



April 10, 2015

Ms. Kate Whitney  
Utility Division  
Montana Public Service Commission  
1701 Prospect Avenue  
PO Box 2022601  
Helena, Montana 59620-2601

**Re: Docket Nos. D2013.5.33/D2014.5.46 Electric Tracker  
MEIC Set 5 Data Requests (060-068)**

Dear Ms. Whitney:

Enclosed for filing is a copy of NorthWestern Energy's responses to MEIC Set 5 Data Requests in Docket Nos. D2013.5.33/D2014.5.46. It will be hand delivered to the Montana Public Service Commission and the Montana Consumer Counsel this date. It will also be mailed to the service list in this docket, e-filed on the PSC website, and emailed to counsel of record.

Should you have questions please contact Joe Schwartzenberger at (406) 497-3362.

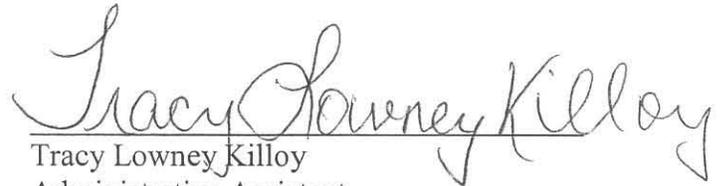
Sincerely,

Tracy Lowney Killoy  
Administrative Assistant

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of NorthWestern Energy's responses to MEIC Set 5 Data Requests (060-068) in Docket Nos. D2013.5.33/D2014.5.46 has been hand delivered to the Montana Public Service Commission and to the Montana Consumer Counsel this date. It will be e-filed on the PSC website, emailed to counsel of record, and served on the most recent service list by mailing a copy thereof by first class mail, postage prepaid.

Date: April 10, 2015



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Docket Nos.  
D2013.5.33/D2014.6.46  
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**NorthWestern Energy**  
**Docket D2013.5.33/D2014.5.46**  
**Electric Tracker**

**Montana Environmental Information Center/Sierra Club**  
Set 5 (060-068)

Data Requests received March 27, 2015

MEIC-060     Subject: 2013 Unit 4 Generator Overhaul & 2013-2014 Unit 4 Extended Outage  
                  Witness: Mike Barnes

Please refer to NorthWestern's response to MEIC-45(a), (d).

- a.     Please confirm that NorthWestern believes that there were three basic events that, in combination, contributed to the 2013-2014 Colstrip Unit 4 outage: (1) the May/June 2013 unit overhaul, which led to (2) shorting, which (3) led to damage to the generator as a result of inadequate interlaminar insulation.
- b.     Does NorthWestern believe that any of the work performed on the generator during the May/June 2013 Unit 4 overhaul was done improperly or negligently? If the answer is no, please explain the basis for this belief.
- c.     Does NorthWestern believe that all of the work performed on the generator during the May/June 2013 Unit 4 overhaul was done in accordance with industry standards? If not, please explain.
- d.     Does NorthWestern believe that all of the work performed on the generator during the May/June 2013 Unit 4 overhaul was done in accordance with generally accepted industry procedures for overhauling, maintaining, and inspecting the equipment? If not, please explain.
- e.     Please produce all documents in NorthWestern's possession, including but not limited to all internal and external communications, concerning whether the 2013-2014 Colstrip Unit 4 outage was caused in whole or in part by work performed on the generator during the May/June 2013 Unit 4 overhaul.

RESPONSE:

- a.     NorthWestern cannot confirm because this request overgeneralizes what NorthWestern believes happened. Please see the response to Data Request MEIC-45d.
- b.     As previously stated, NorthWestern believes that the cause of the outage was most likely a result of equipment being damaged during work completed on the generator during the May/June overhaul. The basis of that conclusion is evidenced in the Root Cause Analysis (RCA). Since the RCA did not conclude that work was done improperly or negligently, NorthWestern does not have any basis to conclude otherwise.

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MEIC-060 cont'd

- c. Yes.
- d. Yes.
- e. All documents have been previously produced.

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MEIC-061     Subject: 2013 Unit 4 Overhaul & 2013-2014 Extended Outage  
                  Witness: Mike Barnes

Please refer to NorthWestern's response to MEIC-45(a), (d).

- a.     Does NorthWestern know whether PPL, as the operator of Unit 4, believes that any of the work performed on the generator during the May/June 2013 Unit 4 overhaul was done improperly or negligently? If yes, please explain.
- b.     Does NorthWestern know whether PPL, as the operator of Unit 4, believes that all of the work performed on the generator during the May/June 2013 Unit 4 overhaul was done in accordance with industry standards? If yes, please explain.
- c.     To the extent not already produced, please provide all documents in NorthWestern's possession in which PPL discusses or questions the cause(s) of the 2013-2014 Colstrip Unit 4 outage.

RESPONSE:

- a.     No.
- b.     No.
- c.     All documents have been previously produced.

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MEIC-062     Subject: Statement Regarding Response to Unit 4 Outage & Response to  
MEIC-46(b)  
Witness: Mike Barnes

Please refer to NorthWestern's response to MEIC-46(b).

- a.     During or after the extended outage at Unit 4 in 2013-2014, did PPL change its procedures associated with a rotor-out inspection of a generator during an overhaul?
- b.     Please provide copies of the procedures for the rotor-out inspection of a generator that were in effect at Colstrip Units 3 and 4 at the time the 2013 overhaul was conducted.
- c.     Please provide copies of any revision(s) made to the procedures for the rotor-out inspection of a generator at Colstrip Units 3 and 4 since the start of the 2013 overhaul.
- d.     Provide copies of all reports of each of the inspections of the interlaminar insulation in the Colstrip Unit 4 generator that were conducted between the start of the May/June 2013 Unit 4 overhaul and the conclusion of the 2013-2014 Colstrip Unit 4 outage.
- e.     If PPL and its contractors had different procedures in place at Unit 4 prior to the 2013-2014 Colstrip Unit 4 outage regarding rotor-out inspection of a generator during an overhaul, would it have been possible to detect the inadequate interlaminar insulation or any other items that contributed to the extended outage?

RESPONSE:

- a.     Yes.
- b.     The following are the procedures for a rotor-out inspection of a generator that were in place prior to the 2013 overhaul:

Overhaul – every 6 years. After the rewind in 2011 CSES should be able to stretch that to 9 years on Unit #3 although the warranty for the new rewind is only 6 years so a full inspection should be completed during POU317.

Remove rotor, inspect and repair generator stator, rotor, exciter, bearings, H2 seal components. CSES is heavily dependent on the OEM (SW) to do all the correct recommended inspections and tests during the overhauls. There is no good PM or work plan that really gathers all the OMM, AIB, TA and OEM recommendations into 1 place.

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MEIC-062 cont'd

- c. The following are the procedures that were added after the forced outage at Unit 4 in 2013:

During the root cause investigation of Unit 4 generator core failure in 2013 several corrective actions were identified to avoid a repeat failure.

- Rotor balance weights shall be inspected during every generator rotor out inspection. Pay particular attention to the copper keepers and the axial and circumferential tolerance in the zone ring slot.
  - A SMCAS (El-Cid) test shall be completed after each generator rotor out inspection after the rotor has been installed in the machine but before the air gap baffles are installed. This test ensures that no damage has been done to the core during installation of the generator rotor.
  - A loop test and core thermography inspection shall be completed any time any major work evolution is completed on the generator core. This includes re-wedging, un-tensioning the core for mica repair or a core re-torque.
- d. See the May 28, 2013, May 29, 2013, and May 30, 2013 daily outage reports provided in response to Data Request MEIC-44.
- e. It is unknown whether the change in procedure could have detected the inadequate interlaminar insulation. During this overhaul, the stator was checked for shorting before the rotor was re-inserted and it passed the test. The change in procedure requires another test to be completed on the stator to check for shorting after the rotor is inserted but before the air-gap baffles are installed (the test cannot be completed after the air-gap baffles are installed). While this additional test is not standard industry practice, it has been added to the procedures at Colstrip to provide for additional assurances that the core is not damaged as the rotor is re-inserted.

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MEIC-063     Subject: Colstrip Unit 4 Interlaminar Insulation  
                  Witness: Mike Barnes

Unless provided in response to any other request, please provide copies of each procedure for the inspection of the generator interlaminar insulation, and any revisions thereto, that have been in effect at Colstrip Unit 4 since January 1, 2013.

RESPONSE:

NorthWestern does not have copies of procedures related to inspection of generator interlaminar insulation in its possession.

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MEIC-064     Subject: 2013 Colstrip Unit 4 Overhaul and Interlaminar Insulation  
                  Witness: Mike Barnes

- a.     Please name all of the contractor and subcontractor firms that worked on the May/June 2013 Unit 4 overhaul.
- b.     Please name each of the contractor and subcontractor firms that were responsible for the installation of the interlaminar insulation during the May/June 2013 Unit 4 overhaul.
- c.     Provide copies of any assessments of the work performed by any contractor or subcontractor firms during the May/June 2013 Unit 4 overhaul that were prepared by or for NorthWestern or that are in NorthWestern's possession.

RESPONSE:

- a.     NorthWestern objects to this part of MEIC-064 because it is overly broad and therefore seeks irrelevant information. Pursuant to Rule 26(b)(1) of the Montana Rules of Civil Procedure ("M. R. Civ. P."), a party may only obtain discovery "relevant to any party's claim or defense" and that "appears reasonably calculated to lead to the discovery of admissible evidence." The Commission adopted M. R. Civ. P. 26 in its administrative rules. See ARM 38.2.3301. Discovery is irrelevant if it "has no bearing on [the] legitimate issues" in the docket. *Henricksen v. State*, 2004 MT 20, ¶ 44, 319 Mont. 307, 84 P. 3d 38. In *Henricksen*, the Supreme Court affirmed the district court's decision to deny the State's discovery requests for the other party's financial documents, school transcripts or personnel records since the issue to be decided by the court involved the party's mental and emotional states and not a claim for lost earnings or lost earning capacity. *Id.*

Before the Commission in this docket is NorthWestern's electricity supply tracker. As required by law, the Commission established an "electricity cost recovery mechanism" that permits NorthWestern "to fully recover prudently incurred electricity supply costs." See Mont. Code Ann. § 69-8-210(1). In this matter, NorthWestern filed applications requesting permission to track certain electricity supply costs incurred during two tracker years.<sup>1</sup> Specifically, the applications pertained to electricity supply costs incurred from July 1, 2012 to June 30, 2014. In Order No. 6925f in Docket No. D2008.6.69 ("Order"), the Commission granted NorthWestern the right to include its interest in Colstrip Unit No. 4 ("CU4") in rate base as an electricity supply resource. Additionally, in that Order, ¶¶ 260-61, the Commission permitted NorthWestern to track costs from CU4 incurred in

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<sup>1</sup> The Commission consolidated NorthWestern's 2013 Electricity Supply Tracker docket with its 2014 Electricity Supply Tracker docket. See Notice of Commission Action issued May 12, 2014.

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MEIC-064 cont'd

a tracker year. NorthWestern's applications in this docket include requests to track the following variable costs related to CU4: fuel costs, property taxes, demand-side management lost revenues, and carrying costs. This docket also includes a request to recover certain replacement power costs resulting from an outage at CU4 that occurred in the second half of 2013.

This data request seeks information that is overly broad and therefore seeks information that is not relevant or reasonably calculated to lead to discovery of admissible evidence because the request seeks information regarding all contractors and subcontractors that were involved in the May/June 2013 planned outage. With respect to the replacement power costs incurred during the tracker period involved in this docket, the Commission must determine if the costs were prudent. In order to determine if the replacement power costs were prudent, the Commission must look to see what NorthWestern knew or should have known at the time the costs were incurred. During the planned outage in 2013, there was work performed on the unit unrelated to the generator inspection. Thus, some of the information sought in this data request unequivocally has nothing to do with, nor does it have any legitimate bearing on, the outage at CU4 or the other issues in this docket. As such, it will not lead to admissible evidence regarding the outage or what NorthWestern knew or should have known with respect to the outage, and therefore it is not relevant.

Without waiving said objection, NorthWestern provides the following response: The only contractor that worked on the generator was Siemens.

- b. There was no contractor or subcontractor firm responsible for the installation of interlaminar insulation during the May/June 2013 Unit 4 overhaul. The interlaminar insulation in Colstrip Unit 4, except for repairs discussed in response to Data Request MEIC-065a, is original equipment. As noted in the response to subpart a, there was a contractor, Siemens, responsible for a rotor-out inspection of the generator. That work included inspections of the stator core which is made up of thousands of metal sheets or laminations. Each of the laminations is insulated from the next. If the final tests/inspections of the core resulted in the detection of an insulation problem, repairs would have been made by Siemens and then the core would have been retested/repared until tests were successful.
- c. NorthWestern objects to this subpart on the same grounds and for the same reasons noted above in the objection to subpart a. Without waiving said objection, with respect to Siemens, NorthWestern does not have any documents of this type in its possession.

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MEIC-065     Subject: Colstrip Unit 4 Generator Interlaminar Insulation  
                  Witness: Mike Barnes

- a.     Did NorthWestern, PPL, or any contractors or subcontractors identify any problems with the adequacy of the interlaminar insulation in the Colstrip Unit 3 or Unit 4 generators at any time prior to the start of the May/June 2013 Unit 4 overhaul?
- b.     If the answer to part (a) is yes, please identify each such instance and provide the documents in which the inadequacy was reported to plant or company management.

RESPONSE:

- a.     As a non-operating owner, NorthWestern has not. PPL, as the operator, has caused its contractors to conduct inspections from time to time on the generator during a regularly scheduled overhaul. In some cases, in addition to these inspections, work was planned and has been performed on the generator (but not specifically on the core iron). However, in both cases, testing is performed on the generator core (either an Electromagnetic Core Imperfection Detection (ELCID) test or a Loop Test) to detect imperfections in the core before the generator is reassembled. This testing, in the past, has occasionally revealed imperfections in the interlaminar insulation that required repair before reassembly; those imperfections could have been the result of wear and tear or damage that occurred during the work completed on the generator during the overhaul. In those instances, repairs were made employing standard industry repair methods and the core was tested again and passed the tests before the generator was re-assembled. Prior to the outage occurring on Unit 4 beginning in July 2013 where the core iron ultimately had to be replaced, the core iron in each unit was original equipment.
- b.     NorthWestern does not have any records or documents of this type in its possession.

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MEIC-066 Subject: Prior Problems with Generator Interlaminar Insulation  
Witness: Mike Barnes

- a. Is NorthWestern aware whether there have been instances in which the interlaminar insulation in other generators provided by Siemens has been found to be inadequate?
- b. If the answer to part a. is yes, please provide any documentation which made NorthWestern aware of each such instance.

RESPONSE:

- a. I am not aware of instances where interlaminar insulation provided in a Siemens generator was found to be inadequate as originally constructed.
- b. Not applicable.

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MEIC-067     Subject: Recovery of Unit 4 Outage Costs  
                  Witness: N/A

- a.     Has NorthWestern or any other owner of Unit 4 attempted to recover from Siemens or any other contractor or subcontractor firm that worked on the May/June 2013 Unit 4 overhaul any of the outage-related costs that it is seeking to recover in this proceeding?
- b.     If the answer to part (a) is no, please explain in detail why not.
- c.     If the answer to part (a) is yes, please provide copies of all correspondence between NorthWestern and Siemens or any other contractor or subcontractor firm related to the attempted recovery of such outage-related costs.

RESPONSE:

- a.     See the response to Data Request MCC-118. Also, as noted in response to Data Request MCC-117, NorthWestern is only seeking to recover replacement power costs in this proceeding. NorthWestern does not know if any other owners have attempted to recover replacement power costs from Siemens.
- b.     Not applicable.
- c.     Not applicable.

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MEIC-068    Subject: Response to MEIC 48(b)  
                  Witness: Mike Barnes

Please provide copies of any correspondence and communications between PPL and any Colstrip Unit 4 co-owner concerning the work of the independent consultant identified in the response to MEIC-48(b).

RESPONSE:

NorthWestern is not in possession of any correspondence or communications responsive to this request.