



MidAmerican Energy Company

Election to Procure Power and Energy for a Portion of its Eligible Illinois Retail Customers

Procurement Year – 2017

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I. Executive Summary

MidAmerican Energy Company (“MidAmerican”) is an Iowa corporation and is engaged in the business of generating, transmitting and distributing electricity and distributing natural gas to the public in the Illinois counties of Rock Island, Henry, Mercer and Whiteside, and elsewhere. MidAmerican is a public utility within the meaning of the Public Utilities Act (“Act”). MidAmerican is also a public utility subject to the jurisdiction of the Federal Energy Regulatory Commission, the Iowa Utilities Board (“Board”) and the South Dakota Public Utilities Commission. MidAmerican serves less than 100,000 electric customers in Illinois and is considered a small multi-jurisdictional electric utility under Section 16-111.5 (a) of the Act. Pursuant to Section 16-111.5(a), a small multi-jurisdictional electric utility “may elect to procure power and energy for all or a portion of its eligible Illinois retail customers” using the Illinois Power Agency (“IPA”) process set forth in the Act and the Illinois Power Agency Act (“IPA Act”). 220 ILCS 5/16-111.5(a).

MidAmerican provided its load forecast and related information on July 15, 2016. The following information supplements MidAmerican’s procurement plan for the incremental portion of its Illinois load for the planning period of June 2017 through May 2022 and is being provided to the IPA for the purposes of complying with the requirements of the Act and the IPA Act. For the purposes of this procurement plan, MidAmerican’s request consists of the portion of its Illinois jurisdictional load which represents the net of capacity and energy between MidAmerican’s eligible retail customer load in Illinois and MidAmerican-owned capacity and energy generation allocated to its Illinois customers. *See* Forecasted Load and Capability information, lines 5-9, columns B-G, provided on July 15, 2016.

Therefore, MidAmerican is only requesting the IPA procure the incremental amount of capacity and energy that is not currently included in the 2015 Procurement Plan and not currently served or forecasted to be served in Illinois by MidAmerican-owned Illinois jurisdictional generation.

II. Load Forecast

Section 16-111.5(b)

Multi-year historical analysis of hourly loads and known load changes and growth forecasts

Pursuant to Section 16-111.5(b) of the Act, MidAmerican submitted its Methodology for Illinois Electric Customers and Sales Forecasts: 2017-2026 on July 15, 2016. *See* Forecast Documentation provided on July 15, 2016. This load forecast included a multi-year historical analysis of hourly load data, forecasted load and capability along with the impact of demand side and renewable energy initiatives. MidAmerican's load forecast was further broken down by revenue class, projected kWh usage and sales, which factored in economic and demographic variables along with weather variables based on weather data taken from the weather station at the Moline International Airport. Additionally, the load forecast accounted for sales forecasts based on variables and model statistics along with the non-coincident electric gross peak demand forecast and represents all of the eligible customer classes, except the customer accounted for being served by an Alternate Retail Electric Supplier ("ARES"). Pursuant to Section 16-111.5(d)(1), MidAmerican's load forecast covered a five-year procurement planning period and included supporting hourly data representing a high-load, low-load and expected-load scenario for the load of the eligible retail customers. *See* July 15, 2016, submissions, IL Hourly Load Forecast, base, low and high scenarios for supporting data and assumptions for each of the scenarios as revised on July 22, 2016.

Specifically, the historical hourly data underlying the model is load research data by class for MidAmerican's Illinois service territory. The data was divided into the following classes: residential, small commercial, large commercial, small industrial and large industrial. This data was at the meter level. MidAmerican used data from January 1, 2008, through December 31, 2015, to build a monthly non-coincident electric gross peak demand model for its Illinois service territory.

The forecasting model consists of an economic driver variable, a number of weather variables and monthly indicator variables.

Switching Trends

MidAmerican also incorporated into its load forecast retail choice switching. Currently, MidAmerican has one active ARES in its Illinois service territory. The retail choice switching forecast was derived by reviewing recent switching activity and projecting forward recent trends. See Forecast Documentation Information, “Table 9: Retail Switching: Monthly Customer Count Forecasts,” provided on July 15, 2016.

Impact of demand response programs and renewable energy initiatives

As discussed further below in Section III, MidAmerican has operated energy efficiency programs pursuant to Section 8-408 of the Act in its Illinois service territory since 2008. Estimated past energy savings are implicit in the historical data used to derive the electric sales forecast models. Without adjustment, this method implies that the level of future estimated program savings will be similar to past estimated program savings. Estimated program impacts in the forecast period are not projected to deviate measurably from estimated historical levels, so no adjustment was made to the forecasting models.

MidAmerican provided its Renewable Portfolio Standard worksheet to include cost-effective renewable energy resources for the incremental portion of its Illinois load it is procuring through the IPA process, along with the supply needs that are projected to be offset by purchase of renewable energy resources for that portion of the Illinois jurisdictional load. See MidAmerican RPS Worksheet submitted July 15, 2016, and 220 ILCS 3855/1-75(c)(1) and (2). MidAmerican’s renewable energy resource requirement is based on the incremental amount of capacity and energy procured through the IPA process. This is a reasonable request since MidAmerican is not requesting that its entire Illinois jurisdictional load be procured through the IPA process at this time. Section 16-111.5(a) specifically contemplates that a small jurisdictional utility may procure only “a portion of its eligible Illinois retail customers in accordance with the applicable provision set forth in this Section and Section 1-75” of the IPA Act. Consequently, it is reasonable to base the amount of renewable energy purchases on the incremental amount of MidAmerican’s Illinois jurisdictional load procured through the IPA process.

Proposed procedures for balancing loads.

MidAmerican is a transmission owning member and its generation and transmission is integrated with the Midcontinent Independent System Operator, Inc. (“MISO”). MidAmerican is required to follow the MISO procedures for balancing loads. In addition to the capacity and energy procured through the IPA process, it will be necessary for MidAmerican to acquire or to sell capacity and energy to address differences between the amount of resources procured and the actual resources needed to serve its Illinois eligible retail customers. Balancing Energy will be procured in the day-ahead and real-time energy markets administered by MISO. Balancing Capacity will be procured through the MISO Planning Resource Auction. MISO-administered markets will also be used to acquire ancillary services.

III. Electric Energy Efficiency Compliance pursuant to 220 ILCS 5/16-111.5B – Provisions Relating to Energy Efficiency Procurement

1. Energy Efficiency Program Background

MidAmerican currently offers Illinois Energy Efficiency Programs pursuant to Section 8-408(a) of the Act and consistent with the Illinois Commerce Commission’s (“Commission”) Final Order in Docket Nos. 13-0423 and 13-0424 (Consol.) issued on December 18, 2013. On May 21, 2008, in Docket Nos. 08-0107 and 08-0108 (Consol.), the Commission approved MidAmerican’s proposed energy efficiency plan for 2008 through 2012. Consistent with Section 8-408(a), the Commission accepted an order from the Board finding MidAmerican’s programs to be cost effective as sufficient demonstration that its proposed programs were cost effective.

On February 23, 2012, the Commission issued an order initiating a proceeding in order to make a determination by October 31, 2012, as to whether MidAmerican’s energy efficiency programs should be continued beyond calendar year 2012 as required by Section 8-408(d) of the Act. In its October 17, 2012, Order, the Commission found that MidAmerican’s energy efficiency programs, as a whole, were shown to be cost-effective for Illinois ratepayers, and allowed MidAmerican’s energy efficiency programs, except the Residential New

Construction program, to continue until December 31, 2013. The Commission further directed MidAmerican to file a new plan on or before July 1, 2013, to be in place by January 1, 2014, and ordered that the new energy efficiency plan only include measures shown to be cost-effective for Illinois ratepayers. The Commission issued its Final Order on December 18, 2013, approving MidAmerican’s five-year Energy Efficiency Plan beginning on January 1, 2014, subject to conditions, requirements, and modifications in Docket Nos. 13-0423 and 13-0424 (Consol.).

2. *Compliance with 16-111.5B – Provisions Relating to Energy Efficiency Procurement*

Section 16-111.5B of the Act requires that additional requirements relating to energy efficiency be included as part of procurement plans prepared pursuant to Section 16-111.5 beginning in 2012. Many of these requirements relate to energy efficiency plans that are in place pursuant to Section 8-103 of the Act. MidAmerican is a small, multijurisdictional utility and serves fewer than 100,000 electric customers in Illinois and as a result, Section 8-103 does not apply to MidAmerican. 220 ILCS 5/8-103(h); *see also Illinois Power Agency – Petition for Approval of the 2016 IPA Procurement Plan Pursuant to Section 16-111.5(d)(4) of the Public Utilities Act*, Docket No. 15-0541, Final Order issued on December 16, 2015 at 69 (Docket 15-0541 Order). In Docket No. 15-0541, the Commission found that “MidAmerican is correct in its assertion that it does not fall under the scope of Section 8-103 of the Act.” Docket No. 15-0541 Order at 69. Instead, MidAmerican offers a five-year energy efficiency plan beginning in 2014 pursuant to Section 8-408 of the Act and has been offering energy efficiency programs since 2008.

To the extent the provisions of Section 16-111.5B are applicable to MidAmerican, MidAmerican submits the following information required by Section 16-111.5B of the Act.

Section 16-111.5B(a)(1)

Section 16-111.5B(a)(1) requires that “analysis included pursuant to paragraph (2) of subsection (b) of Section 16-111.5 shall also include the impact of energy efficiency building

codes or appliance standards, both current and projected.” MidAmerican annually updates its Illinois Energy Efficiency Plan to include the most recent building code and appliance standards based on the Illinois Energy Code and the Federal Appliance Standards. Therefore, the impact of building codes and appliance standards were implicitly used during the development of MidAmerican’s electric forecast model provided on July 15, 2016 as revised on July 22, 2016. MidAmerican has provided energy efficiency programs in its Illinois service territory since 2008 and estimated past energy savings are implicit in the historical data used to derive the electric sales forecast models. Without adjustment, this method implies that the level of future estimated program savings will be similar to past estimated program savings. Estimated program impacts in the forecast period are not projected to deviate measurably from estimated historical levels, therefore, MidAmerican did not adjust its forecasting models.

a. Energy Efficiency Potential Study

Section 16-111.5B(a)(3)(A) requires the inclusion of a comprehensive energy efficiency potential study for the utility’s service territory that was completed within the past three years. *See* Attachments 1 through 5. Although Section 16-111.5B(a)(3)(A) may only apply to those potential studies filed pursuant to Section 8-103 of the Act, MidAmerican is including its most recent potential study filed with the Board and the potential study upon which MidAmerican’s Illinois energy efficiency programs approved by the Commission in Docket Nos. 13-0423 and 13-0424 (Consol.) are based. The study identifies technical, economic and achievable energy efficiency potential and builds off earlier studies based in the state of Iowa since 1991. MidAmerican’s Illinois plan made adaptations from the Iowa potential study for its Illinois service territory.

b. Most Recent Section 8-103A Study

Section 16-111.5B(a)(3)(B) requires the inclusion of the most recent analysis submitted pursuant to Section 8-103A of this Act and approved by the Commission under subsection (f) of Section 8-103 of the Act. MidAmerican notes that this section is inapplicable to MidAmerican since MidAmerican is not required to submit an analysis pursuant to Section 8-103A since subsection (h) of Section 8-103 exempts MidAmerican from the requirements. *See also* Docket 15-0541

Order at 69. MidAmerican notes, however, the study submitted in Attachments 1 through 5 provides similar information required under this section.

c. Identification of New or Expanded Measures

Section 16-111.5B(a)(3)(C) requires the identification of new or expanded cost-effective energy efficiency programs or measures that are incremental to those included in energy efficiency and demand-response plans approved by the Commission pursuant to Section 8-103 of this Act and that would be offered to eligible retail customers. This section is inapplicable to MidAmerican since MidAmerican is not required to submit an analysis pursuant to Section 8-103A since subsection (h) of Section 8-103 exempts MidAmerican from the requirements. *See also* Docket 15-0541 Order at 69.

d. Cost Analysis

Section 16-111.5B(a)(3)(D) requires an analysis showing that the new or expanded cost-effective energy efficiency programs or measures would lead to a reduction in the overall cost of electric service. This section is inapplicable to MidAmerican since MidAmerican is not required to submit an analysis pursuant to Section 8-103A since subsection (h) of Section 8-103 exempts MidAmerican from the requirements. *See also* Docket 15-0541 Order at 69.

e. Comparison Analysis

Section 16-111.5B(a)(3)(E) requires an analysis of how the cost of procuring additional energy efficiency measures compares over the life of the measures to the cost of comparable supply. This section is inapplicable to MidAmerican since MidAmerican is not required to submit an analysis pursuant to Section 8-103A since subsection (h) of Section 8-103 exempts MidAmerican from the requirements. *See also* Docket 15-0541 Order at 69.

f. Energy Savings Goal

Section 16-111.5B(a)(3)(F) requires the determination of an energy savings goal for each of the measures or programs to be implemented. This section is inapplicable to MidAmerican since

MidAmerican is not required to submit an analysis pursuant to Section 8-103A since subsection (h) of Section 8-103 exempts MidAmerican from the requirements. *See also* Docket 15-0541 Order at 69.

g. Reduced Need to Procure Supply

Section 16-111.5 (G) requires an estimation of the amount that the program may reduce the IPA's need to procure supply. This section is inapplicable to MidAmerican since MidAmerican is not required to submit an analysis pursuant to Section 8-103A since subsection (h) of Section 8-103 exempts MidAmerican from the requirements. *See also* Docket 15-0541 Order at 69. MidAmerican, however, has energy efficiency programs operating in its Illinois service territory. Estimated past energy savings are implicit in the historical data used to derive the electric sales forecast models submitted on July 15, 2016. Consequently, MidAmerican's forecasting method implies that the level of future estimated program savings will be similar to past estimated program savings. Estimated program impacts in the forecast period are not projected to deviate measurably from estimated historical levels, so no adjustment was made to the forecasting models.

IV. Cost Recovery

Section 16-111.5(l) provides in part, “[a]n electric utility shall recover its costs of procuring power and energy under this Section. The utility shall file with the initial procurement plan its proposed tariffs through which its costs of procuring power that are incurred pursuant to a Commission-approved procurement plan and those other costs identified in this subsection (l), will be recovered.”

Pursuant to Section 16-111.5(l), the Commission approved MidAmerican's Rider Purchaed Energy Rider (Rider PE) in Docket No. 15-0564. MidAmerican's Rider PE is designed to recover the procurement, capacity and energy costs, including all reasonable incremental costs to implement or comply with the procurement plan put into effect and any fees assessed by the IPA. The tariff also includes recovery of costs associated with load balancing and contingency plan costs. The proposed tariff includes a formula rate designed to pass through both the costs

incurred in procuring a supply of electric power and energy for the applicable customer classes with no mark-up or return on the price paid for that supply, plus any just and reasonable incremental costs incurred in arranging and providing for the supply of electric power and energy. It includes provisions for reductions to the factors for any portion of the recoverable costs already recovered through MidAmerican's base rates as approved by the Commission in Docket No. 14-0066. Rider PE also contains an ongoing adjustment factor, and provides for an annual reconciliation and correction of any accounting errors that may occur.

V. Conclusion

For all of the reasons above, MidAmerican's load forecast and supporting information for the period June 1, 2017 through May 31, 2022 submitted on July 15, 2016 and as revised on July 22, 2016, and this supplemental response is consistent with the requirements of the Act and provides an appropriate approach to develop the procurement plan to acquire power and energy for a portion of MidAmerican's Illinois jurisdictional load.