for one year, had a two-year term, from January 1, 2011-December 31, 2012.[13]

In early January 2012, DGGS experienced a vibration alarm on Unit 2B, and the vibration forced the unit offline. A voluntary, proactive inspection of Unit 1 later that month indicated that a similar mechanical problem was beginning to occur in the unit's two power turbines. NorthWestern took that unit offline on January 30, 2012. As NorthWestern observed damage in Unit 1 similar to that seen in Unit 2B, NorthWestern also voluntarily took Unit 3 out of service to prevent further, potentially severe damage or failure, and therefore shut DGGS down on January 31, 2012. As NorthWestern no longer had the ability, through its own generation assets, to meet federal reliability requirements, NorthWestern immediately sought to acquire regulation service from third parties and was ultimately able to negotiate contracts with Avista and Powerex for regulation service.[14] In order to minimize the cost of the outage, however, the contracts that NorthWestern negotiated allowed it to purchase an incremental amount of regulation service for a full year, so that as NorthWestern brought turbines back

[12] Tr., p. 184: 1-3.
[13] Exhibit NWE-2, p. 16.
[14] The price for the service was identical to the price offered by both companies in response to a recent competitive solicitation. Neither Avista nor Powerex sought to take advantage of NorthWestern's urgent need for regulation service. Tr., p. 337.

online, NorthWestern had the flexibility to reduce and ultimately eliminate all third party purchases.[15]

During that same period of time, to enable DGGS to operate while an investigation was conducted, PWPS acted swiftly in obtaining "loaner" turbines for NorthWestern or in temporarily repairing NorthWestern turbines and returning them to service at the DGGS site near Anaconda, Montana. With respect to Unit 1: PWPS shipped turbines 1A and 1B from DGGS to Connecticut on March 6, 2012. However, PWPS also loaned two PWPS turbines to NorthWestern and installed them in Unit 1. One was from Santiago, Chile, and the other from North Carolina. Unit 1 was fully operational with the loaner turbines as of April 1, 2012.

With respect to Unit 2: Unit 2B was the turbine in which the original vibration alarm took place and Unit 2 was shut down on January 11, 2012. On January 18, 2012, PWPS sent a truck from Connecticut, picked up Turbine 2B, and delivered it to PWPS in Connecticut. Unit 2 was returned to full service by March 1, 2012, through the original Unit 2B turbine, and a loaner power turbine.[16] With respect to Unit 3: In mid-February, PWPS shipped Turbines 3A and 3B from DGGS to Connecticut for repair and returned them to DGGS in April and they have been providing regulation service at DGGS ever since.[17] As a result, since May 1, 2012, NorthWestern no longer needed regulation service from Avista and Powerex and has been providing regulation service entirely from DGGS. Importantly, the contracts with Avista and

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[15] This is reflected in the table on p. 7 of Exhibit NWE-4, which shows the reduction in regulation service purchases from February 3, 2012 to May 1, 2012.

[16] The loaner turbine failed on April 22, 2012, and was taken out of service. NorthWestern subsequently designed and installed a blanking plate, which allows one turbine in a Unit to run without the Unit's other turbine operating. This was a unique feature to the PWPS turbines as no other turbine manufacturer had this functionality. Exhibit NWE-2, pp. 7-8. This was one reason why NorthWestern chose PWPS as the ability to use one side of a Unit helped reduce the need for third party regulation service.

[17] Tr., p. 42, PSC-103(d); Exhibit NWE-2, Exhibit__(WTR-2).

Powerex allowed NorthWestern to actively manage the amount of regulation service procured, to quickly reduce the third party costs, and as of May 1, 2012, no regulation service costs were being incurred from third party providers.

During the same period of time and since then, PWPS assembled a team of 20-30 engineers to investigate, determine the cause, and remedy the problem. PWPS performed field tests of the original design on a highly instrumented power turbine, the turbine was returned to PWPS for disassembly and inspection, and a modification to a power turbine is now in progress. After the modification is made, the turbine will be returned to DGGS for field testing and validation. Upon full verification, similar modifications will be made to the remaining power turbines and returned to DGGS for installation. All of this has been at PWPS's cost.[18] Mr. Rhoads estimated the cost to PWPS, and therefore the value to NorthWestern, to be at about $10 million.[19]

In the meantime, NorthWestern and PWPS negotiated an extension of the warranty, referred to as "Modification No. 4."[20] That revised warranty puts customers in a better position than they had been prior to the outage, as it provides for indefinite warranty coverage until the PWPS-designed repair is installed in the last power turbine, and then the warranty re-starts for an additional two years on all six power turbines. Therefore, the warranty has been extended to at least five years past the original commercial operation date. And, because of the warranty's additional provisions, the power turbines, and therefore the plant, will be more reliable than before, at no cost to NorthWestern's customers. This is achieved in two ways. First, if, during the extended warranty, PWPS determines that additional modifications are needed to the DGGS

[18] Exhibit NWE-2, pp. 11-12; Tr., p. 202.
[19] Tr., pp. 238-239.
[20] Exhibit NWE-2, Exhibit__(WTR-3).

power turbines, PWPS will provide those at its cost. Second, if PWPS determines that further modifications related to the outage will be incorporated into the bill of material for new FT8-3 power turbine builds, PWPS will provide the replacement hardware and shop assembly labor for the DGGS turbines, even if the revised warranty has expired.

NorthWestern's net incremental cost associated with third party regulation service as a result of the outage is $1,419,172. It is these costs that NorthWestern seeks to recover in rates through the electric tracker.[21] No party has disputed this amount. NorthWestern is not seeking to recover any other costs associated with the outage in this proceeding.

B. *NorthWestern Acted Prudently in Waiving Consequential Damages and in Not Obtaining Outage Insurance.*

i. Consequential Damages.

In his pre-filed testimony, Dr. Wilson suggested that the waiver of consequential damages, that is included in Section 22.0 of the NorthWestern-PWPS contract, is somehow unreasonable and that customers should not be required to pay the third party regulation service costs that NorthWestern incurred when some or all of the turbines were taken out of service because NorthWestern waived its right to consequential damages.[22] Notably, nowhere did Dr. Wilson testify that he had ever negotiated a contract for the purchase of turbines or that he had any experience whatsoever regarding construction law and construction procurement contracts.

NorthWestern presented substantial evidence in support of its position that consequential damages are simply not available from power plant equipment providers, including turbine

[21] Exhibit NWE-5, p. 7; Tr., p. 283, MCC-039.
[22] Exhibit MCC-1a and 1b, pp. 9-10. Direct damages are those that are the immediate result of the breach; consequential damages, while reasonably foreseeable, are more incidental and remote from the actual breach and include loss of use, loss of goodwill, cost of substitute facilities and the cost of replacement power. Exhibit NWE-3, p. 8.

manufacturers. That evidence came from not just one, but two, professionals with substantial expertise in construction practices. First, Mr. Fred Lyon, an attorney who has specialized in construction law and contracts with a focus, since 1977, on the electric utility industry and its procurement practices, testified. He has negotiated and drafted numerous contracts involving equipment supply, construction, and design in connection with the construction of power projects. Many have been agreements between utilities and turbine manufacturers and he is familiar with standard industry contract clauses. He has also written, spoken, and taught frequently regarding procurement practices in the energy construction field. He has worked on nuclear, coal, integrated gasification combined cycle, and natural gas contracts and projects, including baseload generation and peaking capacity. He has also worked on contracts for the construction of transmission systems.[23]

He has provided such services to several of the largest regulated utilities in the United States, including American Electric Power and its various subsidiaries (AEP Ohio, AEP Texas, Appalachian Power, Indiana Michigan Power, Kentucky Power, Public Service Company of Oklahoma, Southwestern Electric Power Company), Duke Energy, Progress Energy, and its predecessor, Florida Power. He has also provided such services to Tampa Electric, the Orlando Utilities Commission, Sierra Pacific, PNMR Resources, International Power, EcoElectrica, and the Florida Municipal Power Association. He has also represented industry vendors and contractors, such as Areva, J.A. Jones Construction, and Barton Malow. He has also authored numerous industry-related writings, and given numerous industry-related presentations. He has

[23] Exhibit NWE-3, pp. 2-3.

also received industry honors, including being named as an Outstanding Energy Leader by World Generation.[24]

Mr. Lyon testified that a waiver of consequential damages is the industry standard, included routinely in major equipment (including but not limited to turbines) and construction contracts executed by utilities in the power construction industry.[25] Mr. Lyon explained that the rationale for waiving consequential damages is a function of risk allocation, stating that "Vendors and contractors are unwilling to take on the potentially unlimited risk of such consequential damages."[26] He further testified that "shutdowns can be for many months or even years and even eventually require the construction of a whole new replacement facility."[27] As a result, "Consequential damages in those instances can be billions of dollars."[28] He explained that "[a] turbine manufacturer is not willing to take that risk on a contract such as the PWPS agreement..."[29] He further explained that if "vendors and contractors were required to take the risk of consequential damages, they would include a substantial contingency in their price to protect their significant risk exposure," with the result that "the contract price would be higher and the utility (and its ratepayers to the extent that the contract is reasonable and prudent) would pay for the contingency even in the event consequential damages were never actually

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[24] See generally Exhibit NWE-3, pp. 2-6; Exhibit NWE-3, Exhibit__(FL-1) through Exhibit__(FL-9); Tr., p. 267, MCC-079. World Generation is a New York City-based energy publication which covers all aspects of the power industry, including construction. Each year it selects several individuals from all segments of the industry to honor for their contributions. Mr. Lyon was so honored in 2003 based upon his writing and speaking contributions about power plant construction.

[25] Exhibit NWE-3, p. 11.

[26] *Id.*: 7-8.

[27] *Id.*: 11-13.

[28] *Id.*: 13-14.

[29] *Id.*: 14-15.

incurred."[30] He concluded that by incorporating a waiver of consequential damages, a utility can *reduce* the cost of the original contract and provide the potential to deliver the project at a significantly reduced cost. [31]

To support his pre-filed testimony, Mr. Lyon attached six publicly-available contracts involving the construction of power plants, each of which contain a waiver of consequential damages.[32] He also provided a sample agreement for "The sale of goods – Equipment – Turbine Generator" from 18 American Jurisprudence Legal Forms 2d, which provides for a mutual waiver of consequential damages. These further demonstrate that a waiver of consequential damages is a standard power industry provision.

Mr. Lyon's evidence is also supported by the testimony of Mr. William Rhoads, NorthWestern Energy's General Manager of Generation. Mr. Rhoads is responsible for the safe, reliable, and cost-effective operation of NorthWestern's electric power generation resources. He has spent almost 25 years in thermal generation and hydro operations. He has negotiated contracts for the procurement of major power plant components for many years.[33] He had personal and direct knowledge of all issues regarding the warranty and the outage because he negotiated the original Purchase Order with PWPS, participated in negotiating the new warranty, and managed the outage issues.[34]

He testified that in his experience, major power manufacturers "always require a waiver of consequential damages in contracts for the sale of turbine generators because the quantity and

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[30] *Id.*: 16-22.
[31] *Id.* at pp. 11-12.
[32] *Id.*; *see also* Exhibit__(FL-3) through Exhibit__(FL-8); Tr., p. 267, MCC-077, Attachments 1-6.
[33] Exhibit NWE-2, p. 15.
[34] Exhibit NWE-2, p. 5.

value of replacement energy, based upon the duration of an outage, would be unknowable at the time the contract is negotiated."[35] In Mr. Rhoads' substantial experience, having negotiated contracts for the procurement of major power plant components for many years, "major manufacturers just are not willing to concede on paying for consequential damages." [36] In his experience, he "[didn't] know of any exceptions to this where a major manufacturer has agreed to consequential damages that would include payment of replacement power. ... That provision just isn't available and it's a risk that major manufacturers are just not willing to take." [37] He testified that "Again, you just will not find a contract with a major power equipment provider that will have consequential – coverage for consequential damages to include the replacement of – replacement of power."[38]

Mr. Rhoads further testified that in his 25-30 years of experience in the power generation business and 41 years overall, he has been personally involved in outages of entire power plants or, in the case of hydro plants, outages involving one single unit and multiple units involving entire power plants.[39] He said that the typical method of managing outages is to go out into the market and obtain replacement energy.[40] No party introduced any evidence to the contrary, and the MCC apparently dropped the issue as it did not ask either Mr. Lyon or Mr. Rhoads a question on this issue at the hearing.

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[35] *Id.* at p. 14: 20-23 – p. 15: 1.
[36] Tr., p. 191: 21-23.
[37] *Id.* at p. 199: 24-25 – p. 200: 1-5.
[38] *Id.* at p. 200: 23-25 – p. 201: 1.
[39] *Id.* at p. 192.
[40] *Id.*

ii. Outage Insurance.

Dr. Wilson also suggested that NorthWestern was imprudent for not obtaining outage insurance.[41] The evidence demonstrates the opposite, however: It is common knowledge that it is not cost effective and it was prudent for NorthWestern to have *not* purchased outage insurance. First, Mr. Lyon, whose expertise in construction and turbine contracts is extensive, and extends over 35 years, testified that -- other than nuclear plants -- coal plants, gas turbines, clean coal plants, environmental retrofits, oil plants, cogeneration, nuclear waste for a different issue, "I'm aware of none of them having outage insurance."[42] He testified that "the risk managers of all of the utilities with whom I've worked, have checked into it and uniformly have indicated it is, one, way too expensive for the risk, and the exclusions are so expensive that it does not guarantee coverage."[43] He further testified that "other than nuclear plants, [he has] never been aware of any plants, in 36 years, having outage insurance."[44] In response to a question from the MCC, who asked whether someone checks into its availability, Mr. Lyon testified "Not always."[45] He stated that, "I would have conversations sometimes where people would say that, nobody gets that insurance. It's too expensive. It doesn't cover anything. Other times, they check into it, but they – it is common knowledge in the industry that in regulated utilities and fossil fuel, I have never, in 37 years, encountered an outage insurance and policy in place."[46]

Mr. Lyon's testimony, that it is common knowledge that outage insurance is too expensive for the risk, was supported by the testimony of Mr. Rhoads. Like Mr. Lyon, he

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[41] As indicated earlier, Dr. Wilson modified his position at the hearing. He no longer criticized NorthWestern for not having obtained outage insurance, but only for not inquiring about it.
[42] Tr., p. 274: 5-6.
[43] *Id.*: 8-12.
[44] *Id.*: 13-14.
[45] *Id.* at p. 277: 21.
[46] *Id.* at p. 277: 21-25 – p. 278: 1-2.

testified that in his 25 years of experience in generation, utilities don't typically obtain it.[47] He testified that there is a fairly significant waiting period before the insurance will typically kick in.[48] Utilities don't purchase it because the premiums for outage insurance are "so significant, that the value isn't there."[49] Mr. Rhoads testified that NorthWestern, and its predecessor, The Montana Power Company, never obtained it.[50] Moreover, he testified that regulation service is not replacement power insurance and is likely much more expensive. In his words, regulation service is "a very unique kind of power purchase," and that it is "not typical of, say, replacement power for a base load plant that you're trying to fulfill a need that is continuous and steady and perhaps more easily calculable than you are for regulation service."[51]

He testified that because of questions raised about outage insurance in this docket, he checked the validity of his assumptions that the cost of outage insurance was too expensive and not prudently purchased, and that the industry practice was not to purchase it.[52] He checked with the Vice President of Generation at Otter Tail Power Company ("Otter Tail"), the Vice President of Production at Montana-Dakota Utilities ("MDU"), and in-house counsel at Idaho Power.[53] Mr. Rhoads testified that "they simply do not get outage insurance because it is not economical to do so."[54] They suggested to Mr. Rhoads that "if you had outage insurance, the prudency of

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[47] *Id.* at p. 170.
[48] *Id.* at pp. 170-171.
[49] *Id.* at p. 171: 6-7.
[50] *Id.* at p. 138.
[51] *Id.* at p. 172: 20-25.
[52] *Id.* at p. 225.
[53] *Id.* at p. 251.
[54] *Id.* at p. 224: 21-22.

having that insurance would be in question because it would be so darn expensive and not typically used over the life of – you know, the duration of the project."[55]

Mr. Rhoads' and Mr. Lyon's testimony, that outage insurance isn't economical, was supported by a memo prepared by Ms. Donna Haeder, NorthWestern Energy's Director of Risk.[56] In that memo, Ms. Haeder estimated that the 2012 annual premium for outage insurance would be roughly $1 million.[57] Ms. Haeder also stated, in that memo, that the typical offering would not provide coverage until the 61st day of an outage and that the FM Global policy, the applicable policy, included a $1 million retention (deductible).[58]

Therefore, as Mr. Rhoads testified, if outage insurance had been purchased when the plant started commercial operation, NorthWestern would have incurred $3 million in premium costs alone (2011, 2012 and 2013), and would have had to wait 60 days before the insurance would provide coverage.[59] When compared with NorthWestern's $1.42 million in costs incurred in purchasing regulation service for a three-month period, it is plain that customers are better off relying on the market than buying outage insurance.[60] As Mr. Rhoads testified, "the insurance premium would be several multiples of what the outage replacement third-party regulations

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[55] *Id.* at p. 224: 23-25 – p. 225: 1-2.
[56] *Id.* at p. 43, PSC-008(c), Attachment 8.
[57] *Id.*; *see also* Tr., p. 208.
[58] *Id.*
[59] Tr., p. 242.
[60] As PWPS either replaced or repaired and installed the turbines at DGGS following the outage, NorthWestern decreased the amount of third party regulation service purchased from Avista and Powerex to the point where none was required as of May 1, 2012. *See* Exhibit NWE-4, p. 7. As a result, even if outage insurance for regulation service had been available at a reasonable premium, the 60-day waiting period would have rendered the insurance almost useless and would have imposed an unnecessary cost on consumers. This is yet another way of showing that outage insurance is uneconomical.

would be."[61] Notably, Mr. Rhoads' comparison did not take into account the fact that under either scenario, NorthWestern would still have had to incur the $1.42 million in incremental third party regulation service costs. It also did not take into account the fact that given the uniqueness of regulation service, the premium would likely be higher.[62] As Mr. Rhoads testified, "I believe the cost probably would be much higher than that [$1 million] because of the unique regulation service it would be covering."[63]

Moreover, its availability to cover the PWPS outage is purely speculative. As Mr. Lyon pointed out, outage policies "are replete with gaps. The deductibles are typically 10 to 12 weeks, and that are – they have many exclusions, particularly involving design."[64] Mr. Lyon then underscored this point by pointing out that Edison Electric has experienced failed Mitsubishi turbines and that although it has filed an insurance claim, it cannot guarantee to the SEC that it will recover its costs given the many, many exclusions.[65] He also testified that while Progress Energy Florida (now Duke Energy) has recovered some replacement power costs in connection with the multi-billion dollar shutdown of its Crystal River 3 nuclear power plant, coverage there is specific to the nuclear industry, which maintains a pool of insurance for its members (and even such insurance is riddled with exclusions).[66] In his experience, such coverage is neither available nor obtained in the fossil industry.

While it is true that NorthWestern did not inquire about outage insurance here, there is no obligation to inquire when you know the answer based on your substantial experience. Mr.

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[61] Tr., p. 242: 21-23.
[62] *Id.* at p. 242.
[63] *Id.* at p. 241: 24-25 – p. 242: 1.
[64] *Id.* at p. 273: 14-17.
[65] *Id.* at pp. 273-274.
[66] *Id.*

Rhoads is a power plant construction professional with substantial first-hand experience in managing the risks associated with building power plants, and his working assumption that outage insurance was not economical was supported by the Haeder memo, Mr. Lyon's testimony, and the fact that utilities such as MDU, Idaho Power and Otter Tail do not purchase outage insurance because it is not economical.

C. *The third party costs should be included in rates because the costs were prudently incurred.*

Costs are prudently incurred if "a reasonable utility manager would have incurred them in good faith, under the same circumstances, and at the relevant point in time."[67] "Utility costs are presumed to be prudent, unless there is probative evidence that the costs are extravagant, unnecessary, inefficient, or improvident."[68]

The Commission should agree that NorthWestern's third party regulation service costs were prudently incurred. Framing this issue are two facts that are not in dispute. First is that NorthWestern had to obtain regulation service from third parties when it shut DGGS down at the end of January 2012. NorthWestern has a legal obligation to provide regulation service that meets federal reliability standards and assure the reliable operation of its transmission system.

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[67] *Violet v. FERC,* 800 F.2d 280, 282-283 (1st Cir. 1986) *citing Re New England Power Co.*, 31 FERC ¶ 61,047, ¶ 61,084 (April 11, 1985). *See also,* Consolidated Docket Nos. D2008.5.45/D2009.5.62, Order No. 6921c, ¶ 100 (May 20, 2010) (In determining whether NorthWestern acted prudently . . . the PSC must look to what NWE knew or should reasonably have known at the time.").

[68] *See Mississippi River Fuel Corp. v. Federal Power Comm'n*, 163 F.2d 433, 437 (D.C. Cir 1947) ("If properly incurred, [expenses] must be allowed as part of the composition of rates."); *West Ohio Gas Co. v. Public Utilities Comm'n of Ohio*, 294 U.S. 63, 72 (1935) ("Good faith is to be presumed on the part of the managers of a business. In the absence of a showing of inefficiency or improvidence, a court will not substitute its judgment for theirs as to the measure of a prudent outlay."(citations omitted)).

As all of NorthWestern's regulation service comes from DGGS, NorthWestern had no choice but to acquire regulation service from a third party.[69]

Second is that the price that NorthWestern paid for the regulation was reasonable. NorthWestern acquired the regulation service from Powerex and Avista at the same prices that those two entities had recently offered NorthWestern through a competitive bid process.[70] The prices were also comparable with the costs previously paid under contracts with Avista and Powerex. As the prices were established as the result of a competitive bid process, the prices that NorthWestern paid for third party regulation service are reasonable. This fact is also undisputed.

The Commission should conclude that NorthWestern has appropriately managed its risks for the benefit of its consumers and that the third party regulation service costs were reasonable. This is so for numerous reasons.

First, NorthWestern selected one of the foremost engineering companies in the nation to design a regulation service plant and act as Owner's Engineer during its construction.[71]

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[69] As the evidentiary record and the Commission's decision in the DGGS docket demonstrates, NorthWestern was required to build DGGS because the ability to obtain regulation service was becoming very difficult due to the increased need for regulation service throughout the region, and the price of the regulation service that was available was increasing by multiples. Therefore, in order to satisfy its federal obligation to provide regulation service and to assure the reliability of its transmission system, NorthWestern had no choice but to build a plant dedicated to providing regulation service. While other utilities could call on a portfolio of owned resources to provide this service, NorthWestern did not have a portfolio of generation assets due to Montana Power's sale of its generation assets to PPL and NorthWestern was required to build DGGS to meet its federal reliability obligations. *See* Exhibit NWE-2, p. 6; Tr., pp. 124-127 and pp. 342-344.

[70] Tr., p. 337.

[71] *Id.* at p. 255.

Second, NorthWestern backstopped PWPS with an independent review of the technology criteria and selection.[72]

Third, NorthWestern negotiated several key provisions to help ensure that in the event of an outage, costs would be as low as possible. Most importantly, NorthWestern procured a one-year extension of the PWPS turbine warranty at a modest cost ($395,000) because, as Mr. Rhoads testified, the remedy for a component failure is a warranty or a guarantee, and the extended warranty was an 'insurance policy' for customers.[73] Therefore, the original warranty, which was intended to run for one year, had a two-year term: January 1, 2011-December 31, 2012.[74]

Fourth, NorthWestern constructed the plant with redundancies. For example, NorthWestern designed the plant with an operational spare that serves for periods when maintenance is being performed on other units, during extreme weather conditions, when additional regulation service is needed, or for possible use when backup fuel is needed due to curtailment of natural gas.[75] NorthWestern also negotiated with PWPS and secured an extra engine to be kept at the plant.[76]

Fifth, NorthWestern held at least three control summits with PWPS, reviewing the way in which the plant was going to operate.[77]

Sixth, NorthWestern paid for Vantage Consulting, which was retained by the Commission to review the construction process.[78] NorthWestern also had a PWPS

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[72] *Id.*
[73] *Id.* at p. 184.
[74] Exhibit NWE-2, p. 16.
[75] *Id.*
[76] Tr., p. 210.
[77] *Id.* at p. 211

control system expert on site for three months following the start of commercial operation to witness how the plant was operating.[79]

Seventh, NorthWestern selected a turbine manufacturer whose design would accommodate a blanking plate. The blanking plate allows one side of the unit to be isolated, which allows the use of only one side.[80] This contributes to NorthWestern's ability to provide reliable regulation service, in certain situations, without having to purchase it from third parties. No turbine manufacturer other than PWPS had this capability.[81] NorthWestern held off incurring the costs for designing and installing it until it was clear it was needed.[82]

Eighth, when it was clear that NorthWestern had to secure regulation service from third parties, NorthWestern negotiated flexible contracts that permitted it to reduce the amount of regulation service as individual turbines at DGGS came back online. This helped ensure costs were as low as possible.

Ninth, PWPS took extraordinary measures, at its own cost, to get DGGS back into service, and this was, in part, due to NorthWestern's management of the outage and its relationship with PWPS. PWPS found replacement power turbines from its pool of lease turbines so that DGGS could get back into service as quickly as possible; including delivering a leased power turbine from Santiago, Chile. In addition, PWPS picked up the NorthWestern turbines from Anaconda, repaired them in Connecticut, and returned them

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[78] *Id.* at p. 255.
[79] *Id.* at p. 212.
[80] Exhibit NWE-2, p. 7.
[81] *Id.* at pp. 7-8.
[82] Tr., p. 166.

for installation at DGGS (PWPS will be doing this a second time when the modification is installed). PWPS has also devoted a large team of engineers to identifying the underlying problems and designing a remedy. PWPS found and installed loaner turbines, or reinstalled DGGS's original turbines so quickly – within three months – that NorthWestern has not had to purchase any third party regulation service since May 1, 2012. All of these efforts have been at PWPS's cost [except for some immaterial crane and miscellaneous costs] and not NorthWestern's.

Tenth, in January 2013, NorthWestern negotiated an extended warranty that is so favorable that customers are in a better position now than they would have been without the outage. Because of the extended warranty, the original warranty has been extended at least five years past the original commercial operation date, and because of the warranty's additional provisions, the power turbines, and therefore the plant assets, will be more reliable than they were before the outage and at no additional cost to customers during the extended warranty period.[83]

In addition, even after the warranty expires, if PWPS determines that further modifications related to the outage will be incorporated into the bill of material for new FT8-3 power turbine builds, PWPS will provide the replacement hardware and shop assembly labor at its cost and not NorthWestern's. The benefits of the extended warranty include:

- The power turbines currently in use at DGGS remain under warranty indefinitely or until the last turbine is modified to correct the issue that occurred causing the outage;
- The power turbines that will be installed in the units, following verification of the performance test of the modified turbine, will be covered with an extended

[83] *Id.* at pp. 114, 133-134.

warranty for another two years following installation of the last power turbine to be modified and installed;

- PWPS will provide any additional modifications, at its cost, to the power turbines that it determines are needed as a result of the outage; and

- Additionally, if PWPS determines that further modifications related to the outage will be incorporated into the bill of material for new FT8-3 power turbine builds, PWPS will provide the replacement hardware and shop assembly labor to incorporate the hardware at no charge to NorthWestern, regardless of whether the Power Turbine Warranty Extension has expired.

While the MCC has criticized NorthWestern for waiving consequential damages, and for not inquiring about outage insurance, the evidence demonstrates that it is industry practice to waive consequential damages, as they are not available, and to not purchase outage insurance, as it is not economical. Dr. Wilson, who has testified numerous times as an expert for the MCC on many issues (although never on consequential damages or replacement power insurance), offers no evidence that he has ever negotiated a turbine contract or assisted in procuring outage insurance for regulation service. This is in striking contrast to the front line experience of Mr. Rhoads and Mr. Lyon, who between them have over 60 years of experience in the review and negotiation of power plant construction contracts and the attendant ability to testify as to what is available in the market place and at what cost. Prudency is measured at the time decisions are actually made and not based on hindsight, especially speculative hindsight that lacks any factual basis. NorthWestern's $1,419,172 costs of third party regulation service should, justifiably, be included in its electricity supply rates.

2. *NorthWestern's off-system fixed price transactions reduce risk of price volatility and therefore are prudent actions that benefit customers.*

Given NorthWestern's supply needs and lack of owned generation, NorthWestern, as part of its biennial electricity supply resource procurement plan, develops a hedging strategy.[84] NorthWestern Energy Supply's hedging strategy "is intended to accomplish a number of things including: dampening the effects of market price volatility; increasing price stability for ratepayers; and improving the probability of cost recovery for NorthWestern."[85] In order to reach these goals, NorthWestern's hedging strategy utilizes a combination of two procedures: (1) physical purchase of fixed-price energy in Montana; and (2) fixed-price purchases at Mid-Columbia ("Mid-C") and sale of energy at Mid-C at either index-price or spot market.[86]

The MCC argues that the Commission should prevent NorthWestern from engaging in off-system fixed price transactions, the second procedure identified above.[87] The MCC asserts that the use of these transactions has in the past resulted in substantial losses to NorthWestern's customers.[88] NorthWestern disagrees with the MCC's assertion that substantial losses have occurred.[89] NorthWestern does not view the transactions as losses but as hedges.[90] They are hedges because they provide "a way to protect customers against rising prices."[91] This form of protection lowers risk to customers. Because they lower risk, NorthWestern's use of these transactions is prudent.

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[84] See Tr., p. 409, PSC-018(d).
[85] *Id.* at Attachment, p. 1.
[86] *Id.* at Attachment, p. 2.
[87] Exhibit MCC-2, p. 18.
[88] *Id.; see also* Tr., p. 551.
[89] Tr., p. 506.
[90] Tr., p. 507.
[91] *Id.* at p. 507: 3-4.

According to § 69-8-210(1), MCA, the Commission must establish a "mechanism that allows a public utility to fully recover **prudently** incurred electricity supply costs." (emphasis added). Subsequent to the passage of that statute, the Commission approved NorthWestern's electricity supply cost recovery mechanism provided for under the statute. In *In re Montana Power Co.*,[92] the Commission defined prudence as "marked by wisdom or judiciousness[,] circumspect or judicious in one's dealings; cautious." (internal quotation omitted). The Commission also cited to the Montana Supreme Court's decision in *Sundheim v. Reef Oil Corporation.*[93] The Supreme Court in that case defined prudence as a reasonable man engaged in a similar business.[94] This definition is consistent with the Federal Energy Regulatory Commission's ("FERC") definition of prudence. In *New England Power Co.*,[95] FERC held that the appropriate test to determine whether costs were prudently incurred was "whether they are costs which a reasonable utility management [ ] would have made, in good faith, under the same circumstances, and at the relevant point in time."

In response to Title 69, Chapter 8, the Commission adopted administrative rules. Administrative Rule 38.5.8219 provides that "**prudent** electricity supply resource planning and procurement includes evaluating, managing, and **mitigating risks** associated with the inherent uncertainty of the wholesale electricity markets and customer load." (emphasis added). As noted above, NorthWestern's hedging strategy is part of its overall electricity supply planning process. By hedging, NorthWestern is managing and mitigating risks that are associated with

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[92] 218 P.U.R.4th 277, 287; Order No. 6382d, Docket No. D2011.10.144, July 21, 2002.
[93] 247 Mont. 244, 806 P.2d 503 (1991).
[94] *Sundheim* at 247 Mont. 255.
[95] 31 FERC 61047, 60184 (1985).

procurement of electricity supply.[96] NorthWestern is not gambling with customers' money. Instead, it is entering into these transactions to prevent future harm to customers because the market is "very volatile."[97] Since NorthWestern's hedging practices reduce or mitigate risk, the off-system transactions entered into by NorthWestern are important as part of prudent supply planning and procurement. In addition to mitigating risk, off-system fixed price transactions benefit NorthWestern's customers by reducing the percentage of supply exposed to market and mitigating the pricing power of the dominant supplier in the Montana market.

A. *NorthWestern's off-system fixed-price transactions did not result in the substantial losses that the MCC alleges were incurred.*

The MCC's main argument supporting its position that the Commission should prevent NorthWestern from utilizing off-system fixed-price transactions in the future is the amount of money that NorthWestern presumably will lose by entering into these deals.[98] For the tracker years covered in this docket, 2011-2012 and 2012-2013, and for the 2013-2014 forecast tracker period, which will be considered in the next electricity supply docket, Docket No. D2013.5.33, the MCC argues that the losses amount to approximately[99] $47.2 million.[100] This argument focuses solely on the money involved in the transactions. For this reason, the MCC's argument is flawed as it does not recognize the value of hedging. The monetary difference between the purchases and sales of off-system energy should not be characterized as a loss of money.[101]

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[96] Tr., p. 519.
[97] *Id.* at p. 519: 10-11.
[98] Tr., pp. 424-425, 430, 433.
[99] For 2011-2012, the amount is $16.9 million. Tr., p. 424. For 2012-2013, the amount is $19.9 million. Tr., p. 430. For 2013-2014, the amount is $10.5 million. Tr., p. 433. NorthWestern disagreed with the $10.5 million as this figure failed to include the on-system discounted index price purchase. *See* Tr., p. 527.
[100] Tr., p. 443.
[101] Tr., p. 506.

NorthWestern incurred almost $900 million in electricity supply costs during the three-year period.[102] The $47.2 million was the value of the hedge.[103] This amount represents the value of hedging and is considered protection against rising prices.[104] Hedging provides insurance against bad consequences.[105] As with automobile and home insurance, premiums are paid even if the asset being insured is not damaged.[106]

During the three-year period discussed at hearing, prices went down.[107] Prices however could have gone up during that period.[108] Prices also create an asymmetrical risk situation because prices can only decrease to zero, but, theoretically, can increase to infinity.[109] For example, if the price of power today is $35 per MWh, tomorrow the price could decrease to $2 per MWh. However, if prices increase instead of decrease, the price of power tomorrow could be $300 per MWh. The potential increase to today's power prices is greater than the potential decrease in today's power prices. This is asymmetrical risk.

NorthWestern has a statutory fiduciary responsibility to its customers.[110] NorthWestern must follow and be aware of the market in order to ensure that its duty to customers is met.[111] When these types of transactions are entered into by NorthWestern, it never intends to lose

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[102] Tr., p. 443.
[103] Tr., p. 507.
[104] Tr., pp. 507, 508.
[105] Exhibit NWE-9, p. 6; *see also* Tr., p. 522.
[106] *Id; see also* Tr., p. 523.
[107] Tr., p. 507.
[108] Tr., p. 508.
[109] Tr., p. 481.
[110] Section 69-3-201, MCA ("Every public utility is required to furnish reasonable adequate service and facilities. The charge made by any public utility for [service]...shall be reasonable and just.")
[111] Tr., p. 514.

money.[112] NorthWestern enters into the hedges with its best estimate, or forecast, of what the market is going to do in the future.[113] Whether the actual market price at the time of delivery is up or down, NorthWestern's customers pay the same for the energy after all three components of the hedging transaction, which are described below, are completed, and thus there is no market price exposure to NorthWestern's customers when entering into the off-system fixed price transactions.

During the hearing, Mr. Kevin Markovich provided an example of how the off-system fixed price transactions are used by NorthWestern. The example given by Mr. Markovich was a purchase of 25 MW of on-peak power for calendar year 2014.[114] The hedge has three components: 1) a fixed price purchase at Mid-C for $40 per MWh; 2) an index-based sale at Mid-C for the market index price without a discount or premium; and 3) an index-based purchase on NWE's system at a discount of $3 per MWh to the Mid-C market index price.[115] The market index price is not known at the time the hedge is entered; the index is an average of day-ahead transactions by market participants that will occur during 2014 and is published after the fact. The hedging strategy results in a net cost to customers of $37 per MWh regardless of what the market index price settles at (either higher or lower than the off-system fixed price component).

If during 2014, the published index price turns out to be $60 per MWh, the following payments would be made:

- For component #1, NorthWestern pays the counterparty in the fixed-price purchase $40 per MWh;

[112] Tr., p. 461.
[113] *Id.*
[114] Tr., pp. 450 – 453.
[115] *Id.*

- For component #2, the counterparty in the index-priced sale pays NorthWestern $60 per MWh;

- For component #3, NorthWestern pays the counterparty in the index-priced purchase $57 per MWh ($60 at index less the $3 discount); and

- The resulting price to NorthWestern's customers is a payment of $37 per MWh ($60 - $57 - $40 = ($37))

Similarly, if the index turns out to be $20 per MWh, the following payments would be made:

- For component #1, NorthWestern would pay the counterparty in the fixed-price purchase $40 per MWh;

- For component #2, the counterparty in the index-priced sale would pay NorthWestern $20 per MWh;

- For component #3, NorthWestern would pay the counterparty in the index-priced purchase $17 per MWh ($20 index less the $3 discount); and

- The resulting price to NorthWestern's customers is a payment of $37 per MWh ($20 - $17 - $40 = ($37))

As this example illustrates, both scenarios result in a price of $37 to NorthWestern's customers.

B. *Off-system fixed price market transactions are a necessary tool in NorthWestern's tool box.*

Besides reducing risk, NorthWestern's use of off-system fixed price market transactions benefits NorthWestern's customers by: (1) limiting exposure to the market; and (2) mitigating the pricing power of the dominant supplier in the Montana market. As discussed in more detail below, both of these reasons allow NorthWestern to secure the best price available at the time of the purchase for NorthWestern's customers. If this tool, off-system fixed price transactions, is

removed from NorthWestern's tool box, NorthWestern's customers could be harmed by paying higher prices for electricity.[116] This situation is "bad for customers."[117]

i. Eliminating off-system fixed price market transactions would expose customers to the market for 25 percent of NorthWestern's supply needs.

NorthWestern secures electricity to supply its load from a variety of resources. Energy is received from rate-based assets, fixed price contracts, and market purchases.[118] Given that NorthWestern is short on energy, it must purchase energy on the spot market to reduce this position.[119] During the tracker year covered by this docket, 2011-2012, NorthWestern purchased 15% of its electricity supply needs from spot market transactions.[120] To put it another way, since only 15% of NorthWestern's electric portfolio is subject to the market, only 15% of customers' rates are subject to spot market prices. Fixed price contracts account for 10% of NorthWestern's electric supply portfolio.[121] If the Commission ordered NorthWestern to remove off-system fixed price transactions from NorthWestern's tool box, NorthWestern's customers would be exposed to spot market prices 25% of the time. This amount of exposure is inconsistent with prior Commission orders as well as NorthWestern's hedging strategy.[122] Additionally, in a prior electricity supply tracker docket, the MCC's witness, Dr. Wilson, testified that in his opinion "25 to 30 percent short-term spot market exposure is pretty high."[123] The Commission agreed "with

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[116] If NorthWestern were to "stop hedging now and market prices start to go up, [NorthWestern has] lost that opportunity to lock in the lower prices for future delivery." Tr., p. 523.
[117] Tr., p. 528: 13.
[118] Tr., pp. 456-457.
[119] Tr., p. 468.
[120] Tr., p. 457.
[121] Tr., p. 491.
[122] As the specific percentages related to amount of energy hedged is protected information, NorthWestern has not further elaborated on this point.
[123] Docket No. D2005.5.88, Final Order No. 6682d, ¶ 60 (July 12, 2006).

Dr. Wilson that 25 to 30 percent short-term spot market exposure is higher than is optimal" and "prefer[red] that NWE move aggressively to less reliance on the short-term spot market."[124]

Thus, having participated in the Montana and Mid-C markets since July 1, 2002, NorthWestern believes that having 25% of its electricity supply exposed to the spot market places too much risk on customers. NorthWestern's market supply group is monitoring the market every day and meeting to discuss market conditions.[125] NorthWestern, or any other utility, cannot and should not assume that prices are going to stay low, like they are now, forever.[126] Since the market is volatile, if NorthWestern were not disciplined in its approach to procurement of electricity supply resources, "customers would be subjected to extremely high prices."[127] Additionally, according to the evidence in the record, NorthWestern's hedging strategy is "fundamentally similar" to other utilities[128] with the ultimate goal of price stability and reduction of volatility.[129] This level of protection, limiting spot market purchases to 15%, is important to both of these goals.

ii. Limiting NorthWestern to only on-system market transactions would subject NorthWestern's customers to the pricing power of the dominant supplier in Montana.

In addition to more exposure to the spot market with the elimination of off-system transactions, NorthWestern would be limited to purchasing energy on-system. The major concern with this proposal is that NorthWestern will be "forced to buy from [one dominant

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[124] *Id.*
[125] Tr., p. 474.
[126] Tr., p. 519.
[127] *Id.* at p. 519: 16-17.
[128] At hearing, the MCC agreed with this point. Tr., p.557 ("the types of hedges that have frequently been used across the country are very similar to what NorthWestern does.")
[129] Tr., p. 509: 2.

supplier] at a fixed price," which price is set by the dominant supplier.[130] In most instances, this price would not be the true market price of energy at the time of purchase.[131] Purchasing energy off system protects NorthWestern's customers because numerous entities are buying and selling energy, not just one entity.[132] When there is more than one entity involved in the market, it provides a "liquid and robust market to choose from prices."[133] In addition to many participants in the off-system market, there is "good price transparency, good liquidity, and people willing to sell at the market price."[134]

Based on the foregoing, NorthWestern's use of off-system fixed price transactions is important. Prudent utility management involves reducing risk. These off-system transactions reduce risk and as such NorthWestern should be permitted to continue utilizing such transactions as part of its hedging strategy.

3. The Commission should allow NorthWestern to recover its DSM Lost Revenues.

A. The Commission's prior orders require NorthWestern to aggressively pursue DSM.

DSM and Lost Revenues have been issues in electric supply tracker dockets since Docket No. D2004.6.90 (jointly administered with Docket No. D2003.6.77).[135] In its original consideration of NorthWestern's DSM and Lost Revenues, the Commission stated, "The Commission intends both to remove disincentives and assertively require NWE to assemble the

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[130] Tr., p. 489: 17-18.
[131] Tr., p. 462: 22-24. ("the dominant supplier knows that he or she is the dominant supplier, and we no longer are having an ability to procure market.").
[132] Tr., p. 515.
[133] Tr., p. 525: 1-2.
[134] Tr., p. 462: 17-18.
[135] *See* Docket No. D2004.6.90, Order No. 6574e, ¶¶ 145-161 (December 16, 2005) ("*Order 6574e*").

most attractive integrated default supply portfolio, pursuant to its guidelines (ARM 38.5.8201-8226)."[136] The Commission also expressed strong support for DSM:

> Acquiring cost-effective DSM contributes to several of the Commission's default supply portfolio management and resource procurement goals and objectives. The average cost of energy efficiency is less than the current average cost of other portfolio resources and appears to be significantly less than the current marginal costs of new supply-side resources. Therefore, acquiring energy efficiency mitigates upward pressure on long-term portfolio costs, as demonstrated in NWE's response to data request PSC-26. Cost-effective energy efficiency contributes to portfolio diversity, mitigates risk related to volatile fuel prices and wholesale electricity prices and is environmentally responsible, thereby mitigating risk related to future environmental regulation . . . Acquiring these cost-effective resources is in the public interest. . . . Strong NWE support for energy efficiency and other demand-side resources (e.g. rate design, demand response) is particularly important today given the recently demonstrated volatility of energy supplies and wholesale prices. . . . In light of the widely acknowledged disincentive tied to lost T&D revenue, the public interest value of DSM, the incomplete information on the existence and effectiveness of countervailing incentives, the Commission is not willing to risk creating lost opportunities with regard to NWE's acquisition of cost-effective efficiency resources.[137]

During the following years, NorthWestern's and the Commission's support for DSM and Lost Revenues remained strong. However, due to many circumstances, some beyond its control, NorthWestern did not achieve the DSM results that it expected. In Consolidated Docket Nos. D2007.5.46 and D2006.5.66, the Commission strongly criticized NorthWestern stating, "The PSC finds that NWE's underachievement reflects a fundamental failure within the Company to apply the Commission's directive regarding demand-side resources: that they should be considered equivalent to supply-side resource in assembling the least cost, least risk resource

[136] Order 6574e, ¶ 154.
[137] *Id.*, ¶¶ 155-156.

portfolio."[138] The Commission put NorthWestern on notice that it needed to acquire DSM more aggressively, stating:

> The PSC finds that the detached and shortsighted manner in which NWE's budget process withheld resources from the Company's DSM acquisition function likely reduced the amount of DSM NWE obtained. The PSC finds this result unacceptable. To the extent NWE's retail electricity supply costs are higher than they otherwise would have been with the additional DSM, a cost disallowance is justified.[139]

The Commission directed NorthWestern to discontinue the practice of projecting Lost Revenues and to include a calculation of Lost Revenues based on actual DSM program activity.[140] NorthWestern increased the resources devoted to DSM acquisition and began exceeding its targeted DSM savings. In Docket No. D2011.5.38, the Commission recognized NorthWestern's efforts and stated:

> The Commission had valid reasons when Order 6836c was issued in June 2008 to discontinue allowing NWE to use projected lost revenues in the calculation of DSM lost revenues. However, since that time NWE has exceeded its DSM savings goals. For example, NWE reported 8.63 aMW in DSM savings for the 2010-2011 tracker year, which exceeded its target of 6 aMW. Because of NWE's improved DSM savings performance, as well as the reasons cited by HRC/NRDC, the Commission authorizes NWE to include forecasted lost DSM revenues in future tracker filings.[141]

Given the Commission's strong support for DSM acquisition by NorthWestern, the threat of disallowance, its penalty for not achieving DSM targets, and its subsequent reward for exceeding DSM targets, NorthWestern appropriately has aggressively pursued DSM with the expectation of recovery of Lost Revenues.

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[138] Docket No. D2006.5.66 & Docket No. D2207.5.46, Order No. 6836c, ¶ 166 (June 24, 2008) ("Order 6836c").
[139] Order 6836c, ¶ 174.
[140] Order 6836c, ¶ 182.
[141] Docket No. D2011.5.38, Order No. 7145b, ¶ 33 (April 12, 2012).

During the hearing, some Commissioners expressed skepticism about Lost Revenues. For example, Commissioner Koopman stated, "But I'm looking at the concept here of the less that is sold, the more the company benefits. And I can't quite comprehend that's a valid claim."[142] This skepticism reflects a misunderstanding of the Lost Revenues recovery. The recovery is designed to put NorthWestern in the same financial position it would have been in without DSM, not to put it in a better position. Because the Commission has adopted rate design that requires recovery of fixed costs through commodity-based charges, DSM, which reduces commodity sales, reduces recovery of fixed charges. The Commission has long recognized that efficiently achieving a least-cost resource portfolio requires aligning the financial interests of ratepayers, society, and shareholders, to the extent possible.[143] The Commission has chosen to use recovery of Lost Revenues rather than some other rate design, such as larger fixed charges or decoupling, to align the various financial interests.[144] The Commission should continue to allow the recovery of Lost Revenues.

B. *The SBW Report demonstrates that NorthWestern's DSM processes and results are excellent.*

In this docket, NorthWestern provided the second independent evaluation of its DSM activities. The independent consultant, SBW, conducted both a process evaluation of NorthWestern's means of soliciting interest in its programs, recruiting participation, delivering program services, and acquiring energy savings and a program impact evaluation of the energy

[142] Tr., p. 769:18-20
[143] *See* Order 6574e, ¶ 151.
[144] *Id.*

savings produced by NorthWestern's DSM and USB programs, including an assessment of the costs and benefits.[145] As SBW reported:

> NWE offers a large portfolio of residential and non-residential programs, including audits, prescriptive rebates, custom incentives, and education and training. It offers this portfolio with an extremely low staff to budget ratio, as compared with program administrators around the country. NWE's efforts are firmly grounded in efficiency program best practices. It follows over 50 best practices in program planning and design, management and administration, marketing and outreach, quality control, tracking and reporting, and evaluation. NWE clearly adopted recommendations offered in the process evaluation conducted for the 2004-2006 program cycle.[146]

SBW also found that the benefits of NorthWestern's electric DSM programs exceeded their cost under all four tests (Total Resource Cost Test, Program Administrator Cost Test, Ratepayer Impact Measure Test, and Societal Cost Test).[147]

NorthWestern recalculated its Lost Revenues based on the SBW Report, elimination of DSM savings from its own facilities, and correction for an error described by MCC witness, Jamie Stamatson.[148] After all corrections and changes, Mr. Bill Thomas calculated that NorthWestern's Lost Revenues for tracker years 2006-2007 through 2011-2012 are $18,086,923. This is only $225,703 or approximately 1.2% less than the total NorthWestern reported in its annual electric tracker filings.[149]

i. SBW and its subcontractor, Research Into Action, Inc., operated independently of NorthWestern.

In discovery requests, work session comments, and through questions at the hearing, the Commission appeared to challenge the independence of SBW and its subcontractor. The

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[145] Exhibit NWE-17, p. 3.
[146] Exhibit NWE-17, Exhibit___(MBH-1a), pp. 6-7 of 965 ("SBW Report").
[147] SBW Report, pp. 4-5.
[148] Exhibit NWE-21.
[149] *Id. at* Exhibit___(WMT-5.2).

uncontroverted testimony of individuals from Research Into Action and SBW establishes that each of these entities acted independently and that NorthWestern did not influence the conclusions in the SBW Report. In pre-filed supplemental testimony, Marjorie R, McRae of Research Into Action, testified that neither NorthWestern staff nor any other party attempted to bias her team's findings or conclusions.[150] Michael H. Baker and Faith DeBolt testified similarly.[151] At the hearing, Dr. McRae, Mr. Baker, and Ms. DeBolt each testified that no attorney employed by or representing NorthWestern had worked with her or him to prepare her or him for her or his appearance before the Commission.[152] Dr. McRae also explained that the changes regarding the appropriate 'net to gross ratio" from the draft to the final report were hers based on her professional opinions and were not requested by NorthWestern.[153] Under questioning from Commissioner Kavulla, Mr. Baker testified that the most important changes that were made during the report drafting process were (1) Dr. McRae's recommendation to establish 1.0 as the net to gross ratio; (2) changing the estimate of hours of operation for residential CFLs; and (3) recognizing the correct accounting of costs because of the various buckets, including the DSM and USB divisions.[154]

There is no credible evidence to support any finding that SBW and Research Into Action were not independent or that NorthWestern influenced their analyses, conclusions, or recommendations.

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[150] Exhibit NWE-16.
[151] Exhibit NWE-17 and Exhibit NWE-18.
[152] Tr., pp. 637:23-638:2, 698:9-12, and 741:4-7.
[153] Tr., pp. 645-652.
[154] Tr., pp. 715:9-717:14.

ii. Dr. McRae conclusively established that the proper net to gross ratio is 1.0.

SBW stated, "We recommend that NWE (1) use a NTG value of 1.0 to estimate program net benefits and cost effectiveness."[155] SBW supported its recommendation in a lengthy analysis[156] and summarized by reporting:

> We present our estimated values of free ridership and spillover for NWE programs and find the free ridership estimates to be comparable to those estimated for other program administrators. (Comparison spillover estimates are not readily available.) We find the self-report free ridership estimator, despite its well established use in impact evaluations, to satisfy only the weakest of validity constructs – face validity and internal consistency – and find that numerous empirically demonstrated behavioral phenomena cast doubt on the estimator's face validity and strongly suggest overestimation occurs. We find indicators that spillover is substantially underestimated by current commonly used methods, including our own, and find reasons to believe that the spillover generated by yesterday's programs are likely observed in the free ridership estimate of today's programs.
>
> We thus conclude that our free ridership estimator – while yielding values comparable to those found by other program administrators – overestimate free ridership and our spillover estimator underestimates spillover, creating a problem of asymmetric information about the two effects. Numerous respected evaluators believe spillover effects are likely to be comparable, or possibly exceed, free ridership effects.[157]

At the hearing, in response to a series of questions about free ridership effects, spillover effects, and net to gross ratio, Dr. McRae defined the terms and explained that her profession continues to evolve and professionals are coming forth agreeing that the current measurement methods are inadequate.[158] She also explained the difference between reliability and validity, that the current measurements are not valid, that her firm calculated the current measurements because the scope of work required it, and that the current measurements should not be used to

[155] SBW Report, p. 874 of 965.
[156] SBW Report, pp. 873-895 of 965.
[157] *Id.* at pp. 873-874 of 965.
[158] Tr., pp. 642-648.

assess the performance of a portfolio even though they are the only methods currently available.[159]

Commissioner Kavulla questioned Dr. McRae at length about free ridership and spillover effects.[160] She explained to him that the correct null hypothesis that one would want to reject is that the net to gross ratio is 1.0 and that there was no basis for rejecting such a null hypothesis.[161] Dr. McRae also explained that the majority of jurisdictions use a net to gross ratio of 1.0.[162]

Commissioner Kavulla also questioned Dr. McRae about the net to gross ratio applied in the first evaluation of NorthWestern's DSM programs.[163] In the previous DSM evaluation, Nexant calculated the net to gross ratio as 92.5%.[164] However, even in that evaluation, Nexant believed that self-reported free ridership probably overstated the actual free ridership that would have occurred without the program.[165]

There is no evidence in this docket that supports any net to gross ratio other than 1.0. Based on the uncontroverted evidence of the SBW Report and Dr. McRae's uncontroverted testimony, the Commission should find that the correct net to gross ratio is 1.0.

III. Relief Requested

Based on the foregoing and the record evidence presented in this docket, NorthWestern requests that the Commission issue an order that finds as follows:

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[159] Tr., pp. 649-651.
[160] Tr., pp. 661-675.
[161] Tr., pp. 668-672.
[162] Tr., pp. 673-674.
[163] Tr., pp. 674-675.
[164] Order 6836c, ¶ 73.
[165] *Id.* at ¶72 ("Nexant contends free-ridership estimates likely overstate what would have happened without a program.").

1. Approve the rates proposed by NorthWestern in this docket for its energy supply costs;

2. Determine that NorthWestern's actions with regard to the DGGS outage, including the decision not to procure outage insurance, was a prudent decision and thus allow NorthWestern to recover in rates the replacement power costs incurred by NorthWestern as a result of the outage;

3. Allow NorthWestern to continue to use off-system fixed price transactions as part of its hedging strategy and determine that such actions reduce risk and therefore are prudent;

4. Allow NorthWestern to continue to recover Lost Revenues through its electricity supply trackers;

5. Find that NorthWestern incurred recoverable Lost Revenues of $18,086,923 in tracker years 2006-2007 through 2011-2012 and direct NorthWestern to refund the over-collection of ($225,703) in tracker year 2013-2014; and

6. Find that the correct net to gross ratio to be used for assessing performance of the DSM program and calculating Lost Revenues is 1.0.

IV. Conclusion

NorthWestern has shown that the costs incurred for electricity supply during the tracker period of July 2011 to June 2012 were prudently incurred and, thus, rates should be adjusted as proposed by NorthWestern. Additionally, the actions taken by NorthWestern with regard to the DGGS outage and NorthWestern's use of off-system fixed price transactions were prudent utility management. Wherefore, based on the foregoing, NorthWestern respectfully requests that the Commission grant the relief requested in Section III of this Brief.

Respectfully submitted this the 24th day of July 2013.

NORTHWESTERN ENERGY

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CERTIFICATE OF SERVICE

I hereby certify that a copy of NorthWestern Energy's ("NWE") Post-Hearing Brief in Docket D2012.5.49 has been hand delivered to the Montana Public Service Commission (PSC) and the Montana Consumer Counsel (MCC). It has been served on the most recent service list in this Docket by mailing a copy, thereof, by first class mail, postage prepaid and e-filed on the PSC website.

Date: July 24th, 2013

Nedra Chase

Nedra Chase
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A. Docket D2012.5.49
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