NorthWestern Energy

NATURAL GAS TRACKER FILING

Docket No. D2011.5.36

In the Matter of the Application of NorthWestern Energy's:

(1) Unreflected Gas Supply Cost Account Balance for the 12-Month Period Ending June 30, 2011 and Projected Gas Cost Tracking for the 12-Month Period Ending June 30, 2012;

(2) Gas Transportation Adjustment Clause (GTAC) Balance as of April 30, 2011.

NorthWestern Energy

NorthWestern Corporation
d/b/a NorthWestern Energy
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May 27, 2011

Ms. Kate Whitney
Administrator
Montana Public Service Commission
1701 Prospect Avenue
PO Box 202601
Helena, MT 59620-2601

RE: NorthWestern Energy's:

1) Unreflected Gas Supply Cost Account Balance as of June 30, 2011, and the Projected Gas Cost for the 12-Month Period July 1, 2011 through June 30, 2012; and

2) Gas Transportation Adjustment Clause (GTAC) Balance as of April 30, 2011

Dear Ms. Whitney:

Pursuant to Montana law, the Montana Public Service Commission (MPSC or Commission) rules, the Deferred Accounting Gas procedure initially approved by the Commission in Order No. 4598 in Docket No. 6706 on January 4, 1980, and the Gas Transportation Adjustment Clause (GTAC) mechanism initially approved in Order No. 5474c in Docket No. 90.1.1 on October 3, 1991, NorthWestern Energy (NWE or NorthWestern) hereby transmits an original and ten copies of its annual Application for approval of natural gas supply rates which:

- Reflects rate treatment for the balance in Unreflected Gas Costs, for the 12-month period ending June 30, 2011;
- Reflects rate treatment for amortization of the GTAC Balance as of April 30, 2011;
- Extinguishes the unit amortizations in the current rate schedules, approved in Order No. 7089a from Docket D2010.5.49; and
- Reflects the projected load, supply and related natural gas costs for the 12-month tracker period July 1, 2011 through June 30, 2012.

- In addition, NorthWestern requests approval to continue to collect the costs of its interest in Battle Creek natural gas field (Battle Creek) on an interim basis as part of future tracker filings until such time that a Battle Creek revenue requirement filing is processed before the Commission.

Except for the production from its interest in Battle Creek, NorthWestern purchases wholesale natural gas from suppliers and passes the cost directly to customers without mark-up. Each year NWE estimates how much it will cost to purchase natural gas for the upcoming annual tracker period and this estimate is updated each month within the tracking period. At the same time, the difference between revenue resulting from the estimated natural gas cost and the actual gas cost for the prior tracker period is computed.

NWE acquired a share of Battle Creek located in Blaine County, Montana through two separate transactions in 2010. The associated costs were included on an interim basis beginning in the November 2010 and January 2011 monthly tracker filings, respectively, until a Battle Creek revenue requirement filing can be made and processed in the future. The Testimonies of John Smith and Glen Phelps include additional discussion regarding Battle Creek.

The projected natural gas price for the 12-month period starting July 1, 2011 is $5.1354 per Dkt, compared with the 12-month period starting July 1, 2010 of $5.6916 per Dkt. The $0.56 per Dkt difference between these two tracking periods is an indication that rates for the upcoming tracking period could be slightly lower than those incurred in the current tracking period. However, it should be noted that this is merely an indication, as the ultimate rates will be a function of hurricane activity, weather, demand, and other fundamental and technical factors. The Testimony of John Smith provides detailed information pertaining to current market conditions and forecasted prices. The difference between the June 1, 2011 natural gas supply rate and the rate proposed for July 1, 2011 is primarily due to the amortization of the deferred account balance prior to the end of the current tracking period.

In this filing, NWE also requests approval to extinguish the current Unreflected Gas Cost Account (UGCA) Balance Amortization approved in Final Order No. 7089a in Docket D2010.5.49, and to reflect the UGCA Balance of $252,176 for the 12-month period ending June 30, 2011. Also, NWE requests that the remaining UGCA balance of $55,755 approved in Final Order No. 7089a be included in the Unreflected Gas Cost balance. The estimated Total Unreflected Gas Account Balance at the end of June 2011 is $307,931. NWE proposes to set the rate at zero until actuals are recorded for the months of May and June. NWE will review the account balance again and determine if the final amount merits filing a rate adjustment proposal.

NWE further requests approval to extinguish the current GTAC Balance Amortization approved in Final Order 7089a, and to reflect the GTAC Balance as of April 30, 2011 in natural gas supply rates. The proposed GTAC balance for this filing is $(535,018) which is the sum of the GTAC booked balance for the period ending April 30, 2011 of $(578,161) and the current balance of the amortization approved in Final Order 7089a of $43,143. This balance will be reflected in rates over the 12-month period ending June 30, 2012.

Appendix A to this filing presents a summary of the current tariff rates and the proposed rates

in this filing, as well as the resulting dollar and percentage changes.

The decrease for a typical residential customer using 10 Dkt per month will be $11.33 per month or $135.96 per year on the total bill. This results in an overall decrease of 10.68% on the total bill. The actual decrease will depend on each customer's type and usage. The typical bill computations are included in Appendix B.

Other documents submitted with this filing are:

1. Application for interim and final approval of new monthly natural gas rates;

2. Notice of Interim Rate Adjustment Request;

3. Prefiled Testimony and Exhibits of John M. Smith, Glen D. Phelps and William M. Thomas; and

4. Supporting Workpapers.

In accordance with Order No. 5667a, FOF No. 3, NWE requests approval to continue to reflect accounting treatment, through the GTAC mechanism, for certain expansions that generate Interruptible Transportation revenues or Interruptible and Firm Transportation revenues. The rational for this treatment remains viable, since a disincentive would exist for the Natural Gas Utility to invest in new plant if there is no mechanism by which costs related to these investments can be recovered until the next general rate case.

Three copies of this letter and documents submitted herewith are being delivered to the Montana Consumer Counsel (MCC).

NWE's next monthly tracking filing will be for rates effective August 1, 2011 unless natural gas prices move dramatically in either direction prior to June 15, 2011. If this occurs, NWE will file an amended monthly natural gas cost tracking filing for a July 1, 2011 monthly rate adjustment.

The employee of NWE responsible for answering questions concerning this rate change request or for inquiries to the appropriate members of the Utility Staff is:

Joe Schwartzenberger
Regulatory Affairs Department
NorthWestern Energy
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Butte, MT 59701
(406) 497-3362
Joe.Schwartzenberger@northwestern.com

Applicant's attorney in this matter is:

Mr. Ross Richardson
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Along with Joe Schwartzenberger and Ross Richardson, please add Connie Moran to the official service list in this docket to receive copies of all documents. NWE also requests that all electronic correspondence related to this filing be sent to connie.moran@northwestern.com

If there are any questions in this regard, I can be reached at (406) 497-3362.

Sincerely,

Joe Schwartzenberger
Director of Regulatory Affairs

Enclosures

cc: Montana Consumer Counsel

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

In the Matter of NorthWestern Energy's Application For: (1) Unreflected Gas Cost Account Balance and Projected Gas Cost; and (2) Gas Transportation Adjustment Clause Balance.	))))	Docket No. D2011.5.36

APPLICATION FOR INTERIM AND FINAL RATE ADJUSTMENT

COMES NOW NorthWestern Energy, Applicant in the above-entitled proceeding, and respectfully submits the following in support thereof:

I.

Applicant's full name and Post Office address are:

NorthWestern Energy
40 East Broadway
Butte, MT 59701

II.

Applicant is NorthWestern Corporation doing business as NorthWestern Energy in the States of Montana, South Dakota and Nebraska as a public utility.

III.

The organizational documents of the Applicant and amendments thereto are filed with the appropriate State authorities and these documents are hereby incorporated by reference as though fully set forth herein.

IV.

The following described tariff sheets are the only natural gas sheets impacted by the proposals in this submittal that are presently in effect in the State of Montana and on file with the Montana Public Service Commission (Commission or PSC). All other natural gas tariff sheets remain as previously approved by the PSC:

Schedule	Description	Sheet No.
D-RG-1	Residential Natural Gas Service	10.1
D-GSG-1	General Service Natural Gas	20.1
D-RGCA-1	Residential Natural Gas Aggregation	11.1
D-GSGCA-1	General Service Natural Gas Aggregation	21.1
T-FUGC-1	Firm Utility Gas Contract	30.1
D-FTG-1	Firm Transportation Natural Gas – DBU	25.1
T-FTG-1	Firm Transportation Natural Gas – TBU	80.1
T-ITG-1	Interrupt. Trans. Natural Gas – TBU	85.1
T-FSG-1	Firm Storage Natural Gas – TBU	90.1

The applicable rates for these tariff sheets are summarized and contained as Appendix A.

V.

Applicant will submit new tariff sheets for natural gas service to customers served by Applicant in the State of Montana upon approval of the proposed rates contained as Appendix A. The proposed new rates will replace the present tariff sheets as follows:

Schedule	Description
D-RG-1	Residential Natural Gas Service (1 page)
D-GSG-1	General Service Natural Gas (1 page)
D-RGCA-1	Residential Natural Gas Aggregation (1 page)
D-GSGCA-1	General Service Natural Gas Aggregation (1 page)
T-FUGC-1	Firm Utility Gas Contract (1 page)
D-FTG-1	Firm Transportation Natural Gas – DBU (1 page)
T-FTG-1	Firm Transportation Natural Gas - TBU (1 page)

T-ITG-1	Interrupt. Transport. Natural Gas - TBU (1 page)
T-FSG-1	Firm Storage Natural Gas – TBU (1 page)

VI.

In accordance with the Deferred Accounting Gas Rate Schedule approved by the Commission in Order 7089a in Docket D2010.5.49, the balance in Account No. 191, Unreflected Gas Costs, for the 12-month period ending June 30, 2011 is an under collection of $252,176. NWE proposes to amortize this balance, together with an adjustment for the actual Unreflected Gas Cost Account Balance of $55,755 resulting from cessation of the amount approved for amortization in Order 7089a. The total proposed amortization amount is $307,931. NWE proposes to set the rate at zero until actuals are recorded for the months of May and June. NWE will then review the account balance and determine if the final amount merits filing a rate adjustment proposal. The tracking market, supply and gas costs for the 12-month period, July 1, 2011 to June 30, 2012 produce a gas cost of $5.1354/Dkt.

In addition, NWE proposes to continue to use the same the monthly tracking methodology as it has used in the last several years. A forecast of 12-months is used in this annual filing for the period July 1 through June 30 of the tracking year. However, the subsequent monthly calculation is based on the balance of the tracking year forecasts instead of a rolling 12-month forecast. NWE believes this method has helped decrease the over or under collection during the tracking period.

VII.

Pursuant to the Montana Power Company's proposal in Docket No. 90.1.1, and approved in Final Order No. 5474c, NWE is filing for treatment of the Gas Transportation Adjustment Clause (GTAC) Balance. For the period ending April 30, 2011, the GTAC Balance is $(578,161). NWE proposes to amortize this Balance, adjusted for the actual GTAC balance from Order 7089a of $43,143. The resulting GTAC Balance proposed in this filing is $(535,018).

VIII.

Pursuant to Order No. 5667a, Finding of Fact No. 3, NWE requests approval to continue to reflect accounting treatment, through the GTAC mechanism, for certain expansions that generate interruptible transportation revenues and/or firm transportation revenues. As of June 30, 2011, there are no offsets for capital investments being reflected in the calculation of the GTAC Net Balance because all of the investments previously reflected in the calculation have been included in rate base as a result of general rate case proceedings. However, if this accounting treatment is not extended, the disincentive still exists for the Gas Utility to invest in new plant if there is no mechanism by which costs related to the investments can be recovered until the next general rate case. Therefore, Applicant requests that this accounting treatment be extended and continue in effect for as long as the GTAC mechanism continues in effect.

IX.

NWE acquired the majority working interest in the Battle Creek natural gas field (Battle Creek) located in Blaine County, Montana through two separate transactions in 2010. Costs associated with the initial transaction were included in NWE's November 1, 2010 monthly tracker filing on an interim basis and have been included in each monthly tracker filing on that same basis since. Costs associated with the second transaction were initially included in NWE's January 1, 2011 monthly tracker filing on an interim basis and have been included in each monthly tracker filing on that same basis since. The inclusion of these costs in the monthly trackers allowed NWE to commence rate recovery on an interim basis until a future Battle Creek revenue requirement filing can be processed before the Commission. Applicant requests approval to continue to collect the costs of its share of Battle Creek in future tracker filings on the same basis.

X.

The proposed new rates contained in Appendix A reflect:

1. The amortization of the Unreflected Gas Cost Account Balance described in

Paragraph No. VI,

2. The projected monthly market supply and gas cost described in Paragraph No. VI, and

3. The amortization of the GTAC Balance described in Paragraph No. VII.

4. Costs associated with NWE's interest in Battle Creek described in Paragraph No. IX.

XI.

Attached hereto are the following documents that are by this reference made a part hereof:

- Current and proposed rates, Appendix A;
- Typical residential bill computation, Appendix B;
- Notice of Interim Rate Adjustment Request; and
- Prefiled testimony, exhibits and supporting workpapers of John M. Smith, Glen D. Phelps and William M. Thomas.

This application is made in accordance with the provisions of Mont. Code Ann. §69-3-101 et seg. (2001) and the rules, regulations and orders of the Commission:

WHEREFORE, Applicant respectfully requests that the Commission:

1. Grant final approval of the rates that have been in effect on an interim basis in Docket No. D2010.7.75 for the July 1, 2010 through June 30, 2011 tracker period, less the costs associated with Applicant's interest in Battle Creek, which are in effect on an interim basis during that time period, and which will be trued-up in a Commission Order resulting from the processing of a future Battle Creek revenue requirement filing,

2. Grant interim approval of the proposed rates, included as Appendix A, to be effective on a monthly basis for service on and after July 1, 2011,

3. Approve extension of the accounting treatment for certain expansion projects handled through the GTAC mechanism,

4. Approve the continued collection of the costs of Applicant's interest in Battle Creek on an interim basis as part of this and subsequent tracker filings until such time that a

Battle Creek revenue requirement filing is processed before the Commission, and

5. Grant such other and additional relief, as the Commission shall deem just and proper.

DATED: May 27, 2011.

Respectfully submitted,
NorthWestern Energy

By: _____

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NorthWestern Energy
Natural Gas Utility
Unit Rate Adjustments/Proposed Rates
July 1, 2011

	Current	Proposed	Rate Change	Percentage Change
Core:				
D-RG-1 Rate Schedule				
Residential				
Monthly Service Charge per Meter	$ 6.90	$ 6.90	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.857266	$ 1.857266	$ -	0.00%
Transmission Charge	$ 1.099798	$ 1.099798	$ -	0.00%
Storage Charge	$ 0.334720	$ 0.334720	$ -	0.00%
Gas Supply Charge	$ 6.319600	$ 5.135400	$ (1.184200)	-18.74%
Deferred Gas Cost Amortization	$ (0.070900)	$ -	$ 0.070900	100.00%
DBU GTAC Amortization	$ 0.000585	$ (0.000255)	$ (0.000840)	-143.59%
TBU GTAC Amortization	$ 0.001910	$ (0.018813)	$ (0.020723)	-1084.97%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 9.541274	$ 8.408830	$ (1.132444)	-11.87%
D-RGCA-1 Rate Schedule				
Residential Gas Core Aggregation				
Monthly Service Charge per Meter	$ 6.90	$ 6.90	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.857266	$ 1.857266	$ -	0.00%
Transmission Charge	$ 1.099798	$ 1.099798	$ -	0.00%
Storage Charge	$ 0.334720	$ 0.334720	$ -	0.00%
DBU GTAC Amortization	$ 0.000585	$ (0.000255)	$ (0.000840)	-143.59%
TBU GTAC Amortization	$ 0.001910	$ (0.018813)	$ (0.020723)	-1084.97%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 3.292574	$ 3.273430	$ (0.019144)	-0.58%
D-GSG-1 Rate Schedule				
General Natural Gas Service				
Monthly Service Charge per Meter				
0 to 300	$ 17.10	$ 17.10	$ -	0.00%
301 to 1,000	$ 22.60	$ 22.60	$ -	0.00%
1,001 to 2,000	$ 36.40	$ 36.40	$ -	0.00%
2,001 to 5,000	$ 61.15	$ 61.15	$ -	0.00%
5,001 to 10,000	$ 75.10	$ 75.10	$ -	0.00%
10,001 to 30,000	$ 118.80	$ 118.80	$ -	0.00%
> 30,000	$ 144.35	$ 144.35	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.836215	$ 1.836215	$ -	0.00%
Transmission Charge	$ 1.099118	$ 1.099118	$ -	0.00%
Storage Charge	$ 0.333757	$ 0.333757	$ -	0.00%
Gas Supply Charge	$ 6.319600	$ 5.135400	$ (1.184200)	-18.74%
Deferred Gas Cost Amortization	$ (0.070900)	$ -	$ 0.070900	100.00%
DBU GTAC Amortization	$ 0.000602	$ (0.000247)	$ (0.000849)	-141.03%
TBU GTAC Amortization	$ 0.001967	$ (0.018236)	$ (0.020203)	-1027.10%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 9.518654	$ 8.386721	$ (1.131933)	-11.89%

NorthWestern Energy
Natural Gas Utility
Unit Rate Adjustments/Proposed Rates
July 1, 2011

	Current	Proposed	Rate Change	Percentage Change
D-GSGCA-1 Rate Schedule				
General Natural Gas Service Core Aggregation				
Monthly Service Charge per Meter				
0 to 300	$ 17.10	$ 17.10	$ -	0.00%
301 to 1,000	$ 22.60	$ 22.60	$ -	0.00%
1,001 to 2,000	$ 36.40	$ 36.40	$ -	0.00%
2,001 to 5,000	$ 61.15	$ 61.15	$ -	0.00%
5,001 to 10,000	$ 75.10	$ 75.10	$ -	0.00%
10,001 to 30,000	$ 118.80	$ 118.80	$ -	0.00%
> 30,000	$ 144.35	$ 144.35	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.836215	$ 1.836215	$ -	0.00%
Transmission Charge	$ 1.099118	$ 1.099118	$ -	0.00%
Storage Charge	$ 0.333757	$ 0.333757	$ -	0.00%
DBU GTAC Amortization	$ 0.000602	$ (0.000247)	$ (0.000849)	-141.03%
TBU GTAC Amortization	$ 0.001967	$ (0.018236)	$ (0.020203)	-1027.10%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 3.269954	$ 3.251321	$ (0.018633)	-0.57%
T-FUGC-1 Rate Schedule				
Firm Utility Gas Contract Service				
Monthly Service Charge per Meter				
10,001 to 30,000	$ 108.65	$ 108.65	$ -	0.00%
> 30,000	$ 280.15	$ 280.15	$ -	0.00%
Transmission Charges:				
Reservation Rate (MDDQ)	$ 5.290125	$ 5.290125	$ -	0.00%
Transmission Commodity Rate (Dkt)	$ 0.063056	$ 0.063056	$ -	0.00%
GTAC Amortization (Dkt)	$ 0.002236	$ (0.014131)	$ (0.016367)	-731.98%
Storage Charges:				
Reservation Rate (MDDQ)	$ 4.207313	$ 4.207313	$ -	0.00%
Storage Commodity Rate (Dkt)	$ 0.015220	$ 0.015220	$ -	0.00%
GTAC Amortization (MDDQ)	$ (0.023606)	$ 0.009918	$ 0.033524	142.02%
Gas Supply Charge (Dkt)	$ 6.319600	$ 5.135400	$ (1.184200)	-18.74%
Deferred Gas Cost Amortization (Dkt)	$ (0.070900)	$ -	$ 0.070900	100.00%

NorthWestern Energy
Natural Gas Utility
Unit Rate Adjustments/Proposed Rates
July 1, 2011

	Current	Proposed	Rate Change	Percentage Change
Non-Core				
Distribution Business Unit				
D-FTG-1 Rate Schedule				
Firm Transportation Natural Gas Service				
Monthly Service Charge per Meter				
2,000 to 5,000	$ 104.05	$ 104.05	$ -	0.00%
5,000 to 10,000	$ 118.95	$ 118.95	$ -	0.00%
10,001 to 30,000	$ 163.50	$ 163.50	$ -	0.00%
> 30,000	$ 189.85	$ 189.85	$ -	0.00%
Distribution Charge: (MDDQ)				
Reservation Rate	$ 6.583848	$ 6.583848	$ -	0.00%
GTAC Amortization	$ 0.004359	$ (0.001942)	$ (0.006301)	-144.55%
D-ITG-1 Rate Schedule				
Interruptible Transportation Natural Gas Service				
Monthly Service Charge per Meter				
2,000 to 5,000	$ 104.05	$ 104.05	$ -	0.00%
5,000 to 10,000	$ 118.95	$ 118.95	$ -	0.00%
10,001 to 30,000	$ 163.50	$ 163.50	$ -	0.00%
> 30,000	$ 189.85	$ 189.85	$ -	0.00%
Distribution Charge: (Dkt)				
Distribution Commodity Rate	$ 0.216432	$ 0.216432	$ -	0.00%
Transportation Business Unit				
T-FTG-1 Rate Schedule				
Firm Transportation Natural Gas Service				
Monthly Service Charge per Meter				
5,001 to 10,000	$ 101.80	$ 101.80	$ -	0.00%
10,001 to 30,000	$ 146.35	$ 146.35	$ -	0.00%
> 30,000	$ 324.70	$ 324.70	$ -	0.00%
Transmission Reservation Rate (MDDQ)	$ 8.321131	$ 8.321131	$ -	0.00%
Transmission Commodity Rate (Dkt)				
Maximum	$ 0.063056	$ 0.063056	$ -	0.00%
GTAC Amortization	$ 0.000962	$ (0.011145)	$ (0.012107)	-1258.52%
T-ITG-1 Rate Schedule				
Interruptible Transportation Natural Gas Service				
Monthly Service Charge per Meter				
5,001 to 10,000	$ 101.80	$ 101.80	$ -	0.00%
10,001 to 30,000	$ 146.35	$ 146.35	$ -	0.00%
> 30,000	$ 324.70	$ 324.70	$ -	0.00%
Transmission Commodity Rate (Dkt)				
Maximum	$ 0.336597	$ 0.325452	$ (0.011145)	-3.31%
T-FSG-1 Rate Schedule				
Firm Storage Natural Gas Service				
Monthly Rate:				
Withdrawal Reservation Rate:	$ 4.250737	$ 4.250737	$ -	0.00%
Injection Commodity Rate:	$ 0.021968	$ 0.021968	$ -	0.00%
Withdrawal Commodity Rate:	$ 0.021968	$ 0.021968	$ -	0.00%
Storage Capacity Rate:	$ 0.020869	$ 0.020869	$ -	0.00%
GTAC Amortization	$ (0.023601)	$ 0.009916	$ 0.033517	142.02%

NorthWestern Energy

Residential Services - Typical Bill Amount

Usage in Dkt.	10	Current as of June 1, 2011		Proposed			
		Rate	Total Bill Amount	Rate	Total Bill Amount	Bill Change	Percentage Change
Monthly Service Charge per Meter		$ 6.90	$ 6.90	$ 6.90	$ 6.90	$ -	0.00%
Commodity Charges: (Monthly $/Dkt)							
Distribution Charge		$ 1.857266	$ 18.57	$ 1.857266	$ 18.57	$ -	0.00%
Transmission Charge		$ 1.099798	$ 11.00	$ 1.099798	$ 11.00	$ -	0.00%
Storage Charge		$ 0.334720	$ 3.35	$ 0.334720	$ 3.35	$ -	0.00%
Gas Supply Charge		$ 6.319600	$ 63.20	$ 5.135400	$ 51.35	$ (11.85)	-18.75%
Deferred Gas Cost Amortization		$ (0.070900)	$ (0.71)	$ -	$ -	$ 0.71	100.00%
DBU GTAC Amortization		$ 0.000585	$ 0.01	$ (0.000255)	$ -	$ (0.01)	-100.00%
TBU GTAC Amortization		$ 0.001910	$ 0.02	$ (0.018813)	$ (0.19)	$ (0.21)	-1050.00%
Storage GTAC Amortization		$ (0.001705)	$ (0.02)	$ 0.000714	$ 0.01	$ 0.03	150.00%
USBC		$ 0.161704	$ 1.62	$ 0.161704	$ 1.62	$ -	0.00%
CTC-RA		$ 0.129000	$ 1.29	$ 0.129000	$ 1.29	$ -	0.00%
CTC-RA Credit		$ (0.072540)	$ (0.73)	$ (0.072540)	$ (0.73)	$ -	0.00%
CTC-GP		$ 0.208000	$ 2.08	$ 0.208000	$ 2.08	$ -	0.00%
CTC-GP Credit		$ (0.049270)	$ (0.49)	$ (0.049270)	$ (0.49)	$ -	0.00%
Total Commodity		$ 9.918168	$ 99.19	$ 8.785724	$ 87.86	$ (11.33)	-11.42%
Total Bill (Price per Dkt Incl. Service Charge)		$ 10.608590	$ 106.09	$ 9.476000	$ 94.76	$ (11.33)	-10.68%

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

In the Matter of the Application of NorthWestern Energy's: (1) Unreflected Gas Cost Account Balance and Projected Gas Cost; and (2) Gas Transportation Adjustment Clause Balance	))))	Docket No. D2011.5.36

NOTICE OF INTERIM RATE ADJUSTMENT REQUEST

NorthWestern Energy, Applicant, serves notice pursuant to the Administrative Rules of Montana, Section 38.5.503, that it has filed with the Montana Public Service Commission (MPSC) a request for an overall interim decrease for core customers and an interim decrease for core aggregation customers in natural gas rates in this Docket to reflect Forecast Gas Costs, the Unreflected Gas Cost Account (UGCA) Balance and Gas Transportation Adjustment Clause (GTAC) Balance procedures. This request also includes an interim decrease for non-core DBU distribution transportation service, a decrease for non-core TBU transportation firm and an increase for storage service customers relating to the GTAC adjustment. This Interim request includes the use of monthly gas cost adjustments going forward. Applicant requests that the proposed rates and monthly gas cost adjustments become effective for service on and after July 1, 2011.

This Docket commenced on May 27, 2011, when the Applicant filed testimony, exhibits and workpapers with the MPSC in its annual Natural Gas Cost Adjustment Filing. Applicant requests an interim change in rates effective July 1, 2011 pending a final decision on this request.

The rate adjustments are required to: 1) reflect a decrease in the projected gas costs; 2) amortize the amount in the UGCA Balance for the 12-month period ending June 30, 2011; 3) amortize the GTAC Balance as of April 30, 2011; 4) extinguish the unit amortizations in the current rates; and 5) to continue to reflect the costs of NorthWestern Energy's interest in Battle Creek natural gas field on an interim basis.

The net adjustments proposed in this filing result in the following:

- A decrease in gas costs from $6.3196 per Dkt to $5.1354 per Dkt.

- UGCA Balance, for the 12-month period ending June 30, 2011 was $252,176. NWE requests that the remaining UGCA balance of $55,755 approved on in interim basis in Order 7089a in Docket D2010.5.49 be included in the UGCA balance. The estimated Total UGCA Balance at the end of June 2010 is $307,931. NWE proposes to set the rate at zero until actuals are recorded for the months of May and June. NWE will review the account balance again and determine if the final amount merits filing a rate adjustment proposal.

- GTAC balance for this filing is $(535,018), which is the sum of the GTAC booked balance for the period ending April 30, 2011 of $(578,161) and the current balance of the amortization approved in Order 7089a of $43,143 and will be refunded to customers over the 12-month period ending June 30, 2011.

The interim request and supporting documents can be examined at Applicant's General Office, 40 East Broadway, Butte, Montana; at the office of the Montana Consumer Counsel (MCC), 111 North Last Chance Gulch, Suite 1B, Helena, Montana; or at the office of the MPSC, 1701 Prospect Avenue, Helena, Montana 59620. The MCC (444-2771) is available to assist in the representation of consumer interests in this matter.

Any comments which any person wishes to have the MPSC take into consideration in its decision on this matter should be sent to the MPSC at the above address as soon as possible.

Any portion of the interim adjustment approved by the MPSC pending hearing and final decision would, pursuant to Montana Code Ann. Section 69-3-304 et. al. (1999), be subject to refund if the final decision in this docket is to approve a final revenue level which is different than the interim level.

Dated: May 27, 2011

Department of Public Service Regulation
Montana Public Service Commission
Docket No. D2011.5.36
NorthWestern Energy

PREFILED DIRECT TESTIMONY OF JOHN M. SMITH

ON BEHALF OF NORTHWESTERN ENERGY

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Witness Information

Q. Please state your name and business address.

A. I am John M. Smith and my business address is 40 East Broadway, Butte, Montana 59701.

Q. By whom and in what capacity are you employed?

A. I am employed by NorthWestern Energy (NWE or NorthWestern) as Manager, Energy Supply, in the Energy Supply Department.

Q. Please state your educational background and experience.

A. I attended Montana State University, graduating in 1979 with a Bachelor of Science degree in Business Management. Upon graduation, I went to work for The Montana Power Company (MPC) in the Revenue Requirements Department. I have worked in various capacities in the Electric and Gas Utilities, and assumed the position of Director of Gas Supply in May of 1988, Director of Resource Acquisition in May of 1996 and Manager of Strategic Sourcing in April 1998. I worked on the ConnectMPC project from April 1999 to April 2000, when I returned to the Energy Supply Division of MPC. In July 2002, after the acquisition of MPC by NorthWestern Energy, my title was changed to Manager, Energy Supply.

Q. What are your responsibilities as Manager, Energy Supply?

A. In this capacity, my duties include short and long-term core natural gas supply planning and day-to-day natural gas portfolio management. This responsibility encompasses NorthWestern's natural gas purchase contract negotiations and administration. I also supervise the development of required data on these topics for presentation to the Montana Public Service Commission (MPSC or Commission). My position requires significant coordination with natural gas suppliers and transportation services providers, as well as other departments of NWE, particularly as they relate to budget planning, natural gas purchase contracts, operations and reliability, and other core gas supply issues.

Q. Have you previously filed testimony before this Commission?

A. Yes. I have presented testimony addressing natural gas market and supply matters in various natural gas cost tracking filings.

Purpose of Testimony

Q. What specific topics do you address in your testimony in this proceeding?

A. My testimony addresses the following topics:

1. An explanation of the 10-months actual and 2-months estimated natural gas market, supply, and cost for the twelve months ended June 30, 2011;
2. A brief discussion pertaining to Battle Creek Owned Production and the unit costs used in each of the tracking periods ending June 30, 2011 and June 30, 2012;

3. A description of the customer benefit of NWE's Storage Optimization and other customer benefits provided during the tracking period ending on June 30, 2011; and
4. A description of the forecast natural gas market, supply, and cost for the twelve-month period, July 1, 2011 through June 30, 2012.

Actual 10-Months Plus 2-Months Estimated Ended June 30, 2011

Q. Do you sponsor an exhibit, which summarizes the actual operations during the 12-months ended June 30, 2011, with the last two months based on estimated data?

A. Yes. Exhibit___(JMS-1) is a detailed comparison of the natural gas market, supply and cost proposed by NorthWestern in Docket No. D2010.5.49 and the actual natural gas market, supply and cost realized for the 10-months actual and 2-months estimated period ending June 30, 2011. Since this filing is being prepared in late May, the May and June 2011 figures are estimates.

Q. Please compare the 10-month actual and 2-month estimated natural gas cost which NWE experienced on behalf of core customers from July 1, 2010 through June 30, 2011 with the natural gas cost estimated by NorthWestern for this period in Docket D2010.5.49.

A. At the time of this filing, the total net natural gas cost on Exhibit__(JMS-1), line 64 is estimated to be $8,243,000 lower than projected by NorthWestern in Docket No. D2010.5.49.

Q. Did this lower total net natural gas cost result in a lower unit cost per Dkt?

A. Yes. The 12-month cost per Dkt that was initially calculated for core customer rates was $5.6916/Dkt. The 10-month actual cost plus 2-month estimated cost per Dkt is $5.1287. These costs are presented on Exhibit__(JMS-1) on line 67.

Q. What is the current estimated balance in the deferred account at the end of the tracking year on June 30, 2011?

A. The estimated balance in the deferred account as of June 30, 2011, is an under-collection (revenues < expenses) of $307,931. This dollar value is also discussed in the testimony of Glen D. Phelps.

Q. Why is the estimated ending balance in the deferred account a relatively small figure?

A. NWE's revised monthly tracker methodology was initiated on July 1, 2006. This method uses the current tracking year actual data and balances the remaining estimated months deferred account to be as close to zero as possible at the end of the tracking year. After actual data is known for May and June the balance will be different from the amount estimated and the result may be either an under or over-collection.

Q. Is NWE proposing a rate component for a prior-year true up of this estimated deferred account balance?

A. No. NWE does not propose to establish a rate based on the estimated deferred account balance of $307,931 at this time. Once the actual data for May and June 2011 are known and an actual deferred account balance is quantified, NWE will determine whether there needs to be a deferred account rate true up component

and, if necessary, will request the appropriate rate adjustment. This rate adjustment will be an increase if the deferred account is under-collected or will be a reduction if the deferred account is over-collected. Any such rate adjustment will be implemented in August or September of 2011 through the associated monthly tracking case filing. The remaining deferred account balance will be divided by the remaining tracking year market to calculate the rate adjustment.

Q. Are there any other issues to discuss pertaining to the 2010/2011 10-month actual plus 2-month estimated natural gas cost?

A. Yes. "Lost DSM Revenues" for natural gas distribution, transmission, and storage are included in this filing. On page 2, line 15 of the Exhibit__(JMS-1) work papers, the lost revenue amount of ($553,828) is reported as negative revenue. The foundation for this number is included in the testimony of William M. Thomas.

Battle Creek Owned Production

Q. Did NWE purchase natural gas production facilities during the 2010-2011 natural gas tracking year?

A. Yes. NWE purchased the majority working interest in the Battle Creek natural gas field (Battle Creek) located in Blaine County, Montana. NWE acquired its current interest through two separate transactions in 2010.

Q. Were Battle Creek costs and revenues included in the 2010/2011 10-month actual plus 2-month estimated gas cost?

A. No. For the purpose of calculating the deferred account balance at the end of June 2011, the deferred account revenues have been reduced for actual Battle

Creek revenues on page 2, line 14 of the Exhibit__(JMS-1) Work Papers. The Battle Creek costs have also been set to zero in each actual month on page 2, line 24 of the Exhibit__(JMS-1) work papers.

Q. Were Battle Creek costs included in the monthly tracking case filings during the 2010/2011 tracking case year?

A. Yes. The costs related to the initial transaction were included in the November 2010 monthly natural gas tracking case filing in which the October 15, 2010 NWE transmittal letter summarized the manner in which the costs were included (referenced in the transmittal letter as a "bridging concept"). As explained in the letter, this bridging concept would allow NWE to recover the Battle Creek cost of service through the natural gas tracking case on an interim basis until a Battle Creek revenue requirement filing could be made and processed in the future. Subsequently, NWE acquired an additional share of Battle Creek, and the costs related to that transaction were included in the same manner as the initial transaction in the January 2011 monthly natural gas tracking case filing, which was dated December 15, 2010.

Q. What $/Dkt unit cost was used for Battle Creek estimated production in the monthly filings since November 2010?

A. The Battle Creek estimated production for the November 2010 and December 2010 monthly tracking case filings was valued at $5.3959/Dkt. After the second acquisition, the January through June 2011 monthly filings included Battle Creek estimated production that was valued at $5.2957/Dkt.

Q. Will Battle Creek estimated costs be included in the 2011/2012 natural gas tracking case?

A. Yes, until this asset is considered for rate base treatment by the Commission in a future filing, the bridging concept will continue to be utilized. NWE intends to submit a Battle Creek revenue requirement filing in 2011.

Q. What $/Dkt unit cost will be used for estimated Battle Creek production in the 2011/2012 natural gas tracking case?

A. The second year unit cost will be $5.4587/Dkt.

Storage Optimization and Other Customer Benefits

Q. Were there any unique transactions that provided additional value to NWE's customers during the 2010/2011 tracking year?

A. Yes. Consistent with NWE's current Biennial Gas Procurement Plan, NWE's Energy Supply Department looked to aggressively optimize the 1.8 BCF of underground storage that is available for storage optimization. As part of this effort, NWE utilized 1.2 Bcf of the 1.8 Bcf of available storage and captured the value of the lower price in the summer of 2010 versus the relatively higher forward price during the upcoming winter. NWE purchased 1.2 Bcf at varying prices in two separate transactions. These transactions are summarized on Exhibit___(JMS-2). The weighted average gross spread before carrying cost and transportation for the two transactions was $0.9883/Dkt. The transportation and carrying cost on these transactions averaged $0.4985/Dkt. The resulting net spread was $0.4898/Dkt and the total benefit was $592,617.

Q. Will NWE attempt to utilize Storage Optimization transactions to the benefit of customers during the 2011/2012tracking year?

A. Yes. NWE will enter into these types of transactions when and if a suitable opportunity presents itself. The carrying cost and the transportation cost must be covered before any net revenues are realized that can be returned to customers. NWE will continue to monitor this situation and will enter this type of transaction only if and when it makes sense.

Q. Did NWE enter into any other unique transactions that captured benefits for the customers?

A. Yes. This year, NWE was able to net customers $174,000 by selling March 2011 natural gas and simultaneously buying April 2011 natural gas at an average spread of $0.52/Dkt. When the March and April prices were close to equal to each other, or "flat", the transactions were reversed and $174,000 was realized without any natural gas being physically purchased or sold. The details of this transaction are listed on Exhibit___(JMS-3).

Q. Will NWE continue to watch the March to April or May spread and look for opportunities to make optimization trades to create value that can flow back to customers?

A. Yes. NWE continues to watch these types of spreads.

2011 - 2012 Expected Natural Gas Market, Supply and Cost

Q. Do you sponsor an Exhibit that sets forth NWE's expected natural gas market and supply balance for the July 1, 2011 through June 30, 2012, twelve-month tracking period?

A. Yes. Exhibit___(JMS-4) sets forth the projected market and natural gas supply.

Q. What natural gas cost ($/Dkt) does NWE project for the Core and Firm Utility Gas Contract (FUGC) customers during the upcoming twelve-month tracking year?

A. The projected natural gas cost for Core and FUGC sales is $5.1354/Dkt as shown on line 44 of Exhibit__(JMS-4).

Q. Explain why this projected natural gas cost is very close to the $/Dkt from the 10-month actual plus 2-month estimated average cost ending June 2011.

A. The price for natural gas in North America has remained fairly flat during the last 1.5 years.

Q. How does the $5.1354/Dkt compare to the rate in last year's annual natural gas cost tracking filing?

A. Line 66 on Exhibit__(JMS-1) shows that last year's requested rate was $5.6916/Dkt. This year's requested rate is a decrease of $0.5562/Dkt.

Q. Do you propose any adjustments to the projected $5.1354/Dkt unit gas cost?

A. No. NWE proposes $5.1354/Dkt as the July 1, 2011 effective rate. The next monthly tracking filing will be for an August 1, 2011 rate change. If natural gas prices move dramatically in either direction prior to June 15, 2011, NWE will file an amended monthly natural gas cost tracking filing for a July 1, 2011 monthly rate adjustment.

Q. Are there any other items to discuss pertaining to the 2011/2012 estimated gas cost?

A. Yes. "Lost DSM Revenues" for distribution, transmission, and storage are included in this filing. On page 2, line 15, of the Exhibit__(JMS-4) Work Papers, the lost revenue amount of ($969,667) is reported as negative revenue. The foundation for this number is included in the testimony of William M. Thomas.

Q. Are the DSM Lost Revenues reported on Exhibit__(JMS-1) and Exhibit__(JMS-4)?

A. Yes. The DSM Lost Revenues are reported on Exhibit__(JMS-1) on line 62, and on Exhibit__(JMS-4) on line 41. On both exhibits, the DSM Lost Revenues are reported as an additional cost rather than negative revenue. Since both exhibits include only costs, reporting the "Lost DSM Revenues" as a cost was the only way to make both exhibits work mathematically.

Q. Does this conclude your testimony?

A. Yes.

ACTUAL OPERATIONS
10 MONTHS ACTUAL & 2 MONTHS ESTIMATE ENDING June 30, 2011 VERSUS DOCKET No. 2010.5.49

	CITY GATE REQUIREMENTS Dkt (000)	Docket No. 2010.5.49 as filed 05/28/10	10 ACT/2 EST 12 MO.END. 06/30/11	OVER/(UNDER) Docket No. 2010.5.49	OVER/(UNDER) %
1	GAS COST SALES				
2	DBU SALES - BILLED	19,842	20,405	563	2.8
3					
4	DBU SALES - CITY GATE DELIVERIES	19,842	20,405	563	2.8
5	FUGC	207	256	49	23.7
6					
7	TOTAL CITY GATE REQUIREMENTS	20,049	20,661	612	3.1
8					
9	Cycle Billing Adj.	0	(19)	(19)	
10	CORE FUEL U & UAF	493	508	15	3.0
11					
12					
13	TOTAL GAS SUPPLY REQUIREMENTS	20,542	21,150	608	3.0
14					
15	GAS SUPPLY (Dkt (000))				
16					
17	CANADIAN PIPELINE	4,800	5,802	1,002	
18					
19	HAVRE PIPELINE	6,388	6,361	(27)	(0.4)
20					
21	ENCANA PIPELINE	7,191	6,295	(896)	(12.5)
22					
23	COLORADAO INTERSTATE PIPELINE	0	0	0	
24					
25	INTRA - MONTANA PURCHASES	2,588	1,933	(655)	(25.3)
26	BATTLE CREEK OWNED PRODUCTION	0	369		
27					
28	STORAGE NET (-Inj. / +With.)	(344)	657	1,001	
29					
30	STORAGE FUEL USE	(81)	(93)	(12)	
31					
32	TOTAL GAS SUPPLY	20,542	21,324	782	3.8
33					
34	COST ($M)				
35					
36	NOVA CAPACITY	2,139	1,925	(214)	
37	TRANS CANADIAN PIPELINE	36,893	42,129	5,236	
38					
39	HAVRE PIPELINE	28,793	22,804	(5,989)	(20.8)
40					
41	ENCANA PIPELINE	32,109	22,576	(9,533)	(29.7)
42					
43	COLORADAO INTERSTATE PIPELINE	0	0	0	
44					
45	INTRA - MONTANA PURCHASES	12,028	7,007	(5,021)	(41.7)
46	BATTLE CREEK OWNED PRODUCTION	0	0		
47					
48	STORAGE	(4,409)	2,914	7,323	
49					
50	TOTAL GAS SUPPLY COST	107,553	99,355	(8,198)	(7.6)
51					
52					
53	NET GAS COSTS TO MT MKT	107,553	99,355	(8,198)	(7.6)
54					
55	WORKING GAS REVENUE REQUIREMENT	2,399	2,239	(160)	(6.7)
56					
57	DEFERRED ACCOUNT INTEREST	299	346		
58					
59	ADMINISTRATIVE COSTS	2,668	3,470		
60					
61	NET GAS COSTS (INCL. W.G. REV REQ)	112,919	105,410	(7,509)	(6.6)
62	Lost D.S.M. Revenues (D,T,& S)	1288	554		
63	Lost D.S.M. Revenues Adjustment	0	0		
64	TOTAL GAS COST (Incl Lost DSM Rev)	114,207	105,964	(8,243)	(7.2)
65	UNIT NET GAS COSTS ($/DKT)				
66					
67	CORE	5.6916	5.1287	(0.5629)	(9.9)

Natural Gas Default Supply Tracking Mechanism

Volume Balancing	Actual Jul-10	Actual Aug-10	Actual Sep-10	Actual Oct-10	Actual Nov-10	Actual Dec-10	Actual Jan-11	Actual Feb-11	Actual Mar-11	Actual Apr-11	Estimate May-11	Estimate Jun-11	Total
Billed Market (Dekatherms)													
Residential	324,349	230,215	328,311	440,839	956,568	1,846,972	2,077,045	1,837,227	1,834,037	1,253,247	906,120	455,276	12,490,206
LIEAP	20,839	13,476	19,882	26,022	53,641	103,435	120,808	112,247	118,853	87,054	59,050	30,778	766,083
Employee	1,131	669	1,084	1,323	2,841	5,304	5,851	5,113	5,088	3,745	3,147	1,772	37,068
Commercial	203,409	163,976	198,228	241,312	485,791	990,978	1,144,587	1,006,441	1,002,536	685,843	466,124	244,297	6,833,521
Firm Industrial	5,108	3,529	5,626	6,778	10,046	24,798	30,920	26,031	26,540	15,370	10,851	5,763	171,361
Governmental	841	686	1,556	1,787	4,263	8,873	9,309	7,733	7,877	4,898	3,808	1,911	53,541
Inter-Department	1,072	610	973	1,471	3,748	7,759	9,241	8,383	8,111	6,344	3,873	1,459	53,044
CNG Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Distribution Sales	556,749	413,160	555,659	719,531	1,516,898	2,988,120	3,397,762	3,003,173	3,003,043	2,056,500	1,452,973	741,256	20,404,823
Cycle Billing Adjustment	-71,794	71,249	81,936	398,684	735,611	204,821	-197,294	-65	-473,271	-301,764	-355,859	-110,920	(18,666)
Distribution City Gate Deliveries	484,955	484,410	637,595	1,118,214	2,252,509	3,192,941	3,200,467	3,003,108	2,529,771	1,754,737	1,097,115	630,337	20,386,157
Firm Utility Gas Sales (Dekatherms)													
Cut Bank	6,290	4,150	5,036	7,817	10,750	26,087	34,341	38,238	34,959	30,027	13,452	7,284	218,431
Kevin	139	53	61	159	279	721	1,343	1,415	1,317	1,126	425	226	7,264
Sunburst	542	355	308	711	1,270	3,728	5,024	5,742	5,093	4,108	2,086	1,086	30,053
Total Utility Sales	6,971	4,558	5,405	8,687	12,299	30,536	40,708	45,395	41,369	35,261	15,963	8,596	255,748
Total City Gate Deliveries	491,926	488,968	643,000	1,126,901	2,264,808	3,223,477	3,241,175	3,048,503	2,571,140	1,789,998	1,113,078	638,933	20,641,905
Transmission U&UAF	12,101	12,029	15,818	27,722	55,714	79,298	79,733	74,993	63,250	44,034	27,382	15,718	507,792
Total Supply Requirements	504,027	500,997	658,818	1,154,623	2,320,522	3,302,775	3,320,908	3,123,496	2,634,390	1,834,032	1,140,460	654,651	21,149,697
Gas Supply (Dekatherms)													
Nova Capacity	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Pipeline	964,255	964,255	933,150	5,000	-	13,000	-	65,000	(310,000)	783,785	1,383,150	1,000,000	5,801,595
Havre Pipeline	581,974	581,619	562,966	581,074	513,906	520,898	527,950	475,487	529,840	505,238	498,838	481,338	6,361,128
EnCana Pipeline	575,125	552,404	539,018	528,447	503,578	518,244	480,636	428,924	494,753	472,352	610,700	591,000	6,295,181
Colorado Interstate Pipeline	-	-	-	-	-	-	-	-	-	-	-	-	-
Battle Creek Owned Production	-	-	-	-	-	-	142,882	44,658	43,608	50,121	43,662	43,662	368,593
Intra-Montana Purchases	169,263	140,238	137,803	136,001	134,599	134,086	303,501	190,995	203,353	110,550	137,740	135,140	1,933,269
Total Purchases	2,290,617	2,238,516	2,172,937	1,250,522	1,152,083	1,186,228	1,454,969	1,205,064	961,554	1,922,046	2,674,090	2,251,140	20,759,766
	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage Activity													
Storage Supply Activity	1,816,712	1,695,868	1,407,012	70,911	(1,598,393)	(2,038,189)	(1,919,112)	(1,905,701)	(1,366,002)	27,396	1,533,631	1,596,490	(679,378)
Storage U&UAF (injection only)	20,949	19,556	16,225	818	-	-	-	-	-	316	17,286	17,995	93,145
Metered Storage Activity	1,837,661	1,715,424	1,423,237	71,729	(1,598,393)	(2,038,189)	(1,919,112)	(1,905,701)	(1,366,002)	27,712	1,516,344	1,578,495	(656,795)
Net Difference (delivered vs. supply)	72,020	(2,539)	(74,657)	(23,352)	(429,954)	78,358	(53,173)	12,731	306,834	(59,986)	(0)	0	

05/24/11

Exhibit_(JMS-1)
Work Papers
Page 1 of 3

Natural Gas Default Supply Tracking Mechanism

Supply Revenue/Cost Calculations	Actual Jul-10	Actual Aug-10	Actual Sep-10	Actual Oct-10	Actual Nov-10	Actual Dec-10	Actual Jan-11	Actual Feb-11	Actual Mar-11	Actual Apr-11	Estimate May-11	Estimate Jun-11	Total
Total Sales													
Dekatherms	563,720	417,718	561,064	728,218	1,529,197	3,018,656	3,438,470	3,048,568	3,044,412	2,091,761	1,468,936	749,852	20,660,571
Current Year Supply Cost	$ 5.6916	$ 5.4825	$ 5.2751	$ 5.1632	$ 5.0373	$ 5.1166	$ 5.4109	$ 5.3777	$ 5.3362	$ 5.2621	$ 5.3196	$ 6.3196	
Prior Year(s) Deferred Expense	$ -	$ (0.0355)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	$ (0.0709)	
Current Year Deferred Adjust.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gas Cost Revenues													
Current Year Gas Cost	$ 2,213,254	$ 2,314,015	$ 2,992,648	$ 3,766,908	$ 7,747,849	$ 15,181,829	$ 17,833,705	$ 16,338,692	$ 16,199,321	$ 11,012,399	$ 7,814,152	$ 4,738,765	$ 108,153,537
Prior Year(s) Defered Expense	$ (27,122)	$ (12,202)	$ (39,396)	$ (51,090)	$ (107,471)	$ (212,349)	$ (242,052)	$ (214,662)	$ (214,239)	$ (147,133)	$ (104,148)	$ (53,165)	$ (1,425,026)
Battle Creek Revenue Adjust.	$ -	$ -	$ -	$ -	$ (191,140)	$ (377,678)	$ (469,372)	$ (416,276)	$ (415,466)	$ (285,326)	$ (55,078)	$ (231,223)	$ (2,441,559)
Lost DSM Revenue (D, T, & S.)	$ (107,320)	$ (107,320)	$ 140,516	$ (24,708)	$ (24,708)	$ (24,708)	$ (24,708)	$ (24,708)	$ (24,708)	$ (110,485)	$ (110,485)	$ (110,486)	$ (553,828)
Total Revenue	$ 2,078,812	$ 2,194,493	$ 3,093,768	$ 3,691,110	$ 7,424,530	$ 14,567,094	$ 17,097,573	$ 15,683,046	$ 15,544,908	$ 10,469,455	$ 7,544,441	$ 4,343,891	$ 103,733,123
Natural Gas Expenses													
NOVA Capacity	$ 177,259	$ 174,429	$ 181,662	$ 176,955	$ 181,840	$ 148,820	$ 164,973	$ 116,575	$ 119,179	$ 119,682	$ 181,840	$ 181,840	$ 1,925,055
Canada Pipeline	$ 5,277,714	$ 5,171,208	$ 5,419,091	$ 2,103,952	$ 1,912,788	$ 1,763,332	$ 1,497,765	$ 1,502,082	$ 393,809	$ 4,668,515	$ 6,932,361	$ 5,486,746	$ 42,129,363
Havre Pipeline	$ 2,009,985	$ 1,866,107	$ 1,915,258	$ 1,847,243	$ 1,840,397	$ 1,857,569	$ 2,065,623	$ 1,719,135	$ 1,983,805	$ 1,946,305	$ 1,933,290	$ 1,818,794	$ 22,803,510
EnCana Pipeline	$ 2,093,808	$ 1,876,240	$ 1,707,423	$ 1,748,764	$ 1,672,821	$ 1,802,056	$ 1,969,725	$ 1,612,533	$ 1,785,455	$ 1,762,439	$ 2,338,737	$ 2,205,908	$ 22,575,911
Colorado Interstate Pipeline	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Battle Creek Owned Production	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Intra-Montana Purchases	$ 616,194	$ 479,504	$ 432,008	$ 446,471	$ 446,674	$ 456,469	$ 1,218,245	$ 710,729	$ 747,586	$ 417,892	$ 529,360	$ 506,221	$ 7,007,352
Storage Injection/Withdrawal	$ (8,162,922)	$ (7,331,776)	$ (6,324,152)	$ (362,705)	$ 7,138,822	$ 9,103,061	$ 8,571,233	$ 8,511,336	$ 6,100,906	$ (128,534)	$ (6,887,856)	$ (7,314,008)	$ 2,913,407
Total Natural Gas Expenses	$ 2,012,038	$ 2,235,712	$ 3,331,291	$ 5,960,680	$ 13,193,343	$ 15,131,306	$ 15,487,564	$ 14,172,390	$ 11,130,739	$ 8,786,300	$ 5,027,732	$ 2,885,502	$ 99,354,598
Administrative Expenses													
MCC Tax Collection	$ 655	$ 690	$ 884	$ 4,079	$ 8,384	$ 16,390	$ 19,129	$ 17,482	$ 17,339	$ 11,708	$ 8,299	$ 4,778	$ 109,816
MPSC Tax Collection	$ 7,801	$ 8,408	$ 10,800	$ 15,385	$ 31,747	$ 61,942	$ 72,174	$ 65,732	$ 65,282	$ 43,922	$ 31,335	$ 18,019	$ 432,546
Labor & Benefits	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
DSM Expense	$ 8,797	$ 155,409	$ 227,107	$ 114,614	$ 249,969	$ 352,901	$ 121,893	$ 10,986	$ 929,003	$ 377,752	$ 89,920	$ 218,903	$ 2,857,253
Computer Expense & Support	$ 3,250	$ 3,250	$ 3,250	$ 3,250	$ 3,250	$ 3,250	$ 3,250	$ 74,746	$ 6,770	$ 3,250	$ -	$ -	$ 107,516
Travel/Education Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Legal Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Basin Creek Storage Rebate	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (36,000)
Total Administrative Expenses	$ 17,504	$ 164,756	$ 239,041	$ 134,327	$ 290,350	$ 431,482	$ 213,446	$ 165,946	$ 1,015,394	$ 433,631	$ 126,554	$ 238,700	$ 3,471,131
Rate Base Expenses													
Storage Working Gas	$ 247,775	$ 322,682	$ 387,293	$ 390,999	$ 318,064	$ 225,061	$ 124,707	$ 45,835	$ -	$ -	$ 54,319	$ 122,095	$ 2,238,830
Deferred Expense	$ (8,668)	$ (4,818)	$ 1,542	$ 22,245	$ 69,624	$ 79,177	$ 63,129	$ 54,919	$ 32,703	$ 24,618	$ 9,263	$ 2,032	$ 345,767
Total Rate Base Expense	$ 239,107	$ 317,863	$ 388,835	$ 413,244	$ 387,688	$ 304,238	$ 187,836	$ 100,754	$ 32,703	$ 24,618	$ 63,582	$ 124,127	$ 2,584,597
Total Expenses	$ 2,268,649	$ 2,718,332	$ 3,959,167	$ 6,508,251	$ 13,871,381	$ 15,867,026	$ 15,888,846	$ 14,439,090	$ 12,178,836	$ 9,244,550	$ 5,217,868	$ 3,248,329	$ 105,410,325
Deferred Cost Amortization	$ (27,122)	$ (12,202)	$ (39,396)	$ (51,090)	$ (107,471)	$ (212,349)	$ (242,052)	$ (214,662)	$ (214,239)	$ (147,133)	$ (104,148)	$ (53,165)	$ (1,425,026)
Monthly Deferred Cost	$ (162,715)	$ (511,637)	$ (826,003)	$ (2,766,051)	$ (6,339,380)	$ (1,087,583)	$ 1,450,779	$ 1,458,618	$ 3,580,311	$ 1,372,038	$ 2,430,721	$ 1,148,727	$ (252,176)
Cumulative Deferred Cost	$ (162,715)	$ (674,352)	$ (1,500,355)	$ (4,266,406)	$ (10,605,786)	$ (11,693,369)	$ (10,242,591)	$ (8,783,973)	$ (5,203,662)	$ (3,831,624)	$ (1,400,902)	$ (252,176)	

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Natural Gas Default Supply Tracking Mechanism

Total Supply Cost Calculations	Actual Jul-10	Actual Aug-10	Actual Sep-10	Actual Oct-10	Actual Nov-10	Actual Dec-10	Actual Jan-11	Actual Feb-11	Actual Mar-11	Actual Apr-11	Estimate May-11	Estimate Jun-11
Rate Base Storage												
Beginning Inventory	3,520,815	5,358,476	7,073,900	8,497,137	8,568,866	6,970,473	4,932,284	3,013,172	1,107,471	(258,531)	(230,819)	1,285,525
Net Storage Activity	1,837,661	1,715,424	1,423,237	71,729	(1,598,393)	(2,038,189)	(1,919,112)	(1,905,701)	(1,366,002)	27,712	1,516,344	1,578,495
Ending Inventory	5,358,476	7,073,900	8,497,137	8,568,866	6,970,473	4,932,284	3,013,172	1,107,471	(258,531)	(230,819)	1,285,525	2,864,020
Beginning Rate Base $	$ 16,089,140	$ 24,252,062	$ 31,583,838	$ 37,907,990	$ 38,270,695	$ 31,131,872	$ 22,028,812	$ 13,457,578	$ 4,946,242	$ (1,154,664)	$ (1,026,130)	$ 5,861,726
Net Storage Activity $	$ 8,162,922	$ 7,331,776	$ 6,324,152	$ 362,705	$ (7,138,822)	$ (9,103,061)	$ (8,571,233)	$ (8,511,336)	$ (6,100,906)	$ 128,534	$ 6,887,856	$ 7,314,008
Ending Rate Base $	$ 24,252,062	$ 31,583,838	$ 37,907,990	$ 38,270,695	$ 31,131,872	$ 22,028,812	$ 13,457,578	$ 4,946,242	$ (1,154,664)	$ (1,026,130)	$ 5,861,726	$ 13,175,733
Beginning Unit Cost	$ 4.5697	$ 4.5259	$ 4.4648	$ 4.4613	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4456	$ 4.5598
Activity Unit Cost	$ 4.4420	$ 4.2740	$ 4.4435	$ 5.0566	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.6382	$ 4.5424	$ 4.6335
Ending Unit Cost	$ 4.5259	$ 4.4648	$ 4.4613	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4662	$ 4.4456	$ 4.5598	$ 4.6004
Deferred Supply Cost Expense												
Beginning Balance	$ (1,369,271)	$ (1,179,434)	$ (655,596)	$ 209,803	$ 3,026,944	$ 9,473,795	$ 10,773,727	$ 9,565,000	$ 8,321,045	$ 4,954,972	$ 3,730,067	$ 1,403,493
Monthly Activity	$ 189,837	$ 523,838	$ 865,399	$ 2,817,141	$ 6,446,850	$ 1,299,933	$ (1,208,727)	$ (1,243,956)	$ (3,366,072)	$ (1,224,905)	$ (2,326,574)	$ (1,095,562)
Ending Balance	$ (1,179,434)	$ (655,596)	$ 209,803	$ 3,026,944	$ 9,473,795	$ 10,773,727	$ 9,565,000	$ 8,321,045	$ 4,954,972	$ 3,730,067	$ 1,403,493	$ 307,931
Total Capital	$ 23,072,628	$ 30,928,243	$ 38,117,793	$ 41,297,639	$ 40,605,667	$ 32,802,539	$ 23,022,579	$ 13,267,287	$ 3,800,308	$ 2,703,937	$ 7,265,219	$ 13,483,665

Cost of Capital	Rate	Percent COC	ROR Pre Tax Return		effective 1/1/2011 ROR Pre Tax Return	
Equity	10.75%	45.00%	4.84%	7.99%	4.92%	8.12%
Preferred	6.40%	6.97%	0.45%	0.74%		
Debt	7.13%	40.17%	2.86%	2.86%	3.00%	3.00%
QUIPS Preferred	8.54%	7.86%	0.67%	0.67%		
Average Cost of Capital			8.82%	12.26%	7.92%	11.12%

Interest	Interest Rate	
Working Gas	12.26%	11.12%
Deferred Account	8.82%	7.92%
Interim Interest	10.75%	

Income Tax	
State	6.75%
Federal	35.00%
Effective Tax Rate	39.39%

Regulatory Taxes	Oct.1,2010
MCC Rate	0.11%
MPSC Rate	0.420%

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Work Papers
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AUGUST 2010 - STORAGE OPTIMIZATION TRADE ECONOMICS

	Aug10		Dec10	
Volume - Dkt	310,000		310,000	
Price-Aeco	$ 3.2653	5A	$ 4.0200	Sale at AECO
Dollar Value	$ 1,012,243		$ 1,246,200	
Spread			$ 0.755	
Spread Value			$ 233,957	
Carrying Cost @12.26%			$ 41,367	
Unit Carrying Cost			$ 0.1334	
Transport Cost - est.			$ 0.2800	
BreakEven			$ 0.4134	
Return to Customer - Unit			$ 0.3413	
Dollar Value to Customer			$ 105,790	

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JULY 2010 - STORAGE OPTIMIZATION TRADE ECONOMICS

	Jul10		Jan11	Feb11	Mar11	
Volume - Dkt	900,000		310,000	280,000	310,000	
Price-AECO	$ 3.5113	5A	$ 4.580	$ 4.580	$ 4.580	Sale at AECO
Dollar Value	$ 3,160,170		$ 1,419,800	$ 1,282,400	$ 1,419,800	
Spread			$ 1.069	$ 1.069	$ 1.069	
Spread Value			$ 331,297	$ 299,236	$ 331,297	
Carrying Cost @12.26%/11.12%			$ 193,718	$ 19,197	$ 10,087	$ 223,003
Unit Carrying Cost			$ 0.6249	$ 0.0686	$ 0.0325	0.2478
Transport Cost - est.			$ 0.2800	$ 0.2800	$ 0.2800	
BreakEven			$ 0.9049	$ 0.3486	$ 0.3125	
Return to Customer - Unit			$ 0.1638	$ 0.7201	$ 0.7562	0.5409
Dollar Value to Customer			$ 50,779	$ 201,639	$ 234,410	$ 486,827

NWE - OSS Spread Trade Summary (Mar11/Apr11)

March09	Volume (Dkt)	Sales Price $/Dkt	Total Revenue $	May09	Volume (Dkt)	Purchase Price $/Dkt	Total cost $	Net Savings $/Dkt	Net Total Savings $
Sold	400,000	$ 6.32	$ 2,528,000	Buy Back	400,000	$ 5.800	$ 2,320,000	$ 0.52	$ 208,000
Sold	400,000	$ 3.415	$ 1,366,000	Buy Back	400,000	$ 3.500	$ 1,400,000	$ (0.085)	$ (34,000)
Totals	800,000	$ 4.8675	$ 3,894,000		800,000	$ 4.6500	$ 3,720,000	$ 0.435	$ 174,000

2011/2012 TRACKING CASE
GAS MARKET/SUPPLY/COST
SUMMARY

		Dkt (000)	$/DKT	$ (000)
CITY GATE REQUIRMENTS				
	DBU Sales Billed	19,892		
	FUGC	334		
Subtotal Sales Volumes		20,226		
	Core Fuel U&UAF	498		
Grand Total HER		20,724		
GAS SUPPLY				
	NOVA	16,828	$ 0.130	$ 2,182
	Trans Canadian Pipeline	5,550	$ 6.247	$ 34,672
	Havre Pipeline	6,193	$ 3.741	$ 23,167
	EnCana Pipeline	6,095	$ 4.032	$ 24,574
	Colorado Interstate Pipeline	0	$ -	$ -
	Battle Creek Owned Production	486	$ 5.455	$ 2,651
	Intra-Montana Purchases	2,564	$ 4.126	$ 10,580
	Storage Net Injection	(81)	NA	$ (547)
	Storage Fuel Use	(83)	NA	NA
	Total Gas Supply & Cost	20,724		$97,279
	Administrative Expenses	NA		$ 3,096
	Working Gas Rate Base	NA		$ 1,925
	Deferred Account Interest	NA		$ 293
	GAS COST PRIOR TO LOST REV.			$102,593
	Lost DSM Revenues (D, T, & S.)			$ (970)
	TOTAL GAS COST (Incl Lost Rev.)			$103,563
	CORE Unit Gas Cost ($/Dkt)			$5.1354

Natural Gas Default Supply Tracking Mechanism

Volume Balancing	Estimate Jul-11	Estimate Aug-11	Estimate Sep-11	Estimate Oct-11	Estimate Nov-11	Estimate Dec-11	Estimate Jan-12	Estimate Feb-12	Estimate Mar-12	Estimate Apr-12	Estimate May-12	Estimate Jun-12	Total
Billed Market (Dekatherms)													
Residential	318,636	232,517	332,174	487,254	970,564	1,730,010	2,026,802	1,758,558	1,718,029	1,240,984	839,229	532,283	12,187,040
LIEAP	20,346	13,611	20,118	28,784	54,423	96,934	117,889	107,405	111,214	91,209	64,128	39,966	766,027
Employee	1,087	669	1,086	1,452	2,854	4,920	5,654	4,847	4,722	3,895	2,868	1,843	35,897
Commercial	200,693	164,796	199,420	257,866	490,173	927,000	1,112,790	960,852	937,652	641,378	438,421	291,207	6,622,248
Firm Industrial	4,960	3,529	5,638	7,419	10,086	23,034	29,877	24,685	24,632	28,143	11,550	5,647	179,200
Governmental	826	686	1,561	2,005	4,284	8,194	8,981	7,311	7,281	4,924	3,356	2,160	51,569
Inter-Department	1,029	610	975	1,641	3,767	7,166	8,913	7,918	7,489	5,122	3,464	1,861	49,955
CNG Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Distribution Sales	547,577	416,418	560,972	786,421	1,536,151	2,797,258	3,310,906	2,871,576	2,811,019	2,015,655	1,363,016	874,967	19,891,936
Cycle Billing Adjustment	-65,580	72,277	112,725	374,865	630,554	256,824	-219,665	-30,279	-397,682	-326,320	-244,025	-163,695	-
Distribution City Gate Deliveries	481,998	488,695	673,697	1,161,286	2,166,705	3,054,082	3,091,241	2,841,298	2,413,337	1,689,336	1,118,992	711,272	19,891,936
Firm Utility Gas Sales (Dekatherms)													
Cut Bank	27,596	20,222	19,568	22,075	16,189	7,284	59,209	33,815	24,735	23,682	15,926	11,417	281,717
Kevin	921	664	653	714	513	226	1,891	1,049	753	650	449	324	8,807
Sunburst	4,450	3,237	3,098	3,462	2,530	1,086	9,017	5,450	4,199	3,575	2,204	1,527	43,836
Total Utility Sales	32,966	24,123	23,320	26,251	19,231	8,596	70,117	40,314	29,687	27,908	18,579	13,268	334,360
Total City Gate Deliveries	514,964	512,818	697,016	1,187,537	2,185,936	3,062,678	3,161,358	2,881,612	2,443,024	1,717,243	1,137,570	724,540	20,226,296
Transmission U&UAF	12,668	12,615	17,147	29,213	53,774	75,342	77,769	70,888	60,098	42,244	27,984	17,824	497,566
Total Supply Requirements	527,632	525,433	714,163	1,216,750	2,239,710	3,138,020	3,239,127	2,952,500	2,503,122	1,759,487	1,165,554	742,364	20,723,862
Gas Supply (Dekatherms)													
Nova Capacity	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Pipeline	1,000,000	800,000	750,000	-	-	-	-	-	-	1,000,000	1,000,000	1,000,000	5,550,000
Havre Pipeline	526,000	526,000	509,032	526,000	509,032	526,000	526,000	478,000	523,097	509,032	526,000	509,032	6,193,225
EnCana Pipeline	517,700	517,700	501,000	517,700	501,000	517,700	517,700	467,600	517,700	501,000	517,700	501,000	6,095,500
Colorado Interstate Pipeline	-	-	-	-	-	-	-	-	-	-	-	-	-
Battle Creek Owned Production	40,476	40,476	40,476	40,476	40,476	40,476	40,476	40,476	40,476	40,476	40,476	40,476	485,712
Intra-Montana Purchases	140,118	140,118	137,518	140,118	137,518	450,118	450,118	412,918	140,118	137,518	140,118	137,518	2,563,816
Total Purchases	2,224,294	2,024,294	1,938,026	1,224,294	1,188,026	1,534,294	1,534,294	1,398,994	1,221,391	2,188,026	2,224,294	2,188,026	20,888,253
	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage Activity													
Storage Supply Activity	1,696,662	1,498,861	1,223,863	7,544	(1,051,684)	(1,603,726)	(1,704,833)	(1,553,506)	(1,281,731)	428,539	1,058,740	1,445,662	164,391
Storage U&UAF (injection only)	19,124	16,894	13,795	85	-	-	-	-	-	4,830	11,934	16,295	82,957
Metered Storage Activity	1,677,538	1,481,966	1,210,068	7,459	(1,051,684)	(1,603,726)	(1,704,833)	(1,553,506)	(1,281,731)	423,709	1,046,806	1,429,368	81,434
Net Difference (delivered vs. supply)	0	(0)	0	(0)	-	-	-	-	-	(0)	0	0	

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Work Papers
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Natural Gas Default Supply Tracking Mechanism

Supply Revenue/Cost Calculations	Estimate Jul-11	Estimate Aug-11	Estimate Sep-11	Estimate Oct-11	Estimate Nov-11	Estimate Dec-11	Estimate Jan-12	Estimate Feb-12	Estimate Mar-12	Estimate Apr-12	Estimate May-12	Estimate Jun-12	Total
Total Sales													
Dekatherms	580,543	440,541	584,292	812,672	1,555,382	2,805,854	3,381,023	2,911,890	2,840,706	2,043,563	1,381,595	888,235	20,226,296
Current Year Supply Cost	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	$ 5.1354	
Prior Year(s) Deferred Expense		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Current Year Deferred Adjust.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gas Cost Revenues													
Current Year Gas Cost	$ 2,981,322	$ 2,262,356	$ 3,000,571	$ 4,173,397	$ 7,987,511	$ 14,409,183	$ 17,362,905	$ 14,953,721	$ 14,588,161	$ 10,494,512	$ 7,095,041	$ 4,561,440	$ 103,870,119
Prior Year(s) Defered Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Current Year Deferred Adjust.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Lost DSM Revenue (D, T, & S.)	$ (80,805)	$ (80,805)	$ (80,805)	$ (80,805)	$ (80,805)	$ (80,806)	$ (80,806)	$ (80,806)	$ (80,806)	$ (80,806)	$ (80,806)	$ (80,806)	$ (969,667)
Total Revenue	$ 2,900,517	$ 2,181,551	$ 2,919,766	$ 4,092,592	$ 7,906,706	$ 14,328,377	$ 17,282,099	$ 14,872,915	$ 14,507,355	$ 10,413,706	$ 7,014,235	$ 4,480,634	$ 102,900,452
Natural Gas Expenses													
NOVA Capacity	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 181,840	$ 2,182,080
Canada Pipeline	$ 5,306,399	$ 4,543,226	$ 4,341,195	$ 1,407,327	$ 813,267	$ 792,383	$ 784,952	$ 732,919	$ 787,924	$ 4,994,189	$ 5,011,359	$ 5,156,707	$ 34,671,847
Havre Pipeline	$ 1,988,095	$ 1,993,355	$ 1,940,505	$ 2,063,050	$ 2,074,126	$ 2,237,945	$ 2,251,095	$ -	$ 2,233,577	$ 2,108,486	$ 2,173,510	$ 2,103,398	$ 23,167,142
EnCana Pipeline	$ 1,936,036	$ 1,941,213	$ 1,889,865	$ 2,009,808	$ 2,021,378	$ 2,181,943	$ 2,194,886	$ 1,984,815	$ 2,189,709	$ 2,055,195	$ 2,118,525	$ 2,050,185	$ 24,573,558
Colorado Interstate Pipeline	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Battle Creek Owned Production	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 220,948	$ 2,651,370
Intra-Montana Purchases	$ 524,863	$ 526,265	$ 519,567	$ 544,828	$ 555,666	$ 1,811,669	$ 1,911,646	$ 1,889,467	$ 593,522	$ 564,948	$ 574,255	$ 563,574	$ 10,580,270
Storage Injection/Withdrawal	$ (7,661,189)	$ (6,886,662)	$ (5,678,078)	$ (39,160)	$ 4,856,916	$ 7,406,371	$ 7,873,306	$ 7,174,442	$ 5,919,324	$ (1,960,811)	$ (4,838,221)	$ (6,713,408)	$ (547,169)
Total Natural Gas Expenses	$ 2,496,992	$ 2,520,185	$ 3,415,841	$ 6,388,640	$ 10,724,140	$ 14,833,099	$ 15,418,672	$ 12,184,431	$ 12,126,844	$ 8,164,794	$ 5,442,216	$ 3,563,243	$ 97,279,098
Administrative Expenses													
MCC Tax Collection	$ 2,948	$ 2,157	$ 2,969	$ 4,259	$ 8,454	$ 15,518	$ 18,767	$ 16,117	$ 15,715	$ 11,212	$ 7,473	$ 4,686	$ 110,274
MPSC Tax Collection	$ 10,543	$ 7,714	$ 10,832	$ 15,695	$ 31,865	$ 59,066	$ 70,145	$ 60,669	$ 59,363	$ 42,208	$ 28,131	$ 17,605	$ 413,834
Labor & Benefits	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
DSM Expense	$ 6,301	$ 148,917	$ 249,426	$ 126,075	$ 261,098	$ 388,191	$ 134,082	$ 12,084	$ 446,861	$ 415,527	$ 98,912	$ 320,793	$ 2,608,267
Computer Expense & Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Travel/Education Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Legal Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Basin Creek Storage Rebate	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (3,000)	$ (36,000)
Total Administrative Expenses	$ 16,792	$ 155,788	$ 260,227	$ 143,029	$ 298,418	$ 459,775	$ 219,994	$ 85,870	$ 518,939	$ 465,947	$ 131,516	$ 340,083	$ 3,096,375
Rate Base Expenses													
Storage Working Gas	$ 193,089	$ 256,905	$ 309,522	$ 309,885	$ 264,878	$ 196,245	$ 123,286	$ 56,803	$ 1,950	$ 20,120	$ 64,955	$ 127,166	$ 1,924,803
Deferred Expense	$ 759	$ 5,756	$ 12,875	$ 31,225	$ 53,893	$ 61,963	$ 52,275	$ 35,708	$ 23,591	$ 12,035	$ 2,976	$ 5	$ 293,063
Total Rate Base Expense	$ 193,848	$ 262,661	$ 322,398	$ 341,110	$ 318,771	$ 258,208	$ 175,561	$ 92,511	$ 25,541	$ 32,156	$ 67,931	$ 127,171	$ 2,217,866
Total Expenses	$ 2,707,632	$ 2,938,634	$ 3,998,466	$ 6,872,778	$ 11,341,329	$ 15,551,082	$ 15,814,227	$ 12,362,812	$ 12,671,323	$ 8,662,897	$ 5,641,662	$ 4,030,497	$ 102,593,339
Deferred Cost Amortization	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Monthly Deferred Cost	$ 192,886	$ (757,082)	$ (1,078,700)	$ (2,780,187)	$ (3,434,623)	$ (1,222,705)	$ 1,467,872	$ 2,510,103	$ 1,836,031	$ 1,750,809	$ 1,372,573	$ 450,137	$ 307,113
Cumulative Deferred Cost	$ 192,886	$ (564,197)	$ (1,642,897)	$ (4,423,084)	$ (7,857,706)	$ (9,080,411)	$ (7,612,540)	$ (5,102,437)	$ (3,266,406)	$ (1,515,597)	$ (143,024)	$ 307,113	

05/25/11

Exhibit__(JMS-4)
Work Papers
Page 2 of 3

Natural Gas Default Supply Tracking Mechanism

Total Supply Cost Calculations	Estimate Jul-11	Estimate Aug-11	Estimate Sep-11	Estimate Oct-11	Estimate Nov-11	Estimate Dec-11	Estimate Jan-12	Estimate Feb-12	Estimate Mar-12	Estimate Apr-12	Estimate May-12	Estimate Jun-12
Rate Base Storage												
Beginning Inventory	2,864,020	4,541,558	6,023,524	7,233,593	7,241,051	6,189,367	4,585,641	2,880,809	1,327,303	45,572	469,281	1,516,087
Net Storage Activity	1,677,538	1,481,966	1,210,068	7,459	(1,051,684)	(1,603,726)	(1,704,833)	(1,553,506)	(1,281,731)	423,709	1,046,806	1,429,368
Ending Inventory	4,541,558	6,023,524	7,233,593	7,241,051	6,189,367	4,585,641	2,880,809	1,327,303	45,572	469,281	1,516,087	2,945,454
Beginning Rate Base $	$ 13,175,733	$ 20,836,922	$ 27,723,584	$ 33,401,662	$ 33,440,822	$ 28,583,906	$ 21,177,535	$ 13,304,229	$ 6,129,786	$ 210,462	$ 2,171,273	$ 7,009,494
Net Storage Activity $	$ 7,661,189	$ 6,886,662	$ 5,678,078	$ 39,160	$ (4,856,916)	$ (7,406,371)	$ (7,873,306)	$ (7,174,442)	$ (5,919,324)	$ 1,960,811	$ 4,838,221	$ 6,713,408
Ending Rate Base $	$ 20,836,922	$ 27,723,584	$ 33,401,662	$ 33,440,822	$ 28,583,906	$ 21,177,535	$ 13,304,229	$ 6,129,786	$ 210,462	$ 2,171,273	$ 7,009,494	$ 13,722,902
Beginning Unit Cost	$ 4.6004	$ 4.5881	$ 4.6026	$ 4.6176	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6268	$ 4.6234
Activity Unit Cost	$ 4.5669	$ 4.6470	$ 4.6924	$ 5.2502	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6277	$ 4.6219	$ 4.6968
Ending Unit Cost	$ 4.5881	$ 4.6026	$ 4.6176	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6182	$ 4.6268	$ 4.6234	$ 4.6590
Deferred Supply Cost Expense												
Beginning Balance	$ 307,931	$ 115,045	$ 872,128	$ 1,950,828	$ 4,731,015	$ 8,165,637	$ 9,388,342	$ 7,920,471	$ 5,410,368	$ 3,574,337	$ 1,823,528	$ 450,955
Monthly Activity	$ (192,886)	$ 757,082	$ 1,078,700	$ 2,780,187	$ 3,434,623	$ 1,222,705	$ (1,467,872)	$ (2,510,103)	$ (1,836,031)	$ (1,750,809)	$ (1,372,573)	$ (450,137)
Ending Balance	$ 115,045	$ 872,128	$ 1,950,828	$ 4,731,015	$ 8,165,637	$ 9,388,342	$ 7,920,471	$ 5,410,368	$ 3,574,337	$ 1,823,528	$ 450,955	$ 818

Interest	Interest Rate
Working Gas	11.12%
Deferred Account	7.92%
Interim Interest	10.75%
Regulatory Taxes	Oct.1,2010
MCC Rate	0.11%
MPSC Rate	0.420%

05/25/11

Department of Public Service Regulation
Montana Public Service Commission
Docket No. D2011.5.36
NorthWestern Energy

PREFILED DIRECT TESTIMONY OF GLEN D. PHELPS

ON BEHALF OF NORTHWESTERN ENERGY

TABLE OF CONTENTS

Witness Information

Q. Please state your name and business address.

A. Glen D. Phelps, 40 East Broadway, Butte, Montana 59701.

Q. By whom and in what capacity are you employed?

A. I am employed as a regulatory analyst with NorthWestern Energy (NWE or NorthWestern).

Q. Please summarize your education and employment experience.

A. I graduated from Montana State University with a Bachelor of Science Degree in Animal Science in 1987. I joined the Montana Power Company (MPC) as a mechanic's assistant in Bozeman Division in 1989, and worked as an Energy Services rep from August 1991 through May 1993. In June 1993, I joined the Energy Services Department in the General Office as manager of the Residential Audit and Free Weatherization Programs. I oversaw the redesign of the Free Weatherization Program in 1995-1996, and remained manager of that program through 2005. I served as Universal System Benefits (USB) accounting analyst from 1999 through 2005, and was NWE's witness in USB Docket D2005.6.106. I joined the Regulatory Affairs department as a regulatory analyst in October 2002. I have attended regulatory workshops put on by the Center for Public Utilities and the Institute of Public Utilities, and have worked on a number of Montana Public Service Commission (MPSC) filings.

Q. What are your responsibilities as a regulatory analyst?

A. Since 2006, I have focused on preparing supporting data, cost allocation models and assisting with the preparation of testimony, exhibits and workpapers for NWE's allocated cost of service filings in Dockets D2006.10.141, D2007.7.82 and D2009.9.129. I prepare NWE's monthly natural gas tracker and deferred gas cost filings to the MPSC, and prepare a number of monthly and annual natural gas utility reports for various internal and external purposes.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. My testimony:

1. Presents the natural gas cost revenues and natural gas cost expenses for the period July 1, 2010 to June 30, 2011. This includes the Unreflected Gas Cost Account (UGCA) details. The information is actual through April 2011 and estimated for May and June 2011;
2. Presents the proposed amortization of the Gas Transportation Adjustment Clause (GTAC) Balance as of April 30, 2011;
3. Explains the cessation of the prior period UGCA and GTAC Balance amortizations; and
4. Sponsors the proposed rates resulting from the various natural gas cost and amortization adjustments proposed in this filing.

Unreflected Gas Cost Account

Q. What is the UGCA Balance for the 12-month period ending June 2011?

A. The UGCA Balance for the 12-month period ending June 2011, recorded on NWE's books and records, is an under-collection of $252,176 shown on Exhibit__(GDP-1), page 1. This Exhibit is a summary table that presents on a monthly basis, the actual natural gas cost revenues and the corresponding natural gas cost expenses commencing July 1, 2010, and ending June 30, 2011. The balance for each month and the total for the 12-month period ending June 2011 are reported in the column titled "Deferred Gas Cost". This table reflects the amounts recorded in the UGCA (Account No. 191) for this period and is a summary of the totals taken from the individual monthly natural gas cost revenue and natural gas cost expense reports NWE files with the Commission. The months of May and June are estimated and will be trued up as part of next year's filing.

Q. What is the source of natural gas cost revenues and natural gas cost expenses?

A. Natural gas cost revenues are the portion of the booked natural gas revenues associated with natural gas costs. Each month, the recorded consumption provides the source data to which the appropriate unit natural gas cost rate component (as approved in respective rate orders) is applied. The product of this computation is the Total Gas Cost Revenue. The natural gas cost

expenses are based on the actual costs recorded on the books and records of NWE.

Q. Were any adjustments made in determining the UGCA balance at June 30, 2011?

A. Yes. Gas cost revenues associated with Battle Creek production from November 2010 through June 2011 were eliminated from the UCGA balance. These revenues are not considered part of the deferred gas costs. Natural gas cost expenses associated with Battle Creek were also eliminated from the UCGA balance. The eliminated Battle Creek revenues are shown on John Smith's Exhibit__(JMS-1) Workpapers, page 2 of 3, Line 14, and the expenses are zero as shown on Line 24.

Q. How were Battle Creek gas cost revenues determined?

A. NWE began accounting for its initial acquisition of Battle Creek production separately from purchased natural gas supply in November 2010. The accounting procedure was updated in January 2011 for the second acquisition. The natural gas supply rate component for Battle Creek was based on the purchase price of Battle Creek divided by annual retail natural gas sales from the 2009-2010 tracker. The supply rate component was then applied to the actual monthly sales in dekatherms to determine Battle Creek gas cost revenues each month. This method was used through the end of April 2010. These are the revenues that are shown on Exhibit__(JMS-1) Workpapers, page 2 of 3, line 14. As this filing was being prepared, NWE determined that a

variable monthly rate calculation would be a more accurate methodology for determining Battle Creek revenues. The variable monthly rate calculation takes the sum of the monthly revenue requirement through the end of the tracker period (June 2011) divided by the sum of forecasted loads in dekatherms for the same period. This rate is applied to the actual monthly sales in dekatherms to determine Battle Creek revenues. The unit rate is then recomputed each month using the same method. This change in method resulted in $251,082 less revenue relating to Battle Creek for the period November 2010 through April 2011. On an annual basis, the difference between the two methods would be much smaller. NWE has made an adjusting entry in May business to accommodate the change in methods. The impact of the May adjustment can be seen in John Smith's Exhibit__(JMS-1), page 2, line 14. NWE will use the variable monthly rate method going forward, until such time as the Commission has the rate basing of the Battle Creek Production asset, and issued an order. NWE intends to submit a Battle Creek revenue requirement filing in 2011.

Q. What is the Total UGCA Adjustment proposed for amortization in this filing?

A. The total UGCA Adjustment proposed for amortization in this filing is $252,176 as developed on Exhibit__(GDP-1), page 1 and also shown on page 2. The prior period amortization adjustment of $55,755 shown on Exhibit__(GDP-1), page 2 is the balance remaining after cessation of the amortization initially approved in Docket D2010.5.49, Order No. 7089a. NWE is proposing to cancel

this UGCA Balance unit amortization in the current rates upon approval of the rate treatment proposed in this filing. NWE proposes the remaining balance of this amortization be included with the UGCA Balance of $307,931 for the period ending June 30, 2011.

Total Unreflected Gas Cost Account Balance

2010-2011 Unreflected Gas Account Balance (Exhibit__(GDP-1), pg 1)	$ 252,176
Plus: 2010-2011 Prior Period Def. Acct. Balance (Exhibit__(GDP-1), pg 2)	$ 55,755
	$ 307,931

$307,931 is the starting amount for the 2011 amortization as shown on line 22, page three of John Smith's Exhibit__(JMS-1) Workpapers and discussed in his testimony. NWE proposes to set the rate at zero until actuals are recorded for the months of May and June. NWE will review the account balance again and determine if the final amount merits filing a rate adjustment proposal.

Gas Transportation Adjustment Clause (GTAC)

Q. Would you briefly describe the purpose of the GTAC mechanism?

A. The purpose of the GTAC mechanism is to track the difference between the actual Interruptible and Off-system transportation sales received and the amount established from the most current general rate filing. The Interruptible and Off-system sales from the latest general rate filing are basically revenue credits in establishing Montana jurisdiction rates. The GTAC mechanism is

used to track any differences between actual Interruptible and Off-system transportation sales and the amount established in the general rate filing. If actual Interruptible and Off-system revenues exceed the amounts established in the general rate filing, then customers are given a credit through the GTAC rates and vice versa if actual revenues are less than the amounts established. The GTAC mechanism was implemented pursuant to Order No. 5474c, Docket No. 90.1.1. NWE files for treatment of the GTAC Balance annually, in conjunction with its annual natural gas tracking filing.

In addition, pursuant to Order No. 6197c, Docket No. 99.8.176, NWE has the flexibility to discount its transmission, storage and/or distribution rates to avoid uneconomic bypass, and where approved by MPSC, recover the discounted amounts from its other customers. The discounted amounts are flowed through to customers using the GTAC.

Q. Has NWE revised the Interruptible and Off-system sales used in calculating the GTAC rate?

A. Yes, the Interruptible and Off-system transportation sales were reset to reflect the sales amount included in NWE's general rate filing in Docket No. D2009.9.129. The GTAC computation reflects the new sales amounts starting on July 8, 2010 to coincide with implementation of MPSC natural gas delivery services rates adjusted per Interim Order 7046g and subsequently changed on January 1, 2011 by Final Order 7064h. Prior to this date the amounts were based on Docket No. D2007.7.82, Order 6852f.

Q. What are the new Interruptible and Off-system transportation sales amounts included in NWE's filing in Docket No. D2009.9.129?

A. Below are the sales amounts reflected in Statement H for the Natural Gas Utility:

DBU Interruptible Transportation	$ 14,940
TBU Interruptible Transportation	$ 363,998
Off-System IT	$ 765,888
CMPL Transportation	$ 77,847
Total	$1,222,673

Q. What is the most recent GTAC Balance?

A. The GTAC Balance reflected on NWE's books and records as of April 30, 2011 is $(578,161) as shown on Exhibit__(GDP-2) page 5. This is the actual Interruptible and Off-system transportation revenues of $1,286,206 offset by the previously ordered revenues of $1,222,126 and the Interruptible Transportation (IT) rate discount of $(514,081).

Q. What is the GTAC prior period balance currently being amortized pursuant to Docket D2010.5.49, Order No. 7089a?

A. Exhibit__(GDP-2) pages 2 through 4 show the calculation of the remaining estimated GTAC Balance as of April 30, 2011 currently being amortized for the 2010-2011 GTAC adjustment, Order No. 7089a. The estimated remaining balance is comprised of $24,803 for Storage, $(271) for Distribution Business

Unit (DBU) and $18,611 for Transmission Business Unit (TBU) for a total of $43,143.

Q. What is the GTAC net balance being proposed for amortization in this filing?

A. Similar to the adjustment for the prior period made to the UGCA Balance described above, it is necessary to make an adjustment of $43,143 to the current GTAC balance as of April 30, 2011, for the prior GTAC amortization approved in Order No. 7089a. NWE is proposing cessation of the amortization of this GTAC prior period balance upon approval of the rate treatment proposed in this filing and inclusion of this balance of $43,143 with the current balance of $(578,161) for a total GTAC amortization in rates of $(535,018).

Q. Please explain the derivation of the GTAC rates.

A. The amortization is related to three functions on the natural gas system: storage, distribution and transmission. The amortization is first separated into the appropriate functions, and then allocated among the different customer classes that utilize each function. The customer class balances within each function are then divided by each customer class' billing determinants to develop the customer class unit rates. This calculation is provided on Exhibit__(GDP-2), page 1.

Unit Rate Adjustments/Proposed Rates

Q. Have you provided a summary of the unit rate adjustments and resulting rates proposed in this filing?

A. Yes, Exhibit__(GDP-3) includes a table that reflects the rates that result from the adjustments included in this filing. The exhibit reflects the current tariff rates, the proposed rates and the resulting change.

Q. Have you prepared an exhibit for the proposed maximum Interruptible Transmission (IT) commodity rate at transmission level?

A. Yes, Exhibit__(GDP-4) reflects the calculation of the proposed maximum IT commodity rate at transmission level. Pursuant to NWE's approved maximum IT rate design (initially approved in Docket No. 90.1.1) the maximum IT commodity rate at transmission level is based on the 100% load factor Firm Transportation (FT) commodity rate at transmission level. Therefore, it is necessary to recalculate the maximum IT rate at transmission level after deriving the new FT commodity rate.

Q. What is NWE's proposal for rate implementation?

A. NWE proposes an interim rate effective date for its proposed rate adjustments and implementation of monthly natural gas cost adjustments for service on and after July 1, 2011.

Q. Does NWE plan to continue to utilize a monthly tracking procedure?

A. Yes, as proposed and ordered in Docket D2003.6.66, NWE continues to promote the use of monthly trackers.

Q. Does this complete your testimony?

A. Yes, it does.

NorthWestern Energy
Unreflected Gas Cost Account Balance
July 2010 - June 2011

Month	Gas Cost Revenues	Gas Cost Expense	Deferred Gas Cost
July-10	$2,105,934	$2,268,649	$162,715
August-10	$2,206,696	$2,718,332	$511,637
September-10	$3,133,164	$3,959,167	$826,003
October-10	$3,742,199	$6,508,250	$2,766,051
November-10	$7,532,001	$13,871,381	$6,339,380
December-10	$14,779,444	$15,867,026	$1,087,583
January-11	$17,339,624	$15,888,846	($1,450,778)
February-11	$15,897,708	$14,439,090	($1,458,618)
March-11	$15,759,146	$12,178,836	($3,580,310)
April-11	$10,616,587	$9,244,549	($1,372,038)
May-11 (Estimated)	$ 7,648,589	$5,217,868	($2,430,721)
June-11 (Estimated)	$ 4,397,056	$3,248,329	($1,148,727)
	$105,158,147	$105,410,323	$252,176

NorthWestern Energy
Unreflected Gas Cost Account
Prior Period Deferred Balance (07/01/09 - 06/30/10) & 2011 Amortizations
Docket No. D2010.5.49, Final Order 7089a

Month	Monthly Collection/(Give Back)	Collection to-date	Balance Remaining	
Balance			($1,369,271)	
July-10	$ (27,122)	($27,122)	($1,342,149)	
August-10	$ (12,202)	($39,323)	($1,329,948)	
September-10	$ (39,396)	($78,719)	($1,290,552)	
October-10	$ (51,090)	($129,809)	($1,239,462)	
November-10	$ (107,471)	($237,280)	($1,131,991)	
December-10	$ (212,349)	($449,629)	($919,642)	
January-11	$ (242,052)	($691,681)	($677,590)	
February-11	$ (214,662)	($906,343)	($462,928)	
March-11	$ (214,239)	($1,120,581)	($248,690)	
April-11	$ (147,133)	($1,267,714)	($101,557)	
May-11 (Estimated)	$ (104,148)	($1,371,862)	$2,591	
June-11 (Estimated)	$ (53,165)	($1,425,026)	$55,755	
Deferred Estimated Balance @ June 30, 2011			$252,176	Exhibit_(GDP-1), Page 1
Total Under/(Over) Recovery			$307,931	

NorthWestern Energy
GTAC Allocation and Rate Calculation
2011 Tracker Filing Estimate

Storage	
Current Section 311	$0.00
Prior Period Balance	$24,803.02
	$24,803.02

	MDDQ	Allocators		July - June Billing Determinant	Rate Estimate	Current Rates	Change
Core	119,405	0.57285	$14,208.41	19,891,936	**$0.000714**	**($0.001705)**	$0.002419
Utility	1,513	0.00726	$180.07	1,513	**$0.009918**	**($0.023606)**	$0.033524
Transportation	87,522	0.41989	$10,414.54	87,522	**$0.009916**	**($0.023601)**	$0.033517
	208,440	1.00000	$24,803.02				

DBU IT	
Current Section 311	($5,261.00)
Prior Period Balance	($271.14)
	($5,532.13)

	MDDQ	Allocators		July - June Billing Determinant	Rate Estimate	Current Rates	Change
Residential	142,270	0.59928	($3,315.32)	12,988,964	**($0.000255)**	**$0.000585**	($0.000840)
General Service	73,290	0.30872	($1,707.89)	6,902,972	**($0.000247)**	**$0.000602**	($0.000849)
DBU	21,839	0.09199	($508.92)	21,839	**($0.001942)**	**$0.004359**	($0.006301)
	237,399	1.00000	($5,532.13)				

TBU IT	
Current Section 311	($572,899.67)
Prior Period Balance	$18,610.72
	($554,288.95)

	MDDQ	Allocators		July - June Billing Determinant	Rate Estimate	Current Rates	Change
Residential	142,270	0.44085	($244,356.45)	12,988,964	**($0.018813)**	**$0.001910**	($0.020723)
General Service	73,290	0.22710	($125,880.57)	6,902,972	**($0.018236)**	**$0.001967**	($0.020203)
Utility	2,751	0.00852	($4,724.98)	334,360	**($0.014131)**	**$0.002236**	($0.016367)
TBU	104,408	0.32353	($179,326.89)	16,090,000	**($0.011145)**	**$0.000962**	($0.012107)
	322,719	1.00000	($554,288.89)				

Total	
Current Section 311	($578,160.67)
Prior Period Balance	$43,142.61
	($535,018.06)

NorthWestern Energy
Storage GTAC Amortization
Prior Period Deferred Balance (07/01/09 - 06/30/10) & 2011 Amortizations
Docket No. D2010.5.49, Final Order 7089a

Month	Monthly Collection	Collection to-date	Balance Remaining
Balance			($61,855.25)
May-10	$ (13,060.29)	($13,060.29)	($48,794.96)
June-10	$ (10,858.28)	($23,918.57)	($37,936.68)
July-10	$ (7,437.50)	($31,356.07)	($30,499.18)
August-10	$ (3,041.16)	($34,397.22)	($27,458.02)
September-10	$ (3,284.12)	($37,681.34)	($24,173.90)
October-10	$ (3,563.52)	($41,244.86)	($20,610.39)
November-10	$ (4,923.03)	($46,167.89)	($15,687.36)
December-10	$ (7,431.46)	($53,599.35)	($8,255.89)
January-11	$ (8,130.52)	($61,729.87)	($125.38)
February-11	$ (7,460.24)	($69,190.11)	$7,334.87
March-11	$ (7,460.92)	($76,651.03)	$14,795.79
April-11	$ (10,007.23)	($86,658.27)	$24,803.02

NorthWestern Energy
DBU GTAC Amortization
Prior Period Deferred Balance (07/01/09 - 06/30/10) & 2011 Amortizations
Docket No. D2010.5.49, Final Order 7089a

Month	Monthly Collection	Collection to-date	Balance Remaining
Balance			$12,840.72
May-10	$ 830.85	$830.85	$12,009.87
June-10	$ 579.25	$1,410.10	$11,430.62
July-10	$ 416.26	$1,826.36	$11,014.36
August-10	$ 339.63	$2,165.99	$10,674.73
September-10	$ 423.63	$2,589.62	$10,251.10
October-10	$ 520.26	$3,109.87	$9,730.85
November-10	$ 990.05	$4,099.93	$8,740.79
December-10	$ 1,859.70	$5,959.63	$6,881.09
January-11	$ 2,102.20	$8,061.83	$4,778.89
February-11	$ 1,869.73	$9,931.57	$2,909.15
March-11	$ 1,869.93	$11,801.50	$1,039.22
April-11	$ 1,310.36	$13,111.86	($271.14)

NorthWestern Energy
TBU GTAC Amortization
Prior Period Deferred Balance (07/01/09 - 06/30/10) & 2011 Amortizations
Docket No. D2010.5.49, Final Order 7089a

Month	Monthly Collection	Collection to-date	Balance Remaining
Balance			$55,183.35
May-10	$ (6,171.65)	($6,171.65)	$61,355.00
June-10	$ (4,462.07)	($10,633.71)	$65,817.07
July-10	$ (63.64)	($10,697.36)	$65,880.71
August-10	$ 1,705.09	($8,992.27)	$64,175.62
September-10	$ 1,998.04	($6,994.23)	$62,177.58
October-10	$ 2,259.63	($4,734.60)	$59,917.96
November-10	$ 3,902.31	($832.30)	$56,015.65
December-10	$ 7,440.65	$6,608.35	$48,575.00
January-11	$ 8,598.31	$15,206.66	$39,976.70
February-11	$ 7,884.20	$23,090.86	$32,092.49
March-11	$ 7,722.14	$30,813.01	$24,370.35
April-11	$ 5,759.62	$36,572.63	$18,610.72

NorthWestern Energy
GTAC Balance
As Of April 30, 2011

		May 2010 through April 2011
Monthly GTAC Revenues		
DBU IT	$	21,573.96
TBU On-System IT		748,198.29
TBU Off-System IT		429,483.59
Off-System Storage		-
CMPL IT		86,949.25
Total GTAC Revenues	$	1,286,205.09
Less Offsets		
(per Orders 7046g & 7046h):		
Off-System IT Rev.	$	703,002.66
Off-System IS Rev.		-
DBU On-System IT Rev.		17,592.84
TBU On-System IT Rev.		424,767.00
CMPL Trans. Rev.		76,763.38
	$	1,222,125.87
FT Rate Discount Shortfall:		
TBU FT Discount Rev. Impact	$	(512,801.58)
DBU FT Discount Rev. Impact		(1,279.88)
	$	(514,081.46)
Total Offsets	$	708,044.42
NET GTAC Revenues	$	(578,160.67)
Storage	$	-
Distribution		(5,261.00)
Transmission		(572,899.67)
NET GTAC Revenues	$	(578,160.67)

NorthWestern Energy
Natural Gas Utility
Unit Rate Adjustments/Proposed Rates
July 1, 2011

	Current	Proposed	Rate Change	Percentage Change
Core:				
D-RG-1 Rate Schedule				
Residential				
Monthly Service Charge per Meter	$ 6.90	$ 6.90	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.857266	$ 1.857266	$ -	0.00%
Transmission Charge	$ 1.099798	$ 1.099798	$ -	0.00%
Storage Charge	$ 0.334720	$ 0.334720	$ -	0.00%
Gas Supply Charge	$ 6.319600	$ 5.135400	$ (1.184200)	-18.74%
Deferred Gas Cost Amortization	$ (0.070900)	$ -	$ 0.070900	100.00%
DBU GTAC Amortization	$ 0.000585	$ (0.000255)	$ (0.000840)	-143.59%
TBU GTAC Amortization	$ 0.001910	$ (0.018813)	$ (0.020723)	-1084.97%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 9.541274	$ 8.408830	$ (1.132444)	-11.87%
D-RGCA-1 Rate Schedule				
Residential Gas Core Aggregation				
Monthly Service Charge per Meter	$ 6.90	$ 6.90	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.857266	$ 1.857266	$ -	0.00%
Transmission Charge	$ 1.099798	$ 1.099798	$ -	0.00%
Storage Charge	$ 0.334720	$ 0.334720	$ -	0.00%
DBU GTAC Amortization	$ 0.000585	$ (0.000255)	$ (0.000840)	-143.59%
TBU GTAC Amortization	$ 0.001910	$ (0.018813)	$ (0.020723)	-1084.97%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 3.292574	$ 3.273430	$ (0.019144)	-0.58%
D-GSG-1 Rate Schedule				
General Natural Gas Service				
Monthly Service Charge per Meter				
0 to 300	$ 17.10	$ 17.10	$ -	0.00%
301 to 1,000	$ 22.60	$ 22.60	$ -	0.00%
1,001 to 2,000	$ 36.40	$ 36.40	$ -	0.00%
2,001 to 5,000	$ 61.15	$ 61.15	$ -	0.00%
5,001 to 10,000	$ 75.10	$ 75.10	$ -	0.00%
10,001 to 30,000	$ 118.80	$ 118.80	$ -	0.00%
> 30,000	$ 144.35	$ 144.35	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.836215	$ 1.836215	$ -	0.00%
Transmission Charge	$ 1.099118	$ 1.099118	$ -	0.00%
Storage Charge	$ 0.333757	$ 0.333757	$ -	0.00%
Gas Supply Charge	$ 6.319600	$ 5.135400	$ (1.184200)	-18.74%
Deferred Gas Cost Amortization	$ (0.070900)	$ -	$ 0.070900	100.00%
DBU GTAC Amortization	$ 0.000602	$ (0.000247)	$ (0.000849)	-141.03%
TBU GTAC Amortization	$ 0.001967	$ (0.018236)	$ (0.020203)	-1027.10%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 9.518654	$ 8.386721	$ (1.131933)	-11.89%

NorthWestern Energy
Natural Gas Utility
Unit Rate Adjustments/Proposed Rates
July 1, 2011

	Current	Proposed	Rate Change	Percentage Change
D-GSGCA-1 Rate Schedule				
General Natural Gas Service Core Aggregation				
Monthly Service Charge per Meter				
0 to 300	$ 17.10	$ 17.10	$ -	0.00%
301 to 1,000	$ 22.60	$ 22.60	$ -	0.00%
1,001 to 2,000	$ 36.40	$ 36.40	$ -	0.00%
2,001 to 5,000	$ 61.15	$ 61.15	$ -	0.00%
5,001 to 10,000	$ 75.10	$ 75.10	$ -	0.00%
10,001 to 30,000	$ 118.80	$ 118.80	$ -	0.00%
> 30,000	$ 144.35	$ 144.35	$ -	0.00%
Commodity Charges ($/Dkt)				
Distribution Charge	$ 1.836215	$ 1.836215	$ -	0.00%
Transmission Charge	$ 1.099118	$ 1.099118	$ -	0.00%
Storage Charge	$ 0.333757	$ 0.333757	$ -	0.00%
DBU GTAC Amortization	$ 0.000602	$ (0.000247)	$ (0.000849)	-141.03%
TBU GTAC Amortization	$ 0.001967	$ (0.018236)	$ (0.020203)	-1027.10%
Storage GTAC Amortization	$ (0.001705)	$ 0.000714	$ 0.002419	141.88%
Total Commodity	$ 3.269954	$ 3.251321	$ (0.018633)	-0.57%
T-FUGC-1 Rate Schedule				
Firm Utility Gas Contract Service				
Monthly Service Charge per Meter				
10,001 to 30,000	$ 108.65	$ 108.65	$ -	0.00%
> 30,000	$ 280.15	$ 280.15	$ -	0.00%
Transmission Charges:				
Reservation Rate (MDDQ)	$ 5.290125	$ 5.290125	$ -	0.00%
Transmission Commodity Rate (Dkt)	$ 0.063056	$ 0.063056	$ -	0.00%
GTAC Amortization (Dkt)	$ 0.002236	$ (0.014131)	$ (0.016367)	-731.98%
Storage Charges:				
Reservation Rate (MDDQ)	$ 4.207313	$ 4.207313	$ -	0.00%
Storage Commodity Rate (Dkt)	$ 0.015220	$ 0.015220	$ -	0.00%
GTAC Amortization (MDDQ)	$ (0.023606)	$ 0.009918	$ 0.033524	142.02%
Gas Supply Charge (Dkt)	$ 6.319600	$ 5.135400	$ (1.184200)	-18.74%
Deferred Gas Cost Amortization (Dkt)	$ (0.070900)	$ -	$ 0.070900	100.00%

NorthWestern Energy
Natural Gas Utility
Unit Rate Adjustments/Proposed Rates
July 1, 2011

	Current	Proposed	Rate Change	Percentage Change
Non-Core				
Distribution Business Unit				
D-FTG-1 Rate Schedule				
Firm Transportation Natural Gas Service				
Monthly Service Charge per Meter				
2,000 to 5,000	$ 104.05	$ 104.05	$ -	0.00%
5,000 to 10,000	$ 118.95	$ 118.95	$ -	0.00%
10,001 to 30,000	$ 163.50	$ 163.50	$ -	0.00%
> 30,000	$ 189.85	$ 189.85	$ -	0.00%
Distribution Charge: (MDDQ)				
Reservation Rate	$ 6.583848	$ 6.583848	$ -	0.00%
GTAC Amortization	$ 0.004359	$ (0.001942)	$ (0.006301)	-144.55%
D-ITG-1 Rate Schedule				
Interruptible Transportation Natural Gas Service				
Monthly Service Charge per Meter				
2,000 to 5,000	$ 104.05	$ 104.05	$ -	0.00%
5,000 to 10,000	$ 118.95	$ 118.95	$ -	0.00%
10,001 to 30,000	$ 163.50	$ 163.50	$ -	0.00%
> 30,000	$ 189.85	$ 189.85	$ -	0.00%
Distribution Charge: (Dkt)				
Distribution Commodity Rate	$ 0.216432	$ 0.216432	$ -	0.00%
Transportation Business Unit				
T-FTG-1 Rate Schedule				
Firm Transportation Natural Gas Service				
Monthly Service Charge per Meter				
5,001 to 10,000	$ 101.80	$ 101.80	$ -	0.00%
10,001 to 30,000	$ 146.35	$ 146.35	$ -	0.00%
> 30,000	$ 324.70	$ 324.70	$ -	0.00%
Transmission Reservation Rate (MDDQ)	$ 8.321131	$ 8.321131	$ -	0.00%
Transmission Commodity Rate (Dkt)				
Maximum	$ 0.063056	$ 0.063056	$ -	0.00%
GTAC Amortization	$ 0.000962	$ (0.011145)	$ (0.012107)	-1258.52%
T-ITG-1 Rate Schedule				
Interruptible Transportation Natural Gas Service				
Monthly Service Charge per Meter				
5,001 to 10,000	$ 101.80	$ 101.80	$ -	0.00%
10,001 to 30,000	$ 146.35	$ 146.35	$ -	0.00%
> 30,000	$ 324.70	$ 324.70	$ -	0.00%
Transmission Commodity Rate (Dkt)				
Maximum	$ 0.336597	$ 0.325452	$ (0.011145)	-3.31%
T-FSG-1 Rate Schedule				
Firm Storage Natural Gas Service				
Monthly Rate:				
Withdrawal Reservation Rate:	$ 4.250737	$ 4.250737	$ -	0.00%
Injection Commodity Rate:	$ 0.021968	$ 0.021968	$ -	0.00%
Withdrawal Commodity Rate:	$ 0.021968	$ 0.021968	$ -	0.00%
Storage Capacity Rate:	$ 0.020869	$ 0.020869	$ -	0.00%
GTAC Amortization	$ (0.023601)	$ 0.009916	$ 0.033517	142.02%

NorthWestern Energy
Maximum IT Commodity Rate Calculation

Firm TBU Transportation Reservation Rate	$8.321131	
Average number of days per month	30.42	
Reservation rate per day (Reservation rate / days)	$0.273541	
plus: Firm TBU Transportation Commodity Rate	$0.051911	
Interruptible TBU Transportation Commodity Rate	$0.325452	per Dkt

Department of Public Service Regulation
Montana Public Service Commission
Docket No. D2011.5.36
NorthWestern Energy

PREFILED DIRECT TESTIMONY OF WILLIAM M. THOMAS ON BEHALF OF NORTHWESTERN ENERGY

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Witness Information

Q. Please state your name and business address.

A. My name is William M. Thomas and my business address is 40 East Broadway, Butte, Montana 59701.

Q. By whom and in what capacity are you employed?

A. I am employed by NorthWestern Energy (NorthWestern) as Manager of Regulatory Support Services in the Regulatory Affairs and Support Services Department.

Q. Please state your educational background, experience and responsibilities.

A. I graduated from Montana State University with a Bachelor of Science Degree in Science and Education. I was employed by The Montana Power Company (MPC) from 1980-1999 in a variety of staff and management positions. During that tenure, I served as program director for MPC Demand Side Management (DSM) Programs for Residential and Commercial customers. I attended the Public Utility Executives Program at the University of Idaho in 1991. I joined NorthWestern in April 2004 in the capacity of DSM Program Coordinator and assumed my present position as Manager of Regulatory Support Services in April 2005. In addition to other departmental activities related to support of regulatory filings and proceedings, I am responsible for providing overall coordination and direction on development, implementation and promotion/education of DSM programs. My duties also include preparing the information supporting NorthWestern's DSM-related activities and proposals in this filing.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. My testimony:

1. Provides a report on the results of the E+ Natural Gas DSM program operated by NorthWestern for natural gas supply customers during the 2010-11 tracker period,

2. Describes NorthWestern's plans for continuing this program during the 2011-12 tracker period,
3. Provides numbers for the natural gas DSM Lost Revenues for the 2010-2011 and tracker years associated with the E+ Natural Gas DSM program and certain other programs funded by the Universal System Benefits (USB) charge that also produce natural gas savings that affect Lost Revenues, and
4. Discusses NorthWestern's plans for a comprehensive DSM Program Evaluation to be performed in 2012.

2010-11 Natural Gas DSM Program Results

Q. Please describe the activity and results of NorthWestern's E+ Natural Gas DSM Program during the 2010-11 natural gas supply tracking period.

A. The E+ Natural Gas DSM Program, introduced in October 2005, has continued throughout the 2010-11 tracker period. NorthWestern renewed its contract with KEMA, Inc. (Kema) to provide services needed to operate the expanded program during 2010 and 2011. Table 1 below summarizes the annual targets, reported savings, spending and budget for the program to date and for the 2011-12 natural gas supply tracker period.

Table 1: Natural Gas Supply DSM Targets, Reported Savings, Spending and Budget

Program Period	Installed Annual Natural Gas DSM Capability (Incremental)						Natural Gas Supply Tracker	
	Target (Dkt)			Reported Savings (Dkt)				
	USB	DSM	Total	USB	DSM	Total	Budget	Expenses[1]
2005-06	N/A	96,277	96,277	42,177	128,761	170,938	$1,125,000	$1,015,679
2006-07	N/A	114,526	114,526	42,393	70,058	112,450	$ 800,000	$ 608,000
2007-08	N/A	114,526	114,526	58,482	74,198	131,078	$ 698,030	$ 679,677
2008-09	60,000	115,000	175,000	60,904	76,102	160,262	$ 738,440	$1,808,655
2009-10	60,000	150,000	210,000	70,706	107,491	178,197	$2,300,000	$2,202,948
2010-11	60,000	150,000	210,000	79,371	186,310	265,682	$2,435,365	$2,857,253
2011-12	60,000	150,000	210,000				$2,606,266	

Note 1: Expenses for 2010-11 are 10 months of actual and 2 months of estimates. Reported energy savings for 2010-11 are 9 months of actual and 3 months of estimates.

For Natural Gas Supply DSM Programs, Home Energy Expo Events and Mail-in Rebates were used to encourage customers to install DSM measures to reduce their consumption of natural gas.

1. Home Energy Expo Events: 28 local events to promote natural gas energy efficiency were scheduled, promoted and conducted around Montana during the 2010-11 tracker period. These events offered free materials, information, and instruction on energy efficiency:
   a. Air infiltration sealing and Compact Fluorescent Lamps.
   b. Direct mail, web, radio, newspaper advertising in advance of events.
   c. Home Energy Makeover Contest.
   d. "How-to-install" DVD.
   e. Saturday events included sessions on NWE programs, ENERGY STAR®, renewable energy, and installing insulation, air-sealing, window plastic, etc., as well as the instant rebate for programmable thermostats.

Table 2 below presents a tabulation of the event dates and locations.

Table 2: 2010 Schedule of Home Energy Events and Expos

Division	Town	Day	Date
Billings	**Billings**	**Saturday**	**September 11**
Billings	Red Lodge	Wednesday	September 15
Billings	Columbus	Thursday	September 16
Billings	Lewistown	Friday	September 17
Kalispell	Bigfork	Thursday	September 23
Kalispell	Columbia Falls	Friday	September 24
Kalispell	**Kalispell**	**Saturday**	**September 25**
Bozeman	Three Forks	Wednesday	September 29
Bozeman	Livingston	Thursday	September 30
Bozeman	Belgrade	Friday	October 1
Bozeman	**Bozeman**	**Saturday**	**October 2**
Havre	Choteau	Thursday	October 7
Havre	Chinook	Friday	October 8
Havre	**Havre**	**Saturday**	**October 9**
Great Falls	Conrad	Thursday	October 14
Great Falls	Fort Benton	Friday	October 15
Great Falls	**Great Falls**	**Saturday**	**October 16**
Helena	Clancy	Friday	October 22
Helena	**Helena**	**Saturday**	**October 23**
Butte	Dillon	Wednesday	October 27
Butte	Deer Lodge	Thursday	October 28
Butte	Anaconda	Thursday	October 28
Butte	Whitehall	Friday	October 29
Butte	**Butte**	**Saturday**	**October 30**
Missoula	Corvallis	Wednesday	November 3
Missoula	Hamilton	Thursday	November 4
Missoula	Missoula	Friday	November 5
Missoula	**Missoula**	**Saturday**	**November 6**

Note: Bold text in Table 2 indicates the location of Expos.

2. Mail-in Rebates: NorthWestern offers cash rebates to customers who install approved DSM measures, including insulation (attic/ceiling, basement wall, crawlspace wall, exterior above grade wall) and programmable thermostats. NorthWestern maintains a list of Preferred Contractors who enter into an agreement with NorthWestern to meet certain requirements. Different levels of rebates are paid depending on whether or not customers use Preferred Contractors to install insulation measures. Participating customers are responsible for purchasing and installing approved insulation measures and/or programmable thermostats and applying to NorthWestern for incentives or rebates. Interested customers are

provided program information, forms, a schedule of rebate amounts for various measures, and step-by-step instructions on how to participate in the program process. To receive a rebate, customers are required to submit proof-of-purchase (receipts and paid invoices). NorthWestern, or its agent KEMA, verified installations by performing site inspections on a randomly selected sample of projects.

Q. What amount of natural gas savings will result from the 2010-11 E+ Natural Gas Supply DSM Programs?

A. Reported natural gas savings from operation of Natural Gas Supply DSM Programs for the tracker period 2010-11 total 186,310 Dkt/year. This amount represents annualized natural gas savings that would result if all the program measures were installed and in operation for a full year.

Q. Are there other programs that produce natural gas savings that affect Lost Revenue calculations?

A. Yes. NorthWestern operates other energy efficiency programs, the E+ Free Weatherization Program and the E+ Energy Audit for The Home, that are funded through USB and produce natural gas savings in the residential customer sector. The total amount of additional natural gas DSM savings from these programs is 79,371 Dkt/year for the 2010-11 tracker year (refer to Table 1 above). Although the expenses associated with operation of these programs are not included in the Natural Gas Supply Tracker, the savings produced contributes to Lost Revenues and is counted toward the total natural gas savings used to calculate Lost Revenues. Exhibit__(WMT-1) presents individual program detail on the amount of natural gas DSM savings capability produced by these USB programs (79,371 Dkt/year), as well as the Natural Gas Supply DSM Programs (186,310 Dkt/year) funded through natural gas supply for the 2010-11 tracker year. Total savings for the USB and Natural Gas Supply DSM programs equals 265,682 Dkt/year. This amount is used as an input to the calculation of Lost Revenues for the 2010-11 tracker period.

Q. Please provide details on the costs associated with NorthWestern's 2010-11 Natural Gas DSM Program.

A. Natural Gas DSM expenses fall into two categories. The first category is program costs for operation of the specific Natural Gas DSM Programs:

1. E+ Residential Existing Construction Program
2. E+ Residential New Construction Program
3. E+ Business Partners Program
4. E+ Commercial Existing Construction Program
5. E+ Commercial New Construction Program
6. E+ Building Blocks Program

This category includes contractor labor and expenses, equipment and building rental, materials for community events, advertising and promotion, and rebates paid to customers. The total for this category of costs for the 2010-11 tracker period is $2,811,239.

The second category is General Expenses in the amount of $46,014 for all Natural Gas DSM programs. These expenses are incurred during travel, general promotional activities, staff training, and meetings involving the entire portfolio of natural gas supply DSM programs.

The total for the 2010-11 tracker period is $2,857,253. This amount does not include NorthWestern labor. Exhibit__(WMT-2) presents monthly spending associated with the Natural Gas Supply DSM programs. The figures include 10 months (July 2010 through April 2011) of actual recorded expenses and 2 months (May and June 2011) of estimated expenses. This is the amount included in the Natural Gas Supply Tracker for DSM program costs.

The annual Dkt targets and reported savings are comprised of amounts of installed annual energy savings capability contributed from measures and actions implemented under both USB Programs and Natural Gas DSM Programs. Although energy savings produced by USB Programs is counted toward the overall annual Dkt

target, USB Programs are funded through a separate charge and USB spending is not reported or included in Exhibit__(WMT-2).

Q. Are there other supporting activities by NorthWestern to build interest and participation in its DSM programs?

A. NorthWestern DSM staff and contractors sponsor training seminars during the year to increase awareness of energy conservation and energy efficiency opportunities in buildings and facilities. The objectives of these training sessions are to educate and inform building operators, designers, and builders about using equipment efficiently and to promote the company's DSM programs, services, information resources and incentives. Following are the DSM program-related training seminars that NorthWestern sponsored during 2010-11:

1. Building Operator Certification – targeted at public schools, non-profit hospitals, state and local government; funding provided for tuition and travel.
    a. Level 1 Training & Certification:
        - Butte – November 15-19, 2010
        - Helena - Apr 25-29, 2011

2. Montana Energy Conference – Co-sponsorship for a conference targeting Montana State Government Departments and public facilities; 74 attendees and speakers.

Q. Were there additional efforts during the 2010-11 tracker period made by NorthWestern to promote DSM?

A. To communicate information about DSM and other NorthWestern programs to its customers, NorthWestern sustains a presence in Montana communities through bill boards, media, events, appearances, meetings, speaking engagements, booth sponsorships, trade fairs and shows, conferences and other special events. NorthWestern maintains networks of retailers, distributors and other trade allies and provides a steady stream of information about its DSM programs through print, radio, television, distribution literature, and personal contact. The following list provides

examples of the many activities performed by NorthWestern during the past year to market its DSM programs:

1. Joint Engineers Conference – Presentation and display booth in cooperation with BetterBricks.
2. Empowering Montana Schools – Presentations, Sponsorship and booth.
3. Montana Society of Health Care Engineers/ASHRAE[1] Conference - Presentations and display booth in cooperation with BetterBricks.
4. Montana American Institute of Architects Conference - Training and booth.
5. Montana Innkeepers Association Conference – Booth.
6. Home Energy Events and Expos (see discussion above).
7. E+ Audit for the Home – Direct mail in fall 2010 and spring of 2011.
8. Home & Garden Improvement Shows
    a. Fall 2010 – Billings.
    b. Spring 2011 - Hamilton, Missoula (2 shows), Billings, Bozeman, Great Falls, Helena, and Butte.
9. Parade of Homes Sponsorships (Fall 2010) - Billings, Bozeman, Great Falls, Missoula, Helena, Hamilton.
10. Earth Day 2011
    a. NorthWestern introduced a commercial component of its Earth Day activities this year featuring "Montana Commercial Energy Champions", an educational effort highlighting energy efficiency and small business energy appraisals on five local television stations and the State of Montana's Metcalf Building on the capitol campus in Helena, MT. Media promotions were conducted with six CBS affiliates to promote NorthWestern's programs and identify energy efficient lighting retrofit opportunities. Television news spots and print press releases were issued to focus on the accomplishments of the selected "Energy Champions".

[1] The American Society of Heating, Refrigerating and Air Conditioning Engineers is an international technical society for all individuals and organizations interested in heating, ventilation, air-conditioning, and refrigeration. See www.ashrae.org.

b. NorthWestern also completed the Earth Day promotion "The Bright Future Challenge and Contest", a year-long effort begun on Earth Day 2010 to promote energy efficiency.

11. Display-In-A-Box – An informational and educational tool used at various events for CFLs or natural gas rebates (Missoula, Kalispell, Bozeman, and Great Falls).
12. Montana Annual Building Code Conference - April 2011 in Bozeman.
13. Other Special Events:
    a. Montana Manufacturers Energy Conference sponsorship, speaker and display booth.
    b. Green Living Expo in Great Falls - display booth.

More specific details about the techniques, mechanisms, locations, forms of media, and calendar schedule are presented in Exhibit__(WMT-4a), which describes the goals, objectives, audiences, strategies, tactics, methods and tools of the DSM Communications Plan. Exhibit__(WMT-4b) provides a detailed schedule of specific programs and activities that will be implemented during a typical calendar year period. Together, these exhibits present a clear view of the scope and scale of NorthWestern's communications activities and sustained efforts to support its DSM programs, gain customer participation, and acquire cost-effective DSM resources. The DSM Communication Plan serves as a working plan that can and will be changed and adapted as conditions warrant or new knowledge is gained.

DSM Program Activities for 2011-12

Q. Does NorthWestern plan to offer this program again in the 2011-12 tracker period?

A. Yes, the E+ Natural Gas DSM Program will be continued through the 2011-12 period. NorthWestern will conduct one round of Community Events during September-November 2011. Marketing and promotional activities in advance of the events will be similar to the effort made last year. The Mail-in Rebate portion of the program will continue uninterrupted throughout the tracker period from July 1, 2011 through June

30, 2012. The estimated budget for the 2011-12 E+ Natural Gas DSM Program is $2,608,266. Monthly budget detail is included on Exhibit__(WMT-2).

NorthWestern will maintain its DSM program rebates and incentives at a level approximately equal to 50% of incremental DSM measure cost. Increased program marketing activity has resulted in higher annual amounts of DSM acquisition over the past few years.

NorthWestern will continue its contracts with outside service providers and will offer this group of Natural Gas DSM programs during the 2011-12 tracker period. NorthWestern has contracted with three additional firms for services in support of the E+ Commercial Natural Gas Program for Existing Facilities and the E+ Commercial Natural Gas Program for New Construction. As a result of a competitive bidding process conducted on behalf of NorthWestern by Lands Energy Consulting, the following firms have been retained to provide DSM Program services targeted at the commercial/industrial customer sectors:

a. ECOS, IQ, Inc. (ECOS)
b. McKinstry Essention (McKinstry)
c. Portland Energy Conservation, Inc. (PECI)

A coordinated and comprehensive marketing and communications effort that integrates USB and DSM funding for marketing and outreach has been developed and employed over the past several years, and many of the methods and techniques that have proven effective in the past will be repeated in the future.

Q. Are there other developments during the past DSM program period that impact future plans for operation of DSM programs?

A. In 2008, NorthWestern formed a partnership with the City of Missoula to operate an experimental pilot residential DSM program. This program is a combination electric and natural gas residential DSM project that incorporates elements of the E+ Energy

Audit for the Home, E+ Residential Lighting Program, the E+ Residential Electric Savings Program, and the E+ Natural Gas Savings Rebate Program. The objective of this effort was to provide energy audits and certain energy efficiency measures free of charge to targeted and concentrated groups of program participants in the hopes of achieving cost effective electric and natural gas savings.

The City of Missoula assumed responsibility for marketing, outreach, recruiting and selection of up to 100 eligible residential program participants. Funds acquired by the City of Missoula through the 2009 American Recovery and Reinvestment Act (ARRA) were used to again partner with NorthWestern in 2010-11 for a second round of Green Blocks. This second round of activity in Missoula expanded the program to 300 additional residential dwellings. The program work is still underway and the City of Missoula and NorthWestern are sharing costs on an approximate 50/50 basis.

In addition, NorthWestern conducted an extension of the Green Blocks pilot program during 2010-11 in cooperation with the City of Helena at a planned target level of 100 residential homes. In the Helena pilot program, no ARRA funds were available, so NorthWestern provided 100% funding and the City of Helena assumed responsibility for soliciting interest and recruiting participation in the program.

NorthWestern retained Navigant Consulting, Inc. (Navigant) in 2010 to perform an evaluation of the first round (2008) of Green Blocks in Missoula. This first round of Green Blocks produced both electric and natural gas energy savings, with natural gas measures contributing approximately 70% of total energy savings. Navigant's principal finding is that the 2008 Missoula Green Blocks Program was not cost-effective. Navigant's full report, *Final Evaluation Report: 2008 Green Blocks Pilot Program*, is included herein as Exhibit__(WMT-5).

Bozeman Building Blocks: Beginning in late 2009 and continuing through the 2010-11 tracker period, NorthWestern introduced and operated a pilot program targeted at the Bozeman downtown business district. Using qualified and experienced

personnel from NCAT, NorthWestern provided a quality commercial energy audit at no direct cost to building owners and/or occupants of commercial buildings along a 3-block strip in the main downtown area. Meetings were held with building owners/occupants to discuss the audit results and identify opportunities where behavioral changes can be made to decrease energy costs. These meetings also helped NorthWestern identify where energy savings projects can be pursued through its DSM programs.

Post-meeting follow up contacts were made to check on the status of customers' progress toward implementation of recommendations. NCAT compiled reports and data and submitted an interim report to NorthWestern earlier this year. NorthWestern will consider expansion of the Building Blocks Program following its review of NCAT's results and customer participation from the Bozeman effort.

Q. What steps are being taken to secure cost-effective DSM in NorthWestern's own buildings and facilities?

A. In 2010, NorthWestern DSM and Facilities Department staff acted on a suggestion from other employees to investigate costs and benefits of NWE buildings in Montana becoming as energy efficient as cost-effectively possible, as a means to reduce the corporation's overall future operating costs. The DSM/Facilities work team forwarded a proposal to NorthWestern management to examine the existing level of energy efficiency of NorthWestern's buildings and facilities in the Montana service territory and look for additional cost-effective DSM opportunities. Upon gaining approval to proceed, NCAT was contracted to perform the following work on 41 NorthWestern buildings and facilities:

1. Conduct a walk-through energy audit.
2. Generate an audit reports for each building that identified and documented the following:
   - Potential cost-effective energy conservation measures
   - Estimated cost to install measures.

- Electric and Natural Gas Savings, and annual cost savings, resulting from installation/implementation of measures.

The findings from work completed by NCAT in late 2010 identified a list of measures and actions NorthWestern could take to retrofit its facilities in Montana, summarized as follows:

1. Cost of implementation: $ 569,643
2. Annual cost savings: $ 223,935
3. Resource value (both natural gas and electric) = $ 1,503,204
4. Annual Energy Savings
   - 130,385 kWh
   - 28.1 kW
   - 3,797 DKt
5. More in-depth engineering analysis is recommended in larger, more complex buildings, involving computer-simulated full-facility energy studies to further identify and quantify major cost-effective energy conservation measures and costs. Candidate buildings include the General Office, MDCC, SOCC, Transformer Shop, and Scrap & Salvage/Rubber Lab in Butte, and the Lewistown Service Center.

NorthWestern management approved the project proposal and directed the work team to proceed with implementation of the measures and actions identified by NCAT. As of this writing, approximately 15% of the retrofit work has been completed.

Additional information about all of the DSM programs is available at NorthWestern's website at http://www.northwesternenergy.com.

Proposed DSM Program Costs and Lost Revenues in this 2011 Natural Gas Supply Tracker Filing

Q. What DSM Program costs are you proposing to include in the 2011-12 Natural Gas Supply Tracker Filing?

A. On Exhibit__(WMT-2) the amounts to be included in the 2011 annual Natural Gas Supply Tracker filing are presented on line 13 in the amount of $2,857,253 for DSM Program Costs for the 2010-11 period and a budgeted amount of $2,608,266 shown on line 26 for the 2011-12 period.

Q. What amounts are you proposing to include for recovery of DSM Lost Revenues?

A. Effective July 8, 2010 natural gas rates were revised[2] based on updated historical test period data that includes the effects on total energy sales of past DSM program activity. Because DSM Lost Revenues are a function of reduced transmission, distribution and storage throughput caused by DSM activity, when the transmission and distribution rates are reset in a general revenue requirements proceeding it is also necessary to reset the energy savings used for calculation of DSM Lost Revenues to a zero starting point at the same time, in this instance, July 8, 2010. From that point in time, additional DSM has been acquired and increased Lost Revenues caused by accumulating energy savings have occurred. The updated amount of natural gas DSM Lost Revenues for the 2010-11 tracker period, based on 9 months of actual and 3 months of estimated energy savings is shown on Exhibit__(WMT-3) on page 1, line 9 in the amount of $553,828.

The 12-month forecast amount of Lost Revenues for the 2011-12 tracker period is shown on Exhibit__(WMT-3) on page 1, line 11 in the amount of $969,667.

[2] Refer to General Rate Case D2009.9.129 Interim Order No 7046g and Final Order 7046h.

Q. Please describe the individual components of the DSM Cost Tracking and Lost Revenue Recovery spreadsheet model and the various data inputs used in its calculations.

A. The Natural Gas DSM Lost Revenue calculation is performed using a spreadsheet workbook attached as Exhibit__(WMT-3), that is comprised of 5 separate worksheet tabs (name of tab in bold below) that compile program budgets, costs, natural gas savings estimates, rates, revenues and adjustment factors into a series of calculations that result in estimated Lost Revenues. Input variables used in the Lost Revenue calculations are updated in each annual Natural Gas Supply Tracker filing and are generally based on data collected throughout the year on program costs, levels of customer participation, natural gas savings and numbers of DSM measures installed. The 2007 NEXANT DSM Program Evaluation provided information needed, and used, to update the spreadsheet calculations. Additional notes and explanations are included on the individual spreadsheet tabs, identified as separate pages of Exhibit__(WMT-3).

1. **LR Summary** (Exhibit__(WMT-3), page 1) presents Lost Revenues for the 2010-11 Tracker period based on 9 months of actual activity and 3 months forecasted at the time of preparation of this filing. This tab also presents the result of the forecasted Lost Revenue computations for the upcoming tracker period that are performed on the subsequent tabs.

2. **Rates** (Exhibit__(WMT-3), page 2) details rates in effect for residential and commercial customers by line item. The Natural Gas DSM Tracker calculations use only transmission, distribution, and storage rates from this worksheet tab as inputs to Tab 5 Calc Lost Revenues. These rates are updated each time the Natural Gas DSM Tracker exhibit is prepared for the annual Natural Gas Supply Tracker filing.

3. **Res and GS Gas Savings** (Exhibit__(WMT-3), page 3) uses the DSM annualized Dkt targets or reported amounts for the natural gas DSM programs and converts them into cumulative annual residential and/or commercial natural

gas savings using a 50% reduction factor. Use of this factor recognizes that first-year realized savings would be less than subsequent years, because natural gas DSM measures are installed throughout the DSM program year and are not in place and operating for a full year. These savings have been de-rated for one week (seven days) to account for the fact that the new transmission, distribution and storage rates became effective on July 8, 2010, rather than July 1, 2010. Thus, for the purpose of Reported DSM Program energy savings, the Tracker 'annual' period is shortened by one week.

4. **Adjustment Factors** (Exhibit__(WMT-3), page 4) develops a factor to be applied to reported energy savings for purposes of calculating Lost Revenues. This factor recognizes that actual savings obtained typically differ and are generally less than program savings based solely on engineering calculations. This factor is taken from the final results of the 2007 NEXANT DSM Program Evaluation.

5. **Calc Lost Revenues** (Exhibit__(WMT-3), page 5) calculates Lost Revenues based on input from Tabs 2, 3 and 4. Results from this tab are used as input to Tab 1.

Q. How are amounts used to calculate Lost Revenues corrected or "trued up" when reported savings differ from forecasted savings used at the beginning of the tracker period to estimate Lost Revenues?

A. This is accomplished in two ways. First, when each annual Natural Gas Supply Tracker is prepared, DSM Lost Revenues are estimated looking forward, using cumulative natural gas DSM savings, and included in the overall Tracker calculations presented in the testimony of John Smith. Each successive year, the cumulative DSM savings is recalculated in the Natural Gas DSM Tracker using reported energy savings from the just-concluded tracker period (2010-11 in this case), and added to the future estimate of additional natural gas DSM savings for the forthcoming tracker period (2011-12 in this case). Thus, previous program year estimates are corrected each year moving forward based on reported DSM savings for that same period.

The estimated Lost Revenues use updated DSM savings amounts and updated transmission, distribution and storage rates in effect at the time the calculations are prepared. Over- or under-collection of Lost Revenues that results from differences between forward-looking DSM savings estimates (used to prepare the Tracker) and reported DSM Savings (at the end of that same tracker period) flow through the Natural Gas Tracker deferred account, thereby netting any DSM over/under collections with the difference between costs and revenues associated with other natural gas supply transactions. The deferred account balance is then collected from or returned to customers over the next 12-month period.

Second, DSM Evaluations, like the one performed in 2007 by NEXANT, will be used to determine the accuracy of DSM estimates and adjustment factors used in previous Lost Revenue calculations. Depending on the timing of the completion of future DSM Evaluation work and availability of the study results, revised DSM savings estimates and adjustment factors will be applied to past and forward-looking Lost Revenue calculations and a true-up of the calculations will either be included in NorthWestern's annual tracker filings, filed as supplemental testimony in the then-current Docket, or in a subsequent proceeding.

Q. When will the next independent evaluation of DSM program cost-effectiveness be performed?

A. NorthWestern has prepared and issued a Request for Proposal for a comprehensive DSM Program Evaluation to be conducted in 2012. An independent service provider not otherwise involved in implementation of NWE's DSM Programs will be selected through a blind competitive bidding process and contracted in the fourth quarter of 2011 to conduct a thorough quantitative and qualitative evaluation of processes used in and impacts of NorthWestern's DSM Programs and provide recommendations for changes that might improve future results.

Results of the program evaluation will be used to refine energy savings estimates for DSM programs and measures, update the cost-effectiveness tests used to determine approved measures for future program offerings, improve accuracy of annual DSM

program budgeting, and adjust the factors used in the DSM tracking mechanism to determine net energy savings and associated Lost Revenues. Final results of this work are expected in late 2012.

Q. What time period will be covered by this independent evaluation?

A. This project will examine all DSM Programs and related activities operated by NWE during the 2007-2011 time period, and will include all programs that produce electric and natural gas DSM savings, whether funded by USB or Energy Supply sources. The work is extensive, involving analysis of program records, calculations performed by NWE, assumptions and databases used, site visits, historical energy consumption data, and telephone interviews with NWE DSM program staff, contractors and customer participants and non-participants.

Q. What work tasks will be included in the scope of work?

A. The DSM Program Evaluation scope of work consists of six main tasks:

Task 1: DSM Evaluation Plan

Task 2: Project Management

Task 3: Program Process Evaluation

Task 4: DSM Program Impact Evaluation

Task 5: DSM Program Economic Analysis

Task 6: DSM Program Evaluation Final Report

The final report detailing the results, findings and recommendations will be provided to the Commission.

A copy of the DSM Evaluation RFP is provided as Exhibit__(WMT-6).

Q. Does this complete your testimony?

A. Yes, it does.

Table A: Reported Savings From 2010-11 Natural Gas USB and DSM Program Activity

Programs	Annualized Energy Savings		
	USB	Natural Gas Supply DSM	Total
	dKt	dKt	dKt
E+ Business Partners Program	-	2,700	2,700
Builder Operator Certification	1,368	-	1,368
Northwest Energy Efficiency Alliance (NEEA)	-	30,749	30,749
E+ Free Weatherization Program & Fuel Switch	32,604	-	32,604
E+ Energy Audit for the Home or Business (NG)	44,498	-	44,498
E+ Resid Existing Gas Rebate Program	-	129,649	129,649
E+ Resid NC Gas Rebate Program	-	572	572
E+ Comm Existing Gas Rebate Program	-	20,299	20,299
E+ Comm NC Gas Rebate Program	-	2,342	2,342
DEQ Appliance Rebate Program	902	-	902
E+ Building Blocks Pilot Program	-	-	-
Totals	79,371	186,310	265,682

Note 1: Annualized energy savings are based on 9 months of actual reported savings (July - March) and 3 months estimated.

Exhibit_ (WMT-1)
Page 1 of 1

Natural Gas Supply DSM Program Spending and Budget

Natural Gas DSM Program	Order	Tracker Year 2010-11 Actual Recorded Spending - from SAP Records Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	Estimated May-11	Jun-11	Total
E+ Natural Gas Residential Existing Construction Program	17066	$ 5,321	$ 82,986	$ 115,990	$ 112,286	$ 156,577	$ 332,326	$ 110,014	$ 3,411	$ 800,337	$ 306,439	$ 88,409	$ 200,795	$ 2,314,892
General Expenses Related to All Gas DSM Programs	17068	$ 6	$ 371	$ 5,519	$ 1,250	$ 9,903	$ 7,406	$ 9,909	$ -	$ -	$ 11,651	$ -	$ -	$ 46,014
E+ Natural Gas Business Partners Program	17070	$ -	$ -	$ 27,101	$ -	$ 40,858	$ 4,626	$ -	$ -	$ 3,858	$ -	$ -	$ -	$ 76,443
E+ Natural Gas Residential New Construction Program	17071	$ -	$ 2,615	$ 7,229	$ -	$ 438	$ 575	$ -	$ -	$ 7,176	$ 5,826	$ 554	$ 4,843	$ 29,256
E+ Natural Gas Commercial Existing Construction Program	17072	$ 402	$ 48,905	$ 68,834	$ 1,077	$ 9,355	$ 7,643	$ 1,971	$ 7,575	$ 115,613	$ 51,796	$ 403	$ 8,897	$ 322,469
E+ Natural Gas Commercial New Construction Program	17073	$ -	$ 503	$ 2,078	$ -	$ 20,230	$ 325	$ -	$ -	$ 2,019	$ 2,040	$ 554	$ 4,368	$ 32,117
E+ Natural Gas Building Blocks Program	17074	$ 3,069	$ 20,030	$ 356	$ -	$ 12,608	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 36,062
Total		$ 8,797	$ 155,409	$ 227,107	$ 114,614	$ 249,969	$ 352,901	$ 121,893	$ 10,986	$ 929,003	$ 377,752	$ 89,920	$ 218,903	$ 2,857,253

Natural Gas DSM Program	Order	Tracker Year 2011-12 Estimated Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Total
E+ Natural Gas Residential Existing Construction Program	17066	$ 5,853	$ 91,284	$ 127,589	$ 123,515	$ 172,235	$ 365,559	$ 121,015	$ 3,752	$ 225,328	$ 337,083	$ 97,250	$ 220,874	$ 1,891,338
General Expenses Related to All Gas DSM Programs	17068	$ 6	$ 408	$ 6,071	$ 1,375	$ 10,893	$ 8,146	$ 10,899	$ -	$ 80,000	$ 12,816	$ -	$ 80,000	$ 210,616
E+ Natural Gas Business Partners Program	17070	$ -	$ -	$ 29,811	$ -	$ 44,944	$ 5,088	$ -	$ -	$ 4,244	$ -	$ -	$ -	$ 84,087
E+ Natural Gas Residential New Construction Program	17071	$ -	$ 2,877	$ 7,952	$ -	$ 481	$ 633	$ -	$ -	$ 7,894	$ 6,408	$ 610	$ 5,327	$ 32,181
E+ Natural Gas Commercial Existing Construction Program	17072	$ 442	$ 53,796	$ 75,717	$ 1,185	$ 10,291	$ 8,407	$ 2,168	$ 8,332	$ 127,174	$ 56,976	$ 443	$ 9,786	$ 354,716
E+ Natural Gas Commercial New Construction Program	17073	$ -	$ 553	$ 2,286	$ -	$ 22,253	$ 358	$ -	$ -	$ 2,221	$ 2,244	$ 610	$ 4,805	$ 35,329
E+ Natural Gas Building Blocks Program	17074	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total		$ 6,301	$ 148,917	$ 249,426	$ 126,075	$ 261,098	$ 388,191	$ 134,082	$ 12,084	$ 446,861	$ 415,527	$ 98,912	$ 320,793	$ 2,608,266

Exhibit_ (WMT-2)
Page 1 of 1

	B	C	D
1	**2010-12 Natural Gas DSM Lost Revenues**		
2	**Time Period[1]**	**Gas DSM Lost Revenue[2]**	
3			
4	Tracker 2009-10	$ 791,614	
6	Tracker 2010-11:		
7	July-December 2010	$ 180,291	
8	January-June 2011	$ 373,537	
9	Total Tracker 2010-2011	$ 553,828	
10			
11	Tracker 2011-12	$ 969,667	
12			
13	Notes:		
14			
15	1. MPSC Final Order 7004c authorizes DSM Lost Revenues in the amount of $791,614 for the 2009-10 period.		
16			
17	Natural Gas DSM Lost Revenues were reset again on Jan. 1, 2011 due to newly established T&D rates		
18	Refer to Docket D2009.9.129, Final Order No. 7046h		
19			
20			
21	2. Natural Gas DSM Lost Revenues for 2010-11 are computed based on 9 months of actual reported		
22	energy savings and 3 months of estimated energy savings. Lost Revenues for the 2011-12 period		
23	are based on the natural gas DSM energy savings goal of 210,000 dKt.		

Exhibit_ (WMT-3)
Page 1 of 11

2008-12 Natural Gas DSM Lost Revenues

	Tracker 2010-11		Tracker 2011-12
	Period July – December 2010	Period January – June 2011	Assumes no rate change from June 2011
	Reference: Compliance Filing on December 21, 2010 Docket D2009.9.129, Final Order 7046h; Work-Papers Section "Natural Gas Utility Approved Revenue Requirement ACOS and Derivation of Rates" Page 4 of 5 Column D.	Reference: 2011 Annual Tax Tracker Filing Application December 23. 2010, Docket D2010.12.116, Final Order 7131a; Appendix A Pages 1 – 4, Column (B) + (E), excluding rebate in Column (C).	
	Residential:	**Residential:**	**Residential:**
	Gas Distribution 1.842673 per dKt	Gas Distribution $ 1.890398 per dKt	Gas Distribution $ 1.890398 per dKt
	Gas Transmission 1.091156 per dKt	Gas Transmission $ 1.119417 per dKt	Gas Transmission $ 1.119417 per dKt
	Gas Storage 0.33209 per dKt	Gas Storage $ 0.340691 per dKt	Gas Storage $ 0.340691 per dKt
	General Service:	**General Service:**	**General Service:**
	Gas Distribution 1.821775 per dKt	Gas Distribution $ 1.868959 per dKt	Gas Distribution $ 1.868959 per dKt
	Gas Transmission 1.090475 per dKt	Gas Transmission $ 1.118718 per dKt	Gas Transmission $ 1.118718 per dKt
	Gas Storage 0.331133 per dKt	Gas Storage $ 0.339709 per dKt	Gas Storage $ 0.339709 per dKt

Exhibit_ (WMT-3)
Page 2 of 11

2008-12 Natural Gas DSM Lost Revenues

Annual Energy Savings:

1) Gas DSM Savings -- Targets & Reported Savings

	Tracker 2010-11				Tracker 2011-12	
	July-December 2010		January-June 2011			
	Target	Reported	Target	Reported	Target	Reported
Annual (dKt)	210,000	130,293	105,000	132,841	210,000	210,000
Cumulative (dKt)	210,000	130,293	315,000	263,134	525,000	473,134

1. Different T&D rates were in effect for each 6-month period, so Total Reported DSM Savings (265,682) was divided between the two periods. New rates went into effect on July 8, 2010, which is one week later than the beginning of the 2010-11 Tracker Period, so Reported Energy Savings has been "de-rated" by 7 days for the July-December 2010 period.

2) Percentage split between Residential & General Service:

Residential	75%	89%	75%	89%	75%	75%
General Service	25%	11%	25%	11%	25%	25%
Total	100%	100%	100%	100%	100%	100%

3) Cumulative Annual Gas Savings[2]

	Tracker 2010-11				Tracker 2011-12	
	July-December 2010		January-June 2011			
	Target	Reported	Target	Reported	Target	Reported
Residential (dKt)	78,750	57,893	88,235	116,918	276,100	276,100
General Service (dKt)	26,250	7,253	29,412	14,649	65,625	124,925
Total	105,000	65,147	117,647	131,567	341,725	401,026

2. Savings resulting from the "Increment" in any year (take Year 1 for example) is reduced by 50% in that year as associated projects are completed and start generating savings at different times throughout the first year. This assumption contemplates that associated projects start generating savings half way through the year on average. In the second year and beyond, projects completed in the first year generate savings for the entire year so the "Increment" is credited at 100% for the second year and each successive year.

Exhibit_ (WMT-3)
Page 3 of 11

	A	B	C	D	E	F	G
1		**2008-12 Natural Gas DSM Lost Revenues**					
2							
3							
4	**Adjustment Factor**						
5		The Adjustment Factor recognizes that, for a number of reasons, actual program savings is likely to vary from reported savings.					
6							
7		The Net Savings Adjustment Ratio for these tracker periods is derived from the results					
8		of NEXANT's DSM Evaluation.					
9							
10							
11							
12						**Net Savings Adjustment**	
13		Segment				**Ratio**	
14		All				0.848	
15							
16							

Exhibit_ (WMT-3)
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	A	B	C	D	E	F	G	H	I
1	**2008-12 Natural Gas DSM Lost Revenues**								
2									
3									
4									
5	**Tracker 2009-10**								
6				**Gross**					**Estimated**
7	**Residential**			**Program**			**Net**		**Lost**
8		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
9	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
10	Gas Distribution	$ 1.839552		236,175		0.848	200,283		368,431
11	Gas Transmission	$ 1.089308		236,175		0.848	200,283		218,170
12	Gas Storage	$ 0.331528		236,175		0.848	200,283		66,399
13					Sub Total Residential:		200,283		$ 653,001
14									
15				**Gross**					**Estimated**
16	**General Service**			**Program**			**Net**		**Lost**
17		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
18	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
19	Gas Distribution	$ 1.818025		50,500		0.848	42,825		77,857
20	Gas Transmission	$ 1.088231		50,500		0.848	42,825		46,604
21	Gas Storage	$ 0.330452		50,500		0.848	42,825		14,152
22					Sub Total General Service:		42,825		$ 138,613
23									
24					**Total Tracker 2009-10**				**$ 791,614**
25									
26									

Exhibit_ (WMT-3)
Page 5 of 11

	A	B	C	D	E	F	G	H	I
27	**Tracker 2010-11: July-December 2010**								
28				**Gross**					**Estimated**
29	**Residential**			**Program**			**Net**		**Lost**
30		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
31	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
32	Gas Distribution	$ 1.842673		57,893		0.848	49,095		90,466
33	Gas Transmission	$ 1.091156		57,893		0.848	49,095		53,570
34	Gas Storage	$ 0.332090		57,893		0.848	49,095		16,304
35					Sub Total Residential:		49,095		$ 160,340
36									
37									**Estimated**
38	**General Service**			**Program**			**Net**		**Lost**
39		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
40	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
41	Gas Distribution	$ 1.821775		7,253		0.848	6,151		11,206
42	Gas Transmission	$ 1.090475		7,253		0.848	6,151		6,708
43	Gas Storage	$ 0.331133		7,253		0.848	6,151		2,037
44					Sub Total General Service:		6,151		$ 19,951
45									
46			**Total Tracker 2010-11: July-December 2010**						**$ 180,291**
47									
48									

Exhibit_ (WMT-3)
Page 6 of 11

	A	B	C	D	E	F	G	H	I
49	**Tracker 2010-11: January-June 2011**								
50				**Gross**					**Estimated**
51	**Residential**			**Program**			**Net**		**Lost**
52		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
53	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
54	Gas Distribution	$ 1.890398		116,918		0.848	99,150		187,433
55	Gas Transmission	$ 1.119417		116,918		0.848	99,150		110,990
56	Gas Storage	$ 0.340691		116,918		0.848	99,150		33,779
57					Sub Total Residential:		99,150		$ 332,203
58									
59									**Estimated**
60	**General Service**			**Program**			**Net**		**Lost**
61		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
62	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
63	Gas Distribution	$ 1.868959		14,649		0.848	12,423		23,217
64	Gas Transmission	$ 1.118718		14,649		0.848	12,423		13,897
65	Gas Storage	$ 0.339709		14,649		0.848	12,423		4,220
66						Sub Total General Service:	12,423		$ 41,335
67									
68				**Total Tracker 2010-11: January-June 2011**					**$ 373,537**
69									
70									

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	A	B	C	D	E	F	G	H	I
71	**Tracker 2011-12**			**TARGET**					
72				**Gross**					**Estimated**
73	**Residential**			**Program**			**Net**		**Lost**
74		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
75	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
76	Gas Distribution	$ 1.890398		**276,100**		0.848	234,141		442,620
77	Gas Transmission	$ 1.119417		**276,100**		0.848	234,141		262,102
78	Gas Storage	$ 0.340691		**276,100**		0.848	234,141		79,770
79					Sub Total Residential:		234,141		$ 784,491
80									
81				**TARGET**					**Estimated**
82	**General Service**			**Program**			**Net**		**Lost**
83		**Rate**		**Savings**		**Adjustment**	**Savings**		**Revenue**
84	Bill Line Item	**($ per dKt)**		**(dKt)**		**Factor**	**(dKt)**		**($)**
85	Gas Distribution	$ 1.868959		**65,625**		0.848	55,652		104,011
86	Gas Transmission	$ 1.118718		**65,625**		0.848	55,652		62,259
87	Gas Storage	$ 0.339709		**65,625**		0.848	55,652		18,905
88					Sub Total General Service:		55,652		$ 185,175
89									
90					**Total Tracker 2011-12**				**$ 969,667**
91									

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	A	B	C	D	E	F
1	**2008-12 Gas Tracker: Monthly Gas DSM Lost Revenues**					
2						
3						
4						
5						
6						
7					**Jan-08**	**Feb-08**
8	**Tracker Year**	Notes:	dKt used	**LR Amount**		
9	January-June 2008	12+0 DSM savings data	65,539	$ 92,294	$ 15,382	$ 15,382
10	Tracker 2008-09	12+0 DSM savings data	160,262	$ 410,272		
11	Tracker 2009-10	9+3 DSM savings data	178,197	$ 791,614		
12						
13	Tracker 2010-11: July-December 2010	9+3 savings data	130,293	$ 180,291		
14	Tracker 2010-11: January-June 2011	9+3 savings data	132,841	$ 373,537		
15		subtotal 2010-11		$ 553,828		
16						
17	Tracker 2011-12	DSM Goal		$ 969,667		
18						
19			**Total Lost Revenues to Tracker**		**$ 15,382**	**$ 15,382**
20						

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	G	H	I	J	K	L	M	N	O
1									
2									
3									
4									
5									
6									
7	**Mar-08**	**Apr-08**	**May-08**	**Jun-08**	**Jul-08**	**Aug-08**	**Sep-08**	**Oct-08**	**Nov-08**
8									
9	$ 15,382	$ 15,382	$ 15,382	$ 15,382					
10					$ 34,189	$ 34,189	$ 34,189	$ 34,189	$ 34,189
11									
12									
13									
14									
15									
16									
17									
18									
19	**$ 15,382**	**$ 15,382**	**$ 15,382**	**$ 15,382**	**$ 34,189**	**$ 34,189**	**$ 34,189**	**$ 34,189**	**$ 34,189**
20									

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	P	Q	R	S	T	U	V
1							
2							
3							
4							
5							
6							
7	**Dec-08**	**Jan-09**	**Feb-09**	**Mar-09**	**Apr-09**	**May-09**	**Jun-09**
8							
9							
10	$ 34,189	$ 34,189	$ 34,189	$ 34,189	$ 34,189	$ 34,189	$ 34,189
11							
12							
13							
14							
15							
16							
17							
18							
19	**$ 34,189**	**$ 34,189**	**$ 34,189**	**$ 34,189**	**$ 34,189**	**$ 34,189**	**$ 34,189**
20							

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NorthWestern™ Energy

2011 DSM/USB Communications Plan

NorthWestern Energy offers a broad selection of energy efficiency, renewable energy, and low income programs and services funded by customers through electric and natural gas supply rates and the electric and natural gas Universal System Benefits Charges (USBC). The energy savings resulting from these programs are a key piece of NorthWestern Energy's supply portfolio.

The electric and natural gas resource acquisition targets for these programs are defined in the set forth in the supply portfolio plans filed with the Montana Public Service Commission (MPSC).

Program offerings and participation have been accelerated over the past several years. Findings of the electric DSM assessment and end use survey have been integrated into program offerings and this plan.

Compact Fluorescent Lights (CFLs) continue to contribute a significant portion of the electric savings in recent years. Savings from the commercial and industrial markets have not grown as rapidly.

A comprehensive independent evaluation of all NorthWestern Energy demand side management (DSM) and USB programs was completed in 2007. The evaluation concluded that NorthWestern Energy's programs deliver cost effective natural gas and electric savings, are well-run and follow many best practices. The evaluation provided specific recommendations for program changes, some of which relate to communication, education, and marketing.

Nationally and locally, attention to energy efficiency, renewable energy, and "green" or sustainable has continued.

The DSM targets and the heightened awareness of "green" help frame the need and opportunities set forth in this communication plan. The plan is intended to be an active, adaptive product--one that can be filed with the MPSC as part of the implementation strategies to achieve the DSM targets and can be modified to meet current needs and opportunities.

The plan is implemented consistent with NorthWestern Energy graphics and image standards and strategies.

When referring to DSM in this plan, both DSM activities funded with supply rates and Universal System Benefits (USB) activities funded with the USBC are included. Generally, DSM refers to both activities but where appropriate, USB has been specifically broken out.

The plan refines and sustains residential, low income, and renewable generation communications strategies and substantially increases the communication of the commercial/industrial programs. The following table lists the programs by customer sector addressed in the plan.

Table 1: DSM Programs

EFFICIENCY PLUS (E+) PROGRAM		
ELECTRIC PROGRAMS	**NATURAL GAS PROGRAMS**	**CUSTOMER SECTOR**
E+ Audit for the Home	E+ Audit for the Home	Residential
E+ Residential Lighting		Residential
E+ Residential Rebates Program—Existing Homes	E+ Residential Rebates Program—Existing Homes	Residential
E+ Residential New Homes Program	E+ Residential New Homes Program	Residential
E+ Free Weatherization/Fuel Switch	E+ Free Weatherization	Residential
E+ Appraisal for Small Business		Commercial
E+ Commercial Lighting Rebate		Commercial/Industrial
E+ Business Partners Electric	E+ Business Partners Natural Gas	Commercial/Industrial
E+ Business Partners –Irrigation		Agriculture
E+ Commercial Savings-New Construction	E+ Commercial Savings-New Construction	Commercial /Industrial
E+ Commercial Savings-Existing Facilities	E+ Commercial Savings-Existing Facilities	Commercial /Industrial
E+ Motor Rebate		Commercial/Industrial /Agriculture
E+ Renewable Generation		All
E+ Green Power		All
Northwest Energy Efficiency Alliance		All
80 Plus Computers for Business		Commercial/Industrial

The DSM programs are not offered to Large USB Electric Choice customers or to Natural Gas Choice customers so these customers are not targeted in the plan.

The DSM Communications Plan is intended as a guide to identify and direct the communications strategies associated with the implementation of NorthWestern Energy's DSM programs. The plan will be modified as needed to suit changing opportunities and conditions.

The 2009 American Recovery and Reinvestment Act (ARRA) has resulted in some new partnership opportunities for qualifying energy efficiency and renewable projects which are included.

GOAL

Effectively and efficiently market DSM programs to achieve defensible natural gas and electric resource acquisition results for the supply portfolios through NorthWestern Energy employees and its program contractors, and by generating increased public awareness of the programs and the opportunity to save energy.

OBJECTIVES

- Engage trade ally community and public entities to incorporate energy efficiency in their messages and marketing
- Engage customers to demand energy efficiency from service providers
- Build participation with emphasis on commercial/industrial DSM sector projects

AUDIENCES

- NorthWestern Energy employees
- NorthWestern Energy program contractors and partner contractors
- Commercial and industrial sector customers (electric and natural gas supply)
- Residential customers (gas and electric supply)
- Trade Allies: electrical vendors—i.e. Crescent Electric, Grainger, WesCo, CED; service providers—electricians, refrigeration, HVAC, motors, architects, engineers, insulation; distributors—lighting, equipment; retailers—of CFLs, building supplies, appliances, air sealing, and water

measures; building contractors and general contractors; HVAC and insulation contractors; trade associations—i.e. AIA, ASHRAE, Montana Hospital Association, Innkeepers.

- Public officials and government departments
- Media—mass and trades
- Related organizations—Green Build, community climate change organizations

IMPLEMENTATION STRATEGIES

NorthWestern Energy will engage its employees, program implementation representatives, and program/partner contractors to utilize existing and new methods and tools to cultivate greater customer participation in the DSM programs.

Implementation tactics are targeted by customer sector and directed at defined audiences in most cases. Cross-marketing of programs within the customer sector is incorporated as appropriate. A general calendar of implementation tactics by quarter, sector, program and audience is provided.

TACTICS

Residential Programs

- Update program materials/resources (Web and Brochures)
- Coordinate display materials for Home Shows (Spring Shows run February – May; selected Fall Shows run September-October)
- Continue existing natural gas program campaign
- Develop updated program-at-a-glance summary
- CFL instant coupon offerings to increase installation of CFLs, incorporating the educational messages (4L's) and contest into various residential lighting messages for lighting activities (direct mail, tradeshows, events)
- Target direct mail and limited media for E+ Audits for the Home with cross marketing of Energy Appraisal
- Continue contacts by program contractors/community relations managers (CRMs)
- Update Customer Service Representative (CSR) training for new CSRs
- Messages in Energy Connections and news releases regarding saving energy.
- Participate in local events as appropriate
- Contact various program trade allies with updates and solicitations of new trade allies (Preferred Contractors, lighting retailers, homebuilding associations)
- Complete "Green Blocks" participation in targeted communities
- Target participation in Fall Weatherization events

Commercial/Industrial Programs

- Update existing program materials/resources (web and brochures) to incorporate program additions and changes.
- Develop new materials (brochure copy, case studies, feature articles, etc.) for expanded Business Partners (natural gas and electric), lighting and

motors programs, commercial natural gas rebate programs, new commercial electric rebate program offerings.

- Execute new project case studies on commercial/industrial customers
- Integrate commercial program messages into tradeshow displays
- Continue customer and trade ally contacts by program/partner contractors and CRMs
- Participate in local events where appropriate
- Develop timeline and strategy for the energy efficiency conference for commercial customers and energy service providers
- Targeted outreach for customer/trade ally training and partnership opportunities
- Review and update trade ally databases
- Update program-at-a-glance summary
- Update web resources with program changes and additions

METHODS/TOOLS

Residential Sector

Residential family of Program Brochures that describe individual program and cross-market same sector programs and highlight resources for more information directing customers to website or program contact phone numbers. GENERAL AUDIENCES

Web/interactive media tools— Efficiency Plus (E+) web section of www.northwesternenergy.com, Facebook, Search Engine Marketing (SEM), , microsites, such as www.brightfuturechallenge.com and www.montanahomeenergy.com. GENERAL AUDIENCES

Internal Communications throughout the year such as FYI, TEAM, iConnect, emails, employee training sessions, etc. to inform all or targeted groups of employees of programs, featured projects/promotions, training, and events. EMPLOYEES

Billing messages in the message box of the NorthWestern Energy billing statement and in Energy Connections to encourage program participation. RESIDENTIAL CUSTOMERS

Direct Mail to Trade Allies and targeted customers of individual program offering and related trainings along with cross-marketing of other programs. TARGETED FOR INDIVIDUAL MAILING

One-on-one by program representatives, program contractors, CRMs, CSRs – communicate residential program offerings based upon opportunity and direct to appropriate resources. May include interactions during: E+ Audit for the Home,

tradeshow discussions, customer care calls, or normal company interactions with the customer. OPPORTUNITY DRIVEN

One-to-Many through speakers' bureau, service organization presentations by program contractors and CRMs to increase awareness of programs and opportunities to save energy. COMPANY OR CUSTOMER INITIATED

Home Improvement Shows, Farmers' Markets, Parade of Homes, community events to reach targeted audiences with information about programs and opportunities and, as appropriate, distribute CFLs. COMPANY OR ORGANIZATION INITIATED

Trade association events, publications, and websites to target presentations, displays and messages about opportunities for customers to save energy and the programs that NorthWestern Energy offers. TARGETED TRADE ALLIES OR CUSTOMER GROUP

NorthWestern Energy Fall Home Energy Events to distribute starter weatherization kits, to educate residential customers on low cost ways to save energy, and to inform residential customers of the various programs and services offered by NorthWestern Energy. CFLs are also provided to residential electric customers who have not received free CFLs at a distribution event earlier in the year. TARGETED RESIDENTIAL CUSTOMERS THAT HAVE NOT PARTICIPATED IN THE PAST

Targeted media advertising tied to special campaigns, programs or events. TARGETED TO ELIGIBLE RESIDENTIAL AUDIENCE

Earned media feature stories on projects and opportunities in trade or mass media. GENERAL AUDIENCE WITH EMPHASIS ON ELIGIBLE AUDIENCE.

Customer contests provide customer awards tied to energy efficient products such as most efficient ENERGY STAR televisions for customer care contests.

Other Resources Coordinate activities and messages with the American Recovery and Reinvestment Act of 2009 (ARRA) initiatives and Montana Tax Credits where possible—i.e. Missoula Green Blocks.

Commercial/Industrial Sector

Commercial/Industrial family of Program Brochures that describe individual program and cross-market same sector programs and highlight resources for more information directing customers to website or program contact phone numbers. GENERAL AUDIENCES

Web/interactive media tools— Efficiency Plus (E+) web section of www.northwesternenergy.com, SEM, microsites as appropriate. GENERAL AUDIENCES

Internal Communications throughout the year such as FYI, TEAM, TeamLink, e-mails, CSR trainings, etc. to inform all or targeted groups of employees of programs, featured projects/promotions, training, and events. EMPLOYEES AND PROGRAM PARTNERS AS APPROPRIATE

Case Studies of E+ Business Partners and substantial E+ Commercial Lighting Rebate Program projects to demonstrate various types of customer participation and customer benefits. TARGETED TRADE ALLIES AND KEY CONTACTS AND TARGETED CUSTOMERS

Billing Messages in the message box of the NorthWestern Energy billing statement and in Energy Connections to encourage program participation COMMERCIAL/INDUSTRIAL CUSTOMERS

Direct Mail to trade allies and targeted customers of individual program offering and related trainings along with cross-marketing of other programs. TARGETED FOR INDIVIDUAL MAILING

Customer Care E-Newsletter to key customers will include information about programs, training, and case studies throughout the year

One-on-one by program representatives, program contractors, CRMs, and CSRs – communicate commercial and industrial program offerings based upon opportunity and direct to appropriate resources. May include interactions during: E+ Energy Appraisal, informal facility assessment, project completion review, cold calls, trade ally visits, or normal company interactions with the customer. OPPORTUNITY DRIVEN

One-to-Many through speakers' bureau, service organization presentations by program contractors and CRMs to increase awareness of programs and opportunities to save energy. COMPANY OR CUSTOMER INITIATED

Vendor breakfast/Brown Bags/After Hour events/Community Events to reach targeted audiences with information about programs and opportunities. COMPANY OR ORGANIZATION INITIATED

Commercial Conference on Energy Efficiency partner with others to offer conference to commercial customers, trade allies, and service providers to provide training and education conference in conjunction with the Montana BetterBricks Awards.

Trade Association Events, publications, and websites to target presentations, displays and messages about opportunities for customers to save energy and the programs that NorthWestern Energy offers. Northwestern Energy Lighting Trade Ally Network is an example of an activity that provides technical training and cultivates trade ally participation in programs. TARGETED TRADE ALLY OR CUSTOMER GROUP

Targeted media advertising tied to events, projects, or programs. Initiating E+ Commercial Lighting Rebate program advertising through television and radio to promote lighting as a universal way for businesses to save energy. GENERAL AUDIENCE WITH EMPHASIS ON COMMERCIAL LIGHTING OR OTHER SPECIFIC PROJECT-RELATED AUDIENCES

Earned media feature stories on projects and opportunities in trade or mass media. GENERAL AUDIENCE WITH EMPHASIS ON SPECIFIC PROJECT-RELATED AUDIENCES

Supporting commercial program contractors with consistent marketing materials to describe working relationship with NorthWestern Energy. GENERAL COMMERCIAL CUSTOMERS AND TRADE ALLIES AS IDENTIFIED BY PROGRAM CONTRACTORS.

Other Resources Coordinate activities and messages with the American Recovery and Reinvestment Act of 2009 (ARRA) initiatives and Montana Tax Credits where possible—i.e. Tri-County Small Business Program and International Code Council (ICC) training. .

NorthWestern Energy has defined an overall budget for marketing and communication for the electric and natural gas DSM programs of $1M. This

includes mass media development and placement as well as all other marketing expenses.

MEASUREMENT

Measurement of this communications plan will be achieved through program participation in comparison to the resource acquisition goals set forth in the supply plans filed with the MPSC.

The DSM targets are based on a June 1 – May 31 year. USB programs operate on Calendar year.

Other supporting measurement will gathered through existing customer and employee survey tools, tracking of participation in comparison to past performance.

Attached is a calendar for 2011 which will be modified based upon opportunities and needs.

	A	B	C	D	E	F	G	H	I	J	K	L	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		**DSM Communications Calendar** subject to change based upon Need or Opportunity	Campaign/Initiative	MO	Implement-ation Dates	E	G	Audience	Message	Media	Internal (includes employees and key contractors)	Web	Hard Materials	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2	R0x	**Residential**																							
3	R0x	**Tips--electric**	Spot media and Campaigns			x		Residential electric customers	Act to save electricity; check out programs	Television; radio		Tips	Brochure												
4	R0x	**Tips--Natural Gas**	Spot media and Campaigns				x	Residential natural gas customers	Act to save natural gas; check out programs	Television; radio		Tips	Brochure												
5	R1x	***Residential Audits***			On-going	x	x	Residential space or water heating customers whose home has not previously been audit (home 5 yrs old or older), Residential electric baseload customers	Call to Action--Schedule an Audit; follow-up on recommendations	2 Xs /Year Energy Connections--more as needed; news releases as needed; bill statement messages; direct mail to targeted customers	CSR, CRM reminders of qualifications	*On-going description, contact, qualifications*	Tradeshow and event handouts/sign-ups/display/brochures of all residential programs/resources in audit packets												
6	R1x	Outreach	Targeted Direct Mail	Jan	Jan Feb more as needed		x	Residential natural gas customers who've not previously had an audit	Call to Action--Schedule an Audit; follow-up on recommendations	Direct Mail/ reinforcing press release	E-mail notice of mailing		Direct Mail												
7	R1x	Electric Baseload	Targeted Direct Mail		On-going	x		Residential electric baseload customers	Call to Action--Complete Energy Usage survey; follow-up on recommendations	Direct Mail			Direct Mail Non-NWE production												
8	R2x	***E+ Home Lighting -- CFLs***	*Campaign Focus on Education--opportunities to save electricity*		*On-going*	x		Residential electric customers	Call to Action--Install CFLs in High Use Locations (Educate--4L's)	Multiple Xs Energy Connections; Direct Mail, Radio, Newspaper, billboard, micro-web site, web advertising, events, Spot TV		*Mail-in offer, education messages, reinforce special offers/events, list participating retailers*	*Tradeshow Display/Retailer support & POP*												
9		***Bright Future Challenge contest Wrap***																							
10	R2x	Mail-in Rebate Offer	Web, Audits, Distribution Events, Energy Connections		On-going	x		Residential electric customers	Call to Action--Install CFLs in High Use Locations (Educate--4L's) offer up to $2 off for up to 15 CFLs			on-line application	Brochure												
11	R2a	Spring Trade Shows a)	CFL distribution (Missoula, Billings, Helena, Great Falls, Butte); Displays; promote all appropriate programs	Feb	Feb - May	x		Residential electric customers	Call to Action--Install CFLs in High Use Locations (Educate--4L's)	Spot Newspaper/TV	local market e-mail	List in events/training/ workshops?	Canvas Bags, Brochures/Signage												
12	R2x	E+ Home Lighting -- CFLs Spring Instant Coupon Offer	Direct Mail to residential electric customers for up to $2 off on CFLs from Participating Retailers	Apr	Apr 22-Jun 13	x		Residential electric customers	Call to Action--Buy from participating retailers. Ltd time offer. Install CFLs in High Use Locations (Educate--4L's)	Multiple Xs Energy Connections; Direct Mail, Radio, Newspaper, billboard, micro-web site, web advertising, events, Spot TV, Retailer POP/Education	e-mail of mailing and qualifications	Reference, list of participating retailers	see media												
13	R2x	Farmers' Market	CFL Distribution Events	Jul	Jul- Aug	x		Residential electric customers who've not rec'd Free CFLs at event earlier in year	Call to Action--Install CFLs in High Use Locations (Educate--4L's)	Newspaper, spot Radio	local market e-mail	List in events/training/work shops?													
14	R2a	Fall Trade Shows a)	Displays, all programs, CFL distribution (Missoula, Billings, Bozeman?, Helena?, Great Falls, Butte)	Sep	Sep - Oct	x		Residential electric customers who've not rec'd Free CFLs at event earlier in year	Call to Action--Install CFLs in High Use Locations (Educate--4L's)	Spot Newspaper	local market e-mail	List in events/training/work shops?	Canvas Bags, Brochures/Signage												
15	R2x	Regional Buy downs	Review POP/agreements for Regional efforts	Jan	Jan- Dec	x		Residential electric customers	Call to Action for specialty CFLs	POP/Retailer ed		Info on specialty CFLs and retailers													

	A	B	C	D	E	F	G	H	I	J	K	L	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		**DSM Communications Calendar** subject to change based upon Need or Opportunity	Campaign/Initiative	MO	Implementation Dates	E	G	Audience	Message	Media	Internal (includes employees and key contractors)	Web	Hard Materials	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
16	R2x	E+ Home Lighting – CFLs Fall Instant Coupon Offer	Direct Mail to residential electric customers for up to $2 off on CFLs from Participating Retailers	Oct	Tentative Oct 1 - Nov 15	x		Residential electric customers	Call to Action–Buy from participating retailers, Ltd time offer. Install CFLs in High Use Locations (Educate–4L's)	Multiple Xs Energy Connections; Direct Mail, Radio, Newspaper, billboard, micro-web site, web advertising, events, Spot TV, Retailer POP/Education	e-mail of mailing and qualifications	Reference, list of participating retailers	see media													
17	R2b	Weatherization Events b)	CFL Distribution Events in conjunction with Gas/Customer Appreciation	Sep	Sep-Dec 15	x		Residential electric customers who've not rec'd Free CFLs at event earlier in year	Call to Action–Install CFLs in High Use Locations (Educate–4L's)	Direct Mail, Newspaper, Radio, bill insert, participating partners recognition, news release, mass and locals	e-mail of mailing and qualifications, schedule, request for help, I-connect, local e-mails at time of events	Schedule, event descriptions, how-to-info	Canvas Bags, how-to-DVDs, Brochures/Signage													
18	R3x	***E+ Gas Savings for the Home***	Promote Rebates for homes with natural gas space or water heat		On-going		x	Residential natural gas space and water heating customers (New or Existing Homes)	Call to Action–Install qualifying measures for rebates (Insulation, Programmable Thermostats, High Efficiency heating or water Equipment replacements, heating system retrofit upgrades)	2 Xs /Year Energy Connections–more as needed		Description of Rebate offers, forms, preferred contractor lists (Heating Contractors/Insulation Contractors)	General Brochure, description, application, preferred installers /Display materials / supporting Preferred Contractor advertising													
19	R3x	Gas Savings Mass Media Campaign 1	Mass Media targeted at residential natural gas customers	Jan	Q 1-2		x	Residential natural gas space or water heating customers	Call to Action–Install qualifying measures for rebates	TV, Billboard, Radio, Newspaper	e-mail of campaign to CSRs, CRMs, key contractors	Call to Action	General Brochure, description, application, preferred installers /Display materials / supporting Preferred Contractor advertising													
20	R3x	Gas Savings Mass Media Campaign 2	Expanded messages?	Sep	Q 3-4		x	Residential natural gas space or water heating customers	Call to Action–Install qualifying measures for rebates	TV, Billboard, Radio, Newspaper; direct mail?	e-mail of campaign to CSRs, CRMs, key contractors	Call to Action	General Brochure, description, application, preferred installers /Display materials / supporting Preferred Contractor advertising													
21	R3b	Weatherization Events b)	Distribute Air Sealing Measures to qualifying natural gas residential customers, educate on programs	Sep	Sep-Dec 15		x	Residential natural gas space or water heating customers–qualifications around past participation	Call to Action–Receive and install air-sealing measures; learn about programs and saving energy	Direct Mail, Newspaper, Radio, bill insert, participating partners recognition, news release, mass and locals	e-mail of mailing and qualifications, schedule, request for help, I-connect, local e-mails at time of events;	Schedule, event descriptions, how-to-info	Canvas Bags, how-to-DVDs, Brochures/Signage													
22	R3a	Spring Tradeshows a)	Program Education in Natural Gas markets	Feb	Feb- May		x	Residential natural gas space or water heating customers	Call to Action–Install qualifying measures for rebates	spot newspaper/TV		Call to Action	Displays/brochures program materials													
23	R3a	Fall Tradeshows a)	Program Education in Natural Gas markets	Sep	Sep- Oct		x	Residential natural gas space or water heating customers	Call to Action–Install qualifying measures for rebates	Spot newspaper	local market e-mail	Call to Action	Displays/brochures program materials													
24	R3x	Green Blocks–Missoula/Helena	Promote natural gas energy efficiency programs in existing homes, partners with local allies, includes installation of qualifying measures,	Jul	Throughout yr		x	Residential natural gas space or water heating customers in existing homes; targeted communities; CFLs installed as appropriate	Local partners coordinate participation; NWE provides information in advance; follow-up after event	as needed	CSR and local market e-mail	reports as appropriate	Educational brochures; signage													
25	R0x	Special Events–Dust to Dazzle, CSR Training, Bozeman Historic Preservation	Promote natural gas energy efficiency programs in existing homes, partners with local allies,		As needed	x	x	Residential natural gas space or water heating customers in existing homes; targeted Events	Call to Action–Participate in programs; priotitize measures; Install qualifying measures for rebates;	Spot newspaper; news releases as appropriate	CSR and local e-mails as appropriate	Schedule on site	Educational brochures; signage; displays; presentations													

	A	B	C	D	E	F	G	H	I	J	K	L	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		**DSM Communications Calendar** subject to change based upon Need or Opportunity	Campaign/Initiative	MQ	Implement-ation Dates	E	G	Audience	Message	Media	Internal (includes employees and key contractors)	Web	Hard Materials	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
26	R4x	***E+ New Homes***	Promote energy efficiency in new homes, rebates for qualifying measures, rebates for Energy Star manufactured homes; Training/promote Northwest Energy Star Homes/builders; new MT Code			x	x	Residential customers building new homes		Energy Connections	E-mail of program qualifications and links; Training	Rebate forms, link to all Energy Star builders, Energy Star support; training events	Brochure												
27	R4x	E+ New Homes Natural Gas	Promote natural gas energy efficiency in new homes, rebates for qualifying measures, training/promote Northwest Energy Star Homes; new MT Code	Sep	Sep		x	Residential natural gas customers building new homes	Call to Action--install high efficiency heating or water heating measures; Northwest Energy Star manufactured homes	Special Publication, Newspaper at Parade of Homes		Schedule/homes, Rebate forms, link to all Energy Star builders, Energy Star support	Brochures/Signage as needed												
28	R4x	E+ New Homes Electric	Rebates for CFLs and Fixtures or Northwest Energy Star electrically heated manufactured homes, and information about Northwest Energy Star Homes; Train/promote NW Energy Star Homes/Builders; new MT Code		Apr Sep	x		Residential Electric Customers building new homes	Call to Action--Include ENERGY STAR lighting in new homes; Northwest Energy Star homes/builders	Special Publication, Newspaper at Parade of Homes		Schedule/homes, Rebate forms, link to all Energy Star builders, Energy Star support	Brochures/Signage as needed												
29	R4x	***E+ Residential Electric Savings***	Promote energy efficiency and fuel switching in homes with electric space or water heat		as needed	x		Residential Electric space or water heat customers in existing homes	Call to Action--Install qualifying efficiency measures or switch to natural gas (NWE or other)	Targeted direct mail; trade ally		Description of Rebate offers, forms, preferred contractor lists (Heating Contractors/Insulation Contractors)	forms/application												
30	R5	***MT State Appliance Rebate Program***	Promote State Appliance Rebate Offer and Energy Star Appliances		As needed	x		Residential Customers buying new Energy Star Appliances	Call to Action--State program and educate on Energy Star Appliances	Newspaper, Web		Description of State Offer/refer to State website													
31	R6x	**E+ Free Weatherization**	Supportive advertising for low income energy assistance--	Sep	Sep - Apr as needed	x	x	Income Qualified space or water heating customers for free Audit and installation of qualifying measures (LIEAP qualified) also receive NWE low income discount; may qualify for Energy Share	Call to Action--Apply for LIEAP as soon as possible to receive LIEAP and heating season discounts; and potentially qualify for free weatherization. Income Guidelines have been relaxed.	Energy Connections; Newspaper; radio , September? news release on NWE programs & funding		Description of program/discount and refer customers to Human Resource Councils to apply.	energy efficiency education materials												
32	R7x	**Low Income Appliance Replacement (Refrigerator)**	Target LIEAP customers whose homes have been previously Weatherized with Energy Star Refrigerator replacements		Feb - Nov	x		LIEAP Qualified electric customers whose homes have been previously weatherized and who have old, inefficient refrigerators;	Call to Action--respond to survey to replace old, inefficient refrigerators	Direct Mail, Customer Education for on-site, information about programs/recycling included	e-mail to CSRs	Updates on actions	Energy efficiency/recycling/ assistance education materials												
33																									
34	C0	**Commercial ***											PowerPoint presentation for internal and key contractor use Messages for Commercial Cust/Trade Allies												

	A	B	C	D	E	F	G	H	I	J	K	L	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		**DSM Communications Calendar** subject to change based upon Need or Opportunity	Campaign/Initiative	MO	Implement-ation Dates	E	G	Audience	Message	Media	Internal (includes employees and key contractors)	Web	Hard Materials	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
35	C1	***E+ Commercial Lighting Rebates***	Promote rebates energy efficient lighting in commercial facilities		on-going	x		Commercial and industrial electric customers and the trade allies who serve them	Call to Action--Install high efficiency lighting products	Special Publications (display ads or articles); Case Studies; Lighting trade ally network; Association/Vendor Events; targeted direct mail; business Solutions E-newsletter; solicit features	e-mail to CRMs and key staff	Description of Rebate offers, forms, Lighting Trade Ally lists, case studies; schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage												
36	C1	***NWE Lighting Trade Ally Network***	Engage Lighting Trade Allies as Partners for program success		on-going	x		Lighting Trade Allies and key facility operators	Call to Action--Technical training to improve ability to design, sell, install commercial/industrial energy efficient lighting equipment and to promote NWE Lighting Rebate Program	Qtrly Newsletters, e-mail Direct Mail, web	e-mail to CRMs and key staff	Schedule of training, Registration information; session description; "Qualified" List of Trade Ally Network Members for customers	Training invitation, Program brochure, Newsletter												
37	C2	***E+ Energy Appraisal for Business***	Energy audits for commercial facilities under 300kW with emphasis on electric savings		on-going	x		Electric Commercial facilities under 300 kW	Call to Action--Schedule Appraisal and follow-up on recommendations	Energy Connections; Business Solutions E-newsletter; Event Displays; presentations		**Description of offer and contact information**	**Brochure**											
38	C3	***E+ Business Partners***	Promote custom incentives for electric or natural gas cost effective energy efficiency measures in new or existing commercial/industrial facilities		on-going May- Jun & Fall emphasis	x	x	Commercial and industrial electric or natural gas customers and the trade allies who serve them	Call to Action--Install energy saving measures	Special Publications (display ads or articles); Case Studies; trade ally events; Association/Vendor Events; targeted direct mail; Business Solutions E-Newsletter, solicit feature articles		Description of program, application, case studies; Schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage												
39	C3a	***E+ Business Partners Natural Gas Measures***	Introduce new commercial natural gas offering custom incentives for new or existing facilities		May- Jun & Fall emphasis		x	Commercial and industrial natural gas customers and the trade allies who serve them	Call to Action--Install energy saving measures; explore offer	Special Publications (display ads or articles); Case Studies as they become available; trade ally events; Association/Vendor Events; targeted direct mail; Business Solutions E-Newsletter		Description of program, application, case studies as become available; Schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage; presentations												
40	C3b	***E+ Natural Gas Savings Rebates for Commercial Customers -- Existing Buildings***	Promote rebates for qualifying energy efficient equipment and improvements in existing commercial facilities		May-June & Fall emphasis		x	Commercial and industrial natural gas customers and the trade allies who serve them	Call to Action--Install energy saving measures for rebates	Special Publications (display ads or articles); Case Studies as they become available; trade ally events; Association/Vendor Events; targeted direct mail; Business Solutions E-Newsletter, solicit feature articles		Description of program, application, case studies as become available; Schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage; presentations												

	A	B	C	D	E	F	G	H	I	J	K	L	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		DSM Communications Calendar: subject to change based upon Need or Opportunity	Campaign/Initiative	MO	Implementation Dates	E	G	Audience	Message	Media	Internal (includes employees and key contractors)	Web	Hard Materials	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
41	C4a	***E+ Natural Gas Savings Rebates for Commercial Customers--New Construction***	Promote rebates for qualifying energy efficient equipment and improvements in new construction commercial facilities		May-June & (Fall?)		x	Commercial and industrial natural gas customers and the trade allies who serve them	Call to Action--Install energy saving measures for rebates	Special Publications (display ads or articles); Case Studies as they become available; trade ally events; Association/Vendor Events; targeted direct mail; Business Solutions E-Newsletter		Description of program, application, case studies as become available; Schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage presentations												
42	C4b	***E+ Commercial Gas Program***	Engage natural gas Trade Allies as Partners for program success		On-going		x	Commercial and industrial natural gas trade allies and key facility operators	Call to Action--Promote NWE natural gas commercial rebate programs to improve trade allies ability to design, sell, install commercial/industrial qualifying energy efficient natural gas measures.	Multiple site Breakfast/Brown Bag. Direct Mail; e-mail; trade ally newsletters		Schedule of sessions; registration information; preferred contractors as available	Invitation to session; presentation; forms/ applications												
43	C5a	***E+ Motor Rebates***	Promote rebates for NEMA Premium motors in commercial/industrial facilities		as needed	x		Commercial and industrial electric customers with motors and the trade allies who serve them	Call to Action--Choose NEMA Premium motors when buying new motors.	Special Publications (display ads or articles); Case Studies as they become available; trade ally events; Association/Vendor Events; targeted direct mail; Business Solutions E-Newsletter		Description of program, application, case studies; Schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage; presentations												
44	C5b	***E+ Green Motor Rewind Rebates***	Promote rebates for motors rewond to Green Motors Standards in commercial/industrial facilities		as needed	x		Commercial and industrial electric customers with motors and the trade allies who serve them	Call to Action-- Demand GREEN motor standards when having motors rewond	Special Publications (display ads or articles); Case Studies as they become available; trade ally events; Association/Vendor Events; targeted direct mail; Business Solutions E-Newsletter		Description of program, application, case studies as become available; Schedule of training events; links to other resources as appropriate	Brochure/Case Studies/Display Signage; presentations												
45	C5	***Motor Training***	Training/education/ CEU		May (Fall?)	x		Commercial and industrial electric customers with motors and the trade allies who serve them	Education on value of effective motor management techniques; information on NWE programs	Direct Mail; e-mail; trade ally newsletters	e-mail to CSRs, CRMs and key staff	Schedule of training events; course description; registration information	Direct Mail flyer and PDF of same; training manuals												
46	C6	***E+ Irrigation***	Promote custom incentives for cost effective electric irrigation measures		Apr Sept	x		Irrigation customers	Call to Action--submit proposal for custom incentives for cost effective electric irrigation system improvements	Bi-annual mailing to irrigation customers through customer care	e-mail to CSRs, CRMs and key staff	Description of program, application,	Direct mail and Include in Business Partner brochure												
47	C7	***Lighting Design Lab***	Promote energy efficient lighting design through training/education (CEUs)		Apr Sep	x		Architects, Engineers, interested customers with lighting design and installation responsibilities	Improve energy efficiency of lighting with better knowledge; use NWE Rebates	Direct Mail; e-mail; trade ally newsletters;	e-mail to CSRs, CRMs and key staff	Schedule of training events; course description; registration information													

	A	B	C	D	E	F	G	H	I	J	K	L	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		**DSM Communications Calendar** subject to change based upon Need or Opportunity	Campaign/Initiative	MO	Implement-ation Dates	E	G	Audience	Message	Media	Internal (includes employees and key contractors)	Web	Hard Materials	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
48	C8	***Commercial Conference on Energy/BetterBricks Awards***	Promote energy efficiency through conference and BetterBricks Awards by recognizing individuals who are energy efficiency champions for commercial facilities Nominations in '09 Awards '10		Q-2	x	x	Architects, Engineers, facility managers, Public Buildings, others with commitment in developing/operating high performance commercial facilities	Encourage energy effciency and how it can improve bottom line to businesses	Direct Mail, trade ally newsletters, e-mail, event booths	e-mail to CRMs and key staff	Schedule/Registration,Nomination process; BetterBricks Winners winners													
49	C9	***Building Operator Certification Training***	Training/education/ certification for facility managers; emphasis on schools, public buildings, non-profit hospitals		Apr maybe Fall as well	x	x	Facility managers with interest in reducing energy costs through operations and maintenance and incorporating energy efficiency in purchases and practices	Call to Action--enroll; scholarships for tuition and travel for public schools, public buildings, and non-profit hospitals	Direct Mail, trade ally newsletters, e-mail, event booths	e-mail to CSRs, CRMs and key staff	Schedule of training events; course description; registration information	Direct Mail flyer and PDF of same; training manuals												
50	C10	***Tri--county Commercial Project***	Promote energy efficiency in existing buildings in partnership with L &C, Broadwater, Jefferson Counties	Mar	3 yr project	x	x	Target small businesses to increase adoption of energy efficiency improvements	Call to Action-- Appraisal, recommendations, standard rebates (Fed, Grants)	Direct contact with targeted businesses			Description for targeted businesses												
51	C11	***New E+ Commercial Electric Rebates***	Promote prescriptive rebates for expanded commercial /industrial/irrigation energy efficiency opportunities in existing facilities and new construction			x		Promote opportunities to commercial/industrial/irrigation customers -- Target audiences as appropriate	Call to Action-- install qualifying measures, add to bottom line	Mix	e-mail to CSRs, CRMs and key staff; Team?	Description of program; Add Program contractors; on-line forms, list of events/training;resources	Mix												
52		Renewables																							
53	G1	***E+ Renewable Energy***	Support education and development of small scale renewable generation			x		Residential and commercial electric customers and the renewable trade allies who support renewable generation	Educate electric customers on small scale renewables and direct them to resources to develop	Special NWE publications; ltd print ads; energy connections; montanagreenpower.com; trade allies & Associations		Description of program; NWE publications; Schedule of training events; List of events where NWE is present with display or speakers; links to other resources as appropriate	NWE publications and Brochures; Signage & presentations												
54	G2	***E+ Green Power *****	Offer premium service option of green power product to electric customers		on-going	x		Residential and commercial electric customers who support renewable generation	Call to Action-- Opportunity to support renewable generation through premium on electric bill	Energy Connections; Public Radio Sponsorships; other events or sites as appropriate and available		Description of program; on-line enrollment	Brochure; signage												
55																									
56	O	***Northwest Energy Efficiency Alliance***	Promote		on-going	x		Residential, Commercial, Industrial, and agriculture customers and the trade allies and infrastructure that serve them	Varies with initiative	NWE supporting materials to NEEA messages	AS APPROPRIATE	Training Information; links to other resources	Varies with initiative												
57																									
58		*Large Universal System Benefits Choice (USBC) Customers are not eligible for electric programs. Natural gas commercial programs are not offered to natural gas Choice customers.																							
59																									
60		**E+ Green is not a DSM program but is part of NWE's renewable offerings.																							
61																									

Final Evaluation Report:

2008 Green Blocks Pilot Program

Presented to:

NorthWestern™ Energy

April 6, 2011

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Section E. Executive Summary

NorthWestern Energy retained Navigant to conduct a measurement and verification impact evaluation of the 2008 Green Blocks Pilot Program[1] in Missoula, Montana. This document presents Navigant's findings and recommendations. For purposes of this evaluation, the term "Green Blocks" or "Green Blocks program" refers to the 2008 *pilot* program only.

E.1 Program Description

The Green Blocks pilot program aimed to:

- Demonstrate home energy savings and bring significant energy-saving home improvements to residents in Missoula homes *free of charge* to participating homeowners
- Bring neighbors together and build community
- Encourage the green economy and create jobs

The pilot program consisted of a residential energy audit, direct install efficiency measures and educational information in a total of 93 individual residences in Missoula, Montana. The primary purpose of participating in the Green Blocks program for NorthWestern Energy was to achieve cost-effective electricity and natural gas savings through the implementation of residential energy audits and energy efficiency measures.

E.2 Evaluation Objectives

The main goal of the evaluation was to measure and verify the 2008 pilot program's energy savings and review the cost-effectiveness of the program.

E.3 Evaluation Methods

The evaluation team reviewed the program reported savings (referred to in this report as "ex-ante gross" energy savings) found in the Green Blocks Pilot Program Assessment previously prepared by NorthWestern Energy. The evaluation team conducted a review of all participant audit files to verify installed measure counts and derive gross evaluation-adjusted amounts (referred to in this report as "ex-post gross" energy savings). The pilot program's default energy savings values for each measure were compared with those values found in previous evaluation reports and market studies provided by NorthWestern Energy. The evaluation team estimated pilot program free ridership and spillover using a self-report approach and calculated

[1] For purposes of this evaluation, the description of the "Green Blocks" program refers to the 2008 pilot program only.

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a pilot program-level net-to-gross ratio to determine the pilot program's net energy savings (referred to as "ex-post net" in this report.)

The evaluation team reviewed the 2008 Green Blocks pilot program's benefit-cost ratio by using calculation methodologies provided by NorthWestern Energy.

E.4 Key Findings

Key Impact Findings

Key impact findings include total pilot program savings and the benefit-cost ratio.

Total Pilot Program Savings

The lifetime impact savings for the 2008 Green Blocks pilot program are shown in the tables below. Additional detailed impact analysis by individual measure is included in Section 3 and in Appendix A.

The total pilot program savings were calculated by multiplying the annual energy savings for each measure by its respective effective useful life. The evaluation team made adjustments to gross pilot program energy savings primarily as a result of the following factors:

1. Changes in measure quantities resulting from census review of participant files.
2. Corrections to calculation errors found in the program tracking spreadsheet.

The gross realization rate, reflecting these adjustments, is 92 percent for gas savings and 101 percent for electric savings, as shown in Table E-2.

Net energy savings were calculated using a self-report approach. The resulting net-to-gross ratio is 0.66, as shown in Table E-2. While the net impact methodology employed in this evaluation is a standard industry calculation, several factors introduce the likelihood of bias in the net savings calculations including the amount of time (28 months) between the evaluation survey and the pilot program's implementation and complicated lines of influence inherent in a neighborhood-based residential energy program.

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Table E-0 Lifetime Gross and Net Energy Savings—All Pilot Program Measures

Fuel Source	Lifetime Energy Savings				
	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Ex-Post Net	Net-to-Gross Ratio
Gas (dKt)	33,278	30,522	92%	20,145	0.66
Electric (kWh)	285,255	287,649	101%	189,848	0.66

Navigant analysis of Green Blocks pilot program data.

Benefit-Cost Analysis

NorthWestern Energy's criterion for cost effectiveness is that the total resource (TRC) test result must be greater or equal to 0.9. The pilot program-level net energy benefits were used by the evaluation team to obtain a TRC benefit-cost ratio using methodology consistent with industry standards. The table below shows these results.

Table E-2 Total Resource Cost Test

Program Element	Ex-Post Net kWh	Ex-Post Net dKt	Associated Cost	TRC
Total Pilot Program	189,848	20,145	$146,117	0.52

Navigant analysis of Green Blocks pilot program data.

The result of the benefit cost analysis was a TRC value of 0.52, lower than the ex-ante value of 0.86, for the following factors:

- Lifetime gross savings realization rates of 92 percent for gas measures and 101 percent for electric measures.
- A net-to-gross factor of 0.66.

The TRC ratio with a net-to-gross factor of 1.0 would be 0.78.

The value for a full scale program is likely to be higher than this value. Pilot programs typically have a lower benefit-cost ratio than a full scale program. NorthWestern Energy will need to consider the potential for additional efficiencies and economies of scale to determine whether a benefit-cost ratio of 0.9 or greater is achievable with a full-scale program.

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E.5 Key Recommendations

Impact Recommendations

- Consider including the wattage of replaced bulbs in home energy audit reports to provide additional documentation to substantiate the proposed kWh reductions associated with CFL direct install replacements.
- Consider updating participant audit files to include data reflecting the specific energy survey recommendations provided to each participant.
- The energy impact associated with insulation is highly sensitive to the levels of pre-existing insulation. While most participant files included notations of existing insulation levels, the notations were somewhat inconsistent. Consider implementing a systematic method of documenting of pre-existing insulation levels for program tracking.

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Section 1. Introduction

1.1 Program Description

The 2008 Green Blocks pilot program consisted of a residential energy audit, direct install efficiency measures and educational information in a total of 93 individual residences in Missoula, Montana. The primary purpose of participating in the Green Blocks pilot program for NorthWestern Energy was to achieve cost-effective electricity and natural gas savings through the implementation of residential energy audits and energy efficiency measures.[2]

The Green Blocks pilot program aimed to:

- Demonstrate home energy savings and bring significant energy-saving home improvements to residents in Missoula homes *free of charge* to participating homeowners
- Bring neighbors together and build community
- Encourage the green economy and create jobs

NorthWestern Energy paid for the costs of the insulation materials and installation for all Green Blocks pilot program participants. In addition, the implementation contractor coordinated the work of the insulation contractor with the homeowner.

The Green Blocks pilot program audit expanded on a standard energy audit program previously available to NorthWestern Energy customers by including additional measures and recommendations. As a result of its expanded scope, an average Green Blocks audit required approximately four hours, which was more time than a standard audit implemented through previously existing NorthWestern Energy efficiency programs.

During the Green Blocks audit, the implementation contractor performed a safety check and blower door test, performed direct installation of energy measures, and reviewed the residence for energy efficiency opportunities to include in a brief report. The implementation contractor measured insulation levels and made recommendations for insulation upgrades where appropriate. In order for a customer to be eligible for insulation upgrades, the insulation type and levels at the residence had to have qualified for rebates under the NorthWestern Energy Residential Electric and Gas Savings programs.

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[2] NorthWestern Energy, *Green Blocks Pilot Program Assessment* (January 16, 2009).

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Stakeholder Involvement

Key stakeholders played a significant role in the design, implementation and administration of the 2008 pilot program. The stakeholders each had different purposes for supporting the Green Blocks pilot program and offered various levels of program support. Table 1--1 outlines the key 2008 pilot program stakeholders, roles and activities.

Table 1--1 Green Blocks 2008 Pilot Program Stakeholders

Organization	Role	Type	Activity
NorthWestern Energy	Program sponsor	Program Administration, Energy Efficiency	Funding, staff support for Green Blocks audits and insulation
KEMA	Implementation contractor	Energy Efficiency	Green Blocks audit
Insulation Contractors	Sub-contractors	Energy Efficiency	Installed insulation
City of Missoula	Program sponsor	Program Administration	Participant recruitment, education, neighborhood involvement
Mayor's Advisory Group on Climate Change	Program sponsor	Program Design, Administration	Reviewed participant applications
Mountain Water	Program sponsor	Water savings	Water audit
Allied Waste	Program sponsor	Recycling	Garbage audit

Navigant analysis of Green Blocks pilot program information.

1.1.1 Implementation Strategy

Target Market

The 2008 Green Blocks pilot program was designed to encourage voluntary participation by residents of single-family homes built before 1990, located in the City of Missoula and NorthWestern Energy customers in good standing. Additional requirements included a customer agreement that allowed for contractors to perform work associated with the program and that participants be present at the time of program-related work. Preference was given to owner-occupied, single family dwellings that participated in qualifying neighborhood group applications (discussed below).

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Program Timeline

Neighborhoods were accepted for the Green Blocks pilot program during May and June of 2008. A series of three voluntary orientation meetings were held by the City of Missoula, NorthWestern Energy and Mountain Water. Participants received energy audits during the summer of 2008. Follow up work, primarily insulation upgrades, was implemented until October 2008.

Program Delivery Mechanisms and Marketing Strategy

One of the distinguishing factors of the 2008 Green Blocks pilot program was the program's delivery mechanism and marketing strategy. In order for an individual resident to be considered for the program, the resident was encouraged to submit their application as part of a neighborhood (or block) submittal. The pilot program guidelines included preference for neighborhoods that could achieve 90 percent participation in the pilot program. The program theory behind encouraging neighborhood-scale pilot program participation was to encourage parallel participation of multiple households in the same neighborhood, thereby creating greater efficiencies in pilot program implementation and the potential for broader participation. The City of Missoula considered the Green Blocks pilot program an opportunity to engage hard-to-reach customers or customers who were not pre-disposed to participate in a City- or utility-sponsored program. In addition, the City of Missoula expected additional non-energy benefits by encouraging social interaction among neighbors through the Green Blocks pilot program.

In order to recruit volunteer block captains, the City of Missoula publicized the pilot program through its Office of Neighborhood Involvement, including its website and newsletters to 18 neighborhood councils and a televised presentation to a monthly meeting of the Missoula Community Forum. In addition, the City sent out a press release that was picked up by local media. The City accepted applications from seven individuals to act as block captains. Block captains were then educated about the Green Blocks pilot program and responsible for recruiting participants in their neighborhood. Four of the seven block captains were able to achieve a 90 percent participation rate for their blocks. The pilot program planners originally budgeted for participation by 150 individual residences. The pilot program's budget enabled NorthWestern Energy to accept applications from the three blocks with participation rates of less than 90 percent because the overall pilot program participation was less than originally anticipated. A total of 93 residences completed the 2008 pilot program. Additional discussion of pilot program recruitment and participation is included in Section 3 of this evaluation report.

Role of the Implementation Contractor

KEMA Services, Inc. (KEMA) implemented the 2008 Green Blocks pilot program on behalf of NorthWestern Energy. KEMA implemented the Green Blocks pilot program through close

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communication with NorthWestern Energy and the City of Missoula. Together, representatives from these organizations and other stakeholders collaborated to host orientation meetings for participants. Representatives from KEMA scheduled and conducted the Green Blocks pilot program audits and coordinated communication between the insulation contractors and the homeowners when insulation measures were installed as part of the Green Blocks pilot program. KEMA was responsible for keeping records of Green Blocks audit outcomes and for supervising the work of insulation contractors.

1.1.2 Measures and Incentives

The Green Blocks audit expanded upon traditional residential audit measures offered by NorthWestern Energy through its residential energy and natural gas savings programs. In addition, the Green Blocks audit could recommend insulation upgrades where appropriate. All costs associated with the direct install measures and insulation upgrades were paid for by NorthWestern Energy.

Green Blocks audit safety and analysis measures include asbestos testing, blower door test to measure infiltration and exfiltration, a gas appliance safety check and a RECAP structural analysis. Energy savings measures included in the Green Blocks pilot program are listed in the table below.

Table 1-2 Green Blocks 2008 Pilot Program Measures

Measure	Classification
Green Blocks Audit	
CFLs	Direct install, deemed savings
Water efficient kitchen and bathroom aerators	Direct install, deemed savings
Low-flow showerheads	Direct install, deemed savings
Hot water tank insulation wrap	Direct install, deemed savings
Hot water pipe insulation (up to 10 feet)	Direct install, deemed savings
Customer education	Indirect savings
Programmable thermostat	Direct install, deemed savings
Weather stripping for exterior doors	Direct install, deemed savings
Door sweeps for exterior doors	Direct install, deemed savings
Foam sealant	Direct install, deemed savings
Window plastic	Direct install, deemed savings
Light switch/electrical outlet gaskets	Direct install, deemed savings
Green Blocks Insulation Measures	
Attic, walls or basement/crawlspace	Average savings from previous evaluations

Navigant analysis of Green Blocks pilot program information.

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1.2 Evaluation Questions

This evaluation sought to answer the following key questions.

Impact Questions:

1. What was the program's gross and net energy savings?
2. What was the benefit-cost analysis outcome for this program?

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Section 2. Evaluation Methods

This section describes the analytical methods, data sources, and sampling plan implemented as part of the 2008 Green Blocks pilot program evaluation. The evaluation team reviewed program information from the 2008 Green Blocks pilot program, including NorthWestern Energy's previous assessment of the Green Blocks pilot program. The impact evaluation included a review of default measure savings through a census file review, secondary research to adjust gross program savings where necessary and estimation of free ridership and program spillover.

2.1 Analytical Methods

2.1.1 Impact Evaluation Methods

Gross Program Savings

The impact evaluation included a review of the 2008 pilot program's audit files and tracking system to review the pilot program's ex-ante gross program savings. The evaluation team also reviewed the default measure savings methodology used to report the ex-ante gross program savings. The purpose of the default measure savings review was to assess the underlying algorithms, assumptions, and calculated default savings reported by the 2008 pilot program. The review utilized secondary data sources including publicly available research and evaluation reports to compare the proposed default energy savings for each measure with current best practices in the residential home energy audit and weatherization sector.

Engineering Review

The evaluation team conducted an in-depth engineering review to assess the claimed energy savings attributed to the Green Blocks pilot program. The engineering review consisted of a detailed examination of each of the 93 audit files to tabulate audit measure counts, DSM measure counts, insulation square footage, insulation R-value upgrades, and CFL wattages.

Additionally, the engineering analysis included a detailed assessment of measure-specific energy savings values. This was accomplished by comparing pilot program savings claims to secondary sources including published technical reference manuals (TRMs) for residential measure savings and public database sources. The pilot program reported savings spreadsheet provided by the utility was carefully examined to verify that all calculations were accurately carried out.

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File Verification Process

The file review portion of the evaluation was intended to verify pilot program tracking data quantities reported by the utility. Methods applied in this evaluation included careful review of each program file for comparison with pilot program tracking data and KEMA tracking data. The field documentation supplied included field forms and audits paperwork for each program participant detailing the individual measures installed. The forms were thoroughly reviewed to determine the actual quantities for each unique measure.

Indirect Savings (Education)

While "Direct savings" for these programs are defined as those resulting from energy-efficiency measures installed directly by the auditors at the time of the audit (direct measures). Energy savings associated with actions taken by the customer as a result of the recommendations generated by the audit (indirect measures) are deemed "indirect savings."

Savings associated with indirect savings are estimated as part of the ex-post gross impact analysis; they are not part of net impact adjustments. This distinction is consistent with a standard approach to program impact evaluation; based on the observation that implementation of recommended measures from a residential audit is immediately connected to program activities, unlike spillover which is closer in nature to a market effect.

Interactive Effects

The impact of interactive effects on the overall estimates of indirect energy savings would be much less than the statistical or modeling error band surrounding the estimates. This inconsequential level of impact did not warrant the substantial work required to model it more precisely.

Net Program Savings

The primary objective of the net savings analysis for the pilot program is to determine the pilot program's net effect on customers' electricity and natural gas usage. After gross program impacts are adjusted, net program impacts are derived by estimating a Net-to-Gross (NTG) ratio. A NTG ratio quantifies the percentage of the evaluation-adjusted ("ex-post gross") program impacts that are attributable to the program. This ratio includes an adjustment for free ridership ("the portion of impact that would have occurred even without the program") and spillover ("the portion of impact that occurred outside of the program, but would not have occurred in the absence of the program"). The evaluation team estimated pilot program free ridership and spillover using the self-report approach via a telephone survey conducted in November and December 2010. The results from this survey were compared with a previous participant survey conducted February 2009 to attempt to measure program influence and

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participant satisfaction over time. The evaluation team also utilized secondary research, including an end-use market research study provided by NorthWestern Energy.

2.2 *Data Sources*

The evaluation team conducted data collection efforts to support this evaluation through reviewing pilot program information, pilot program tracking data, research of secondary sources, interviews with key stakeholders and telephone surveys with participants. Table 2-1 below illustrates the data sources for this evaluation.

Table 2-1 Data Collection Sources

Data Collection Type	Targeted Population	Sample Frame	Sample Design	Sample Size	Timing
Tracking Data Analysis	All Program Participants	Tracking Spreadsheet	-	Census	October-November 2010
Secondary Research	Technical Resource Documents	Residential Energy Efficiency programs	-	5	October-November 2010
In-depth Phone Interview	Key Stakeholders	Contacts from NorthWestern	Representatives from Sponsoring Organizations, Program Implementer	8	October-November 2010
CATI Phone Surveys	Program Participants/Non-Participants	Tracking Database	Random Sample of Program Participants	100	November 2010

Navigant analysis of Green Blocks pilot program data.

2008 Pilot Program Documentation Review

The evaluation team reviewed documents provided by NorthWestern Energy, KEMA, the City of Missoula and publicly available information about the 2008 Green Blocks pilot program to inform this evaluation. Of particular benefit were the Green Blocks pilot program assessment written previously by NorthWestern Energy in January 2009 and the results of an informal participant survey conducted by NorthWestern Energy in February 2009.

Secondary Research

The evaluation team conducted secondary research including publicly available documents and Technical Resource Manuals from a variety of leading utility-sponsored residential energy efficiency programs. Of particular relevance was research into the Pacific Northwest Power Planning Council's Regional Technical Forum, an impact evaluation conducted for

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NorthWestern Energy by Nexant in 2007 to reference direct energy savings from residential audits and another impact evaluation, conducted by Summit Blue Consulting and the National Center for Appropriate Technology for NorthWestern Energy in 2008 that measured indirect savings from residential audits. The evaluation team reviewed a recent end use market study conducted by Nexant and The Cadmus Group, Inc. in 2009. Citations for these research sources are included in the footnotes in this evaluation report.

Stakeholder Interviews

The evaluation team conducted a kick-off meeting at NorthWestern Energy offices in Butte, MT to review program information with representatives from NorthWestern Energy, the City of Missoula and the County of Missoula. Additional stakeholder interviews were conducted via telephone primarily for the purpose of clarifying stakeholder involvement, investigating efficiencies in program implementation and lessons learned from the 2008 pilot program. The evaluation team wishes to thank those individuals that participated in the kick-off meeting and telephone surveys. A complete list of people interviewed and the interview guide is included in Appendix B.

2.3 Sampling Plan

The evaluation team designed a telephone survey to ask participants and non-participants about pilot program awareness, views about energy efficiency, program satisfaction and to attempt to measure program free-ridership and program spillover. The survey instrument was developed by Navigant and implemented by Dierenger Research Group. A copy of the instrument is included in Appendix B.

The sample design for the telephone survey was constructed to meet a sampling precision of +/- 10 percent at a 90 percent confidence level. Based on a participant sample size of 93, the target complete rate number was 39 participants. After receiving participant contact information, the telephone survey research group was able to reach 31 participants. The remaining participants were either not able to be contacted or did not answer the phone after five or more attempts.

Table 2-2 Telephone Survey Sample Target and Actual Completes

Respondent Type	Completes	Target Completes
Participant	31	39
Non-Participant	69	68
Total	100	107

Dierenger Research Group, Navigant analysis of Green Blocks program data.

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Section 3. Program Level Results

3.1 *Impact Results*

This section includes key findings and recommendations resulting from the default savings review and adjustments made by the evaluation team. A complete documentation of the review is presented in Appendix A. Second, this section includes a net-to-gross analysis and ex-post net impact estimates for the 2008 pilot program. Third, this section includes a benefit-cost analysis.

3.1.1 Tracking System Review

The tracking system review consisted of a review of all of the 2008 Green Blocks pilot program participant audit files and summary spreadsheets provided by NorthWestern Energy and KEMA. The review was intended to verify program tracking data quantities reported by the 2008 pilot program only. Each participant's file included field documentation and audit paperwork for each program participant detailing the individual measures installed at the location. The forms were thoroughly reviewed to determine the actual quantities for each unique measure. The evaluation team found no inherent flaws in the record keeping, with a small number of errors commonly found in such evaluations. Table 3-1 below indicates the total counts for each measure reported by the 2008 pilot program and those found by the evaluation team.

Table 3-1 File Review – 2008 Pilot Program Measure Counts

Measure	Pilot Program Reported	Evaluation Verified	Difference	Percentage Difference
Water heater wrap	44	42	-2	-5%
Pipe wrap	252	252	0	0%
Low flow shower head	68	68	0	0%
Kitchen sink aerator	51	51	0	0%
Bathroom sink aerator	108	109	1	1%
CFL	490	496	6	1%
Programmable thermostat	43	43	0	0%
Window plastic	82	59	-23	-28%
Insulation foam can	16	15	-1	-6%
Light switch and outlet gasket	364	356	-8	-2%
Door weather strip	49	45	-4	-8%
Door sweep	35	41	6	17%
Total	**1,602**	**1,577**	**-25**	**-2%**

Navigant analysis of Green Blocks pilot program data.

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The difference in the amount of installed measure counts for window plastic and door sweeps and CFLs was attributed to inconsistencies in the records found in the participant audit files. These totals resulted in only a small difference (2 percent) between the measure counts reported by the program and those found by the evaluation team.

3.1.2 Review of Ex-Ante Gross Program Savings Estimates for 2008 Pilot Program

The engineering analysis included a detailed assessment of the measure counts and default savings for each measure to review the 2008 pilot program's estimated ex-ante gross savings. The ex-ante gross savings were presented in a document prepared by NorthWestern Energy in January 2009[3]. This document reported 2008 pilot program savings separated into three categories: standard audit savings, Green Blocks audit savings and Green Blocks insulation measure savings.

- **Standard audit measures include**: water heater wraps, pipe wraps, low flow shower heads, kitchen sink aerators, bathroom aerators, and indirect audit savings due to participant education.
- **Green Blocks audit measures include:** up to six CFLs, a programmable thermostat, window plastic and a weatherization kit that included: one can of insulating foam, twenty light switch/electrical gaskets, two door weather strips, and two door sweeps.
- **Green Blocks insulation measures include**: the insulation upgrade measures performed when a contractor returned to a participant's home and installed insulated as recommended in the Green Blocks audit.

Table 3-2 2008 Pilot Program Reported ("Ex-Ante") Gross Savings

Measure	First-Year kWh	First-Year dKt	Lifetime kWh	Lifetime dKt
Standard Audit	17,949	1291	89,745	9,333
Green Blocks Audit	27,930	416	195,510	4,420
Green Blocks Insulation	-	651	-	19,525
Total Program	**45,879**	**2,358**	**285,255**	**33,278**

Navigant analysis of Green Blocks pilot program data.

[3] NorthWestern Energy, *Green Blocks Pilot Program Assessment*, January 16, 2009.

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3.1.3 Ex-Post Gross Impact Results

The 2008 pilot program reported first-year ex-ante gross savings of 2,358 dKt (gas) and 45,879 kWh (electric) and lifetime ex-ante gross savings of 33,278 dKt (gas) and 285,255 kWh (electric), as shown in Table 3-2 above. The evaluation team found first-year ex-post gross savings of 2,173 dKt (gas) and 46,221 kWh (electric) and lifetime ex-post gross savings of 30,522 dKt (gas) and 287,649 kWh (electric). Based on engineering review and default savings adjustments, the evaluation team found gross realization rates of 92 percent for first-year gas savings and 101 percent for first-year electric savings. The gross realization rates for lifetime savings were 92 percent for gas measures and 101 percent for electric measures. A complete analysis of each individual measure default savings value and evaluation adjusted value (if applicable) is included in Appendix A.

Adjustments to gross program reported savings resulted from two actions:

1. Changes in measure quantities resulting from review of all 2008 pilot program files.
2. Quality control and assurance to make adjustments to the 2008 pilot program reporting spreadsheet corresponding to review of 2008 pilot program files.

Table 3-3 compares the first-year and lifetime program-reported ("ex-ante") savings and evaluation adjusted ("ex-post") savings for the program.

Table 3-3 Ex-Ante and Ex-Post Gross Savings for 2008 Pilot Program

	First-Year Savings			Lifetime Savings		
Fuel Source	Ex-Ante	Ex-Post	Gross Realization Rate	Ex-Ante	Ex-Post	Gross Realization Rate
Electric (kWh)	45,879	46,221	101%	285,255	287,649	101%
Gas (dKt)	2,358	2,173	92%	33,278	30,522	92%

Navigant analysis of Green Blocks pilot program data.

Analysis of Program Measure Savings

As noted above, the ex-ante gross savings were presented in a document prepared by NorthWestern Energy. This document reported 2008 pilot program savings separated into three categories: standard audit savings, Green Blocks audit savings and Green Blocks insulation measure savings. For ease of comparison, the evaluation team analyzed the 2008 pilot program savings according to the same categories from the NorthWestern Energy report.

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The standard audit measures comprise approximately 31 percent of the total pilot program gas savings and 31 percent of the total program electricity savings. The Green Blocks audit measures comprise approximately 15 percent of the total gas program savings and 69 percent of the total electric program savings. The Green Blocks insulation measures account for 55 percent of the program's gas savings. Table 3-4 summarizes the savings by component. Please note that numbers may not add to 100 percent due to rounding.

Table 3-4 Components of Ex-Post Gross Savings from 2008 Pilot Program

Source	Ex-Post Gross Lifetime Savings			
	Gas		Electric	
	dKt	% of total program savings	kWh	% of total program savings
Standard Audit	9,313	31%	89,745	31%
Green Blocks Audit	4,439	15%	197,904	69%
Green Blocks Insulation	16,770	55%	-	-
Total	30,522	100%	287,649	100%

Navigant analysis of Green Blocks pilot program data.

The NorthWestern Energy report used a default average residential audit savings value from previous evaluations to estimate the program reported savings[4]. The evaluation team chose to use available measure savings information to calculate the 2008 pilot program savings. Table 3-5 and Table 3-6 below indicate the savings calculated by the evaluation team. Table 3-7 illustrates the average residential energy audit savings from the previous evaluations. Appendix B compares the average standard residential audit savings found in the previous evaluations and reported by NorthWestern Energy to those calculated by the evaluation team.

Standard Audit Measures

Table 3-5 presents first year energy savings, effective useful lives, and lifetime energy savings for the standard audit measures. Values are included for both direct install measures and indirect audit savings. The ex-ante values are the savings reported by NorthWestern Energy, and ex-post values are the adjusted values resulting from the engineering analysis. The lifetime energy savings were calculated by multiplying the annual (or first-year) energy savings by the effective useful life. For purposes of this report, standard audit measures include: water heater wraps, pipe wraps, low flow shower heads, kitchen sink aerators, bathroom aerators, and indirect audit savings due to participant education.

[4] NorthWestern Energy, *Green Blocks Pilot Program Assessment* (January 16, 2009).

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Table 3-5 Standard Audit Savings (gas)

Measure Description	First-Year Savings (dKt)		Useful Life (years)		Lifetime Savings (dKt)	
	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post
Water Heater Wrap	106	101	7	7	739	706
Pipe Wrap	171	171	7	7	1,200	1,200
Low Flow Shower Head	84	84	15	15	1,265	1,265
Kitchen Sink Aerator	47	47	15	15	711	711
Bathroom Sink Aerator	100	101	15	15	1,507	1,521
Indirect Audit Savings (gas)	782	782	5	5	3,911	3,911
Total	**1,291**	**1,287**	**-**	**-**	**9,333**	**9,313**

Navigant analysis of Green Blocks pilot program data.

The following table presents the indirect audit savings (for participant education) for electric measures.

Table 3-6 Standard Audit Savings (electric)

Measure Description	First-Year Savings (kWh)		Useful Life (years)		Lifetime Savings (kWh)	
	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post
Indirect Audit Savings (electric)	17,949	17,949	5	5	89,745	89,745

Navigant analysis of Green Blocks program data.

Green Blocks Audit Measures

Green Blocks Audit Measures include measures that ordinarily, are not installed as part of a standard residential audit. The Green Blocks audit measures, for purposes of this report, include up to six CFLs, a programmable thermostat, window plastic and a weatherization kit that included: one can of insulating foam, twenty light switch/electrical gaskets, two door weather strips, and two door sweeps. The estimated energy savings for the weatherization kit was reported by the program as a single unit; therefore ex-ante savings are not reported for each individual component of the weatherization kit. Table 3-9 presents the ex-ante and ex-post gas savings for the Green Blocks Audit measures.

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Table 3-7 Ex-Ante and Ex-Post Gross Green Blocks Audit Savings (gas)

Measure Description	First-Year Savings (dKt)		Useful Life (years)		Lifetime Savings (dKt)	
	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post
Programmable Thermostat	193	193	20	20	3,859	3,859
Window Plastic	185	133	1	1	185	133
Insulation Foam Can	N/A	9[1]	10	10	376	450
Switch/Outlet Gaskets	N/A	10[2]				
Door Weather Strip	N/A	13[3]				
Door Sweep	N/A	12[3]				
Total	416	**327**	-	-	**4,420**	**4,442**

Navigant analysis of Green Blocks program data.

[1]*savings are assumed to be ¼ of entire weatherization kit*

[2]*savings calculated for groups of 20 gaskets, which represents ¼ weatherization kit*

[3]*savings calculated for groups of 2 weather strips, 2 door sweeps, which represents ¼ weatherization kit*

Table 3-10 presents the ex-ante and ex-post electric savings for the Green Blocks Audit measure, in this case, CFLs.

Table 3-8 Ex-Ante and Ex-Post Gross Green Blocks Audit Savings (electric)

Measure Description	First-Year Savings (kWh)		Useful Life (years)		Lifetime Savings (kWh)	
	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post
CFL	27,930	28,272	7	7	195,510	197,904

Navigant analysis of Green Blocks pilot program data.

Green Blocks Insulation Measures

The following table presents the ex-ante and ex-post lifetime energy savings for the insulation upgrade measures performed when a contractor returned to a participant's home and installed insulated as recommended in the Green Blocks audit. The ex-ante energy savings reported for all types of insulation upgrades fell within the range specified by several published TRMs, and therefore no adjustment was recommended for energy savings. Changes made to gross realization rates are based on review of audit and contractor reports and represent adjustments made to the installed square footage of insulation only. Table 3-11 presents the ex-ante and ex-post gas savings for Green Blocks Insulation measures.

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Table 3-9 Insulation Measures Ex-Ante Gross and Ex-Post Gross Savings

Measure Description	First-Year Savings (dKt)		Useful Life (years)		Lifetime Savings (dKt)	
	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post
Attic R0 - R49	98	41	30	30	2,945	1,221
Attic R11 - R49	56	58	30	30	1,672	1,735
Attic R19 - R49	44	40	30	30	1,400	1,198
Exterior Wall R0 - R13	126	95	30	30	3,794	2,840
Basement Wall R0 - R13	178	177	30	30	5,338	5,320
Crawl Space R0 - R19	146	149	30	30	4,376	4,455
Total	**651**	**559**	-	-	**19,525**	**16,770**

Navigant analysis of Green Blocks pilot program data.

3.1.4 Net Program Impact Results

This section summarizes the net program impacts for the 2008 Green Blocks pilot program.

The net-to-gross ratio (NTGR) was calculated for the program according to the following:

Where,

Free ridership is the energy savings that would have occurred even in the absence of program activities and sponsorship, expressed as a percent of gross impact.

and,

Spillover is the energy savings that occurred as a result of program activities and sponsorships, but was not included in the gross impact accounting, expressed as a percent of gross impact.

Free Ridership

The objective of the free ridership assessment is to estimate the impact of program incented measures that would have been installed even in the absence of the program. Free ridership is assessed as a probability score for the program. This evaluation relies on 1) self-reported data collected during participant telephone surveys to assign free ridership probability scores to the

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program and 2) a recent energy end use market study[5] conducted by Nexant and The Cadmus Group, Inc. in 2009.

Spillover

The objective of the spillover assessment is to estimate the impact arising from efficient measures installed as a result of the program that were not incented by the program. This evaluation relies on self-reported data collected during the telephone survey to assess the role of the program in the decision to install additional efficient measures.

Table 3-10 illustrates evaluation-based adjustments from ex-post gross to ex-post net first-year and lifetime savings when applying the net-to-gross ratio of 0.66 across the program. The first-year ex-post net savings are 61 percent of ex-ante gas savings and 66 percent of ex-ante electric savings. The lifetime ex-post net savings are 61 percent of ex-ante gas savings and 67 percent of ex-ante electric savings.

Table 3-10 Ex-Post Gross and Net Impact Summary

	First-Year Savings			Lifetime Savings		
Fuel Source	Gross	Net	NTGR	Gross	Net	NTGR
Electric (kWh)	46,221	30,506	0.66	287,649	189,848	0.66
Gas (dKt)	2,173	1,434	0.66	30,522	20,145	0.66

Navigant analysis of Green Blocks pilot program data.

3.1.5 Benefit-Cost Analysis

The evaluation team used a benefit cost analysis tool developed by NorthWestern Energy to apply the 2008 pilot program's net energy savings and obtain a total resource cost (TRC) test result. The TRC test is used by NorthWestern Energy to evaluate the cost-effectiveness of its energy efficiency programs. NorthWestern Energy's criterion for cost effectiveness is that the TRC Test result must be greater or equal to 0.9.

NorthWestern Energy reported costs of $146,117 for the 2008 Green Blocks pilot program.

[5] Nexant and The Cadmus Group, Inc., "Energy End Use and Load Profile Study," December 16, 2009.

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Table 3-11 Total Resource Cost Test

Program Element	Ex-Post Net kWh	Ex-Post Net dKt	TRC	Associated Cost
Lifetime Savings	**189,848**	**20,145**	**0.52**	**$146,117**

Navigant analysis of Green Blocks program data, NorthWestern Energy.

The result of the benefit cost analysis was a TRC value of 0.52, lower than the ex-ante value of 0.86, for the following factors:

- Lifetime gross savings realization rates of 92 percent for gas measures and 101 percent for electric measures.
- A net-to-gross factor of 0.66.

The TRC ratio with a net-to-gross factor of 1.0 would be 0.78.

The value for a full scale program is likely to be higher than this value. Pilot programs typically have a lower benefit-cost ratio than a full scale program because of the following factors:

- Extra costs for ramp up and overhead
- Relatively small program participation
- Complications in estimating program net energy impacts. Specifically, a high likelihood of free ridership for some measures, including CFLs; and uncertain effects of program spillover impacts, due to bias caused by complicated influences and the time delay between the evaluation and the implementation of the pilot program.

NorthWestern Energy will need to consider the potential for additional efficiencies and economies of scale realized to determine whether a benefit-cost ratio of 0.9 or greater is achievable with a full-scale program.

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Section 4. Conclusions and Recommendations

4.1 *Conclusions*

This section includes the evaluation team's conclusions and recommendations from the evaluation of the 2008 Green Blocks pilot program.

The 2008 pilot program achieved gross and net energy savings as indicated below. Gas savings were derived from direct install, customer education and insulation measures, while electric savings were derived from CFLs and customer education. Table 4-1 presents key impact evaluation results by measure, including ex-ante and ex-post gross and net savings.

Table 4-1 Gross and Net Energy Savings

	First-Year Savings			Lifetime Savings		
Fuel Source	Gross	Net	NTGR	Gross	Net	NTGR
Electric (kWh)	46,221	30,506	0.66	287,649	189,848	0.66
Gas (dKt)	2,173	1,434	0.66	30,522	20,145	0.66

Due to the time between the 2008 pilot program implementation and the telephone survey administered as part of this evaluation, the program's spillover was not possible to be counted with a requisite degree of certainty. As a result, the net to gross analysis only included the impact of free ridership on the program and did not include the benefits of program spillover.

The net-to-gross analysis found free ridership rates to be relatively high for this program, influenced especially by CFLs. The estimated free ridership rate for CFLs was 23 percent. While the high CFL free ridership is reflective of an evolving market for CFLs, due in part to residential midstream lighting programs (such as those found in large retail outlets), as well as other market forces, the evaluation team assigned a free ridership rate consistent with findings based on a recent market study[6] provided by NorthWestern Energy.

4.2 *Recommendations*

A Green Blocks pilot program operations manual would be a valuable resource for future program implementation. The purpose of the manual would be to establish procedures and best practices for direct install measures, to further clarify roles and responsibilities of all parties, and document program successes and lessons learned to date. The evaluation team

[6] Nexant and The Cadmus Group, Inc., "Energy End Use and Load Profile Study," December 16, 2009.

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recommends that the manual include audit report forms that enable the auditor to more clearly indicate the value of the removed or replaced equipment for CFLs, faucet aerators and showerheads. Currently there is little documentation of the efficiency characteristics of the removed equipment. The evaluation team recommends adjusting the annual energy savings for CFL replacement from 57 kWh to 47 kWh. This recommendation is based on review of several reputable sources that quantify annual savings from CFLs. These sources include the Northwest Regional Technical Forum's residential measures database[7], and TRMs from New York[8] and Connecticut[9].

Additionally, we recommend that the program implementer note the wattage of replaced bulbs to provide additional documentation to substantiate the proposed kWh reductions associated with CFL direct install replacements.

Table 4-2 Average Delta Watts Reduction for CFL Replacement Lamps

Measure	Base Incandescent (watts/lamp)	CFL (watts/lamp)	Delta Watts Reduction (watts/lamp)
9W CFL replacing 40W incandescent	40	9	31
13W CFL replacing 40W incandescent	40	13	27
14W CFL replacing 60W incandescent	60	14	46
15W CFL replacing 60W incandescent	60	15	45
19W CFL replacing 75W incandescent	75	19	56
20W CFL replacing 75W incandescent	75	20	55

The evaluation team recommends that the participant audit files be updated to include data reflecting the specific energy survey recommendations provided to each participant. Ideally, the tracking system data would include the recommended measure description, and estimated costs and energy savings expressed in kWh and dKt.

The energy impact associated with insulation is highly sensitive to the levels of pre-existing insulation. While most participant files included notations of existing insulation levels, the

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[7]Regional Technical Forum website, accessed December 2010, http://www.nwcouncil.org/energy/rtf/measures/Default.asp#res

[8] *New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs, Single Family Residential Measures, (2009).*

[9] *CL&P and UI Program Savings Documentation for 2008 Program Year*, Connecticut Light and Power and The United Illuminating Company, (2007)

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notations were somewhat inconsistent. Careful documenting of pre-existing insulation levels for program tracking would be valuable to future impact evaluation efforts.

NorthWestern will need to consider the possibilities for additional efficiencies and economies of scale to determine whether a benefit-cost ratio of 0.9 or greater is achievable with a full-scale program.

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Appendix A: Measure Default Energy Savings Review

In this section, a summary of evaluation methodology and energy savings is provided for each measure including in the 2008 pilot program. The tables present the first-year savings for the entire pilot program, on a per-measure basis.

CFLs

The following table presents the program quantities and annual energy savings for CFL installation.

Table A-1

CFL				
Program Annual Savings Summary (n=81 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	490	496	101%	6
Savings (kWh/year)	27,930	28,272	101%	349

The realization rate for the CFL measure count is 101%. The evaluation team found that there were 496 CFL's of varying wattages installed at 81 sites. This figure corresponded closely to the KEMA count, which reported 497. The difference of 1 CFL was due to participant site 215061 not having any field information. In place of the field form in the database was site 215062 with incorrect file labeling.

For the 2008 Green Blocks pilot program, nearly 70% of the CFL installs were 14W bulbs. Due to the fact that wattages are not specified for the bulbs being replaced, the annual energy savings must be estimated.

The additional measure counts lead to a gross realization rate of 101% for annual energy savings. The average savings per residence was calculated by dividing the ex-post gross savings by the number of residences that had CFLs installed, which was 81.

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Water Heater Tank Wrap

The following table presents the program quantities and annual energy savings for water heater tank wrap installation.

TableA-2

Water Heater Tank Wrap				
Program Annual Savings Summary (n=41 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	44	42	95%	1
Savings (dKt/year)	106	101	95%	2

The measure realization rate for the water heater tank wrap was 95% when compared to the program reported numbers. The evaluation team found that 42 wraps were installed, which agrees with the values given by KEMA. The utility reported a total of 44 wraps and the difference could be from an incorrect summarization of the total installed measures.

The ex-ante savings reported for water heater wraps fell within the range specified by several published TRMs, and therefore no adjustment was recommended for energy savings per wrap. The quantity adjustment leads to a gross realization rate of 95%.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that received water heater wraps, which was 41.

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Pipe Wrap

The following table presents the program quantities and annual energy savings for pipe wrap installation.

Table A-3

Pipe Wrap				
Program Annual Savings Summary (n=42 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (feet)	252	252	100%	6
Savings (dKt/year)	171	171	100%	4

A measure realization rate of 100% was reached for the pipe wrap measure. The evaluation team found that 252 linear feet of pipe wrapping had been installed which agreed with both the values given by the program and reporting from KEMA.

The ex-ante savings reported for pipe wraps fell within the range specified by several published TRMs, and therefore no adjustment was recommended for energy savings per foot of pipe wrap.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that had pipe wrap installed, which was 42.

Low Flow Showerhead

The following table presents the program quantities and annual energy savings for low flow showerhead installation.

Table A-4

Low Flow Showerhead				
Program Annual Savings Summary (n=49 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	68	68	100%	1
Savings (dKt/year)	84	84	100%	2

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A measure realization rate of 100% was reached for the low flow showerhead measure. The evaluation team found that 68 shower heads were installed. This value directly corresponds with both the values given by the program and reporting from KEMA.

The Regional Technical Forum[10] reports annual energy savings ranging from 0.71 to 1.28 Dkt/year. The CT TRM[11] gives a deemed savings of 1.36 Dkt/year for an average of 5 baseline showerhead flow rates with an accompanying upgrade to a 2.2 gallon per minute flow rate. Due to the fact that baseline showerhead flow rates were not reported for the Green Blocks program, the evaluation team recommends retaining the program reported savings of 1.24 Dkt/year as it falls within range of other reported values.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that had low flow showerheads installed, which was 49.

Kitchen Sink Aerator

The following table presents the program quantities and annual energy savings for kitchen sink aerator installation.

Table A-5

Kitchen Sink Aerator				
Program Annual Savings Summary (n=50 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	51	51	100%	1
Savings (dKt/year)	47	47	100%	1

A measure realization rate of 100% was reached for the kitchen sink aerator measure. The installed quantity matched both the values given by the program and reporting from KEMA.

The ex-ante savings reported for kitchen sink aerators fell within the range specified by several published TRMs, and therefore no adjustment was recommended for annual energy savings per aerator.

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[10] Regional Technical Forum website, accessed December 2010, http://www.nwcouncil.org/energy/rtf/measures/Default.asp#res

[11] *CL&P and UI Program Savings Documentation for 2008 Program Year*, Connecticut Light and Power and The United Illuminating Company, (2007)

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The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that had kitchen sink aerators installed, which was 50.

Bathroom Sink Aerator

The following table presents the program quantities and annual energy savings for bathroom sink aerator installation.

Table A-6

Bathroom Sink Aerator				
Program Annual Savings Summary (n=67 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	108	109	101%	2
Savings (dKt/year)	100	101	101%	2

A measure realization rate of 101% was reached for the bathroom sink aerator measure. The evaluation team found that 109 aerators were installed while KEMA reported 107. The difference of 2 comes from participant site 211532 because the auditor recorded 3 aerators on the cover page but only recorded 1 where the list of installed measures is located. The evaluation team assumed the initial reference is the accurate value. The program utility recorded 108 aerators which closely correlates the evaluation team's total.

The ex-ante savings reported for bathroom sink aerators fell within the range specified by several published TRMs, and therefore no adjustment was recommended for annual energy savings per aerator.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that had bathroom sink aerators installed, which was 67.

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Programmable Thermostat

The following table presents the program quantities and annual energy savings for programmable thermostat installation.

Table A-7

Programmable Thermostat				
Program Annual Savings Summary (n=42 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	43	43	100%	1
Savings (dKt/year)	193	193	100%	5

The installation of programmable thermostats had a realization rate of 100%. The evaluation team found that 43 thermostats were installed which directly corresponds to both the values given by the program and reporting from KEMA.

The ex-ante savings reported for programmable thermostats fell within the range specified by several published TRMs, and therefore no adjustment was recommended for annual energy savings per thermostat.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that had programmable thermostats installed, which was 42.

Window Plastic

The following table presents the program quantities and annual energy savings for window plastic installation.

Table A-8

Window Plastic				
Program Annual Savings Summary (n=31 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	82	59	72%	2
Savings (dKt/year)	185	133	72%	4

The realization rate for the window plastic is 72% when comparing it to the program reporting numbers. The evaluation team found that 59 windows kits were installed which differs from

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the utility's numbers, which reported a total of 82 windows that were fitted with plastic. The variation was perhaps due to the inconsistency of the field forms. The quantities appeared in different locations throughout the forms and sometimes didn't correspond if recorded in multiple areas. The evaluation team recommends that the use of a single location on the field form to record the measures installed could prevent the variations of quantities that have been documented.

The ex-ante savings reported for window plastic fell within the range specified by several published TRMs, and therefore no adjustment was recommended for annual energy savings per window covered. The differences in quantity counts lead to a gross realization rate of 72%.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that had window plastic installed, which was 31.

Weatherization Kits

The utility program savings spreadsheet reported savings for weatherization kits. This spreadsheet specified that kits were to include: 1 can of insulating foam, 10 light switch gaskets, 10 electrical outlet gaskets, 2 door weather strips, and 2 door sweeps. However, the utility reported measure counts could not be broken down into an equal number of weatherization kits with these specified quantities. For the purpose of measure count verification during the file review process, the individual components of these kits were tallied and compared to the reported counts. This is because field forms listed these measures on an individual basis, not a per-kit basis.

For energy savings purposes, the utility reported a savings of 2.35 Dkt/year for each kit. The total energy savings were reported as containing 16 kits, which did not match with the individual measure counts. To calculate energy savings, the evaluation team assumed that each of the four component categories of the weatherization kit contributed equally to the savings. Therefore, the energy savings from 1 can of insulating foam were assumed equal to energy savings from 2 door weather strips, which are also equal to energy savings from 20 light/electrical gaskets, which are also equal to energy savings from 2 door sweeps. Each component of the kit contributes 0.59 Dkt/year of energy savings (2.35 Dkt divided by four components). By categorizing the individual measure counts into the quantities contained in each kit, and averaging those totals, the evaluator recommends adjusting the number of installed weatherization kits from 16 to 19. By applying this same method to the average number of each measure installed per participant residence, it was determined that an average of 0.79 weatherization kits were installed per household. The following table summarizes the measure count and annual energy savings for the weatherization kits as a whole. Breakdowns for each component follow.

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Table A-9

Weatherization Kits				
Program Annual Savings Summary	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	16	19	119%	1
Savings (dKt/year)	38*	45*	118%	2

*savings are for entire weatherization kit

Insulation Foam Can

The following table presents individual results for the insulation foam can measure.

Table A-10

Insulation Foam Can				
Program Annual Savings Summary (n=13 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	16	15	94%	1
Savings (dKt/year)	N/A	9*	N/A	1

*savings for each can are assumed to be ¼ of entire weatherization kit

The realization rate for the quantity of insulating foam cans used was 94% when comparing it to the program reporting numbers. The evaluation team found that 15 cans were installed and the utility reported 16. The difference could be due to the inconsistency of recording the measures in the same location on the field forms.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that were given insulation foam cans, which was 13.

Lighting Switch and Electrical Outlet Gasket

The following table presents individual results for the light switch and electrical outlet gasket measure.

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Table A-11

Light Switch and Electrical Outlet Gasket				
Program Annual Savings Summary (n=32 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	364	356	98%	11
Savings (dKt/year)	N/A	11*	N/A	0

*savings calculated for groups of 20 gaskets, which represents ¼ weatherization kit

The realization rate for the quantity of electrical gaskets used is 98% when comparing it to the program reporting numbers. The evaluation team found that 356 gaskets were either installed or left for the client to use at a later date. The utility reported 364 which could be based on assumptions. Most of the field forms included the exact number of gaskets but a few only marked 1 as a quantity. In this case, the evaluation team assumed that this meant 1 gasket and not 1 package of 10. This situation was seen more than once which could sway the exact totals from the most accurate counts.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that were given light switch and electrical outlet gaskets, which was 32.

Door Weather Strip

The following table presents individual results for the door weather strip measure.

Table A-12

Door Weather Strip				
Program Annual Savings Summary (n=30 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	49	45	92%	2
Savings (dKt/year)	N/A	13*	N/A	0

*savings calculated for groups of 2 weather strips, which represents ¼ weatherization kit

The realization rate for the quantity of weather stripping used is 92% when comparing it to the program reporting numbers. The evaluation team found that 45 strips were installed and the

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utility reported 49. The difference could be due to the irregularity of recording the measures in the consistent location on the field forms.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that were given door weather strips, which was 30.

Door Sweep

The following table presents individual results for the door sweep measure.

Table A-13

Door Sweep				
Program Annual Savings Summary (n=29 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed	35	41	117%	1
Savings (dKt/year)	N/A	12*	N/A	0

*savings calculated for groups of 2 door sweeps, which represents ¼ weatherization kit

The realization rate for the quantity of door sweeps used is 117% when comparing it to the program reporting numbers. The evaluation team found that 41 sweeps were installed and the utility reported 35. The difference could be due to the irregularity of recording the measures in the consistent location on the field forms.

The average savings per residence was calculated by dividing the ex-post gross savings by the total number of residences that were given door sweeps, which was 29.

Insulation Measures

The insulation measure counts were verified by summing up the square footage of upgraded insulation for each participant site. The initial and final R-values were placed into the categories specified by the program.

The ex-ante energy savings reported for all types of insulation upgrades fell within the range specified by several published TRMs, and therefore no adjustment was recommended for energy savings. Gross realization rates are therefore based on changes in square footage only.

Values for average insulation savings per residence were calculated by dividing the ex-post gross savings by the total number of residences that received the respective measure.

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Attic Insulation

A total measure realization rate of 86% was determined for square footage of attic insulation. The evaluation team used the square feet that were provided by the insulation installer invoices to obtain 12,728 total sq ft. These numbers corresponded to the numbers reported by KEMA, which were 12,367 but were significantly lower than the program reported values.

The following three tables present the findings from the file review for specified attic insulation R-value upgrades. R-values were sometimes rounded to the most appropriate category.

Table A-14

Attic Insulation (R0 upgraded to R49)				
Program Annual Savings Summary (n=2 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (ft^2)	1,963	814	41%	407
Savings (dKt/year)	98	41	42%	20

Table A-15

Attic Insulation (R11 upgraded to R49)*				
Program Annual Savings Summary (n=11 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (ft^2)	5,067	5,258	104%	478
Savings (dKt/year)	56	58	104%	5

*Initial insulation R-values ranged from R5 to R15 based on auditor's assessment.

Table A-16

Attic Insulation (R19 upgraded to R49)*				
Program Annual Savings Summary (n=9 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (ft^2)	7,780	6,656	86%	740
Savings (dKt/year)	47	40	85%	4

*Initial insulation R-values ranged from R17 to R28 based on auditor's assessment.

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Exterior Wall Insulation

A realization rate of 75% was determined for the installation square footage of exterior wall insulation. The evaluation team verified that 5,259 sq ft. was installed based on the invoices provided for each specific site. The reported numbers from the utility of 7,026 sq ft. corresponded more with the numbers from KEMA which reported 7,227 sq ft. Upon reviewing the spreadsheet from KEMA (GB insulation SS.xlsx) further, the evaluation team found several errors and believes that the lower measure count is correct. The initial process for this corroboration was to verify the spreadsheet from KEMA which was confirmed to be accurate on a per-residence basis. However, the summed totals were incorrect.

Table A-17

Exterior Wall Insulation (R0 upgraded to R13)				
Program Annual Savings Summary (n=11 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (ft^2)	7,026	5,259	75%	478
Savings (dKt/year)	126	95	75%	9

Basement Insulation

Verification of the total square footage of installed basement insulation gave a realization rate of 100%. The evaluation team found that 14,779 sq ft. was installed which varied slightly from the reported numbers of 14,829 sq ft.

Table A-18

Basement Wall Insulation (R0 upgraded to R13)				
Program Annual Savings Summary (n=30 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (ft^2)	14,829	14,779	100%	493
Savings (dKt/year)	178	177	100%	6

Crawl Space Insulation

Verification of the total square footage of installed crawl space insulation gave a 102% realization rate. The evaluation team verified 5,940 sq ft. of crawl space insulation based on the invoices packaged in the sites information. This number did not correspond with the counts from both the reported program which recorded 5,834 sq ft. and KEMA which recorded 5,391 sq

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ft. Upon the assumption that the installer gave more accurate totals, the evaluation team used the installers numbers and utilized the auditors totals to verify the installation occurred in the correct space.

Table A-19

Crawl Space Insulation (R0 upgraded to R19)				
Program Annual Savings Summary (n=23 sites)	Ex-Ante Gross	Ex-Post Gross	Gross Realization Rate	Avg/ Residence
Quantity Installed (ft^2)	5,834	5,940	102%	245
Savings (dKt/year)	146	149	102%	6

Comparison of Average Standard Audit Savings to Program Audit Savings

Average Direct and Indirect Energy Savings Reports

In its report, NorthWestern Energy presented an alternate results section for standard audit savings, based on combination of results from a 2008 Summit Blue study[12] and a 2007 Nexant study[13]. The two studies quantified average direct and indirect savings for standard residential audits in NorthWestern Energy's territory. Table 3-7 illustrates the values used in the NorthWestern Energy report.

Table A-20 Average Direct and Indirect Energy Savings

Standard Audit Savings n=93	First-Year Savings		Useful Life (years)		Lifetime Savings (kWh)	
	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post	Ex-Ante	Ex-Post
Electric (kWh)	22,320	22,320	5	5	111,600	111,600
Gas (dKt)	1,311	1,311	5	5	6,557	6,557

Summit Blue (2007) and Nexant (2008); Navigant analysis of Green Blocks program data.

[12] *NorthWestern Energy Indirect Savings Analysis for the Residential Audit and Commercial Appraisal Programs,* Summit Blue report (2008)

[13] *Evaluation of NorthWestern Energy's DSM Energy Efficiency Programs,* Nexant report, (2007).

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Comparison of Calculated Audit Savings with Average Report Savings

The evaluation team recommends using the "calculated audit savings" instead of the "average audit savings" to estimate program savings attributed to direct install measures and indirect savings during a residential audit. While the comprehensive nature of the Summit Blue and Nexant studies was helpful for estimating generalized gas and electric savings from residential audits, the evaluation team decided that using the calculated savings from actual participating homes in the pilot program is a preferred metric to apply for purposes of this impact evaluation. Table 3-8 compares the impact results of the two methods.

Table A-21 Comparison of Calculated and Standard Audit Estimates

Standard Audit Savings n=93	First-Year Savings		Useful Life (years)		Lifetime Savings (kWh)	
	Average	Calculated	Ex-Ante	Ex-Post	Average	Calculated
Electric (kWh)	22,320	17,949	5	5	111,600	89,745
Gas (dKt)	1,311	1,288	5	5	6,557	8,833

Summit Blue (2008) and Nexant (2007); Navigant analysis of Green Blocks program data.

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Appendix B: Data Collection Instruments

Stakeholder Interview Guide

Introduction

This Green Blocks interview guide includes questions for the following program stakeholders:

- NorthWestern Energy (NWE) Staff
- City/County of Missoula staff
- Mountain Water
- KEMA (project implementer)
- Mayor's Advisory Committee on Climate Change

Proposed Stakeholder Interview Schedule

Stakeholder interviews are scheduled between November 22 and November 30, 2010. We anticipate that interviews will last between 30 and 45 minutes.

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Interview Objectives

Table B-1

Topic	Questions	NWE staff	City/County	Mountain Water	KEMA	Advisory Committee
Review and Refine Effectiveness Criteria	Do goals in contract of Green Blocks differ substantially from similar programs in other utility territories?	XX	XX	XX	XX	
Compare Administrative Processes	Identify and document administrative processes. Review administrative actions by market actors and solicit ideas to improve efficiency and communication.	XX	XX	XX	XX	
Compare Marketing and Outreach Efforts	Identify and document efforts. Compare market uptake in neighborhoods.	XX	XX	XX	X	XX
Program delivery experience	Describe the Green Blocks program from the stakeholder perspective. Note any program delivery issues.		X	X	X	XX
External Market Variations	Discuss external market drivers: electricity rates, market demographics, the economy. How do external variations affect program uptake, if at all?			X	X	XX

Green Blocks Interview Guide

Introduction

Hello, my name is Josh Arnold with Navigant Consulting. I am calling on behalf of NorthWestern Energy regarding the 2008 Green Blocks Pilot Program. I am interviewing people who work the 2008 Green Blocks Pilot Program to get their comments about their experiences and observations in working with the program. I would like to ask you some prepared questions about your experience with the 2008 Green Blocks Pilot Program. I expect our conversation to last between 30 min to 45 min. Your responses in this interview will remain confidential. We will be using your comments, as well as those of other interviewees to help inform our report, but we will not attribute your comments directly to you unless we confirm

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with you at a later date that it is OK to do so. Your name will be listed as an interviewee in an appendix to the report that we will submit to NorthWestern Energy. Is this acceptable to you?

Confirm contact information

Date: _ Interviewer: _____

Name:

Address:

Phone:

Email:

Effectiveness Criteria

1. In your opinion, did all of the stakeholders have a clear understanding of their roles and responsibilities, including communication and reporting, under the current contract? Please describe.

2. How could communication channels have been improved?

3. (**For KEMA only**). Have you conducted field inspections for the Green Blocks program? What percent of your time is devoted to scheduling and conducting inspections? How efficient was the scheduling and inspections process? How could it have been improved? What were some of the barriers to work with participating stakeholders (e.g. Allied Waste, Mountain Water) to schedule audits with residents?

4. Do you have any other comments on your experience with the Green Blocks program?

Administrative Process

5. Please comment on the effectiveness of the following Green Blocks program administrative processes:

In your view, how well did the 2008 Green Blocks Pilot Program do the following? Which activities did the 2008 Green Blocks Pilot Program perform best?

- Promote the program?
- Work with NWE to inform their stakeholders about the Green Blocks programs?
- Recruit participants?

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- Include program energy efficiency measures?
- Provide for customer/project tracking
- Provide reporting on program goals and achievements to stakeholders?
- Work with participating stakeholders (e.g. Allied Waste, Mountain Water) to minimize the amount of administrative burden on the Green Blocks program and time for residents?

6. Do you see any specific opportunities to streamline any of the administrative processes discussed previously?

7. Do you have any other comments on the program's administrative processes?

Marketing & Outreach Efforts

8. Please comment on the effectiveness of the following Green Blocks program marketing and outreach efforts to recruit utility participation. What marketing and outreach piece is most effective?

- Block Captains
- Website
- Promotional printed materials, such as program brochure
- Customer applications and other printed forms
- In-person presentations, such as trade shows or events
- One-on-one phone calls or office visits

9. How well did the Green Blocks program develop, improve and update marketing and identity materials?

10. Please comment on how well the Green Blocks block captains recruited participants?

11. Do you have any ideas on ways that Green Blocks could increase participation? Do you have any other comments on the program's participation?

Program Delivery Experience

12. Does the Green Blocks program provide an appropriate program package to motivate the target markets in question?

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13. Is the Green Blocks program responsive to its customers? Have you heard about any customers not being satisfied with any of the following:

- Initial recruitment and program introduction to utility representative
- Implementation of the Green Blocks program
- Response times with answers to questions
- End-use customer satisfaction
- End-use trade allies satisfaction
- Any others not mentioned previously

External/Internal Market Variations

14. Have any stakeholders expressed concerns about the success of the Green Blocks program due to the current economic environment? If so, please describe:

15. What other factors outside of the Green Blocks program may be driving interest in participation?

Wrap Up (only ask if topics haven't been explored already)

16. Overall, how satisfied are you with the Green Blocks program?

17. Do you have any other recommendations to improve the Green Blocks program?

18. Do you have anything else that you would like to share about the Green Blocks program?

19. Do you have any recommendations for opportunities to potentially increase marketing and outreach for the Green Blocks program?

Thank you for participating!

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List of Interviews

Navigant wishes to thank the following individuals for participating in our stakeholder interviews:

- David Bausch, NorthWestern Energy
- Danie Williams, NorthWestern Energy
- Ginny Merriam, City of Missoula
- Chase Jones, County of Missoula
- Greg Gullickson, Mountain Water
- Jim O'Donnell, KEMA
- Justin Hyatt, KEMA
- Cherie Peacock, Mayor's Advisory Committee on Climate Change
- Gerald Mueller, Mayor's Advisory Committee on Climate Change

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Participant Survey

The following section includes the telephone survey instrument written by Navigant and conducted by The Dieringer Research Group, Inc. for the 2008 Green Blocks pilot program.

Background: This survey is intended for residential retrofit customers that participated in the 2008 GreenBlocks Pilot program.

Sample: The sample size includes a total of 93 residential units.

Goals: The goals of the survey are to understand the program processes and determine measure persistence and impacts and capture any spillover effect from the 2008 GreenBlocks pilot program.

Qualifiers: Must have participated in the 2008 GreenBlocks Pilot program and passed.

Quotas: Interviews will be split between customers who have and have not participated in the utility's GreenBlocks Pilot program, as shown below

Quotas	
Segment	**Number of Interviews**
Program participants	39
Non-participants	68
Total Interviews	**107**

Survey Target Length: 10-15 Minutes

Incidence: Taking into consideration the current respondent qualifiers and list source, The DRG is estimating incidence to be 90%.

Incidence is derived by taking the total number of qualified respondents and dividing by the total number who are qualified plus the total number who are not qualified for the survey. All incidence numbers are derived from respondents spoken to who are past the qualification point. Dispositions such as disconnected phones, initial refusals, etc. are never considered in incidence calculations.

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Introduction

[READ IF STATUS = PASSED]

Hello, may I speak with **[NAME FROM SAMPLE].**
Hello, my name is _____. I'm calling on behalf of The City of Missoula's Mayor's Office and the 2008 GreenBlocks Pilot program. I'm calling from The Dieringer Research Group, an independent research firm. Our records indicate that your household was eligible to participate in the 2008 GreenBlocks Pilot residential retrofit program. The Mayor's Office has asked us to speak with you so that they can make improvements to potential future GreenBlocks Pilot programs. I'm not selling anything; I'd just like to ask you some questions to better understand your opinions and knowledge of the program. We would be grateful for your cooperation in our research.

READ IF ASKED:

- Re-emphasize this is a survey, not a sales call.
- Responses are completely confidential.
- Depending on your responses, the survey will take about 10-15 minutes to complete.
- We are a professional research organization that surveys the attitudes and opinions of people on various issues

This call may be monitored for quality and training purposes.

Screener Questions

SA. Were you living in the city of Missoula in 2008? (Added 12/02/2010 for Non participant sample)

1 Yes **[CONTINUE]**
2 No **[THANK AND TERM]**

S1. Do you recall participating in the 2008 GreenBlocks Pilot program?

1 Yes **[CONTINUE]**
2 No **[SKIP TO Q13]**
3 Don't remember **[SKIP TO Q13]**
4 Never heard of program**[SKIP TO Q13]**

S2. Are you the person at your household who is most knowledgeable about your home's participation in the 2008 GreenBlocks Pilot program?

[IF NOT] Can I please speak to the person who is most knowledgeable about your home's participation in this program? **[REPEAT INTRO]**

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Project Initiation and Program Sign Up –**PARTICIPANTS ONLY**

[IF S1=1, PROCEED TO Q1; OTHERWISE SKIP TO Q13]

Q1. How did your household first hear about the 2008 GreenBlocks Pilot program? **(DO NOT READ LIST, SELECT ONE ANSWER).**

1 2008 GreenBlocks Pilot program newsletter
2 2008 GreenBlocks Pilot program seminar
3 2008 GreenBlocks Pilot program website
4 Colleague or neighbor (not a block Captain)
5 Contractor
6 Equipment vendor
7 Flyer/brochure
8 Mayor's Office Representative
9 Neighborhood Block Captain
10 Newspaper (specify)_____
11 NorthWestern Energy utility bill insert
97 Other (specify)_____
98 DO NOT READ: Don't know

Q2. What measures, if any, do you recall installing through participation in the 2008 GreenBlocks Pilot program? **(DO NOT READ LIST, CHECK ALL THAT APPLY).**

1 Home energy audit
2 Insulation
3 Air sealing
4 Waste audit
5 Low flow showerheads
6 Low flow faucet aerators
7 Compact Fluorescent Lamps (CFLs)
97 Other (specify)_____
98 DO NOT READ: Don't know **[TERMINATE AND THANK, D31]**

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Q3. For this project did you interact with... **(READ LIST, CHECK ALL THAT APPLY).**

3 An architect
4 A contractor
5 A distributor
6 An engineer
7 A home performance energy specialist
8 A manufacturer
97 Other (specify)_____
98 Don't know
99 None of these

Q4. Who was most involved in choosing the energy efficiency measures that were installed in 2008? **(READ LIST, CHECK ONE RESPONSE).**

[SHOW CODES 3-97 ONLY IF MENTIONED IN Q3]

1 Yourself (Respondent)
2 Somebody else within your home/company
3 An architect
4 A contractor
5 A distributor
6 An engineer
7 A home performance energy specialist
8 A manufacturer
97 Other (specify)_____
98 Don't know
99 None of these

[IF Q4=1 OR 98, SKIP TO Q6]

Q5. How influential was this person in your household's decision to install these energy efficiency measures? **(READ LIST, SELECT ONE RESPONSE).**

Would you say...

4 Very influential
3 Somewhat influential
2 Slightly influential
1 Not at all influential
8 Don't know

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Q6. Why did your household decide to participate in the 2008 GreenBlocks Pilot program?

(PROBE WITH: Were there any other motivating factors? Were there any other reasons?)

(READ LIST, ACCEPT UP TO 4 RESPONSES).

1 To save energy
2 Little or no cost upgrades
3 To help the environment
4 Other (specify) _____
5 Other (specify) _____
6 Other (specify) _____
7 Other (specify) _____
98 Don't know

Net to Gross Factors – **PARTICIPANTS ONLY**

[IF Q2=2 OR 3 OR 5 OR 6 OR 7, REPEAT Q7-Q12 FOR EACH MEASURE MENTIONED IN Q2.]

Q7. Why did your household decide to install the energy efficient **[INSERT Q2 MEASURE]** instead of standard efficiency **[INSERT Q2 MEASURE]**? **(DO NOT READ LIST, SELECT ONE RESPONSE).**

1 Little or no cost upgrades
2 Save money on utility bill
3 Save energy
4 Environmental reasons
5 Higher quality product
6 Contractor suggested it
7 Improve comfort of home
97 Other (specify)_____
98 Don't know

Q8. Is the new equipment still in use? **(DO NOT READ LIST).**

1 Yes
2 No
3 Don't know

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[If Q8=2, PROCEED TO Q9; OTHERWISE SKIP TO Q10]

Q9. Why is the new equipment not in use? SELECT ALL APPLY

1 Not functioning properly/broken
2 Removed and installed somewhere else
97 Other (specify)_____
98 Don't know

Q10. On a scale of 1 to 10, where 10 is 'Very Satisfied' and 1 is 'Very Dissatisfied,' how would you rate your satisfaction with the new **[INSERT Q2 MEASURE]** equipment installed through the 2008 GreenBlocks Pilot program? You may use any number from 1 to 10.

Very Dissatisfied									**Very Satisfied**	**Don't know**
1	2	3	4	5	6	7	8	9	10	18

Timing

Q11. Without the 2008 GreenBlocks Pilot program would you have installed the new **[INSERT Q2 MEASURE]** equipment: **(READ LIST, SELECT ONE RESPONSE).**

1 At the same time that you did
2 Within a year of the time you did
3 More than a year later
4 Never
8 DO NOT READ: Don't know

Efficiency

[IF Q11=4 OR 98, SKIP TO Q16]

Q12. Without the 2008 GreenBlocks Pilot program, how likely is it that the **[INSERT Q2 MEASURE]** equipment you would have installed would have been as efficient as the equipment you installed through the program? Would you say it would have been: **(READ LIST, SELECT ONE RESPONSE).**

4 Definitely as efficient
3 Probably as efficient
2 Probably not as efficient
1 Definitely not as efficient
8 DO NOT READ: Don't know

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Non-Participant Questions

[IF QS1=2 OR 9, PROCEED TO Q13; OTHERWISE SKIP TO Q16]
[IF QS1= 4, SKIP TO 22A]

Q13. Do you recall learning about the 2008 pilot Greenblocks program?
[READ IF NECESSARY: this is different than the GreenBlocks programs that are currently being implemented]

1 Yes
2 No **[SKIP TO 22a]**
3 DO NOT READ: Don't know **[SKIP TO 22a]**

Q13a. How did your household first hear about the 2008 GreenBlocks Pilot program? **(DO NOT READ LIST, SELECT ONE ANSWER).**

1 2008 GreenBlocks Pilot program newsletter
2 2008 GreenBlocks Pilot program seminar
3 2008 GreenBlocks Pilot program website
4 Colleague or neighbor (not a block Captain)
5 Contractor
6 Equipment vendor
7 Flyer/brochure
8 Mayor's Office Representative
9 Neighborhood Block Captain
10 Newspaper (specify)_____
11 NorthWestern Energy utility bill insert
98 Other (specify)_____
98 DO NOT READ: Don't know

Q14. When did you hear about the 2008 GreenBlocks Pilot program? **[READ LIST, SELECT ONE RESPONSE]**

1 During application process
2 After it was too late to apply
3 DO NOT READ: Not Sure

NAVIGANT

[ASK IF Q14=1; OTHERWISE SKIP TO Q22a]
Q15. From your perspective, what were the greatest barriers to your household participating in the 2008 GreenBlocks pilot program? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

1 Lack of information
2 Financial reasons
3 Paperwork too burdensome
4 Time constraints
97 Other (specify)_____
98 Don't know
99 None

Program Processes and Satisfaction **PATRICIPANTS ONLY**

[ASK ONLY IF S1=1; OTHERWISE SKIP TO Q22a]

Next, I would like to ask you a few questions about various processes of the 2008 GreenBlocks Pilot program.

Q16. Using a scale from 1 to 10, where a 10 means 'Very Satisfied' and a 1 means 'Very Dissatisfied.' On a scale of 1 to 10, how would you rate...
[IF Q2=2 OR 3 OR 5 OR 6 OR 7, REPEAT Q16c FOR EACH MEASURE MENTIONED IN Q2.]

[RANDOMIZE BLOCK]	Very Dissatisfied									Very Satisfied	Don't know	Refused
a. The value of the home energy audit	1	2	3	4	5	6	7	8	9	10	18	19
b. The value of the home energy audit report	1	2	3	4	5	6	7	8	9	10	18	19
c. The response of the contractor in installing the **[Q2 MEASURE]**	1	2	3	4	5	6	7	8	9	10	18	19
d. The response of the contractor in installing the **[Q2 MEASURE]**	1	2	3	4	5	6	7	8	9	10	18	19
e. The response of the contractor in installing the **[Q2 MEASURE]**	1	2	3	4	5	6	7	8	9	10	18	19
f. The response of the contractor in installing the **[Q2 MEASURE]**	1	2	3	4	5	6	7	8	9	10	18	19
g. The response of the contractor in installing the **[Q2 MEASURE]**	1	2	3	4	5	6	7	8	9	10	18	19

NAVIGANT

h. The quality of the work performed by the contractor	1	2	3	4	5	6	7	8	9	10	18	19
i. **[HOLD AT BOTTOM]** Your overall satisfaction with 2008 GreenBlocks Pilot program	1	2	3	4	5	6	7	8	9	10	18	19

[IF Q16a-i= 1-4, ASK Q17 FOR EACH ATTRIBUTE RANKED 1-4; OTHERWISE SKIP TO Q17]

Q17. Why did you give **[INSERT ATTRIBUTE]** a **[RANK]**? **(ASK AS OPEN END).**

_____
_____
_____

[ASK Q18 FOR THOSE RANKED 5-10 IN Q16]
Q18. Why did you give **[Q16e attribute]** a **[RANK]**? **(ASK AS OPEN END).**

_____
_____
_____

Q19. What recommendations do you have for improving the 2008 GreenBlocks Pilot program? **(ASK AS OPEN END. PROBE AND CLARIFY.)**

_____
_____
_____

Benefits and Barriers **PARTICIPANTS ONLY**

Q20. What was the greatest benefit of participating in the 2008 GreenBlocks Pilot program? **(DO NOT READ LIST, SELECT ONE RESPONSE).**

1 Increased occupant comfort
2 Learning about energy efficiency
3 Saving energy
4 Saving money on utility bills
5 Saving water
97 Other (specify)
98 Don't know

NAVIGANT

Q21. What were the greatest drawbacks of participating in the 2008 GreenBlocks Pilot program? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

1 Paperwork
2 Takes too much time
97 Other (specify)_____
98 Don't know
99 None

Future Projects & Opportunities **BOTH PARTICIPANTS AND NON PARTICIPANTS**

Q22a. Are you planning any additional energy efficiency improvements AT YOUR home in the next year?

1 Yes
2 No
3 Don't know

[IF 22a=1, ASK Q22b; OTHERWISE PROCEED TO Q22c]

Q22b. What energy efficiency improvements are you planning? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

(INTERVIEWER NOTE: We are looking for general or broad types of actions, not specific project descriptions)

1 Replaced lighting
2 Replaced furnace or heater
3 Replaced water heater
4 Replaced air conditioner
5 Replaced windows
6 Modified building envelope – **(Prompt if necessary, for example – installed insulation in attic)**
97 Other (specify)_____
98 Don't know

Q22b.1 Do you plan to apply for any incentives from NorthWestern Energy for your energy efficiency improvements? **(DO NOT READ LIST, SELECT ONE)**

1 Yes **(SKIP TO 22**
2 No
3 Not aware of any

NAVIGANT

Q22b.2 What are the greatest barriers for you to apply for incentives from NorthWestern Engergy? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

1 Lack of information
2 Financial reasons
3 Paperwork too burdensome
4 Time constraints
97 Other (specify)_____
98 Don't know
99 None

Q22c. Do you own other homes within NorthWestern Energy's service territory?
1 Yes
2 No **[SKIP TO Q22f]**
3 Don't know **[SKIP TO Q22f]**

[ASK Q22d. ONLY IF Q22c = 1]
Q22d. Are you planning any additional energy efficiency improvements AT ANOTHER EXISTING HOME in NorthWestern Energy territory in the next year?

1 Yes
2 No **(SKIP TO Q22f)**
3 Don't know

[ASK IF 22d=1]
Q22e. What energy efficiency improvements are you planning? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

(INTERVIEWER NOTE: We are looking for general or broad types of actions, not specific project descriptions)

1 Replaced lighting
2 Replaced furnace or heater
3 Replaced water heater
4 Replaced air conditioner
5 Replaced windows
6 Modified building envelope – **(Prompt if necessary, for example – installed insulation in attic)**
97 Other (specify)_____
98 Don't know

NAVIGANT

Q22f. What are the barriers for you to make these improvements? **(ASK AS OPEN END. PROBE AND CLARIFY.)**

_____
_____
_____

Spillover **BOTH PARTICIPANTS AND NON PARTICIPANTS**

Q23. Since **[IF NON-PARTICIPANT, INSERT 'learning about', IF PARTICIPANT, INSERT 'participating in']** the 2008 Green Blocks Pilot program, have you taken any other energy efficiency actions at your home for which you have NOT received incentives from NorthWestern Energy?

1 Yes
2 No
3 DO NOT READ: Don't know

[IF Q23= 2 OR 9, SKIP TO Q27]
Q24. What other types of energy efficient actions have you taken? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

(INTERVIEWER NOTE: We are looking for general or broad types of actions, not specific project descriptions)

1 Replaced lighting
2 Replaced furnace or heater
3 Replaced water heater
4 Replaced air conditioner
5 Replaced windows
6 Modified building envelope – **(Prompt if necessary, for example – installed insulation in attic)**
97 Other (specify)_____
98 Don't know

Q25. How influential was **[IF NON-PARTICIPANT, INSERT 'knowledge of', IF PARTICIPANT, INSERT 'your experience']** with the 2008 GreenBlocks Pilot program in your decision to take the additional energy efficiency action(s)? **(READ LIST).**

4 Very influential
3 Somewhat influential
2 Slightly influential
1 Not at all influential
8 DO NOT READ: Don't know

NAVIGANT

[IF Q22C=1, THEN ASK Q27; ELSE SKIP TO Q30]

Q27. Since **[IF NON-PARTICIPANT, INSERT 'learning about', IF PARTICIPANT, INSERT 'participating in']** the program, are you aware of any energy efficiency actions at YOUR OTHER HOME(S) that did NOT receive incentives from NorthWestern Energy?

1 Yes
2 No **[SKIP TO Q30]**
3 Don't know **[SKIP TO Q30]**

Q28. What other energy efficient actions have you taken at THESE OTHER HOME(S)? **(DO NOT READ LIST, SELECT ALL THAT APPLY).**

[INTERVIEWER NOTE: We are looking for general or broad types of actions, not specific project descriptions]

1 Replaced lighting
2 Replaced furnace or heater
3 Replaced water heater
4 Replaced air conditioner
5 Replaced windows
6 Modified building envelope – **(Prompt if necessary, for example – installed insulation in attic, weatherization, door sweeps, window treatments, air sealing)**
97 Other (specify)_____
98 Don't know

Q29. How influential was **[IF NON-PARTICIPANT, INSERT 'knowledge of', IF PARTICIPANT, INSERT 'your experience']** with the 2008 GreenBlocks Pilot program in your decision to take the additional energy efficiency action(s) at the other home(s)?

4 Very influential
3 Somewhat influential
2 Slightly influential
1 Not at all influential
8 DO NOT READ: Don't know

NAVIGANT

Feedback and Recommendations **BOTH PARTICIPANTS AND NON PARTICIPANTS**

Q30. What are the best ways to inform you about energy efficiency programs? **(READ LIST, SELECT ALL THAT APPLY).**

[ROTATE]
1 A representative
2 Website
3 Seminar
4 Utility bill
5 Newsletter
6 Contractor
7 Architect/engineer
8 Equipment vendor
9 Journal/magazine (specify)_____
10 Flyer/brochure
11 Direct mail
12 Newspaper (specify)_____
13 TV
14 Radio
15 Outdoor advertising (e.g. billboards, buses)
97 Other (specify)_____
98 DO NOT READ: Don't know

Q31. What are the barriers for you to participate in a similar program in the future? **(ASK AS OPEN END.)**

_____
_____
_____

Q32. Should a similar GreenBlocks pilot program be offered again in the future, what features would you like to see included in a future pilot program?

(DO NOT READ LIST, SELECT ALL THAT APPLY).

1 Higher incentives
2 More measures
3 Greater publicity
4 No recommendations
97 Other (specify)_____
98 Don't know
99 Refused

NAVIGANT

Demographics

I just have a few more general questions about your primary home.

D1. What is the home's approximate square footage? **(DO NOT READ LIST).**

1 Less than 1,000 sq ft
2 1,001-2,500 sq ft
3 2,501–5,000 sq ft
4 5,001-7,500 sq ft
5 More than 7,500 ft
8 DO NOT READ: Don't know

D2. How old is your home? **(DO NOT READ LIST).**

1 Less than 2 years
2 2-5 years
3 5-10 years
4 10-20 years
5 20-30 years
6 30 or more years
8 DO NOT READ: Don't know

D3. Including yourself, how many people, live at your home year-round (full-time)? **(READ LIST IF NECESSARY, ENTER ONE RESPONSE ONLY)**

1 1
2 2
3 3
4 4
5 5
6 Over 5
8 Don't know

D4. Can I please have your name for validation purposes?

Name:_____

Closings

Complete: Thank you for your time; those are all the questions I have for you. Have a great day/night.

Terminate: I'm sorry, but we are trying to speak with people who fit a certain criteria. But we do appreciate your willingness to help us today.

NorthWestern™ Energy

REQUEST FOR PROPOSAL

To provide:

Demand Side Management Program Evaluation Services

Issued: _____, 2011
Due: _____, 2011

Demand Side Management Program Evaluation Services

REQUEST FOR PROPOSAL

APPENDICES

A. INTRODUCTION

NorthWestern Energy (NWE) requests proposals for a third party contractor (DSM Evaluation Contractor or Contractor) to provide program evaluation services for the NWE electric and natural gas Demand Side Management (DSM) and Universal System Benefits (USB) electric and natural gas energy conservation programs within the NWE Montana service territory for both residential and non-residential customer segments. For the balance of this document the DSM and USB programs will be referred to collectively as **DSM Programs**. This work product shall be an independent third-party evaluation and analysis for filing by NWE with the Montana Public Service Commission (PSC) in a contested regulatory proceeding. The DSM Evaluation Contractor should be able to start initial work on or before February 1, 2012 and provide a final report to NWE by October 31, 2012 for filing by NWE with the PSC no later than November 30, 2012.

Background

In NWE's Montana service territory, legislation was enacted in the late 1990's to allow customers to make arrangements for energy supply in competitive markets. NWE, as the distribution utility, had the responsibility to secure electric and natural gas commodity through its electric and natural gas energy supply portfolios for customers that did not moved to competitive supply markets.

To date, the largest electric customers have moved to the competitive markets with limited movement by customers in the 50 kW to 1MW range. Statute allowed customers under 50 kW limited opportunity to move to competitive supply under specified conditions with PSC oversight. Customers have not been able to move from supply to choice, or vice versa, since October 1, 2007.

The movement between energy supply and competitive supply for the natural gas markets has been largely unchanged over the past several years with limited opportunity/interest for additional customers to move to competitive supply markets.

NWE has been conducting DSM programs since the 1980's to help customers save energy and improve efficiency. Beginning in 2004, NWE expanded its DSM Programs as part of its effort to secure supply resources for electric and natural gas energy supply customers. DSM Programs are marketed under the Efficiency Plus (E+) name, and include DSM Program offerings for all classes of electric and natural gas customers in the NWE Montana service territory.

In addition to funding DSM programs through its energy supply portfolios, NWE operates certain energy efficiency and renewable energy programs that are funded through a USB Charge. Additional information about USB funding and programs is provided in Appendix 5. The electric and natural gas energy supply DSM programs and the USB programs are offered in the NWE Montana service territory and are available to NWE's electric and natural gas customers, of which there are approximately:

- 138,600 residential electric customers
- 40,500 non-residential electric NWE customers
- 32,000 residential natural gas customers
- 6,200 non-residential natural gas customers

In the residential sector, approximately 137,900 customers are combined electric and natural gas NWE customers. Non-residential combined NWE customers total 21,800.

NWE primarily uses third party Implementation Contractors to operate its DSM Programs. Contractor services include operation and administration, direct interface with program participants, technical assistance, some marketing and promotion, limited distribution and/or installation of measures, inspection/verification of installed measures, and collection and maintenance of program records and databases about participants, installed measures, estimated energy savings, reported energy savings, program rebates, and other related costs.

NWE owns and operates electric and natural gas transmission and distribution systems to deliver electricity and natural gas to its customers. NWE currently is allowed to recover the lost transmission and distribution revenues (Lost Revenues) that result from energy sales reductions caused by customer participation in its DSM Programs. This Lost Revenue Adjustment Mechanism (LRAM) uses reported DSM Program energy savings and incorporates various Adjustment Factors for free riders, free drivers, spillover, and realization rates to adjust reported program energy savings. These are also referred to as Net-to-Gross Factors.

The selected DSM Evaluation Contractor (or team of contractors) will provide evaluation services for the whole portfolio of electric and natural gas DSM Programs offered throughout the entire NWE Montana service territory. Maps of the NWE electric and natural gas service territories in Montana are included as Appendix 4. The DSM Evaluation Contractor should be prepared for travel within the state as necessary to coordinate DSM Evaluation efforts statewide. The time period covered by the DSM Evaluation work is for DSM Programs conducted during January 1, 2007 through December 31, 2011.

B. STATEMENT OF EVALUATION OBJECTIVES

The purpose of this evaluation is to conduct a comprehensive independent third-party evaluation of NWE's DSM Programs and produce a thorough documentation of the research and analysis used to perform the evaluation, and the findings and recommendations resulting from that work. This comprehensive evaluation will examine the processes used to solicit interest in the programs, recruit customer participation, deliver program services to participants, and acquire energy savings.

This evaluation will analyze the energy savings produced by the programs, and the costs and benefits of acquiring those energy savings from the economic perspective of the customer, utility company, and society (Total Resource Cost test). The work results will include recommendations for improvement where justified.

C. STATEMENT OF DSM PROGRAM GOALS

The goals of NWE's Energy Supply DSM Programs are:

1. Acquire cost-effective demand side resources for the electric and natural gas energy supply resource portfolios.

2. Maintain a steady, sustainable DSM acquisition schedule that meets the targets set forth in the DSM Plan.

3. Maintain cost-effectiveness of each energy supply DSM program.

4. Implement and administer programs that reach broadly across the NWE customer base and maximize opportunities for customer participation.

The goals of NWE's USB Programs are:

1. To efficiently deliver public purpose benefits to NWE's Montana distribution customers to the fullest extent possible. These public purpose benefits include low-income activities, conservation and market transformation programs, and the development and promotion of small-scale renewable generation. NorthWestern Energy implements its USB programs and activities consistent with the requirements of legislation for USB, the Department of Revenue administrative rules for USB Programs, and tariffs and orders of the Montana Public Service Commission.

D. DESCRIPTION OF DSM PROGRAMS

The DSM Program portfolio includes a balanced mix of programs to address a diversity of NWE customer segments so that all customer classes and segments have an opportunity to benefit from at least one DSM Program. The focus and scope of this RFP is for DSM evaluation services for all DSM Programs in all three DSM Program Groups. The evaluation will be performed on each individual program, and evaluation results will be aggregated for each of the three DSM Program Groups. Additional information about NWE's DSM Programs is available at: www.northwesternenergy.com

Table 1: DSM Program Groups

DSM Program Groups	Customer Sector
Group 1: Electric Supply Programs	
E+ Commercial - Existing Facility Programs - Electric	Commercial/Industrial
E+ Commercial - New Construction Facility Programs - Electric	Commercial/Industrial
E+ Residential - Existing Home Programs - Electric	Residential
E+ Residential - New Construction Home Programs - Electric	Residential
Northwest Energy Efficiency Alliance (NEEA)	All
Energy Star 80 Plus Efficient Power Supplies	Commercial/Industrial
Energy Star Television Program	Residential
E+ Building Blocks Pilot Program (Electric and Gas)	Commercial
Group 2: USB Programs	
E+ Energy Audit for the Home Program (electric and gas)	Residential
E+ Energy Appraisal for Businesses Program	Commercial
E+ Irrigation Program	Agricultural
Building Operator Certification Program	Commercial/Industrial
E+ Free Weatherization Program (electric and gas)	Residential
E+ Renewable Energy Program	All
Vending Miser	Commercial
E+ New Homes Program	Residential
Group 3: Natural Gas Supply Programs	
E+ Residential - Existing Home Programs - Natural Gas	Residential
E+ Residential - New Construction Home Programs - Natural Gas	Residential
E+ Commercial - Existing Facility Programs - Natural Gas	Commercial/Industrial
E+ Commercial - New Construction Facility Programs - Natural Gas	Commercial/Industrial
Note: Many of the programs listed above have multiple sub-programs	

E. DESCRIPTION OF WORK TO BE PERFORMED

Deliverables

There are several distinct deliverables (shown in underlined bold here) that are anticipated from DSM Evaluation activities. The DSM Evaluation Contractor will develop a comprehensive **DSM Evaluation Plan** that includes a description of the work to be done for each of the following items[1]:

1. **DSM Program Impact Evaluation:** to quantify the actual program electric and natural gas energy savings (kWh, dKt, and the effect of the DSM program on the average load shape in terms of peak demand savings-kW) that are achieved from equipment installations and other program measures.

2. **DSM Program Process Evaluation:** to evaluate how well NWE DSM Programs are working to achieve objectives, and to identify opportunities for process and program improvements[2].

3. **DSM Program Economic Analysis:** to determine benefits and costs and cost-effectiveness of each of the three DSM Program Groups, and for each individual DSM Program within the DSM Program Groups.

The DSM Evaluation Contractor will prepare a comprehensive **DSM Program Evaluation Final Report** describing the work performed, research methodologies and instruments used, supporting data and calculations, and presentation of findings and recommendations.

Description of Tasks

The tasks listed below provide a general description of the type of work that the selected Contractor will be required to perform. Bidders should explain how they intend to complete each task and provide a timeline for each expected deliverable. Bidders are encouraged to propose additional tasks deemed necessary to complete the work in an efficient and effective manner.

Task 1: DSM Evaluation Plan: In this task, the DSM Evaluation Contractor will be responsible for developing a comprehensive DSM Evaluation Plan to cover all DSM Evaluation tasks. This will involve the following:

1. Reviewing the DSM sections of NWE's 2009 Electric Energy Supply Resource Procurement Plan, and the NWE 2010 Natural Gas Procurement Plan. Electronic copies of the electric Plans are available at http://www.northwesternenergy.com/display.aspx?Page=Default_Supply_Electric and the natural gas Plan at http://www.northwesternenergy.com/display.aspx?Page=Default_Supply_Gas .

2. Examination of all related program DSM Program documents available from NWE. This information includes scope of work documents for each of the Implementation Contractors for the programs they are administering for NWE and various other pertinent DSM documents.

---

[1] Evaluation of the Northwest Energy Efficiency Alliance (NEEA) program will consist of a summary of evaluations completed for NEEA and a review of the methods used by NWE and NEEA to report NEEA energy savings in the NWE service territory. NWE is a funding utility of NEEA and claims energy savings in its Montana electric service territory resulting from NEEA's regional market transformation activities. NEEA regularly conducts independent evaluations of its work. Additional information on NEEA is available at http://www.nwalliance.org/.

[2] The Free Weatherization Program is a Universal System Benefits program funded in partnership with the Montana Department of Public Health and Human Services (DPHHS) and is implemented through contracts administered by DPHHS. The program process is reviewed as part of DPHHS's Federal contract compliance activities. Contractor will determine whether existing compliance activities provide an adequate process evaluation and make a recommendation whether a separate process evaluation is warranted.

3. Working closely with NWE and its DSM program Implementation Contractors to identify existing data, records, and documents that have been accumulated in the course of providing DSM Program services to NWE.

4. Identification of other research needs for each of the DSM Programs and development of the data collection methodologies that will be used to complete the DSM Evaluation.
   a. The data collection plan will include a physical inspection and measurement plan, plus the sampling methodology and testing design.

   b. The DSM Evaluation Plan should also indicate the approach the DSM Evaluation Contractor will use to expand analysis results from the evaluation sample to the program population.

5. In addition, the DSM Evaluation Plan should include a description of how program data will be collected, organized, compiled, and reported.

6. Preparation of a DSM Evaluation Plan timeline.

Task 2: Project Management: The DSM Evaluation Contractor must designate a project manager to be NWE's key contact and maintain sufficient staff resources to effectively and efficiently complete the work. The project manager must:

1. Maintain direct communication with NWE.

2. Interface with other NWE DSM Implementation Contractors.

3. Comply with DSM Evaluation schedule.

4. Provide Bi-weekly Project Status Report including:

   a. Current DSM Evaluation progress and results to date.

   b. Tasks to be accomplished in the next month/near future.

   c. Problems/issues that have been encountered.

   d. Items that require NWE action or approval.

5. Provide quality control and assurance that work conforms to the scope of evaluation work.

Task 3: DSM Program Process Evaluation: This task addresses ways to improve the NWE DSM Programs over time. This task includes examining NWE DSM Program processes for each individual DSM Program[3], and for each DSM Program Group, and comparing these processes to the Best Practices within the U.S. utility industry. Sub-tasks include but are not limited to evaluation of:

1. Appropriateness of program design for achieving program goals.

2. Program participation procedures.

3. Application and payment processing (ease of use, cycle time, etc.).

[3] Ibid Free Weatherization.

4. Accuracy, consistency, and completeness of each Implementation Contractor's program records, to be performed by checking a representative sample of completed program application forms and projects. Confidentiality of customer information and proprietary software shall be protected.

    a. Identify data anomalies and areas for data collection improvement.

    b. Identify areas where excess, unnecessary, or duplicative data collection is occurring.

    c. Identify areas of concern or discrepancy, immediately provide recommendations to NWE for correcting the situation.

5. Effectiveness of program incentive and/or rebate levels in compelling customers to take action.

6. Identify the barriers to customer participation in all DSM programs, with specific emphasis on the E+ Business Partners Program.

7. Marketing and promotional efforts by NWE and its Implementation Contractors.

8. Communication effectiveness between NWE and its Implementation Contractors.

9. Participant satisfaction with DSM Programs.

10. Results from interviewing participants and non-participants (NWE customers, trade allies, NWE personnel, Implementation Contractors) for the purpose of getting their ideas on process improvement.

11. For each individual program and/or all Program Groups, research, compare, and contrast NWE's DSM program activities and practices with Best Practices for utility-sponsored DSM Programs within and across the U.S. utility industry. Provide documentation, descriptions and examples of Best Practices. Identify and fully describe where NWE conforms to, meets or exceeds Best Practices, as well as areas where improvements could be considered.

Task 4: DSM Program Impact Evaluation: The Program Impact Evaluation will utilize appropriate engineering calculations, sampling of on-site verifications, customer interviews and surveys, appropriate statistical techniques, and other industry-accepted practices to determine energy savings achieved by NWE DSM Programs. Where and as applicable, this evaluation will be performed for each individual DSM Program, and results will be aggregated by DSM Program Group[4]. NWE will make available historical energy consumption data for program participants, and provide access to its Implementation Contractor's DSM Program databases. Specific sub-tasks to be completed include, but are not limited to:

1. Accurate and supportable quantification of the peak (kW) and energy (kWh, dKt) savings amounts for each program.

2. Energy savings estimates in two time periods to enable correlation with Lost Revenue estimates:

    a. Calendar year time periods (January 1 – December 31, for each 2007; 2008; 2009; 2010; 2011)

    b. Tracker year time periods (July 1, 2006 - June 30, 2007; July 1, 2007 - June 30, 2008; July 1, 2008 – June 30, 2009; July 1, 2009 – June 30, 2010; July 1, 2010 – June 30, 2011)

[4] Ibid NEEA

3. Review of NWE engineering calculations used to develop energy savings estimates for measures included in DSM program offerings.

4. Review of the appropriateness and application of building simulation models used by NWE and its Implementation Contractors[5] and model results produced for commercial DSM projects. (Proprietary software shall be protected.)

5. Physical verification of a representative sample of the DSM program installations to verify that energy conservation measures have been installed as documented by the Implementation Contractor.

6. Physical on-site measurement of a representative sample of energy projects participating in the DSM Programs. The purpose of this task is to verify the assumptions and calculations of peak (kW) and energy (kWh and dKt) savings from the Implementation Contractors' databases. The measurements shall be performed by a Montana state licensed Professional Engineer. The projects and installations to be measured will be selected from a statistically representative sample of completed projects.

7. Calculation of average annual energy savings for high volume measures/services and programs, for comparison to the values NWE is currently using:

   a. Compact fluorescent lamps (for each watt rating used in the lighting program): distribution at events, direct install, mail-in rebate, mail-out product, in-store coupon, and upstream buydown for select retailers.

   b. Each of the different home and business energy audit types (15 audit types). The DSM Evaluation Contractor shall provide average annual energy savings for audit direct measure savings and separately for audit in-direct savings.

Audit Type	Description
A1	ONSITE GAS, NWE ELEC (split)
AR	A AUDIT WITH MAILOUT CREDIT
B1	ONSITE GAS SPACE AND DHW (NON-NWE ELEC)
C1	ONSITE GAS SPACE ONLY (NON-NWE ELEC)
D	ONSITE ELEC SPACE & DHW
DR	D AUDIT WITH MAILOUT CREDIT
E	ONSITE ELEC DHW ONLY
ER	TYPE E WITH MAILOUT CREDIT
F	ONSITE GAS SPACE ELEC DHW (split)
G1	ONSITE ELEC SPACE, GAS DHW (split)
H	ONSITE ELEC SPACE W/ MISC GAS APPLIANCE
J	ONSITE FUEL SWITCH
M	ONSITE MULTI-FAMILY
O	ONSITE SMALL BUSINESS
R	RESIDENTIAL MAIL-OUT

   c. Northwest Energy Efficiency Alliance—NorthWestern Energy adjustments to NEEA reported energy savings for NWE territory based upon NWE market assumptions.

   d. Capacity factors used to calculate resource for E+ Renewable Energy Program.

[5] Ibid

e. Rebate measures for all of the electric prescriptive rebate programs (residential & commercial) offered during the years of 2007, 2008, 2009, 2010, and 2011.

f. Rebate measures for all of the natural gas prescriptive rebate programs (residential & commercial) offered during the years of 2007, 2008, 2009, 2010, and 2011.

g. E+ Free Weatherization Program electric and natural gas measures.

8. Analysis of the lag in reported DSM Program savings caused by NWE's practice of claiming energy savings beginning with the date the rebate is paid, instead of the date(s) when measures are installed. Evaluation work should include research on a sample of program participants to determine date of measures installation compared with date of program payment, and development of a means to correct reported energy savings caused by this lag.

9. Assessment of the rate of free riders and free drivers within each of the programs and all Program Groups.[6]

10. Assessment of the realization rate of DSM measures for which program incentives/rebates were paid by NWE.

11. Assessment of persistence of energy savings produced by DSM measures installed. This includes an assessment of whether building use, operation, size, or configuration has changed since DSM measures were installed.

12. Assessment of "spillover" or "leakage" of NWE funded DSM measures into non-NWE service areas and non-rebates measures in NWE service area customer homes/facilities. Integrate the findings from Task 4: DSM Program Impact Evaluation on rates of free riders and free drivers, realization rates, spillover, and leakage for the purpose of evaluating the methodology NWE uses to develop and apply Adjustment Factors when estimating DSM lost revenue. Prepare and present analysis to support any changes to the Adjustment Factors (87% for residential programs and 82% for commercial programs) that NWE is currently using in its Lost Revenue Adjustment Tracker spreadsheet (refer to Appendix 3A and 3B).

13. The DSM Evaluation Contractor shall complete the tables for each tab of the spreadsheet shown in Appendix 1 for each program listed in Table 1 on page 5. The DSM Evaluation Contractor shall provide complete documentation of all calculations and procedures used to derive the information for the tables in each tab of the spreadsheet.

Task 5: DSM Program Economic Analysis: The DSM Evaluation Contractor will evaluate the cost-effectiveness of the DSM Programs using an industry accepted benefit-cost analysis from the perspective of the Company (Utility Cost Test). This cost-effectiveness evaluation will be performed for each individual DSM Program, and results aggregated for each DSM Program Group identified in Table 1 on page 5. NWE will make available cost and spending records for all DSM Programs, and will provide access to records and staff associated with its Implementation Contractor. Calculate the levelized cost of DSM acquisition for each DSM Program, and each DSM Program Group in aggregate. NWE will provide the avoided costs for use in the economic analysis.

NWE applies an environmental benefits factor of 10% when evaluating electric and natural gas measures for cost-effectiveness for DSM Programs. More detail on this approach is provided in the 2004 Electric Energy Supply Resource Procurement Plan and the 2006 Electric Energy Supply Resource Procurement Plan (these

[6] Ibid.

documents will be make available to bidders as requested and required). This task includes the examination of the 10% environmental benefits factor and how NWE applies this to its various cost-effectiveness tests. Compare this to other industry approaches to quantifying environmental benefits and applying it to DSM Program economic evaluation.

Task 6: DSM Program Evaluation Final Report: The DSM Evaluation Contractor will prepare a high-quality, detailed and comprehensive report, including an executive summary, that describes and documents the DSM Program evaluation project and each Task therein, and presents findings and recommendations in a clear, understandable manner. The DSM Evaluation Contractor will work closely with NWE regarding the layout, organization, and task completeness of this report prior to its completion. It is expected this report will be used in future, contested, regulatory proceedings.

F. PROPOSAL REQUIREMENTS AND TIMING

An electronic copy of your proposal as described in this document and in accordance with the submissions requirements must be submitted by _____. The hard copies shall be mailed no later than the next business day. Failure to submit required information within the specified time frame could be considered cause for rejection of this or any subsequent proposals. It is NWE's intent that the bidder (or team of bidders) provides a proposal for the entire scope of work as outlined in this RFP.

Proposals should include the following information:

1. Project approach and scope of work.

2. A list of all project deliverables by task (see Proposal Deliverables - Tasks on page 12).

3. A breakdown by task of all staffing and resource requirements.

4. A breakdown by task of resources required from NWE – office space, data sets, etc.

5. Proposed schedule and/or work flow chart. Indicate key tasks and timelines. This project must be completed in its entirety and a final report submitted to NWE by October 31, 2012 for submittal to the Montana Public Service Commission no later than November 30, 2012.

6. Identify all staff and subcontractors that will perform work on this project. Include a list of key personnel by task with biographical information. Indicate the role of each team member on this project as well as which team members will be based in Montana. If some of the people have not been identified at this time, at a minimum, describe the different job positions functions and roles.

7. Compensation -- Provide a task cost breakdown for each task for these evaluation services. The preferred compensation method is a fixed fee with a not-to-exceed limit. Provide a projected payment (cash flow) schedule and describe how it is related to the level of effort and deliverable associated with each task.

8. Proof of qualification/references from successful projects of a similar nature.

9. Briefly describe the features and benefits of your proposal that may be unique and more desirable than your competitors.

10. A description of your company's background and any relationship to the utility industry.

11. Whether your company currently certified as a minority or woman-owned business—for reporting purposes.

Proposal Deliverables – Tasks

General: The proposal shall include a statement affirming the bidder's intention to conduct an independent, objective, and unbiased third-party analysis that will be used in a contested proceeding before the PSC.

Task 1: DSM Evaluation Plan: Describe in your proposal, any additional documents that you may need to review. Describe the elements to be included in the plan and provide a draft DSM Evaluation plan outline. Describe how you will choose projects to be monitored and how you will ensure any samples are representative of all completed projects. Describe your recommended approach for each program.

Task 2: Project Management: Describe in your proposal, the process you envision for communicating and reporting to NWE's DSM program manager, as well as interactions with other key DSM participants. Discuss your organization's quality control and project tracking of budgets and schedule. Provide samples of a typical bi-weekly project status report. Provide samples of your technical reports demonstrating your writing and presentation style and skills. Bidders are encouraged to outline and describe additional tasks they would perform in order to successfully implement the project.

Task 3: Program Process Evaluation: Your proposal should describe the steps that will be taken to evaluate the NWE DSM Program process. Include samples of data collection forms. Discuss your data collection protocol and how you will integrate these activities with the Implementation Contractors. Describe key types of data that you recommend are collected for each DSM Program. Provide recommendation(s) for making data collection easy and accurate. Discuss the possibility of these forms being available on-line and giving the customers and trade-allies the opportunity to complete and submit these forms on-line. Include examples of process improvements from prior engagements with recognition/analysis/adaption of research as it relates to NWE's unique market characteristics (geographic, climate, residential and small commercial customer class, rural with pockets of urban, etc). Your proposal should describe, in detail, how you will evaluate NWE's practices compared to industry "best practices".

Task 4: DSM Program Impact Evaluation: Describe in your proposal, the Program Impact Evaluation Report that will be developed as a result of this Task. Describe the key tables, charts, graphs, and/or figures that will be developed and presented. Discuss how a representative sample of projects to be measured will be determined. Discuss sampling protocol and ways to ensure a representative sample of installations. Describe the process and the amount of effort that it would take one of your Energy Engineers to verify a typical on-site DSM measure or group of measures. How does measurement for prescriptive measures differ from custom measures? How do you verify performance of new construction? Offer approaches for making field verification accurate, efficient, and hassle-free for program participants. Provide an illustrative example of one of these efforts. Give examples of success from prior engagements.

What are some of your past experiences and findings from DSM Program Impact Evaluation? What are some of the challenges NWE might face when evaluating these DSM programs? Are there additional elements that should be addressed that were not included in NWE's task list?

Task 5: DSM Program Economic Analysis: Describe in your proposal, the methods to be used to analyze the cost-effectiveness of each DSM program and each of the three Program Groups. Discuss the economic tests used to analyze program economics from the Utility Company, ratepayer, and societal perspectives. Discuss your approach to calculation of levelized cost of DSM resources.

In addition to the tasks/deliverables discussed above, please provide any additional tasks that you feel are appropriate in order to provide comprehensive DSM Evaluation services.

Submission Requirements

Bidders shall submit a total of four electronic copies of the proposal; one copy showing pricing and submitted in both protected PDF format and unprotected Microsoft Word format, and one copy without pricing in each format. These four electronic copies are to be forwarded along with any related documents to (---name here---) at (---email address here ---). In addition, bidders shall mail two hard copies of the proposal, one priced and one non-priced, to the address below. A third party administrator will lead review of the responses to this RFP for NWE.

Mailing address for hard copy submittal:

(RFP Administrator's contact information here)

Proposal Schedule

The following proposal schedule is an estimate of when major milestones will occur relative to this RFP. Timing may change due to unanticipated delays.

(date)	RFP Distributed to Bidders
(date)	Deadline for Questions on RFP
(date)	Reponses to Questions Submitted to All Bidders
(date)	RFP Responses are due
(date)	Selection of Final 2 Bidders
(date)	Oral Presentations by Selected Bidders
(date)	Final Selection Completed

Awarding Projects

NWE reserves the right at its sole discretion to choose not to award this project if funding is not available or if no proposals meet NWE's requirements.

G. EVALUATION PROCEDURE

Successful proposals must include all of the required information outlined above. Proposals will be evaluated based on an assessment of the bidder's ability to provide quality deliverables in a timely and cost effective manner.

Proposals will be evaluated according to the following set of criteria:

- The bidder's demonstrated ability to perform work outlined in this document (20%).
- Demonstrated understanding of DSM technologies and NWE Customers (15%).
- The ability to deliver work in a timely manner (15%).
- A clear explanation of the logic behind the proposed approach (15%).
- Demonstrated experience completing similar successful projects (15%).
- The cost of the work to be performed as specified in the proposal (10%).
- The bidder's demonstrated ability (through examples) to provide clear written reports. (5%)
- References (5%).

A short list of bidders will be developed. From those bidders, additional information will be required to demonstrate proof of deliverables such as examples of past reports addressing DSM process, impact, and economic evaluations.

H. GENERAL INFORMATION

NWE requests proposals for the purchase of related services as set forth in this document.

Contractor shall affirm it is an independent third party with no conflict of interest. No one, or bidding organization, which has been a DSM Program Implementation Contractor for NWE, an implementation or evaluation employee of NWE, or has other commercial conflicts of interest with this scope of work shall be considered, without written permission from NWE.

NWE reserves the right to approve or reject any personnel both in the proposal selection process and in the on-going performance of the scope of work.

Contractor will agree to participate in regulatory proceedings, and interactions with NWE's Electric Technical Advisory Committee, for an agreed-to pricing. This pricing is not to be included as part of this bid. NWE will pay, as needed, time plus reasonable travel for appropriate individuals on the evaluation team to perform this work.

All proposals shall become the property of NWE. NWE reserves the right to reject any and all bids, or accept other than the lowest bid and to waive irregularities and informalities in any proposal submitted.

NWE is not responsible for costs incurred by bidders in preparation of this proposal.

The work described in this RFP will be performed in accordance with NWE general contract standards. A **sample** copy of the basic agreement that the winning bidder will be required to sign is in Appendix 2.

Any party submitting a response to this RFP understands and agrees that NWE, as a public utility, is subject to regulation by the PSC and that NorthWestern may be required to submit any and all response related information to the PSC, and other parties, in future proceedings before the PSC.

Any response related information (including information that may be provided as part of subsequent contract negotiations, for example) that the Contractor considers sensitive must be clearly stamped "CONFIDENTIAL" prior to submitting it to NWE. To the extent response information marked "CONFIDENTIAL" is requested in a PSC proceeding, NWE will provide the Contractor reasonable notice before the information must be filed. If the Contractor wishes to seek a protective order for this response information, the Contractor shall be solely responsible for the preparation and filing of an appropriate motion for protective order with the PSC, and providing NWE a copy of the motion, no later than the day before the date the response information must be filed with the PSC. If NWE does not receive a copy of the Contractor's motion for protective order by the day before the date the response information is due for filing, NWE will file it on the due date. NWE will not consult with the Contractor regarding provision to the PSC of any response related information not marked "CONFIDENTIAL".

I. INQUIRIES

Any questions or concerns about the proposal should be directed to (---name here---) at (--email address here--) For commercial inquiries or questions about the proposal process, please contact (---name here---) at (--phone number) and (---email address here---) All questions should be sent electronically, and each question will be shared with other bidders electronically.

Appendices

DSM Program Tables	Appendix 1
Sample NWE Services Agreement	Appendix 2
Lost Revenue Adjustment Mechanism	Appendix 3A and 3B
NWE Service Territory Maps	Appendix 4
USB Information	Appendix 5