

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

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IN THE MATTER NorthWestern Energy's ) REGULATORY DIVISION  
2011-2012 Electricity Supply Tracker ) DOCKET NO. D2012.5.49

**FACT SHEET**

TO: Commissioners, Justin Kraske, Jason Brown  
FROM: Neil Templeton, Scott Fabel, Will Rosquist, and Kate Whitney  
DATE: May 31, 2013

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Prior to a public hearing on a docketed matter before the Public Service Commission (Commission), Regulatory Division staff on the work team prepare a Fact Sheet that summarizes the application and the prefiled testimony. The hearing in this docket is scheduled to begin Tuesday, June 11, 2013, in Helena.

**INTRODUCTION AND PROCEDURAL BACKGROUND**

On June 1, 2012, NorthWestern Energy (NorthWestern or NWE) filed its annual Electricity Supply Tracker (Application) seeking approval of: (1) the Electricity Supply Deferred Cost Account Balance (Deferred Balance) for Electricity Supply Costs<sup>1</sup>; (2) the Deferred Balance for Colstrip Unit 4 (CU4) variable costs; (3) the Deferred Balance for Dave Gates Generating Station (DGGS) variable costs; and (4) the Deferred Supply Rate and projected Electricity Supply Rate, which includes the CU4 Variable Rate and the DGGS Variable Rate. Specifically, NorthWestern sought to increase the Deferred Supply Rate to reflect a total Deferred Balance of \$8,502,457, which includes an under-collection of \$11,496,428 for Electricity Supply Costs offset by an over-collection of (\$2,993,971) for CU4 variable costs during the period from July 1, 2011, to June 30, 2012. For a typical residential customer using 750 kilowatt-hours per month, NorthWestern projects a 5.94% increase of \$2.62 per month or \$31.44 per year resulting from increases to the Electric Supply Rate and Deferred Supply Rate.

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<sup>1</sup> "Electricity Supply Costs" include any electricity supply costs **not** attributable to generation assets owned by NorthWestern (e.g. Colstrip Unit 4 and Dave Gates Generating Station).

With its Application, NorthWestern included the Direct Testimony of David E. Fine, Kevin J. Markovich, William M. Thomas, Frank V. Bennett, Cheryl A. Hansen, and Michael R. Cashell.

On June 14, 2012, the Commission issued a *Notice of Application and Intervention Deadline*. The Commission granted intervention to the Montana Consumer Counsel (MCC) and Human Resource Council District XI and Natural Resources Defense Council (HRC/NRDC) on July 11, 2012.

On June 28, 2012, the Commission issued *Interim Order 7219*, in which it directed NorthWestern to implement an Electricity Supply Rate as of July 1, 2013, designed to collect a total of \$358,006,282 and to set the Electricity Supply Deferred Costs Account Balance Rate at zero. NorthWestern sought reconsideration of the interim order on July 9, 2012. On July 17, 2012, the Commission issued *Interim Order on Reconsideration 7219a*, in which the Commission reconsidered its earlier order and authorized NorthWestern, in addition to the Electricity Supply Rate approved in the initial interim order, to implement interim rates effective August 1, 2012, to recover the under-collection of Electricity Supply Costs of \$11,496,428, to refund the over-collection for Colstrip Unit 4 (CU4) variable costs/credits of (\$2,993,971), and to refund the over-collection for DGGS variable costs/credits of (\$1,861,161) over the 11-month period ending June 30, 2013.

On July 27, 2012, the Commission issued *Procedural Order 7219b*, which it suspended on October 1, 2012, to allow time for the completion of discovery.

Pratt & Whitney Power Systems, Inc. (PWPS), Powerex Corp. (Powerex), and Gordon Butte Wind, LLC (Gordon Butte), petitioned separately for intervention for the limited purpose of requesting protective orders concerning information that had been sought in discovery to NorthWestern. On October 12, 2012, the Commission issued *Protective Order 7219d*, which granted Powerex's requests for limited intervention and for a protective order. On February 15, 2013, the Commission issued *Protective Order 7219f*, which granted PWPS request for limited intervention and granted in part and denied in part its requests for protective orders. On March 27, 2013, the Commission issued *Order 7219g*, which granted limited intervention to Gordon Butte but denied its request for protective order. On April 15, 2013, Gordon Butte withdrew from the proceeding.

On November 16, 2012, the Commission directed NorthWestern to file supplemental testimony regarding the comprehensive demand-side management (DSM) Program Evaluation performed by SBW Consulting, Inc. (SBW) and the efficient scheduling and dispatching of electricity supply resources. The Commission issued *Modified Procedural Order 7219e* on November 21, 2012, to accommodate the supplemental testimony.

On January 18, 2013, NorthWestern filed the Supplemental Testimony of William M. Thomas, Dr. Marjorie R. McRae, Faith DeBolt, and Michael H. Baker. On February 1, 2013, NorthWestern filed the Supplemental Testimony of Casey E. Johnston and Markovich.

On March 22, 2013, MCC filed the Direct Testimony of Jaime Stamatson, George L. Donkin, and Dr. John W. Wilson, and HRC/NRDC filed the Direct Testimony of Dr. Thomas M. Power.

On May 3, 2013, NorthWestern filed the Rebuttal Testimony of William T. Rhoads, Fred Lyon, Cashell, Markovich, and Thomas.

On May 21, 2013, the Commission issued a *Notice of Public Hearing*.

#### Summary of NorthWestern's Prefiled Direct Testimony

##### **David E. Fine**

David Fine is NorthWestern's Director of Energy Supply Planning. Fine addressed the filing requirements in Admin. R. Mont. 38.5.8226 regarding supply planning, supply management, resource procurement, and action plan items. He stated that NorthWestern has produced and filed five biennial electric procurement plans, and that it used the concepts and specific action items from the *2011 Resource Procurement Plan* (2011 Plan) to guide its recent supply portfolio activities.

Fine testified that NorthWestern is evaluating alternatives for adding resources to the portfolio, including new-build gas fired resources, market purchases, and potential opportunity resource acquisitions associated with existing generation. He noted that NorthWestern must secure a substantial volume of electricity beginning July 2014 to address expiration of a PPL purchase power agreement. Fine affirmed that if NorthWestern decides to acquire electric generation resources, it will use the Commission's advanced approval process, which includes seeking stakeholder input and demonstrating customer value.

Fine testified that NorthWestern managed its supply portfolio in the 2011-12 tracker year by: (1) issuing a Notice to Proceed with construction of the Spion Kop wind project; (2) executing four new qualifying facility (QF) contracts totaling approximately 22.5 megawatts (MW); (3) executing market purchases to meet near-term load; (4) acquiring cost effective energy and capacity savings through DSM; and (5) using renewable energy credits (RECs) to satisfy its compliance year 2011 renewable portfolio standard (RPS) requirement.

He said NorthWestern acquired the 40 MW Spion Kop project through an ownership transfer from the developer, Compass Wind. The project started generating and delivering electricity to NorthWestern in December 2012.

Fine stated that NorthWestern continued to pursue 6 average MW (aMW) per year of incremental energy savings from DSM as described in its 2011 Plan. He said NorthWestern helps customers install energy conservation through voluntary programs using both internal resources and contractors.

He reported that NorthWestern purchased bundled electricity and RECs from three Montana projects in 2011-12, including the Gordon Butte and Judith Gap wind projects, and the Turnbull hydro project. He stated that NorthWestern combined its 2010 carry-over with a portion of its 2011 RECs to achieve 577,561 total RECs and satisfy its RPS requirement.

### **Kevin J. Markovich**

Kevin Markovich, NorthWestern's Director of Energy Supply Market Operations, described NorthWestern's actual and proposed procurement and scheduling activities for the 2011-12 and 2012-13 tracking periods. He testified that the hedging strategy in NorthWestern's 2009 Plan, Appendix 1, guided procurement from July 1, 2011 through December 31, 2011, and the hedging strategy in the 2011 Plan, Appendix 1, governed procurement activity from January 1, 2012 through June 30, 2012.

Markovich testified that no material operational changes or issues caused supply service in 2011-12 to change from the previous tracking period. He said market prices decreased during the 2011-12 tracking period, primarily due to lower natural gas prices and favorable hydro conditions, and that NorthWestern's procurement strategy allowed it to purchase a substantial portion of its supply needs at lower spot market prices.

Markovich testified that NorthWestern prudently dispatched its share of CU4. When it projected market prices would remain below the plant's variable cost for a sufficient period, it

backed the plant down and replaced its output with market purchases. He asserted that this practice provided incremental value to ratepayers equal to the difference between the plant's variable cost and the market purchase price. For instance, he said, NorthWestern can adjust production from its share of the plant between a minimum of 60 MW and a maximum of 222 MW. Assuming the plant's variable cost was \$15 per megawatt-hour (MWh) and the market price was \$3 per MWh, Markovich reasoned that NorthWestern would save \$1,944 per hour by backing its share of the plant down to its minimum 60 MW {  $162 \text{ MW} * 1 \text{ hour} * \$12 / \text{MWh}$  }. He testified that NorthWestern saved over \$1.2 million from July 2011 through April 2012 by displacing over 160,000 MWh of CU4 generation with market purchases.

Markovich asserted that owning a dispatchable generating asset such as CU4 allows NorthWestern to provide incremental value to customers when market prices are low, while hedging with a fixed price power purchase agreement (PPA), or investing in a non-dispatchable generating asset does not. He stated that NorthWestern can back down a dispatchable asset to displace its production with cheap market power, but cannot back down a PPA or other non-dispatchable assets such as wind generators and run-of-river hydro. In addition, he said NorthWestern can back down dispatchable resources to limit re-marketing expenses and ramp them up to sell excess power when market prices are high. Markovich claimed that this flexibility is fundamental to an efficient and well assembled energy supply portfolio.

Markovich stated that NorthWestern issued an all-source Request for Proposals (RFP) for up to 100 MW of firm energy for the period January 1, 2013 through December 31, 2014. From responses to this RFP, NorthWestern executed PPAs with six suppliers for 100 MW of power at the Mid-Columbia (Mid-C) trading hub, and 50 MW of off-peak power delivered to its transmission system. He stated that NWE will include these transactions in its 2012-13 tracker.

Markovich further testified that NorthWestern managed its energy supply portfolio with specific measures and timelines, and applied hedging strategies designed to maintain reasonable rates and dampen price volatility. He said NorthWestern's hedging strategies provide a framework by which the prudence of its procurement actions should continue to be judged.

Markovich stated that NorthWestern did not speculate on energy prices and did not expose ratepayers to unnecessary risk. He said customers did not experience service restrictions or interruptions caused by the Energy Supply function. He also said NorthWestern was not fined or penalized for its scheduling or operations in the tracker period. He reiterated that the 2011

Plan hedging strategy will guide scheduling and procurement for the 2012-13 tracker period. He said NorthWestern will not deviate from the Plan except through a fundamental change in the market or opportunities not contemplated in the Plan.

Markovich also testified on format changes to Exhibit\_(FVB-2)12-13 in Frank Bennett’s testimony. Markovich stated that Commission staff requested the changes to separate purchase and sale figures, rather than the combined and netted information provided in previous trackers. Markovich stated that the changes do not incorporate additional items and do not affect the calculation of the deferred account balance or ratemaking.

### **William M. Thomas**

William Thomas is the manager of Regulatory Support Services for NorthWestern. His prefiled direct testimony presented results from NorthWestern’s universal system benefits (USB) and DSM programs for tracker year 2011-12, described plans for DSM programs in year 2012-13, provided DSM program costs and Lost Revenue Adjustment Mechanism (LRAM) costs associated with electric supply USB and DSM programs, and updated the status of SBW’s impact and process evaluation of NorthWestern’s portfolio of DSM programs.

Thomas testified that in 2011-12 NorthWestern saved 0.45 aMW through its USB programs, and 8.87 aMW through DSM. The total reported savings of 9.32 aMW exceeded target savings of 6 aMW by 3.32 aMW. He reported DSM program expenditures in 2011-12 of \$9.2 million, approximately \$1.1 million greater than the budgeted amount of \$8.1 million. (These figures reflect updates to Thomas’s direct testimony provided in response to DR PSC-014(a)). The table below shows DSM targets, reported savings, budgets, and spending.

<b>DSM Targets, Reported Savings, Budgets, and Spending</b>							
<b>Program Year</b>	<b>Tracker Period</b>	<b>Installed Annual Incremental DSM Capability</b>				<b>Supply DSM Program Budget</b>	<b>Supply DSM Program Expenditures</b>
		<b>Target (aMW)</b>	<b>USB</b>	<b>DSM</b>	<b>Total</b>		
1	2004-05	2.60	2.04	0.22	2.26	\$ 1,457,888	\$ 320,389
2	2005-06	3.70	1.33	2.08	3.41	2,097,734	1,596,076
3	2006-07	5.00	0.36	3.04	3.40	3,232,080	2,497,359
4	2007-08	5.00	0.82	4.55	5.37	3,631,683	3,688,745
5	2008-09	5.00	1.11	5.58	6.69	4,917,141	5,504,111
6	2009-10	5.00	0.96	7.37	8.33	6,625,192	7,652,658
7	2010-11	6.00	0.57	8.63	9.20	9,148,219	7,086,931
8	2011-12	6.00	0.45	8.87	9.32	8,063,519	9,185,261
9	2012-13	6.00				10,441,871	

The budget and spending figures in the table above do not include USB programs, although USB savings are counted toward the annual DSM target and are used to calculate lost revenues. The following table shows 2011-12 reported savings from the USB and DSM programs in detail.

<b>Annualized Reported Energy Savings 2011-2012</b>				
<b>Electric Efficiency USB and DSM Programs</b>	<b>USB</b>		<b>DSM</b>	
	<b>kWh</b>	<b>aMW</b>	<b>kWh</b>	<b>aMW</b>
E+ Energy Audit for the Home or Business (Elec)	1,486,885	0.17	-	0.00
E+ Business Partners Program	-	0.00	5,798,307	0.66
E+ Irrigation	161,283	0.02	-	0.00
E+ Commercial Lighting Rebate Program	-	0.00	12,128,968	1.38
E+ Residential Lighting Programs	-	0.00	39,224,368	4.48
Builder Operator Certification	1,264,004	0.14	-	0.00
Northwest Energy Efficiency Alliance (NEEA)	-	0.00	12,174,555	1.39
Energy Star 80 Plus Program	-	0.00	3,917,369	0.45
E+ Free Weatherization Program & Fuel Switch	319,547	0.04	-	0.00
Low Income Appliance Replacement	6,555	0.00	-	0.00
E+ Renewable Energy Program	617,235	0.07	-	0.00
Energy Star New Homes Program	70,591	0.01	-	0.00
E+ Residential NC Electric Rebate Program	-	0.00	41,198	0.00
E+ Residential EX Electric Rebate Program	-	0.00	62,025	0.01
E+ Commercial NC Electric Rebate Program	-	0.00	301,380	0.03
E+ Commercial EX Electric Rebate Program	-	0.00	4,028,797	0.46
<b>Total</b>	<b>3,926,100</b>	<b>0.45</b>	<b>77,676,966</b>	<b>8.87</b>

Regarding the status of NorthWestern's DSM programs, Thomas testified that NorthWestern is currently using new electric avoided costs that are 23% lower than the previous avoided costs. Thomas asserted that NorthWestern used the new avoided costs to review the economics of existing DSM measures, rebates, and incentives. Based on that review, NorthWestern reduced the number of cost effective commercial DSM measures by 10.4% (11 measures), and cost effective residential DSM measures by 19.7% (13 measures). In response to data request PSC-029(a) Thomas stated that:

The DSM electric avoided costs currently in use by NorthWestern are lower than in recent prior years, making it very difficult to implement anything new. Declining avoided costs translate directly to fewer energy efficiency measures that qualify for inclusion in DSM programs. NorthWestern has entered into very preliminary discussions with the state of Montana about a possible partnership to

offer financing for qualified DSM measures and equipment at subsidized interest rates or otherwise favorable terms. NorthWestern will review and fully consider the results and recommendations of the DSM Evaluation now being performed by SBW, Inc. prior to making additional changes (if any) to its DSM Portfolio.

Regarding the DSM lighting programs, Thomas testified that NorthWestern renewed its contract with KEMA Services, Inc. (KEMA) for lighting services, and that NorthWestern will offer E+ Lighting programs in 2012-13. He stated that new federal regulations related to efficiency standards were to be phased in over three years beginning January 1, 2012, but Congress failed to fund enforcement of the standards. NorthWestern expects Congress to revisit this matter, but does not know when enforcement of the standards will begin.

Thomas stated that the new regulations apply to manufacturing and not to retail sale. Thus consumers will continue to purchase and install incandescent inventory for perhaps a year or more following effective termination of manufacture. Thomas claimed that energy savings opportunities will remain during the interim period as incandescent stocks are cleared out. NorthWestern will continue to monitor the transition and adjust the program accordingly.

In response to data request PSC-054(c), Thomas stated that conventional 100 watt bulbs were not made after October 2012, 75 watt bulbs were phased out in January 2013, and that 40 and 60 watt conventional bulbs are expected to be phased out in 2014. He also stated that NorthWestern assumes that incandescent compact fluorescent lamps (CFLs) will replace incandescent bulbs 75 watts or less in 2013 and 40 watts or less in 2014. NorthWestern expects to terminate CFL incentives in 2015.

Thomas testified that the expected decrease in savings from energy efficient lighting means that additional savings must be captured from the commercial and small industrial sectors to sustain annual savings acquisitions of 6 aMW. He stated that NorthWestern contracted with two additional firms to provide services in support of the E+ Business Partners, Commercial Lighting Rebate, and Commercial Electric Rebate programs.

NorthWestern also expanded its residential electric rebate program for existing homes, and created three new electric rebate programs for residential new construction, and commercial new and existing construction. Rebate levels in these programs are generally set equal to the lesser of 50% of incremental cost or 50% of incremental measure resource value.

Thomas stated that six contractors concentrate on the commercial and industrial sectors; National Center for Appropriate Technology (NCAT), ECOVA, McKinstry Essention, Portland

Energy Conservation, CTA Associates, and Energy Resource Management. These firms are compensated by NorthWestern on a performance basis to provide DSM services. Payment is based on a percentage of the energy conservation resource value of completed projects. All contractors are expected to deliver a minimum of 0.25 aMW in incremental DSM each year.

The contractors are supported by a four-member team of KEMA employees who engage in direct contact, face-to-face marketing of DSM programs to commercial and small industrial customers. This includes marketing to architect/engineering firms, businesses with DSM potential, surveys and assessments of buildings and facilities, technical assistance for building owners, and other program assistance.

NorthWestern's E+ New Homes program is run with assistance from NCAT. The program provides builder/owner education, technical assistance, marketing, and outreach services. The program uses USB funds to market the program and educate architects, building contractors, and interested customers about ENERGY STAR<sup>®</sup> standards. The Northwest Energy Efficiency Alliance (NEEA) also provides funding. In NorthWestern's Montana service area, three new electrically heated homes were certified in 2011-12, and 70 new natural gas heated homes were built with at least 50% ENERGY STAR<sup>®</sup> lighting as a result of NorthWestern's participation in the program.

According to Thomas, the E+ Electric Motor Rebate program was eliminated in 2010 as a stand-alone program, and incorporated into the Commercial Electric Rebate programs. Prescriptive rebates are offered for motors rated 1-200 horsepower, and larger motors may qualify with application specific calculations performed by NorthWestern. The program also sponsors motor management seminars and offers rebates for qualified motor rewinds. Currently, only four service centers in the NorthWestern service area perform motor rewinding service.

Thomas stated that NorthWestern is committed to funding and participating in NEEA projects through 2014. NEEA is a regional non-profit supported by electric utilities, public benefits administrators, state governments, public interest groups, and energy efficiency representatives. NEEA encourages market transformation for energy efficient products and services in Montana, Idaho, Washington, and Oregon. NorthWestern reported energy savings from NEEA activities totaling 0.72 aMW during the 2011-12 tracker period.

Thomas testified that NorthWestern sponsored several DSM-related training seminars in 2011-12, including contractor training, efficient motor management, building operator

certification, the Montana Energy Management Conference, Northwest ENERGY STAR<sup>®</sup> verifier training, Northwest ENERGY STAR<sup>®</sup> builder training, home performance testing, the Compressed Air Challenge, variable frequency drives, lighting design, energy data analysis, pumping systems, and the Industrial Customer Cohort. NorthWestern funds the seminars using a blend of DSM and USB monies. NorthWestern also promoted its DSM programs through participation in trade shows, professional conferences, and many other special events.

In 2010, NorthWestern contracted with NCAT to generate audit reports for NorthWestern buildings and facilities that identify cost effective DSM opportunities. Since then NorthWestern has proceeded to implement identified measures and actions. As of the time of testimony, approximately 35% of the proposed retrofit work was completed. In response to data request PSC-030(a), Thomas stated that USB funds paid for the KEMA building audits and the NorthWestern Facilities Department budget paid for NCAT to perform the energy efficient equipment retrofit (mostly lighting upgrades). He added that NorthWestern uses electricity supply tracker funds to pay KEMA for qualified DSM program rebates to itself.

In response to data request PSC-030(b), Thomas asserted that NorthWestern intended to include its own facilities' savings in its calculation of lost revenues. (MCC witness John Wilson argued in his direct testimony that recovery of lost revenues for investments made in NorthWestern facilities is inappropriate. In rebuttal testimony, Thomas agreed that NorthWestern should not recover lost revenues on these investments.)

In Exhibit\_(WMT-2) Thomas provided updated figures detailing estimated DSM expenditures of \$10,441,871 in 2012-13. This amount is included as a line item with other supply expenses in the testimony of Frank Bennett. In Exhibit\_(WMT-3) Thomas presented lost revenues for Montana area transmission and distribution (T&D), CU4, and DGGS. T&D lost revenues were reset to zero on July 8, 2010 as a result of the T&D rate revision ordered in *Interim Order 7046g*. The calculation of lost revenues for CU4 and DGGS reflect the facts that CU4 rates became effective on January 1, 2009, and DGGS was placed into service on January 1, 2011. From these dates additional DSM has been acquired and lost revenues caused by energy savings have accumulated.

Thomas calculated lost revenues in several steps. First, he disaggregated total reported energy savings into residential and commercial savings, using actual program experience and data. He used commercial energy savings to estimate commercial demand reduction in kilowatt-

months, and disaggregated demand savings further into GS-1 secondary non-demand and GS-1 primary non-demand using actual program experience. He adjusted energy and demand savings by class using factors derived from the results of NEXANT's 2007 evaluation of NorthWestern's DSM programs, and multiplied the results by the appropriate rates to estimate lost revenues.

In Exhibit\_(WMT-3) Thomas estimated lost revenues using reported and projected savings for tracker periods 2009-10 through 2012-13. He estimated lost revenues in 2011-12 based on nine months of reported savings (July through March) and three months of projected savings (April through June). In response to DR PSC-014 Thomas updated this exhibit to adjust 2011-12 lost revenues for reported savings in April through June.

Thomas testified that NorthWestern selected SBW, Inc. to conduct a comprehensive DSM Program Evaluation. He stated that evaluation results will be used to refine program energy savings estimates and to adjust the factors used to determine net savings and associated lost revenues. He also stated that an important part of the work is the economic evaluation of the portfolio and its individual programs using industry-standard cost effectiveness tests.

#### **Frank V. Bennett**

Frank Bennett, a Contract and Regulatory Specialist, testified regarding the electricity supply costs included in this tracker, the components of which are the electricity supply tracker and the true-ups for CU4 and DGGs. Bennett updated the 2011-12 projected supply costs that were part of the 2011-12 tracker filing in Docket D2011.5.38 with actual costs from July 2011 through April 2012 and with estimates for May and June of 2012. (Exhibit\_(FVB-1)11-12) According to Bennett, NorthWestern expects its cost for electricity purchases for the 12-month tracker period ending June 2012 will be \$222,495,986. After incorporating the June 2011 beginning Deferred Account balance, which was an under-collection of \$24,426,468, NorthWestern's forecast of the June 2012 Deferred Account balance is an under-collection of \$11,496,428.

Bennett said the Application includes the supply costs related to the 222 MW of CU4 rate-based generation capacity and that the true-up of DGGs supply costs includes the costs NorthWestern incurred for third-party regulation service provided during the 2012 DGGs outage and the 7 MW of DGGs minimum turndown output that is allocated to retail load. He stated that, as authorized by the Commission in *Order 7154b* in Docket D2011.5.38, NorthWestern has

included forecast lost T&D revenues resulting from its DSM and USB activities in both the 2011-12 and 2012-13 periods.

Bennett listed the following electricity supply cost categories that are included in the portion of the Application regarding the July 2011 through June 2012 tracker period:

(1) Market-based electricity supply costs, including: contracts with PPL Montana, QFs, Judith Gap Energy LLC, Basin Creek Equity Partners LLC, Tiber Montana LLC, Turnbull Hydro LLC, and Citigroup Energy Inc.; short- and medium-term market purchases from various suppliers to balance demand with supply; other wind costs; expenses related to system imbalance adjustments and operating reserves; and DSM programs.

(2) Generation assets, including CU4 and the 7 MW of DGGS baseload energy that is allocated to retail customers.

(3) Transmission service costs associated with ancillary services required for system integrity and reliability.

(4) Incremental administrative expenses since the last general rate case.

Regarding the 2012-13 forecast supply tracker period, Bennett stated NorthWestern estimates total delivered supply will be 6,447,521 MWh at an estimated cost of \$241,449,638, which includes the \$11,496,428 under-collection from the 2011-12 tracker period.

Bennett testified that the estimated ending CU4 deferred account balance for the 12 months ending June 2012 is an over-collection of \$2,993,971 and NorthWestern's 12-month forecast true-up for the 2012-13 period estimates total variable CU4 expenses of \$24,925,762.

Bennett testified that the estimated ending DGGS variable cost deferred account balance for the 12 months ending June 2012 is an over-collection of \$(161,231). That amount, combined with the 2012-13 forecast expenses of \$7,507,165, results in a total of \$7,345,934 in forecast variable DGGS expenses.

### **Cheryl A. Hansen**

Cheryl Hansen, a Senior Analyst for NorthWestern, presented and explained the derivations of the 2012-13 billing statistics, of the deferred supply rates resulting from the over/under collection reflected in the 2011-12 tracker (Exhibit\_(CAH-2)12-13, pp. 3-4), and of the electricity supply rates for the forecasted 2012-13 tracker period (Exhibit\_(CAH-2)12-13, pp. 5-6).

Regarding the DGGGS variable cost account balance of \$(161,231), she said NorthWestern considers the amount to be immaterial and proposes not to request a DGGGS deferred rate adjustment in this filing but to carry forward the amount into the 2012-13 tracker period.

Regarding the CU4 variable cost account balance, Hansen said that for the 12-month period ending June 2012, the CU4 variable cost account balance was an over-collection of \$(2,993,971) as presented on page 1 of Exhibit\_(CAH-3)12-13.

The net deferred supply cost account adjustment proposed in this filing is an under-collection of \$8,502,457. The adjustment consists of the following:

Total Deferred Electricity Supply Under-Collected Balance	\$11,496,428
Total Deferred CU4 Variable Over-Collected Balance	<u>\$(2,993,971)</u>
Net Deferred Supply Cost Account Balance	\$8,502,457

Hansen presented a summary of the unit rate adjustments and resulting rates proposed by NorthWestern in Exhibit\_(CAH-5)12-13, pp. 3-5.

#### **Michael R. Cashell**

Michael R. Cashell, NorthWestern's Vice President – Transmission, explained that in a normal year, the DGGGS portion of NorthWestern's annual electric supply tracker would reflect and true up the plant's variable costs, which consist of natural gas and diesel fuel costs and revenue credits from DGGGS energy production, excluding the 7 MW of minimum generation baseload energy that is delivered to retail customers. If NorthWestern's Commission-required survey of the regulation service market had resulted in an economic decision to enter into a third-party regulation contract rather than run DGGGS, he said the contract cost would be treated as a variable cost in the tracker.

According to Cashell, damage to the power turbines of each of the three units at DGGGS caused a forced outage of the plant starting January 31, 2012, and ending by May 1, 2012 when DGGGS was again available to fully meet NorthWestern's regulation needs. He said that NorthWestern replaced the DGGGS regulation service starting February 3, 2012, with contracts with Powerex for 76 MW of regulating reserve capacity and with Avista for 15 MW. As DGGGS was returned to service in stages over three months, the amount of regulation service provided by Powerex during that period was reduced incrementally to 50 MW on March 1, 24 MW on April

1, and to 10 MW on April 15. NorthWestern incurred no Powerex or Avista regulating costs as of May 1, 2012. Cashell stated the total cost of the replacement power contracts was \$2,946,886.

At the time of the tracker filing, five out of six DGGs turbines were up and running, Cashell said. He noted the repairs were not yet final, pending completion of a root cause analysis by turbine manufacturer PWPS. (*See* NorthWestern's response(s) to DR PSC-006(d) for information regarding the possible cause(s) of the outage, consisting mostly of confidential email correspondence between NorthWestern and PWPS.)

Cashell asserted that the outage caused no substantial effect on the DGGs true-up process because the costs of the Powerex and Avista contracts replaced the fuel costs that would have been included in the DGGs portion of the supply tracker as variable costs. He presented information that he said showed that, had there been no outage and therefore no replacement contracts, NorthWestern would have over-collected \$4,306,373 in revenue from customers, which would have been reduced by \$2,445,212 when the revenue credit amount was adjusted to reflect the actual versus estimated monthly Mid-C prices, resulting in a net over-collection of \$1,861,161 for the period January 2011 through June 2012.

Cashell said that the effect of the DGGs outage and inclusion in the tracker of the \$2.9 million cost of the replacement regulation service contracts is to decrease the revenue over-collection to \$1.5 million. Regarding the revenue credit calculation, he said that including the cost of energy associated with the contracts results in an under-collection of \$1,859,386. According to Cashell, NorthWestern proposes to adjust the value of the 7 MW of baseload minimum generation in this DGGs true-up rather than wait to adjust it as part of a general rate case as was contemplated in Docket D2008.8.95. He said the January 2011 through June 2012 actual value of the 7 MW DGGs supplies to retail customers is \$1,330,423 and, if the adjustment to actual value is made in this tracker as NorthWestern proposes, it results in a difference of \$992,036 over-collected from customers. The final result of the DGGs cost and revenue true-up is an over-collection of \$590,694.

#### Summary of NorthWestern's Prefiled Supplemental Testimony

#### **Supplemental testimony on the DSM Program Evaluation**

The Commission directed NorthWestern to supplement its Application with additional testimony presenting SBW's DSM Program Evaluation, recommending adjustments to DSM

programs that may result from its conclusions, updating calculations of savings and lost revenues, proposing a true-up of lost revenues, and discussing any other proposed DSM policy changes.

**William M. Thomas**

Thomas testified that NorthWestern prepared an RFP for DSM evaluation services and contracted with Lands Energy to administer it in a blind, competitive bid process. Lands Energy received and screened proposals and developed a short list. At that point it revealed the identities of all bidders to NorthWestern and recommended two finalists. The finalists presented their proposals to NorthWestern, Lands Energy, and to members of NorthWestern's Electric Technical Advisory Committee. NorthWestern selected SBW. NorthWestern and SBW executed a services agreement in December 2011. SBW delivered the final project report on January 9, 2013. (In its second updated response to DR PSC-012, NorthWestern corrected the date on the cover page of the SBW report to January 29, 2013.)

Thomas stated that SBW's work produced revised energy savings, adjustment factors, and class splits (relative residential and commercial/industrial contributions to savings) that allow NorthWestern to calculate the lost revenues associated with its DSM programs. He said that the SBW evaluation applies specifically to program activity during the 2006-07 through the 2010-11 tracker periods and that it was used for estimating lost revenues in the 2011-12 and future tracker periods. Thomas applied the SBW findings that are relevant to electric DSM lost revenue calculations to revise NorthWestern's proposed lost revenues in this docket and to reconcile lost revenues approved in previous dockets dating back to the 2006-07 tracker period.

In Exhibit\_(WMT-5) Thomas compared NorthWestern's previously approved lost revenues with lost revenues based on SBW's findings. He testified that changes in class splits and adjustment factors account for most of the differences. SBW found residential/commercial percentage splits that differed from NorthWestern's. Class split differences impact lost revenue calculations due to class differences in T&D rates.

Thomas said that NorthWestern estimated net DSM savings using residential and commercial program adjustment factors of 0.87 and 0.82, respectively, starting in 2006. NorthWestern obtained these adjustment factors from the 2007 DSM program evaluation that was conducted by Nexant. Thomas stated that SBW derived a composite adjustment factor, or

realization rate, of 0.89 for NorthWestern's entire electric DSM portfolio over the five tracker periods from 2006-07 through 2010-11.

Thomas stated that NorthWestern will apply SBW's adjustment factor and class splits in estimating savings and lost revenues in subsequent tracker applications. NorthWestern will revisit class splits at the end of each future tracker period to determine whether to revise the splits. It will use the SBW adjustment factor until the next program evaluation.

He also stated that overall, SBW found NorthWestern's electric DSM programs cost effective. He claimed the analysis for all years provided a Total Resource Cost (TRC) test value of 1.43 and a Program Administrator Cost (PAC) test value of 2.55. He asserted that levelized program administrator costs of acquired DSM resources over this period equal \$0.011/kWh, and that levelized total resource costs equal \$0.025/kWh.

Thomas testified that SBW found only three electric supply DSM programs that did not pass the PAC test: the residential new construction electric rebate, the commercial new electric rebate, and the building blocks pilot programs. He stated that NorthWestern terminated the building blocks program, and that regarding the new construction electric rebate programs, NorthWestern will incorporate housing and commercial market assumptions into any decision about the future of these two programs.

**Dr. Marjorie R. McRae**

Marjorie McRae is a principal of Research Into Action, Inc. (RIA), which was part of the SBW team that conducted the *Impact and Process Evaluation of NorthWestern Energy 2007-2011 Demand Side Management Programs* (DSM Program Evaluation). She said she was responsible for assessing NorthWestern's DSM program processes, including obtaining market feedback, for estimating free ridership and leakage, and for telephone survey research to support the estimation of spillover.

McRae stated that RIA reviewed program documents, interviewed NorthWestern staff and program contractors, and surveyed program participants, non-participants, vendors, installers, and other allies. She said RIA determined free ridership values and potential spillover using survey responses. She asserted that it followed standard practices in free ridership and spillover estimation, and that its estimated free ridership and spillover values in NorthWestern's programs are comparable to those found in evaluations of similar programs.

McRae recommended a net-to-gross (NTG) ratio equal to one, basing this decision on known limitations to standard estimation practices that confound the effects of free ridership and spillover, causing overestimates of free ridership and underestimates of spillover. She said that many jurisdictions running energy efficiency programs recognize that free ridership and spillover are offsetting phenomena. McRae also recommended that NorthWestern monitor product markets and conduct market saturation studies to assess market transformation, and to exit transformed markets in order to mitigate free ridership impacts.

She stated that her program process and market effects findings are included in the DSM Program Evaluation (Exhibit\_(MHB-1a) and Exhibit\_(MHB-1b)) sponsored by witness Michael Baker. She asserted that NorthWestern staff or other parties did not attempt to bias these findings.

#### **Faith DeBolt**

Faith DeBolt is an SBW analyst who directed SBW's assessment of the cost-effectiveness of NorthWestern's DSM and USB programs. To this end, she compiled and analyzed economic data from NorthWestern's program tracking system. She stated that her team also analyzed program impact realization rates and statistical data under Michael Baker's direction, and analyzed market effects data – including free rider and spillover results – under Marjorie McRae's direction.

DeBolt testified that her team's findings regarding program economics are included in Baker's Exhibit\_(MHB-1a) and Exhibit\_(MHB-1b). She asserted that NorthWestern staff or other parties did not attempt to bias these findings.

#### **Michael H. Baker**

Michael Baker is a Principal of SBW. He stated that SBW conducted a comprehensive evaluation of NorthWestern's electric and natural gas DSM and USB programs. It performed an impact evaluation of program energy savings, including cost-benefit analysis, and it performed a process evaluation of NorthWestern's program marketing and delivery.

Baker stated that NorthWestern retained SBW following a competitive solicitation process overseen by Lands Energy Consulting, and that SBW provided an independent and objective evaluation of NorthWestern's DSM activities. He asserted that NorthWestern staff or other parties did not attempt to bias SBW's findings.

Baker sponsored SBW's report and supporting appendices in Exhibit\_(MHB-1a) and Exhibit\_(MHB-1b). The report presents the methodology, findings, and recommendations from an impact and process evaluation of NorthWestern's DSM portfolio, including USB programs. The evaluation covers 24 programs in the period July 1, 2006 through December 31, 2011. The report is summarized below.

SBW based its findings on analysis of data collected from participant and non-participant samples from each program in the portfolio. SBW completed file reviews for 1,181 participants and site visits for 638 participants. The SBW team surveyed 922 participants by telephone to estimate free ridership, and 508 participants to assess spillover. SBW also interviewed 40 CFL retailers to estimate the portions of upstream buy-down CFLs and NEEA initiatives that were purchased by commercial customers.

SBW performed a persistence study to assess claimed savings for particular programs and measures. It used onsite inspections and literature reviews to evaluate a sample of measures from the 2007 and 2008 program years. SBW used the results from this analysis to develop recommendations for maintaining or adjusting the portfolio measure lives. It found the expected useful life (EUL) of the studied programs and measures to be reasonable.

The report states that, based on impact evaluation findings, NorthWestern should: 1) increase efforts to market efficiency opportunities; 2) compile customer e-mail addresses in the tracking database; 3) maintain consistent program names across evaluation cycles; 4) update unit estimated savings (UES) regularly; 5) improve audit report clarity and follow-up; 6) improve estimates of CFL hours of use, appropriate light levels, and documentation; 7) work with NEEA to use NorthWestern service territory sales data, improve analytical transparency, and reassess treatment of CFL retirement; and 8) restructure or terminate programs with poor participation, including the new construction, motor rewind, and Vending Miser programs.

For most programs, SBW estimated annual gross savings using site inspections, customer interviews, and engineering analysis. For some programs, it estimated savings using a critical review of prior evaluation work. As a first step to evaluate impacts for most programs, SBW reviewed project files to determine whether the documents were consistent with program tracking records. It compared program tracking data to file information regarding relevant parameters such as installed units and wattages in order to identify data errors.

The report states that SBW also reviewed NorthWestern's estimates of prescriptive savings, including an examination of prior studies and efficiency program development. In cases where SBW determined that UES savings adjustments were appropriate, it submitted revised values to NorthWestern's project manager for review and comment. SBW examined the engineering algorithms NorthWestern used to estimate savings. If SBW found the algorithms unreasonable, it developed appropriate and defensible alternatives to improve the rigor and accuracy of savings estimates.

SBW conducted site visits to verify that program measures were installed correctly and producing energy savings. During site visits SBW gathered data to confirm or adjust savings estimates. If evaluated savings differed from reported savings, SBW attempted to document a rationale for the difference.

For the energy audit programs, SBW estimated direct and indirect energy and demand savings. NorthWestern-installed measures provided direct savings, audit recommendations without incentives provided indirect savings. SBW combined a telephone survey of 2010-11 audit participants with site visit interviews and follow-up telephone interviews to gather the data needed to estimate direct and indirect savings.

SBW reviewed NorthWestern's reported savings from NEEA initiatives, including spreadsheet summaries documenting methods and savings. SBW also reviewed NEEA sponsored evaluations that are relevant to NorthWestern's reported savings. Using information from this review, SBW calculated savings realization rates for each measure and for each program year. It calculated an average realization rate for the initiatives and applied this estimate to adjust NorthWestern's reported savings.

The report states that CFLs installed in homes and businesses accounted for a large majority of portfolio savings. SBW installed light loggers in 76 residential homes to meter operating times of residential CFLs. SBW metered NorthWestern customer usage only in summer months, but applied usage profiles from other lighting studies to estimate an average hourly use per bulb of 2.02 hours per day in 2012. The report states that this figure is 45% lower than the 2007 Nexant program evaluation estimate of 3.7 hours per day.

The report asserts that researchers have found that the first CFLs installed in a house are likely installed in high use locations. Since NorthWestern's CFL programs did not begin until after 2005, the report argues that the bulbs installed in earlier years would likely be installed in

higher use locations. SBW examined lighting studies dating back to 1996, including its own 2012 evaluation of NorthWestern's residential lighting program, to derive a trendline that was used to estimate average daily hours in 2006 (2.70 hours) through 2012 (2.02 hours). SBW used these estimates to estimate average daily use over the five tracker-year evaluation period for the new homes program (2.24 hours), the residential lighting program (2.30 hours), and for the NEEA initiatives (2.41 hours).

To estimate savings for the CFL buy-down component of the residential lighting program, SBW estimated the proportion of non-residential customers that purchased and installed buy-down bulbs. The report asserts that observed operating hours for non-residential customers is typically much greater than for residential customers. SBW acquired information on the sector split from a telephone survey of CFL buy-down retailers. SBW conducted site visits to verify CFL installations for residential and non-residential customers. Site visit data collection for non-residential customers also provided information to estimate non-residential hours of use. SBW estimated CFL buy-down savings using its residential and non-residential hours of use estimates combined with tracking data bulb counts and wattages.

SBW defined net savings as gross savings adjusted for free ridership, spillover, and leakage. SBW estimated free ridership rates using self-report participant surveys. The surveys asked participants a series of questions to learn how participants would have acted in the absence of the program, and how the program influenced them. SBW assessed participant intent to carry out projects without program funds or support, program influence in participation and upgrade decisions, and how installed efficiency projects might have differed if the participant had not received program incentives.

SBW estimated spillover using a combination of survey and on-site research. Self-report surveys asked participants whether they installed efficiency measures in addition to measures provided by the program, and if so, the surveys asked the extent to which NorthWestern's DSM activities had influenced them to install additional measures. If respondents considered NorthWestern to be influential in this decision, SBW checked on the actual energy efficiency of the measures during on-site research.

SBW estimated leakage after asking participants if they still had the program supported equipment. If not, SBW asked what happened to the equipment, had it left NorthWestern's

service territory? SBW did not find any leakage of measures out of NorthWestern's Montana territory for any program, so its leakage estimates equaled zero for all programs.

SBW found its estimates of free ridership in NorthWestern programs to be comparable to the estimates of other program administrators. However, the report lists several difficulties in estimating free ridership. The report asserts that it has been established that people are willing to pay more to avoid a loss than to attain a gain. The report argues that if a participant is asked whether they would have installed the measure without program assistance, the participant answers yes in seeking to avoid the loss of the measure they are currently enjoying, and is classified as a free rider.

The report also asserts that cognitive psychologists have established that people are likely to attribute successful outcomes to their own virtue, and to attribute unsuccessful outcomes to external factors. Because of this, if a measure is successful, participants are likely to answer that they are the sort of person that installs energy efficient measures, with or without a program. The report states that cognitive dissonance is experienced when an individual acts in a manner that is inconsistent with stated beliefs or intentions. If a participant answered that they would not have participated without program assistance, the report argues that the participant might experience cognitive dissonance. The report states that loss aversion, attribution theory, and cognitive dissonance suggest that self-report surveys tend to overestimate free ridership.

The report asserts that spillover is more difficult to estimate than free ridership due to difficulties in identifying unincented efficiency actions, calculating baseline energy consumption, and knowing when efficiency actions are attributable to programs. SBW claimed that its spillover estimator underestimates spillover, and it finds "reasons to believe that the spillover generated by yesterday's programs are likely observed in the free ridership estimate of today's programs." (p. 860).

The report states that a review of NTG practices in 31 jurisdictions found that 42% did not require an NTG adjustment, equivalent to an NTG value of 1. The report recommends that NorthWestern use an NTG value of 1 to estimate program net benefits and cost effectiveness. This practice implies that spillover effects offset free ridership and that the net effect of free ridership and spillover on gross savings is nil. SBW also recommended that NorthWestern monitor product markets, conduct market saturation surveys to identify market transformation, and to exit transformed markets.

The table below shows NorthWestern's reported energy savings for its electric supply DSM programs in 2006-2011, SBW's evaluated, or gross, savings (that equal net savings assuming an NTG factor of 1), SBW's estimates of free ridership and spillover, and net savings assuming that free ridership and spillover effects are used to adjust evaluated savings.

NorthWestern Electric Supply DSM Programs Reported Savings, Gross Evaluated Savings, and Net Energy Savings							
Program	NWE Reported Savings (kWh)	SBW Gross Evaluated Savings (kWh)	SR <sup>1</sup> Rate	FR Rate	SO Rate	Net to Gross Factor	Net Energy Savings with FR/SO (kWh)
E+ Building Blocks Pilot	0	9,639	NA	0.00	0.00	1.00	9,639
E+ Business Partners	18,501,340	17,536,943	0.95	0.07	0.00	0.93	16,280,756
E+ Commercial Existing Electric Rebate	1,622,309	1,948,434	1.20	0.20	0.00	0.80	1,550,450
E+ Commercial Lighting	49,205,493	47,417,555	0.96	0.22	0.00	0.78	37,080,844
E+ Commercial New Electric Rebate	95,877	90,176	0.94	0.42	0.00	0.58	52,713
E+ Electric Motor/Rewind Rebate	80,333	72,316	0.90	0.49	0.43	0.73	52,718
E+ New Homes	412,911	186,607	0.45	0.45	0.08	0.59	110,490
E+ Residential Existing Electric Rebate	460,654	421,763	0.92	0.32	0.00	0.68	288,829
E+ Residential Lighting	126,978,876	98,105,956	0.78	0.14	0.03	0.89	86,885,407
E+ Residential New Electric Rebate	36,210	43,797	1.21	0.50	0.00	0.50	21,898
E+ Residential New Gas Rebate	13,786	16,113	1.17	0.49	0.05	0.54	8,653
NEEA Initiatives	77,665,897	82,613,716	1.14	0.00	0.00	1.00	82,613,716
All Programs Electric Supply - DSM	<u>275,073,686</u>	<u>248,463,014</u>	0.90			0.91	<u>224,956,113</u>

Source: Excel Spreadsheet included in Updated Data Response to PSC-033  
1: SR = "Savings Realization", FR = "Free Ridership", SO = "Spillover"

The savings realization rate is used to convert reported savings to gross savings. The net-to-gross factor is used to convert gross savings to net savings.

The report evaluates the cost effectiveness of the programs using four standard tests, or ratios of benefits to costs. The tests include the TRC, PAC, ratepayer impact measure (RIM), and societal cost (SC) tests. The numerator, or benefits component of the TRC, PAC, and RIM tests equals the utility's discounted avoided supply cost. In the SC test the discounted avoided supply cost is scaled up by 10% in each year to internalize the external environmental costs of electric generation.

The denominator, or costs component of the PAC test equals the sum of program administration and marketing costs and incentive costs. This test reflects the ratio of benefits to costs from the utility perspective. The RIM test adds the cost of lost revenues from reduced sales to the PAC test costs. This adjustment reflects the impact to ratepayers of lost revenue recovery.

The denominators in the TRC and SC tests are equivalent, equaling the sum of program administration and marketing costs, participant and spillover device costs, and free rider incentive costs. These two tests compare economic benefits and costs of the measures, with the SC test including avoided environmental costs as a benefit in the numerator.

The table below shows test values from SBW's evaluation of NorthWestern's electric supply DSM programs.

<b>NorthWestern Electric Supply DSM Programs Evaluation of Program Cost Effectiveness</b>					
<b>Program</b>	<b>SBW Evaluated Savings (kWh)</b>	<b>Total Resource Cost Test</b>	<b>Program Admin Cost Test</b>	<b>Ratepayer Impact Measure Test</b>	<b>Societal Cost Test</b>
E+ Building Blocks Pilot	9,639	0.13	0.13	0.12	0.14
E+ Business Partners	17,536,943	1.08	1.56	1.23	1.18
E+ Commercial Existing Electric Rebate	1,948,434	4.72	2.55	1.91	5.19
E+ Commercial Lighting	47,417,555	0.98	3.13	1.89	1.08
E+ Commercial New Electric Rebate	90,176	2.07	1.27	1.11	2.28
E+ Electric Motor/Rewind Rebate	72,316	0.50	1.19	0.99	0.55
E+ New Homes	186,607	5.94	2.74	1.58	6.53
E+ Residential Existing Electric Rebate	421,763	0.66	0.82	0.68	0.73
E+ Residential Lighting	98,105,956	2.62	3.26	1.20	2.88
E+ Residential New Electric Rebate	43,797	0.99	0.96	0.87	1.09
E+ Residential New Gas Rebate	16,113	NA	NA	7.03	NA
NEEA Initiatives	82,613,716	11.33	11.33	3.38	12.46
All Programs Electric Supply - DSM	<u>248,463,014</u>	2.14	3.66	1.81	2.36
Source: SBW Report, p. 826, Table 648					

### **Supplemental testimony on efficient dispatch**

The Commission directed NorthWestern to supplement its Application with additional testimony discussing practices NorthWestern employs to efficiently dispatch its portfolio of electricity supply resources and minimize energy imbalance charges attributable to matching loads and resources. The Commission specifically requested testimony regarding: (1) the use of the Intra-Hour Transaction Accelerator Program; (2) the feasibility of using dispatchable capacity available from Basin Creek Equity Partners, LLC (Basin Creek) on an intra-hour basis to correct for deviations from scheduled load and supply; (3) any economic considerations related to dispatching the Basin Creek resource on an intra-hour basis; (4) the ability to monitor

deviations from scheduled load and supply, the cost of such imbalances, and the appropriateness of intra-hour schedule adjustments; and (5) the methods used to forecast production from wind facilities (including qualifying facilities), and efforts to monitor and improve the accuracy of such forecasts.

### **Casey Johnston**

Casey Johnston, NorthWestern's Director of System Operation Control Center (SOCC) Operations and Transmission Services, addressed the resource dispatch issues the Commission raised. He explained that as a Balancing Authority (BA), NorthWestern must balance load and supply within its authority according to North American Electric Reliability Corporation (NERC) regulations. He testified that NorthWestern continually monitors the transmission lines that tie its BA with neighboring BAs. Within an operating hour, imbalances between scheduled and actual flows over these lines factor into NorthWestern's BA Area Control Error (ACE) calculations. In turn, NorthWestern dispatches DGGS to keep ACE values within a required range.

Johnston testified that the SOCC receives little real-time meter data for individual loads in the BA and SOCC operators cannot accurately determine which load or generator is causing an imbalance in real-time. He stated that SOCC operators do not need such information to comply with NERC's balancing regulations.

Johnston testified that at the end of each month NorthWestern calculates hourly imbalances for scheduled resources and loads for all BA network customers. It assesses charges for load imbalances according to its Federal Energy Regulatory Commission (FERC) Tariff, Schedule 4. It assesses most generation imbalance charges according to its FERC Tariff, Schedule 9, but Johnston stated that NorthWestern has alternative arrangements with some generators. He said NorthWestern's energy supply function is assessed imbalance charges according to Schedule 4 for aggregate schedule and total loads.

Johnston explained that NorthWestern's FERC Tariff allows 30-minute scheduling. He said the value customers receive from adjusting their hourly schedules depends on an active intra-hour energy market. He reported that, in general, NorthWestern's customers have not used intra-hour scheduling. He also testified that NorthWestern will offer customers 15-minute scheduling by November 2013, as required by FERC Order 764, but observed that the value of shorter scheduling periods still depends on an active energy market. He indicated that if an

active intra-hour energy market develops, intra-hour scheduling practices should reduce NorthWestern's overall BA imbalances.

**Kevin Markovich**

Markovich discussed the Intra-hour Transaction Accelerator Program (I-TAP), whether NorthWestern could dispatch the Basin Creek generator on an intra-hour basis, and how NorthWestern forecasts wind generation.

Markovich testified that I-TAP was developed by ColumbiaGrid, Northern Tier Transmission Group, and WestConnect to make intra-hour scheduling and trading easier and more efficient. He said I-TAP and its electronic trading platform, WebExchange, achieved commercial operation in November 2011. He reported that trading activity has been limited and an intra-hour market has not developed. He said the benefits of intra-hour scheduling are not sufficient to entice a diverse group of buyers and sellers into the market. He also said technical issues with WebExchange have limited its usefulness. He testified that NorthWestern continues to support the I-TAP initiative and is working to improve it.

Markovich testified that, technically, NorthWestern can dispatch Basin Creek within an hour to correct deviations from scheduled load and supply. However, he reiterated Johnston's testimony that NorthWestern's BA operators cannot determine which load or generator is out of balance in real time. Markovich contended that adjusting Basin Creek without real-time information could increase the Energy Supply function's imbalance. He added that because balancing NorthWestern's BA is a Transmission function, any Supply function balancing actions must be coordinated with the Transmission function and the costs of those actions must be allocated to all customers that benefit. He said NorthWestern does not have a method for capturing and allocating Supply function costs incurred for the benefit of Transmission customers.

Markovich testified that NorthWestern estimates wind production on a day-ahead basis using 3TIER forecasts. He said NorthWestern imposes a 28 MW floor and a 138 MW cap on its total day-ahead schedule for wind production from Judith Gap, Spion Kop, Gordon Butte, and Musselshell I and II. He explained that NorthWestern develops hour-ahead wind forecasts using actual current wind production and updated 3TIER forecasts.

Markovich stated that NorthWestern has experimented with several wind forecasting methods since it contracted with Judith Gap, including persistence, straight 3TIER, and hybrid

methods. Markovich contended that NorthWestern's current method produces informed forecasts that balance flexibility, structure, and subjectivity. He asserted that wind energy forecasting is as much an art as it is a science and experienced scheduling personnel are instrumental in accurately forecasting production.

### Summary of Intervenors' Prefiled Direct Testimony

#### **MCC – Jamie Stamatson**

Jamie Stamatson, an MCC staff economist, identified the following three errors in NorthWestern's lost revenue true-ups for its electric DSM programs: a discrepancy in the DSM lost revenue amounts for tracker year 2010-2011; the need to update the 2011-12 tracker year residential and commercial splits of energy savings; and, related to the correction of the splits for tracker year 2011-12, the projected lost revenues for 2012-13 should be decreased. His revised calculations result in an over-collection by NorthWestern of \$192,318 in lost revenues over the 2006-2012 tracker period rather than the \$129,751 reported by NorthWestern witness Thomas and a reduction of projected lost revenues for the 2012-13 tracker period from \$8,430,758 to \$8,385,926.

#### **MCC – George L. Donkin**

George L. Donkin's testimony on behalf of MCC opposed the continuation of NorthWestern's financial off-system hedging activities. Donkin observed that NorthWestern indicated in its 2011 Plan that it would use off-system hedges to mitigate the price volatility of its market purchases, which represent about 15% of the utility's total electricity supply needs. Donkin said MCC asked NorthWestern in data request MCC-003(b) to provide data to show the net positive or negative cost of hedging in the years 2009-2011, but NorthWestern responded that it would be impractical to answer the question given the analyses that would have to be made for such a study. Donkin interpreted the response to mean that NorthWestern has experienced hedging losses, including during the 2011-12 tracker period. He said NorthWestern should be monitoring the performance of its hedging activities and that the utility could have provided its invoices with counter parties for the net payments it made or received each month under its off-system fixed-price hedges.

According to Donkin, he used information presented by NorthWestern witness Bennett to estimate that NorthWestern experienced off-system fixed-price hedging losses of \$14,932,708

during the 2012-13 tracker period. He recalled NorthWestern's natural gas utility's use of financial transactions called price swap contracts since 2005 to hedge gas price volatility and referred to his April 2010 comments on behalf of MCC in a natural gas docket wherein he estimated NorthWestern's losses on those financial hedges were about \$80.9 million.

Donkin opined that NorthWestern, which is not seeking gains from its off-system electric hedges and whose losses or gains flow through to ratepayers, is likely to be the loser over time in its financial hedging transactions with counter parties who want to realize gains and whose losses or gains affect their bottom lines.

Donkin recommended the Commission direct NorthWestern to stop using off-system fixed-price electric hedges.

#### **MCC – Dr. John W. Wilson**

John W. Wilson testified in opposition to NorthWestern's proposed recovery of the costs of replacement regulation service during the DGGs outage. According to Wilson, as a result of the outage and replacement purchases, NorthWestern's regulation costs increased by \$1.27 million over what DGGs' fixed and variable costs would have been had the outage not occurred.

Wilson did not object to allowing NorthWestern to recover the replacement power contract costs up to the utility's total cost of owning and operating DGGs, but argued it would be unreasonable for ratepayers also to have to pay the incremental costs of replacement power during the outage. According to Wilson, the Commission should treat the recovery of incremental replacement power costs as a dispute between NorthWestern and PWPS.

Wilson pointed out that a FERC administrative law judge (ALJ) has found unreasonable NorthWestern's wholesale transmission service tariff proposal in its FERC DGGs case that would allow unlimited pass-through of third-party contract costs to its FERC customers. Wilson questioned why NorthWestern has not made a different type of FERC filing (known as a Section 205 rate filing) for the specific purpose of recovering its outage-related purchased power costs.

According to Wilson, there are potential regulatory issues related to DGGs' design and the sufficiency of the warranty, but they may not be fully disclosed in this docket due to privilege claims. He questioned why NorthWestern had not obtained outage insurance that covered the cost of replacement power.

Wilson also testified in opposition to NorthWestern's proposal to include the energy conservation savings in its own facilities in the lost-revenues calculation. This issue is moot

because NorthWestern subsequently agreed with Wilson. See rebuttal testimony of William M. Thomas.

### **HRC/NRDC – Dr. Thomas M. Power**

Thomas M. Power addressed energy efficiency issues. Regarding the role of energy efficiency in public policy, Power testified that energy efficiency investments reduce the total cost of the electric supply portfolio. He added that energy efficiency avoids a broad range of environmental costs related to energy production and consumption, including toxic emissions, landscape and ground water disturbance, ground water pollution, and global climate instability. According to Power, energy efficiency increases energy independence and security, boosts economic development and job creation, and gives customers greater control over energy expenditures.

Power stated that the Commission has recognized energy efficiency programs as a low cost resource for almost four decades. He said that almost every other state operates similar programs. He described a number of organizations that promote and support the development of energy efficiency programs, including the National Association of Utility Regulatory Commissions, the Northwest Power and Conservation Council (NPCC), the National Energy Laboratories, and the U.S. Department of Energy. He noted that NPCC periodically publishes a detailed *Northwest Conservation and Electric Power Plan* that has repeatedly demonstrated the critical and economically beneficial role of energy efficiency in serving regional energy needs.

Regarding the energy efficiency programs in NorthWestern's electric supply portfolio, Power pointed to Commission rules requiring NorthWestern to plan and procure an electric supply portfolio that promotes economic efficiency, and provides adequate, reliable electricity supply services at stable, reasonable prices and at the lowest long-term cost. (Admin. R. Mont. §38.5.8203). He noted that the rules define DSM and energy efficiency costs as electricity supply costs, and define energy efficiency and conservation programs, load control programs, and pricing mechanisms as energy supply resources. (Admin. R. Mont. §38.5.8202). Power testified that if customer energy efficiency programs are a cheaper source of supply than other available supplies, pursuing these programs is responsible, prudent, and business-like.

Regarding NorthWestern's USB programs, Power explained that NorthWestern's program was established by statute in the late 1990's in conjunction with utility restructuring. The Legislature required utility customers to pay a non-bypassable surcharge to fund programs

that it thought utilities would abandon in a competitive regime. Over time the Commission authorized NorthWestern to transfer cost-effective energy efficiency programs from the USB portfolio to the energy supply portfolio in order to treat those programs like other energy supply purchases.

Power stated that the low income USB programs pursue social objectives such as assuring access to utility services for all households, or addressing household health and safety issues, although these programs may also provide energy savings. He testified that the benefit-cost tests applied to such programs do not account for the value of achieving the other social objectives. He added that measuring the respective costs of installing gas and electric efficiency measures in a low income weatherization project is difficult since many of the costs are common. He said that the benefit-cost tests for these weatherization programs usually show the natural gas measures to be very cost effective while the electric measures are not cost effective. He stated that the combined natural gas and electric low income weatherization program has been quite cost effective over the last five years.

Power testified that NorthWestern should determine its budget for DSM programs within the electricity supply portfolio based on the range of cost-effective customer efficiency opportunities. He stated that the total USB budget is specified in statute, and that increased demands of low income programs have stripped USB funding away from programs whose primary purpose is serving electricity demand.

Power testified that NorthWestern's energy efficiency programs did not originate from shareholders' pursuit of profit. Rather, he asserted, after NorthWestern purchased the T&D system from Montana Power Co. and inherited a default supplier obligation, it contended that energy efficiency programs were not electric supply resources and should not be included in its electric supply portfolio. He stated that the Commission overruled NorthWestern's objections to running energy efficiency programs and ordered the utility to consider DSM resources on an equivalent basis with supply side resources in fulfilling its obligation to serve default load. Power added that since then NorthWestern has become a leader in Montana in developing cost effective customer energy efficiency programs.

Power opined that NorthWestern's management of customer electric efficiency programs has been overly cautious, conservative, and frugal. He stated that NorthWestern has been very thrifty in acquiring cost-effective DSM, and that overall the avoided electric supply costs have

been almost four times the cost of running the DSM programs. Power testified that the SBW DSM Program Evaluation showed that it would have cost NorthWestern \$108 million over the last five years to purchase the electricity displaced by DSM programs that cost only \$29 million. According to Power, SBW calculated that the levelized cost of DSM savings was 1.6 cents per kWh, while the replacement electricity was projected to cost about 6 cents per kWh.

Power testified that the cost-benefit calculations used to evaluate DSM programs discount future costs and the future value of energy savings and that if future costs were not discounted, the value of the programs would be much higher. He cited NorthWestern's 2011 Plan that projected 11,253,043 MWh of DSM savings over a 20-year planning horizon. Valued at a levelized avoided cost of about \$54 per MWh, the savings would be worth almost \$606 million. The programs were projected to cost about \$277 million, so the net benefit to NorthWestern and its customers would have been \$329 million.

Power compared the PAC test to other cost-benefit tests. The PAC test compares the benefit of avoided conventional supply costs to the utility's share of program costs. The TRC test is similar but includes the customer contribution to program costs along with the utility's share. The Societal Cost test includes avoided environmental costs and other non-energy benefits. The Participant test compares program participant benefits and costs. The RIM test includes the unit cost impact of rate adjustments resulting from recovering utility fixed costs over a smaller volume of energy consumption. Power argued that evaluating programs using a variety of perspectives is appropriate from a public energy policy point of view.

Power listed a number of barriers that inhibit customers from pursuing cost effective electric efficiency measures without utility support. The barriers include high household discount rates, technical expertise and information deficiencies, cost-benefit conflicts in rental properties, simple inertia, and utility rates based on average rather than incremental cost.

Power asserted that households "highly discount future savings associated with energy efficiency investments because of stress on household budgets." (p. 17). Because of this households require a very short pay-back period for energy efficiency investments. He claimed that high rates paid on credit card debt illustrate the preference of households for current consumption over future costs. Utilities take a longer-run view of investments since they operate using discount rates set by their cost of capital. A financially stable utility is also likely to have ready access to capital on favorable terms for long-run energy efficiency investments.

Power stated that households often do not have the technical expertise, information, or experience to evaluate energy saving options and make a rational investment decision.

In the case of rental properties, Power asserted that renters often pay the power bill and would benefit from energy savings, but are not likely to make a long-term investment in a property they do not own. A similar asymmetry in economic interest exists in the case of home builders and home buyers.

Power testified that rates set using average costs rather than incremental costs can keep customers from realizing the actual value of energy saved. The price signal may understate the value of saved electricity, and thereby discourage cost effective energy efficiency investment. He concluded that the large backlog of cost effective energy saving opportunities in households and businesses creates an opening for utility investments to reduce the total cost of energy needs.

Power supported continued use of the LRAM in this electric supply tracker. He stated that a regulated utility such as NorthWestern faces a serious disincentive to encourage energy efficiency. A significant portion of NorthWestern's fixed costs are collected in volumetric charges that are set in general rate cases and may not be adjusted for many years thereafter. If NorthWestern runs effective efficiency programs for its customers, usage will decline and the utility will not receive as much revenue to cover its fixed costs as it would have without the programs. Thus the company is punished for managing its efficiency programs.

Power admitted that between rate cases utility loads often grow, rewarding a utility with surplus revenues. In addition, a utility may earn unexpected revenues through cutting costs. The LRAM restores lost revenues but unexpected revenue increases through load growth or cost cutting are not reduced through automatic adjustment. Power argued that the LRAM is one of a set of adjustments that are made between rate cases to keep rates current. He also asserted that the regulatory lag between rate cases is part of the incentive structure that encourages productive utility behavior. Adjusting rates to track cost reductions would eliminate the utility's incentive to minimize costs and improve service to customers.

Power testified that utilities are reluctant to participate in customer efficiency programs that are not in the stockholders' interests. The appropriate reference point is what revenues would be if NorthWestern did not invest in customer energy efficiency. Since the Commission has ordered NorthWestern to treat cost-effective energy efficiency on par with other supply resources, and because efficiency programs reduce recovery of fixed T&D costs, the incentive

structures are not symmetric. Power argued that if NorthWestern is expected to treat DSM and supply-side resources in the same way, the incentive structures should be symmetric.

He also noted that NorthWestern estimated \$4.9 million in lost T&D revenues in the 2012-13 tracker year, \$3.5 million in CU4 and DGGs lost revenues, and \$358 million in total electric supply revenues. Thus total lost revenues for the 2012-13 tracker year represent about 2.3 percent of total energy supply costs.

Power stated that the LRAM applies only to efficiency measures directly placed in customer's homes and businesses through NorthWestern programs. NorthWestern efforts to raise conservation awareness and to support building and appliance efficiency codes do not affect the LRAM, although these efforts could play an important role to encourage efficiency. The LRAM also does not remove NorthWestern's disincentive to propose more efficient inclining block rates.

Power described how the LRAM adjusts electric supply rates through the tracker mechanism to reflect the projected decline in sales and fixed cost revenue collection that is due to NorthWestern's investment in cost-effective customer electric efficiency. Program energy savings and associated lost revenues accumulate between rate cases. Initially, projected revenue losses are used to set rates. The projections are based on planned efficiency investments. The following year, revenue losses are true-up based on the efficiency measures actually installed. Every five years a third-party review of NorthWestern's electric efficiency programs confirms or adjusts estimated savings over the period. In this case, SBW is performing the review. Lost revenues are adjusted to conform to adjusted savings. Lost revenues and savings are set to zero in the next rate case.

Power discussed two potential weaknesses of an LRAM. First, the utility would benefit from programs that do not reduce electricity consumption, but provide the utility with additional revenue. Second, rates could be set on projected results with no true-up for actuals. He asserted that the design of NorthWestern's LRAM avoids these problems. Regular third party review of NorthWestern's efficiency programs ensures that the programs work as planned and ties NorthWestern's lost revenue recovery to the actual performance of its efficiency measures.

Power described other ways to eliminate the throughput incentive that discourages utility investment in efficiency programs, including annual rate cases, total decoupling of utility revenues from volumes, and monthly customer charge recovery of all fixed T&D costs. He

argued that annual rate cases could be administratively costly and would remove the positive incentives associated with regulatory lag. He stated that while decoupling mechanisms have been adopted in California, Washington, and Idaho, Montana's two experiments in decoupling were terminated for reasons not related to the potential for improvement in utility incentives.

Power strenuously objected to the use of high monthly fixed charges to eliminate the throughput incentive. He stated that the Commission has consistently rejected this type of rate design. He asserted that reducing usage charges reduces customer savings from installing electric efficiency measures and conserving electricity. Also, if the incremental costs of new supply are expected to increase; reducing usage charges sends the wrong price signal, suggesting to customers that electricity is getting cheaper rather than more expensive.

In addition, he testified that high monthly customer charges hit small volume customers harder than large. Since electricity consumption is a normal good, low income households in general use less energy than high income households. Thus, high monthly customer charges disproportionately burden low income households.

Power asserted that SBW did not ignore free ridership and other problems that reduce the net performance of efficiency measures. He stated that SBW made significant downward adjustments to expected energy savings, as shown in the impact result tables. SBW estimated free ridership and spillover rates for programs where the results of participant surveys were statistically reliable. (The estimated free ridership rates are shown in Table 659 of the DSM Program Evaluation, and spillover rates are shown in Table 661.) Power asserted that SBW did not ignore free ridership and spillover, but rather concluded that the net effect of both was not statistically different from zero. Thus a value other than zero may not be assigned with any reasonable level of confidence.

Power argued that measuring free ridership is difficult because of the retrospective, counter-factual nature of the exercise. Participants are asked what they would have done, several months or years previous, if they had not received a subsidy, rebate, or free installation from NorthWestern. Power asserted that the accuracy and validity of responses in this case is dubious.

He stated that measuring spillover is considerably more difficult. The longer a utility runs a variety of programs, the greater the likelihood that customers will become generally aware of various energy saving opportunities. Yet non-participants are asked whether their decision to install a particular efficiency measure was affected by the NorthWestern program promoting the

same action. According to Power, “It is rare that anyone seeks to measure the overall effect of all utility energy efficiency programs over many years on the willingness of customers to finance and install energy efficiency measures by themselves without reliance on utility subsidies.” (p.30).

He asserted that these problems in measurement mix up the effects of free ridership and spillover. Utility-sponsored efficiency programs expose participating and non-participating customers to a wide range of available energy saving opportunities. This exposure may encourage non-participants to install an efficiency measure on their own (spillover). The exposure may also encourage customers to later participate in a different utility sponsored program. If asked whether they would have installed the measure without the utility subsidy, they may answer “yes” and be classified as a free rider. Yet if they were persuaded to participate in the program at least partly through exposure to previous utility programs, their participation might be considered spillover. Power concluded “[i]n that complex setting, SBW’s professional judgment and that of other analysts was that the sum of the two effects cannot be shown to be different from zero.” (p.31).

### Summary of NorthWestern’s Prefiled Rebuttal Testimony

#### **William T. Rhoads**

William T. Rhoads, NorthWestern’s general manager – generation, responded to Wilson’s testimony regarding the DGGs outage, consequential damages and the PWPS warranty on the DGGs power turbines.

Referring to Wilson’s summary of the DGGs outage as incomplete, Rhoads provided details about the event. He said Unit 2B was forced offline on January 11, 2012, due to a vibration problem caused by mechanical damage inside the unit’s power turbine. NorthWestern subsequently found the same problem in Unit 1 when it was inspected on January 30, 2012. According to Rhoads, NorthWestern shut down Units 1 and 3 after PWPS recommended it do so to prevent further damage. NorthWestern immediately executed contracts for replacement regulation service, he said, and as of May 3, 2012, five of the six turbines were back in service using a combination of the original turbines after servicing and loaners from PWPS.

Rhoads defended the actions taken by PWPS to return DGGs to full operation, which he listed as: (1) providing replacement power turbines at its own cost; (2) transporting the DGGs

turbines from Anaconda to Connecticut for repair and back again, at its own cost; and (3) devoting a team of engineers to identifying the mechanical problem and designing a remedy. Rhoads said PWPS is now at work on a modification to the power turbine, which, if tests this summer prove it to be successful, will be made to the remaining turbines as well by the end of 2013.

Rhoads disputed Wilson's statement that PWPS extended the turbine warranty only through March 2013. According to Rhoads, the warranty never expired, PWPS has honored the warranty, and NorthWestern negotiated a contract modification with PWPS in January 2013 that provides a new or extended warranty. He listed the following as beneficial provisions of the contract modification: (1) the turbines currently in use remain under warranty indefinitely or until the last original turbine is repaired; (2) the warranty on the repaired turbines that are installed at DGGS after successful performance testing will be extended for two years after the date of installation of the last modified turbine; (3) PWPS will make any additional modifications to the turbines that it determines are needed as a result of the outage at its cost; and (4) whether or not the turbine warranty extension has expired, if PWPS determines that additional modifications related to the DGGS outage will be incorporated into new FT8-3 power turbine builds, PWPS will provide the material and labor to incorporate the hardware at no cost to NorthWestern.

According to Rhoads, customers benefited from the outage because the new warranty extends to at least five years past the original DGGS commercial operation date and the extended warranty means DGGS will be more reliable than prior to the outage.

Regarding Wilson's criticism of NorthWestern's execution of a contract with PWPS that excluded consequential damages, Rhoads countered that it is standard practice for equipment manufacturers like PWPS to require a waiver of consequential damages because the quantity and value of replacement power for which they could be liable is unknowable. Rhoads said NorthWestern managed the risk of an outage by negotiating an original warranty with PWPS that extended PWPS's standard one-year warranty to two years. He added that DGGS' design with a third unit acting as an operational spare has resulted in two units being available more than 90% of the time to meet reliability standards (excepting the outage period). Rhoads asserted that the "blanking plate" feature of the PWPS Swiftpac units that allows the use of just one side of a unit also contributes to DGGS' reliability. Rhoads disagreed with Wilson's statement that ratepayers

should not be responsible for outage-related additional costs, arguing that NorthWestern managed the outage appropriately and that DGGs was providing all necessary regulation service within three months of the outage. Regarding Wilson's suggestion that NorthWestern could have obtained outage insurance that covered replacement power costs, Rhoads said he doubted such a product is available.

According to Rhoads, NorthWestern should not be penalized by a disallowance of costs it incurred as a result of the DGGs outage because he asserted NorthWestern acted reasonably to protect ratepayers and shareholders in managing the risk of constructing a new plant.

### **Fred Lyon**

Fred Lyon, an attorney and consultant who specializes in energy construction law and contracts, was retained by NorthWestern to testify as to the standard industry practices regarding consequential damages waivers and warranties. Regarding Wilson's suggestion the waiver of consequential damages provision in Section 22.0 of the PWPS-NorthWestern turbine purchase agreement was unreasonable, Lyon asserted that waivers of consequential damages are routinely included major equipment contracts in the energy construction industry. He said the specific provision in the agreement that specifies that the cost of replacement power is within the scope of the waiver it is typical and customary in the industry. Lyon provided examples of power plant construction contracts that included a waiver of consequential damages. According to Lyon, if these damages were not waived, an equipment vendor would increase the contract price as protection against its significant risk exposure and the utility and its ratepayers might end up paying more for a contingency that might never occur.

Lyon disputed Wilson's suggestion that NorthWestern could have obtained a warranty that covered generation replacement costs. He said it is customary in the industry that remedies provided by warranties are limited to direct damages and that a warranty covering replacement power costs was not available.

### **Michael R. Cashell**

Cashell addressed Wilson's testimony about the FERC ALJ's Initial Decision related to recovery of NorthWestern's costs for the replacement regulation service contracts during the three-month DGGs outage. According to Cashell, NorthWestern's FERC Schedule 3 transmission tariff includes a Component "C" that is NorthWestern's total cost of procuring regulation service for its transmission customers from third-party providers. He asserted that

Component “C” does not limit NorthWestern’s ability to recover third-party regulation costs, including the cost of replacement regulation service due to the DGGS outage. Cashell said NorthWestern included Component “C” in its FERC Schedule 3 tariff because the Montana Commission’s order in Docket D2008.8.95 required NorthWestern to regularly pursue cost-effective market alternatives to operating DGGS, an exercise that could lead to costs being incurred as a result of contracting with third-parties for regulation service.

Cashell said NorthWestern will decide whether to make a Section 205 filing at FERC to request recovery of the replacement contracts’ costs after FERC issues its decision on the DGGS Schedule 3 filing.

According to Cashell, the amount of the increase in regulation costs that resulted from the DGGS outage was not \$1,270,467 as provided by Cashell in his direct testimony and subsequently referenced by Wilson, but \$1,419,172. Cashell explained that in response to data request MCC-039, NorthWestern corrected the number so that it reflected the market price rather than the Docket D2008.8.95 fixed price of the 7 MW of DGGS minimum generation that is scheduled to retail customers.

### **Kevin J. Markovich**

Markovich contended that MCC witness Donkin’s discussion of hedging gains and losses could lead to confusion over what NorthWestern’s hedging strategy is intended to accomplish. Markovich emphasized that NorthWestern uses hedging as a tool to manage risk and rates and never engages in speculative trading. Contrary to Donkin’s surmise that NorthWestern does not monitor its electric supply hedge performance, Markovich asserted that the utility closely follows the performance of its hedging programs, including its fixed price hedges, but sees negligible value in evaluating individual transactions. He noted that NorthWestern must act prudently based on information it knew or should have known at the time of the transaction.

Regarding Donkin’s opinion that, due to the different incentives and economics that NorthWestern and its counter parties have, NorthWestern will probably be the losing party in its hedging transactions over time, Markovich responded that Donkin’s statements are unfounded. According to Markovich, Donkin could only be correct if NorthWestern’s counter parties were able to manipulate the robust and transparent Mid-C market to make sure they win their hedging bets, which Markovich said is not likely. Markovich said that had the Mid-C market price shifted from being low to very high instead of the other way around, the fixed price hedges would have

provided lower costs to customers, and there would be no claims about market manipulation incentives to win hedging bets.

Markovich analogized the concept of hedging to property insurance that covers a set period of time and requires a payment whether or not there is a claim during the term. He said the value of insurance is the protection it provides against adverse outcomes, which he said holds true as well with hedging.

Markovich concluded that the hedging plan is tried and tested and has achieved the intended results: portfolio costs move in the same direction as the market, but less dramatically.

### **William M. Thomas**

Thomas responded to the positions of MCC witnesses Wilson and Stamatson and updated the lost revenues and associated reconciliations filed with his supplemental testimony.

Thomas agreed with Wilson that NorthWestern should not recover lost revenues for electric savings in its own facilities. Thomas estimated that NorthWestern has recovered \$44, 573 in total lost revenues from DSM investments in its own facilities, beginning with the 2006-07 tracker period. He stated that NorthWestern classifies its facilities as commercial accounts and excluding its DSM savings changes the Residential/Commercial splits that affect the lost revenue calculation. He said that NorthWestern will count savings at its facilities toward annual savings targets.

Thomas agreed with Stamatson that the energy savings used to calculate CU4-related lost revenues for January – June 2009 should be 2.98 aMW, as shown in his Exhibit\_(WMT-3S), not 3.34 aMW, as shown in Exhibit\_(WMT-5). He also agreed with Stamatson that the Residential/Commercial splits used to calculate lost revenues in Exhibit\_(WMT-5) should be updated, and proposed to update the percentage splits using the latest SBW information and excluding NorthWestern owned facility savings.

The table below summarizes Exhibit\_(WMT-5.2) that incorporates all proposed changes to electric DSM lost revenues in the period July 1, 2006 through June 30, 2013.

<b>Post SBW Evaluation Electric DSM Lost Revenues</b>				
Time Period	Montana T&D	Colstrip Unit #4	Dave Gates Generating Station	Total DSM Lost Revenue
Tracker 2006-07	\$ 1,768,511	\$ -	\$ -	\$ 1,768,511
Tracker 2007-08	2,224,610	-	-	2,224,610
Tracker 2008-09	1,481,064	83,021	-	1,564,085
Tracker 2009-10	3,175,025	752,795	-	3,927,820
Tracker 2010-11	1,543,506	1,558,167	69,327	3,170,999
Tracker 2011-12	2,962,327	2,190,459	278,111	5,430,897
<b>Total 2006-2012</b>	<b>\$ 13,155,044</b>	<b>\$ 4,584,442</b>	<b>\$ 347,437</b>	<b>\$ 18,086,923</b>
Tracker 2012-13	\$ 4,847,629	\$ 2,950,355	\$ 588,770	\$ 8,386,754

NorthWestern requested final approval for adjusted lost revenues in tracker periods 2006-07 through 2010-11. NorthWestern also requested interim approval for lost revenues in the 2011-12 tracker period. The following table compares interim-approved lost revenues in periods through 2010-11 and pre-SBW proposed lost revenues in 2011-12 to NorthWestern's post-SBW proposed lost revenues found in Exhibit\_(WMT-5.2).

<b>Comparison of Electric DSM Lost Revenues Pre and Post SBW Evaluation</b>				
Time Period	Pre-SBW Lost Revenue	Post-SBW Lost Revenue	Over & (Under) Collections	Pct Diff
Tracker 2006-07	\$ 1,338,798	\$ 1,768,511	\$ (429,712)	-32.10%
Tracker 2007-08	2,423,648	2,224,610	199,037	8.21%
Tracker 2008-09	1,511,688	1,564,085	(52,397)	-3.47%
Tracker 2009-10	3,778,987	3,927,820	(148,834)	-3.94%
Tracker 2010-11	3,256,179	3,170,999	85,179	2.62%
Tracker 2011-12	6,003,326	5,430,897	572,429	9.54%
	<b>\$ 18,312,625</b>	<b>\$ 18,086,923</b>	<b>\$ 225,703</b>	<b>1.23%</b>