

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

IN THE MATTER OF NorthWestern Energy's)
Application for Approval to Purchase and) REGULATORY DIVISION
Operate PPL Montana's Hydroelectric Facilities,)
for Approval of Inclusion of Generation Asset) DOCKET NO. D2013.12.85
Cost of Service in Electricity Supply Rates, for)
Approval of Issuance of Securities to Complete)
the Purchase, and for Related Relief)

Additional Issues Response Testimony

of

John W. Wilson

on behalf of

The Montana Consumer Counsel

May 30, 2014

J.W. Wilson & Associates, Inc.
Economic Counsel
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1 **Q. PLEASE STATE YOUR NAME, OCCUPATION, AND ADDRESS.**

2 A. My name is John W. Wilson. I am President of J.W. Wilson & Associates,
3 Inc. Our offices are at 1601 North Kent Street, Suite 1104, Arlington,
4 Virginia, 22209.

5 **Q. DID YOU SUBMIT DIRECT TESTIMONY ON APRIL 27, 2014 IN**
6 **THIS CASE ON BEHALF OF THE MONTANA CONSUMER**
7 **COUNSEL (MCC)?**

8 A. Yes; I did.

9 **Q. WERE YOUR QUALIFICATIONS SUMMARIZED IN THAT**
10 **DIRECT TESTIMONY?**

11 A. Yes; they were.

12 **Q. WHAT IS THE PURPOSE OF THIS RESPONSE TESTIMONY?**

13 A. The purpose of this additional issues response testimony is to respond to
14 certain testimony and recommendations that were presented in this
15 proceeding in the Additional Issues Testimony and Exhibits filed by
16 NorthWestern Energy (“NWE”) witnesses.

1 **Q. WHAT ARE THE ADDITIONAL ISSUES THAT YOU ARE**
2 **ADDRESSING?**

3 **A.** In response to the Montana Public Service Commission’s April 4 Notice of
4 Additional Issues, which directed NWE to provide testimony on the
5 potential ranges of future capital expenditures and the effect of those
6 expenditures on supply portfolio costs, NWE has stated that it understands
7 that every possible future exposure cannot be identified and that unplanned
8 events could occur. In recognition of that uncertainty the Company has
9 presented additional cost comparison analyses, which it says reflect
10 “extreme” scenarios in which (1) future capital expenditures on the hydros
11 are increased by 30 percent above the level assumed in NWE’s original
12 filing and (2) future capital expenditures are decreased by 15 percent below
13 the level originally assumed. The Company says that these extreme capital
14 expenditure assumptions consider the range of capital expenditure variance
15 that might occur annually, but which is highly unlikely.

16 The Company then compares projected electricity costs with the new
17 capital expenditure ranges against specified market price and carbon cost
18 assumptions, and concludes that the new comparisons show ranges that
19 continue to compare favorably for the hydros and therefore justify the
20 Commission’s approval of the proposed hydros acquisition.

1 **Q. DO YOU BELIEVE THAT THE COMPANY’S SPECIFICATION OF**
2 **THIS EXTREME BUT “HIGHLY UNLIKELY” RANGE OF**
3 **FUTURE CAPITAL EXPENDITURE VARIANCE IS USEFUL IN**
4 **THIS CASE?**

5 **A.** Yes. I believe that the identification of this range by the Company can be
6 useful in arriving at an accommodation that would provide ratepayers with
7 future cost protection that was absent in the Company’s original filing.

8 **Q. PLEASE EXPLAIN HOW THIS FUTURE RATEPAYER COST**
9 **PROTECTION COULD BE IMPLEMENTED.**

10 **A.** In response to PSC data request 223a I suggested that an incentive range
11 could be implemented with respect to unforeseen future capital expenditure
12 requirements for the hydros. For example, NWE requested approval of its
13 proposed purchase of the hydros based on the assumption of an \$8.5
14 million annual capital expenditure amount (escalated) from 2018 forward,
15 and I suggested a \$10 million annual cap on this capital expenditure
16 amount. Using this cap I responded to PSC data request 223a that a range
17 could be established around NWE’s \$8.5 million proposal from \$7 million
18 to \$10 million, with NWE being allowed to retain cost savings below \$7
19 million and with disallowance of amounts over \$10 million.

1 In my opinion the Company's extreme range that NWE has now identified
2 and analyzed in its additional issues testimony would be a reasonable
3 alternative range for establishing a system of symmetrical incentives as
4 suggested in PSC-223a. The establishment of this range for allowable
5 future additional capital expenditures on the hydros would not only provide
6 ratepayers with some future capital expenditure cost protection but it would
7 also reward NorthWestern with incentives as an inducement to constrain
8 future capital expenditures to necessary projects at cost-effective levels.

9 **Q. WOULD THE ESTABLISHMENT OF THIS SYMMETRICAL**
10 **INCENTIVE RANGE FOR FUTURE CAPITAL EXPENDITURES**
11 **PROVIDE RATEPAYERS WITH SUFFICIENT PROTECTION**
12 **AGAINST THE FUTURE COST UNCERTAINTIES THAT ARE**
13 **REFLECTED IN THE COMPANY'S ADDITIONAL ISSUES**
14 **TESTIMONY AND EXHIBITS?**

15 A. It is a significant step, but there is one further cost uncertainty that is
16 fundamental to the analysis in NWE's Additional Issues Testimony that I
17 believe the Commission should consider in conjunction with the capital
18 expenditure range that NWE has identified (at line 21 of Additional Issues
19 Exhibits TEM-3 and TEM-4) in its Additional Issues Testimony. This
20 further cost uncertainty, as depicted at lines 39 and 40 of NWE's

1 Additional Issues Testimony Exhibits TEM-3 and TEM-4, pertains to the
2 assumed carbon-justified cost loadings that are embedded in these two new
3 exhibits and in the resulting comparisons that are reported in the Additional
4 Issues Testimony. These loadings begin in 2021 (see line 39 of TEM-3 and
5 TEM-4) and are also reflected in the NPVs at line 38 and in the levelized
6 market prices at line 40. These are the calculated market values that NWE
7 uses in its Additional Issues Testimony for comparison with its extreme
8 capital expenditure ranges in its new capex sensitivity analyses.

9 **Q. HAVE YOU PREVIOUSLY PROPOSED WAYS FOR DEALING**
10 **WITH PROJECTED BUT UNCERTAIN MARKET PRICE**
11 **ALTERNATIVES?**

12 **A.** Yes. Earlier, in response to PSC-202, I suggested a potential ratemaking
13 compromise regarding these estimated but uncertain values that is similar to
14 the Commission's practices for dealing with deferred income taxes¹.
15 Under this compromise, the purchase price of the hydros would be included
16 in the Company's rate base immediately, and NWE would receive the full
17 amount of associated revenues (just as it receives revenues associated with
18 deferred taxes). The portion of revenues justified by assumed carbon costs
19 would be recognized as consumer contributed capital until actual carbon

¹ Deferred income taxes are paid to the Company by ratepayers long before NWE actually pays taxes to the government – as would also be the case with carbon-justified revenues.

1 costs (whether the result of carbon taxes, cap and trade markets or other
2 means) are enacted, at which time an appropriate part of the accumulated
3 deferral (as reflected by actual carbon costs) would reverse and
4 accumulated revenues would be counted as Company profit.²

5 **Q. ARE THERE ALTERNATIVE AND PERHAPS MORE EASY-TO -**
6 **IMPLEMENT APPROACHES TO ACHIEVING SUCH A**
7 **COMPROMISE?**

8 **A.** The alternative approach described in footnote 2 would be a reasonable
9 option that could, together with the symmetrical incentive range for future
10 capital expenditures as suggested by NWE's capex sensitivity analyses,
11 pave the way to hydro acquisition approval at the purchase price together
12 with reasonable consumer protection.

13 **Q. HOW COULD SUCH A PROCEDURE BE IMPLEMENTED?**

14 **A.** Under this compromise procedure the full purchase cost of the hydros
15 would be included in NWE's rate base and the Company would collect its

² Recently, another alternative compromise on these related cost matters, that could possibly resolve this case in favor of the hydros acquisition at the requested rate base level that NWE is seeking in this proceeding was posed as a question in a *Great Falls Tribune* editorial:

We wonder, for example, whether the Public Service Commission could approve the deal but also lay down a time period in which the carbon issue would need to be resolved. If a carbon tax did not happen by 2021, for example, the PSC could order NorthWestern to rebate carbon tax overcharges to customers.

1 full associated revenue requirement. Carbon-justified revenues would be
2 accounted for in a refundable revenue account without rate base deduction
3 and the Commission would establish a time frame for refunding these
4 revenues to consumers if corresponding carbon costs are not implemented.
5 This would make carbon-justified revenues an interest free loan to the
6 Company until refunds (if any) are made. If refunds are not required the
7 funds would be unrestricted Company revenue.

8 **Q. WHAT TIME FRAME SHOULD BE ESTABLISHED FOR ANY**
9 **REFUND OBLIGATION?**

10 **A.** While that would be a matter of Commission discretion, in my opinion the
11 appropriate time to require any refunds if carbon costs are not implemented
12 would be 2021, when NWE's assumed carbon-justified costs boost market
13 prices in the Company's revenue requirements model. At that time, if
14 NWE's assumed carbon costs have not been implemented, refunds of
15 already collected carbon-justified revenues would start to be made and no
16 further carbon loadings would be reflected in future revenue requirements
17 unless carbon costs are implemented at a later date.

1 **Q. IN YOUR OPINION, CAN THIS COMPROMISE ON THE**
2 **LOADING OF CARBON COSTS INTO NWE’S RATES,**
3 **TOGETHER WITH THE ESTABLISHMENT OF A SYSTEM OF**
4 **SYMMETRICAL CAPITAL EXPENDITURE INCENTIVES**
5 **REFLECTING THE “EXTREME” CAPITAL EXPENDITURE**
6 **RANGE IDENTIFIED BY THE COMPANY IN ITS ADDITIONAL**
7 **ISSUES TESTIMONY, PROVIDE A REASONABLE RATEMAKING**
8 **BASIS FOR APPROVING THE HYDROS ACQUISITION AS**
9 **PROPOSED BY NWE IN THIS CASE?**

10 A. Yes. A combination of the carbon cost treatment described above, together
11 with the future capital expenditure range identified by NWE in its
12 Additional Issues testimony, could establish a satisfactory ratemaking basis
13 for that approval.

14 **Q. HAVE YOU REVIEWED THE ADDITIONAL ISSUES TESTIMONY**
15 **THAT HAS BEEN SUBMITTED BY COMPANY WITNESS**
16 **STIMATZ?**

17 A. Yes; I have.

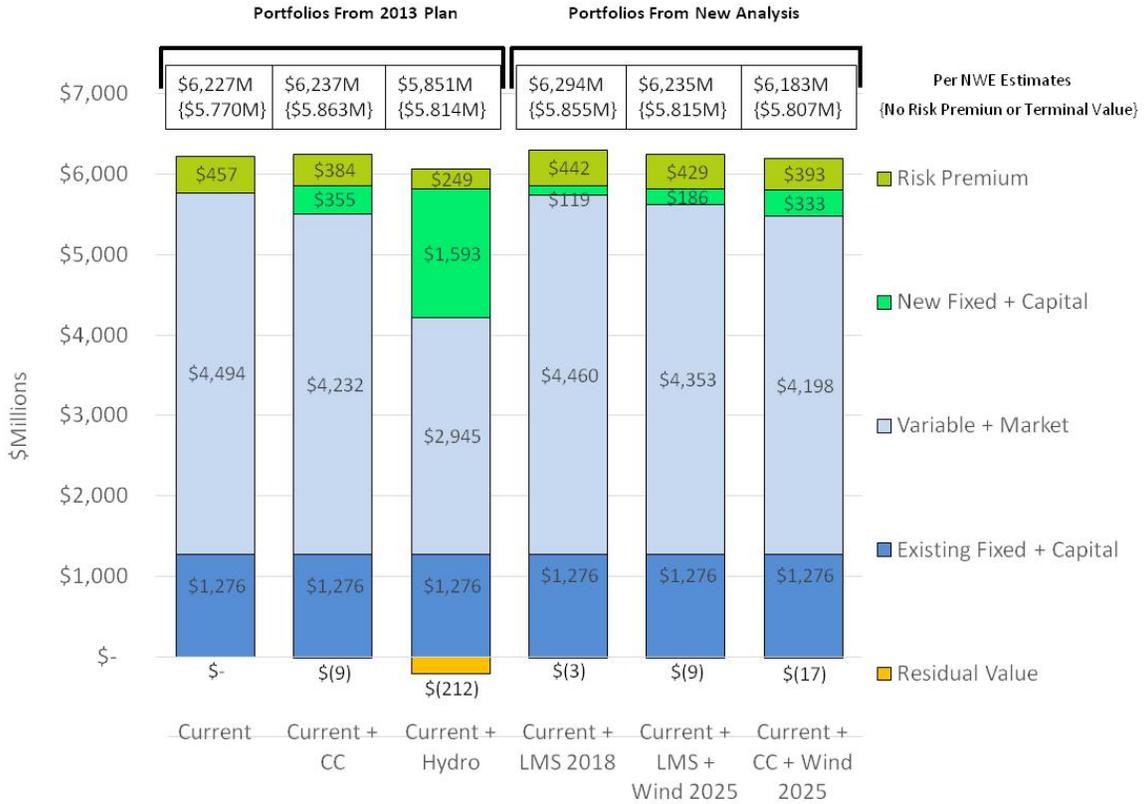
1 **Q. AT JMS-3 MR. STIMATZ PRESENTS A TABLE WHICH HE SAYS**
2 **SHOWS THAT ON A RISK-ADJUSTED NPV BASIS, ADDING THE**
3 **HYDROS TO THE COMPANY'S CURRENT PORTFOLIO OF**
4 **GENERATION ASSETS WILL BE ABOUT \$332 MILLION LESS**
5 **COSTLY THAN THE NEXT BEST ALTERNATIVE. DO YOU**
6 **AGREE WITH THAT CONCLUSION?**

7 A. No.

8 **Q. PLEASE EXPLAIN WHY YOU DO NOT AGREE WITH THIS**
9 **CONCLUSION.**

10 A. Mr. Stimatz's Additional Issues argument closely parallels the argument
11 that he made in his direct testimony. While the Company's hydro
12 acquisition proposal can be appreciated on a number of grounds (and, in my
13 opinion, can be reasonably approved with the compromises discussed
14 above), Mr. Stimatz's financial comparison argument is not an accurate
15 reflection of the relative financial merits of the various alternatives. The
16 chart below reflects Mr. Stimatz's table at JMS-3, showing the cost
17 components of the various portfolios.

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As this presentation of the Company’s NPV cost forecasts shows, the hydro’s advantage is attributable to (1) an assumed resale market value of the plants in 30 years (\$1.68 billion in current dollars or \$212 million NPV) and (2) a high market purchase risk premium that is added to the non-hydros options (e.g., \$457 million that is added to the market purchase or “current” alternative). Without these two adjustments, the NPV of the hydros option (using the Company’s carbon loaded model) would be \$5,814 million and the NPV for the “current” option would be \$5,770

1 million.³ The costs of the other options would also be very close to or less
2 than the hydros.

3 **Q. ARE YOU CONTENDING THAT THERE IS NO RISK THAT**
4 **SHOULD BE CONSIDERED WITH RESPECT TO PROJECTED**
5 **FUTURE MARKET PRICES?**

6 A. No; certainly not. While the market price projections out to 2020 in
7 NWE's model reflect actual futures market prices that can be locked in
8 without substantial risk, projections beyond 2020 may be higher or lower
9 than what actually occurs in future markets. So, there is long term future
10 market price risk. But, as I discussed in my direct testimony, there is also
11 future risk associated with currently unknown and unanticipated potential
12 future capital expenditure levels to repair and maintain the hydro plants into
13 the distant future, and the cost associated with this risk is not included in
14 the Company's stochastic modeling. Mr. Stimatz's cost comparisons in the
15 table at JMS-3 in his Additional Issues Testimony are therefore biased by
16 including a large risk premium for market purchases but none for currently
17 unknown hydros capital expenditures that may be required in the future.

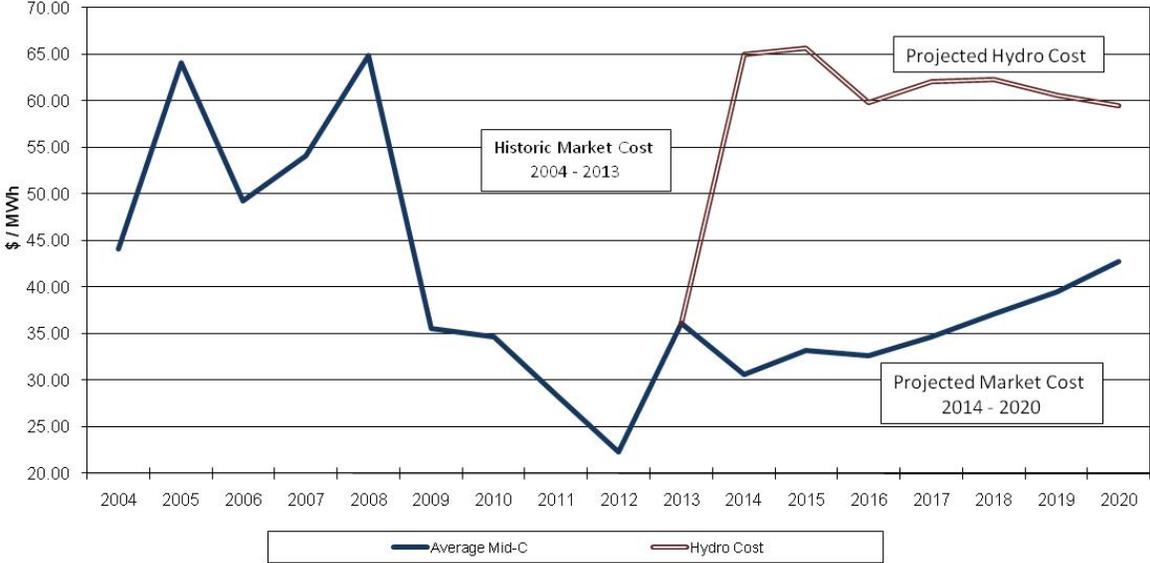
18 Moreover, market price risks in Northwest markets have declined
19 substantially in the last five or six years as natural gas production in

³ The "current" option cost is also greatly inflated by NWE's assumed carbon tax loading, which I have set aside for the purpose of this discussion.

1 Montana and throughout the United States has experienced major change.
2 Because of this change and the large increase in low cost natural gas
3 production, the market cost of electricity has declined substantially and has
4 become relatively stable at much lower levels than those experienced in the
5 years running up to 2008 when the ratebasing of CU4 occurred. As the
6 chart below shows, the average annual cost of electric market purchases
7 rose steeply and remained high and volatile in the \$45 to \$65 range (per
8 Mwh) from 2004 through 2008. However, the market price then dropped
9 precipitously in 2009 to \$35 and has remained in the \$23 to \$35 range from
10 2009 through 2013, and futures prices are in the \$30 to \$40 range out to
11 2020. To assume that electric market prices in the foreseeable future will
12 return to the levels and volatility that was experienced in the 2004-2008
13 period would be a mistake that ignores the substantial gas supply change
14 that has occurred in Montana, the Northwest and throughout North America
15 since that time, and the impact that this change has had on electricity
16 market prices.

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Market Cost and Hydro Cost Comparison



Source: 2004-2013: US Energy Information Administration
2014-2020: NWE Filing

Q. DOES THIS CHART DEMONSTRATE THAT APPROVAL OF THE HYDROS ACQUISITION WILL BE EXCESSIVELY COSTLY FOR MONTANA RATEPAYERS?

A. While there is no doubt that approval of the ratemaking treatment that NWE requested in its filing for the hydros would be far more costly than market purchase costs at least out to 2020, the Company forecasts that with large carbon cost loadings to the market purchase alternative from 2021 forward (and with limited future capital expenditure requirements for the hydros), future market costs could become substantially higher over the next three decades, and then the hydros would be no more costly over the

1 long term.

2 That potential future benefit may or may not be realized. Accordingly, the
3 compromises discussed above (a symmetrical incentive range for future
4 capital expenditures and either deferred recognition of carbon-justified
5 profits or potential refund obligations for carbon-justified revenues if
6 carbon costs are not implemented) would provide ratepayers with price
7 protections warranting approval of the hydros purchase.

8 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY ON**
9 **ADDITIONAL ISSUES?**

10 A. Yes; it does.