STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE IOWA UTILITIES BOARD

IN RE:	)	
	)	
MIDAMERICAN ENERGY COMPANY	)	**DOCKET NO. EPB-2014-0156**
	)	

DIRECT TESTIMONY
OF
DAVID P. MAYSTRICK

WITNESS IDENTIFICATION

Q. Please state your name and business address.

A. My name is David P. Maystrick and my business address is 7215 Navajo Street, Council Bluffs, Iowa, 51501.

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

A. I am Project Director - Supply for MidAmerican Energy Company ("MidAmerican").

Q. Please describe your current responsibilities.

A. My current responsibilities are managing the implementation of capital projects across the MidAmerican generating fleet, including managing the planning and installation of emission control equipment on MidAmerican's coal-fueled power plants. My responsibilities include analyses that are conducted and consider various regulatory requirements, capital costs, operation and maintenance (O&M") expenses, control efficiency, reliability, and plant performance impacts in order to determine a cost-effective approach to current and future environmental compliance of MidAmerican's coal-fired plants.

Q. Please describe your educational background and business experience.

A. I received a Bachelor of Science degree in Civil Engineering, Magna Cum Laude and with Distinction, from the University of Nebraska in 1973. I received a Master of Science degree in Civil Engineering in 1976. I am a licensed professional engineer and a Diplomat in American Academy of Environmental Engineers.

I have held the following positions at MidAmerican and its affiliates Vice President of Construction MidAmerican Independent Power Producer Group and Senior Principal Engineer before accepting my current position as Project Director - Supply on July 16, 2013.

Prior to my employment at MidAmerican I was employed by HDR Engineering in Omaha, Nebraska and Gibbs and Hill in Omaha, Nebraska. My primary duties at HDR Engineering and Gibbs and Hill were providing consulting engineering and design services for various electric power industry clients regarding nuclear, coal-fired, natural gas, and waste-to-energy electric generation facilities.

PURPOSE OF DIRECT TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my testimony is to support MidAmerican's investments in emission control equipment, or Air Quality Control Systems, at its coal-fired generating units, which include Neal Energy Center Unit 3 ("Neal Unit 3"), Neal Energy Center Unit 4 ("Neal Unit 4"), Walter Scott Energy Center Unit 3 ("WSEC Unit 3"), and Louisa Generating Station ("Louisa"). I will also address

O&M costs of the emission control equipment. In my testimony I will describe each investment that is proposed during the Plan period and its expected in-service date.

Q. Please provide an overview of the generation projects you address in your testimony.

A. As discussed in more detail later in my testimony, the generation projects largely address environmental controls that will be necessary to comply with U.S. Environmental Protection Agency ("EPA") regulations. All such projects have permits applied for from the Iowa Department of Natural Resources ("Iowa DNR"). These permits will be received prior to the time MidAmerican commences construction on any project.

Q. Please describe the dry scrubber and baghouse construction and installation at MidAmerican coal-fired generation plants.

A. In compliance with the terms of permits issued by the Iowa DNR, dry scrubbers and baghouses to control emissions have been installed at Louisa, WSEC Unit 3 and Neal Unit 4 and became operational in 2007, 2009, and 2013, respectively. A scrubber and baghouse project at Neal Unit 3 is scheduled to be operational in May 2014.

Q. What other new environmental emissions projects have been installed or are proposed to be installed on MidAmerican's coal-fired generators?

A. MidAmerican is also installing Selective Non-Catalyst Reduction ("SNCR") at Neal Unit 3 and Neal Unit 4. SNCR is utilized to reduce nitrogen oxide ("NO_x") emissions and is the technology that is listed in the Iowa DNR construction

permits associated with the dry scrubber and baghouse permits to control NO_x emissions from the facilities. The SNCR project at Neal Unit 4 became operational on February 25, 2014 and the SNCR project at Neal Unit 3 is expected to be operational in May 2014 after the planned outage for Neal Unit 3.

In addition to the SNCR installations, Iowa DNR construction permits associated with the dry scrubber and baghouse projects for Neal Unit 3 and Neal Unit 4 each contain requirements to install more efficient steam turbines or steam turbine sections to improve efficiency and comply with carbon dioxide ("CO_2") and CO_2-equivalent emissions limits. The turbine efficiency improvements were placed into service in December 2013 at Neal Unit 4 and will be in service in May 2014 at Neal Unit 3. In addition, activated carbon injection systems ("ACI") will be installed. Purchase orders have been placed for ACI equipment and consultants have been hired for design of ACI balance of plant to be operational in order to meet dates for environmental construction permits.

Q. Why is MidAmerican installing the dry scrubber and baghouse, SNCR, turbine efficiency, and ACI additions?

A. As a result of the EPA's recently promulgated Mercury and Air Toxics Standards, Clean Air Interstate Rule, Cross State Air Pollution Rule and Greenhouse Gas Tailoring Rule, MidAmerican continues to review its fleet-wide reasonable cost strategy to comply with the required lower emission limits for sulfur dioxide ("SO_2"), NO_X, greenhouse gases and mercury. The proposed projects will assist Neal Unit 3, Neal Unit 4, Louisa, and WSEC Unit 3 to comply with these lower emission limits in a cost effective manner.

Q. Please describe the process that is used to solicit and acquire the services of contractors for these environmental emissions projects.

A. MidAmerican solicits competitive bids for the supply and installation for each of its environmental projects according to MidAmerican procurement policy. Where possible, several projects are combined into one contract in order to realize a price reduction as compared to individual installations. For example, the Neal Unit 4 and Neal Unit 3 dry scrubber and baghouse EPC contracts and similarly the Neal Unit 3, Neal Unit 4, Louisa, and WSEC Unit 3 ACI projects were parts of jointly issued requests for proposals ("RFP"). Following receipt of the proposals, negotiations were conducted with the lowest responsive bidders in order to obtain fixed pricing, favorable contract terms, guaranteed completion dates, and firm performance guarantees. MidAmerican sent its RFP for ACI equipment out to three major suppliers in the industry in November 2013. Proposals were received and clarifications were re-issued to various suppliers on reference facilities, pricing, schedule, and performance guarantees. After the evaluation, the lowest cost and most responsive bidder was invited to negotiate a final contract. One final contract was negotiated in January 2014 with one vendor to furnish ACI equipment at Louisa, Neal Unit 3 and 4, and WSEC Unit 3. During project implementation and construction, the projects are carefully managed to contain costs.

Q. What O&M costs are associated with the environmental projects?

A. Each dry scrubber and baghouse, SNCR, and ACI system requires O&M costs for chemicals used as reagents for emissions control. For instance, the dry scrubber

and baghouse systems that MidAmerican operates at its coal-fired facilities use lime as a reagent to react with SO_2 in the flue gas in the dry scrubber. SNCR systems will use urea or ammonia as the process fluid for emissions control. ACI systems will use activated carbon for injection into flue gases as the process for mercury emission controls.

The turbine efficiency projects are not expected to require additional ongoing fixed or variable expenses as compared to the currently installed turbine equipment. Maintenance intervals for the new turbine equipment at all of the facilities are expected to be similar to those of the equipment being replaced. MidAmerican has scheduled maintenance outage cycles based in part on the frequencies of required overhauls of turbine equipment. Therefore, new equipment associated with the turbine upgrades is not expected to change the planned maintenance cycles at the facilities.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

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AFFIDAVIT
OF
DAVID P. MAYSTRICK

STATE OF IOWA)
) ss:
COUNTY OF POTTAWATTAMIE)

I, David P. Maystrick, being first duly sworn, depose and state that the statements contained in the foregoing prepared direct testimony are true and correct to the best of my knowledge, information and belief, and that such prepared direct testimony constitutes my sworn statement in this proceeding.

/s/: David P. Maystrick

David P. Maystrick

SUBSCRIBED AND SWORN to before me this 1st day of April, 2014.

/s/ Tammi R. Lear

Notary Public in and for the State of Iowa

Commission Number 772443
My commission expires April 5, 2015