
STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS
FROM: PATRICK STEFFENSEN & AMANDA REISS
RE: EL20-005 - In the Matter of the Filing of MidAmerican Energy Company for Determination of Its Energy Cost Adjustment Factor as Applied to Repowered Wind Facilities
DATE: May 20, 2020

BACKGROUND

On February 12, 2020, the South Dakota Public Utilities Commission (Commission) received a filing from MidAmerican Energy Company (MidAmerican) requesting a determination that new Production Tax Credits (PTCs) associated with the process of repowering up to 510 existing Siemens wind turbines will not be subject to the provisions of its Energy Cost Adjustment (ECA) tariff. MidAmerican's ECA tariff (South Dakota Electric Tariff Schedule No. 2, Sheet No. 78) states (in relevant part):

“The cost of energy will be adjusted by the pre-tax amount of any federal production tax credits associated with renewable power projects whose costs have been approved for inclusion in rate base in a rate proceeding, grossed up at the rate of 1.266 as entered into account 409.1, reduced for any negative energy settlements from those renewable power projects that result during the period the projects are eligible for the production tax credit, as recorded in account 447.043.”

The existing Siemens wind turbines that are subject to repowering will have been in service for over ten years at the time of repowering, thus ineligible for continuation of the PTCs that were based on the initial investment. These repowering efforts will include replacing the blades with longer models, replacing much of the machinery and equipment¹ inside the nacelle, and in many cases, replacing the top section of the existing towers, effectively resulting in a new turbine on top of an existing structure. It is this new investment which will requalify these facilities for an additional ten-year PTC period, as the fair market value of the used property that is part of the repowered wind turbine is expected to be less than twenty percent² of the total value of the repowered wind turbine.

All of the turbines that are subject to the repowering efforts are currently included in South Dakota rate base, and the associated PTCs were credited to ratepayers through the ECA; however, MidAmerican will not include the costs of repowering in rates until their inclusion is requested in a future rate case. MidAmerican has indicated in its initial filing that a future rate case “is not anticipated for many years”.

¹ MidAmerican indicated in response to DR 2-1 that every turbine will receive a new generator

² See MidAmerican's response to DR 1-6

STAFF ANALYSIS

On December 21, 2017, the Commission issued an order in a similar MidAmerican docket, Docket EL17-040, which determined that repowering up to 706 existing General Electric wind turbines was not subject to the provisions of MidAmerican's ECA tariff. In this docket, Staff's analysis and recommendation regarding the new PTCs focused on three main areas: 1) the appropriate ECA treatment given the new investment which makes them eligible, 2) the benefit of lower fuel costs, and 3) an analysis of projected future rate case activity.

Given the similarities regarding the Siemens repowering project, the associated PTCs, and proposal by MidAmerican compared to that of the General Electric project in Docket EL17-040, MidAmerican's proposal and Staff's analysis of this docket focused on these same three main areas. An analysis of each of these areas is described below.

Appropriate ECA Treatment

As indicated above, this repowering process will result in the replacement of all the blades with longer models, much of the machinery and equipment inside the nacelle, and in many cases, the top section of the existing towers. Thus, this repowering project will result in a new turbine on top of an existing structure. As in Docket EL17-040, this process will essentially create brand new turbines, and it is the cost of this repowering project (and the brand-new turbines) that creates the new PTCs. Thus, it would be reasonable not to include the PTCs in the ECA until the costs of repowering are included in MidAmerican's cost of service.

Lower Fuel Cost Benefit

As indicated in MidAmerican's initial filing, "the increased generation production benefits customers through increased wholesale revenues and lower fuel costs" and "these benefits will flow through to customers through the ECA immediately". MidAmerican estimates that the overall ECA benefits, including increased wholesale revenues, for South Dakota customers through the year 2029 will be approximately \$1.5 million. Customers will see these benefits immediately despite the fact they will not see the cost of the repowering until MidAmerican requests inclusion of these costs in a future rate case.

Rate Case Analysis

Staff's final analysis of this docket focused around a review of the cumulative ratepayer impact if MidAmerican was required to flow these new PTC's resulting from the repowering through the ECA to ratepayers, resulting in underearning by MidAmerican and future rate case activity.

The "Stand-Alone Summary 1-4" tab of Exhibit A to MidAmerican's initial filing provides the projected annual levelized revenue requirement and associated PTCs for the repowering project. As can be seen on lines 7 and 9, the annual revenue requirement for the repowering is only slightly less than the annual value of the PTCs MidAmerican will receive. Thus, if a Commission decision to flow the PTCs for this

repowering project causes MidAmerican to file a rate case to recover the revenue requirement associated with this project, rate case costs alone would create a cumulative burden to ratepayers.

The “ROE-Forecast 3-1, 1-2” tab of Exhibit A to MidAmerican’s response to data request 1-2 provides insight into MidAmerican’s future return on equity under two different scenarios: 1) MidAmerican is not required to flow the new PTCs through the ECA, and 2) MidAmerican is required to flow the new PTCs through the ECA. As depicted on line 24, if MidAmerican is not required to pass through the PTCs, their return on equity is forecasted to recover to a level that, according to them, keeps them from filing a rate case for several years. However, line 37 shows the return on equity if MidAmerican is required to flow the PTCs through the ECA, and line 59 shows the projected revenue deficiencies if all PTCs (including PTCs not at issue in this docket) flowed through the ECA and all wind investments were in rate base. This future revenue deficiency forecast shows substantial benefit to ratepayers if MidAmerican is allowed to retain the PTCs and avoid filing rate cases in the near future.

RECOMMENDATION

Given the three areas of analysis as described above, Staff recommends the Commission approve the determination that these new PTCs resulting from the repowering of up to 510 existing Siemens wind turbines are not subject to the provisions of MidAmerican’s ECA tariff.

Staff would also recommend that this approval shall not preclude Commission review of the project, including project and cost management and accounting data and methods, review of the prudence and reasonableness of rate recovery in any determination of rates (including rate filings by MidAmerican or rate reviews initiated by the Commission), and that it does not guarantee any such rate recovery.