

**Wind VII Iowa Project  
Status Update for the Iowa Utilities Board  
February 12, 2013**

**A. Background**

This is MidAmerican Energy Company's ("MidAmerican") status update for the Iowa Utilities Board ("Board") in response to the Board's orders in Docket No. RPU-2009-0003. This document is offered in fulfillment of the requirements established in the Board's Final Order and the January 25, 2011 compliance filing order in the above-mentioned docket.

**B. Status for Wind VII Iowa Project (Docket No. RPU-2009-0003)**

In 2011 and 2012, MidAmerican installed 1,000.3 MW of wind-powered generation as part of the Wind VII Iowa Project.

In 2011, MidAmerican completed the installation of 593.4 MW of wind-powered generation. Total costs for the 593.4 MW, excluding the non-cash allowance for equity funds used during construction but including other costs not under contract, are estimated to be approximately \$966 million\_\_\_\_\_. (An unredacted copy of this page has been provided pursuant to a Request for Confidential Treatment.) The three large components of the \$966 million total are: (i) a 593.4 MW turbine supply agreement in the amount of \$\_\_\_\_\_; (ii) the balance of plant construction costs of \$\_\_\_\_\_; and (iii) an asset purchase agreement for a 119.6 MW site development in the amount of \$\_\_\_\_\_. The remaining project costs are currently estimated to total approximately 4% of the overall project's costs. Based on this overall projection of costs, the per kW cost of the first 593.4 MW of the Wind VII Iowa Project will be approximately \$1,628/kW, as compared to MidAmerican's cost cap of \$2,300/kW for 2011.

In 2012, MidAmerican completed installation of 406.9 MW of wind-powered generation, the final component of the Wind VII Iowa Project. Total costs for the 406.9 MW, excluding the non-cash allowance for equity funds used during construction but including other costs not under contract are estimated to be approximately \$655 million\_\_\_\_\_. (An unredacted copy of this page has been provided pursuant to a Request for Confidential Treatment.) The three large components of the \$655 million total are: (i) a 407.1 MW turbine supply agreement in the amount of \$\_\_\_\_\_; (ii) the balance of plant construction costs of \$\_\_\_\_\_; and (iii) site acquisition costs of \$\_\_\_\_\_. The remaining project costs are currently

estimated to total slightly less than 5% of the overall project's costs. Based on this overall projection of costs, the per kW cost of this 407.1 MW 2012 component of the Wind VII Iowa Project will be approximately \$1,610/kW, as compared to MidAmerican's 2012 cost cap of \$2,300/kW.

### **C. Transmission Studies and Off-site transmission**

Below is a summary, by wind farm site, of the status of the transmission studies and off-site system upgrades associated with the various Wind VII sites.

#### **Status for the 1,001 MW Wind VII Iowa Project (Docket No. RPU-2009-0003)**

MidAmerican has two self-developed sites that currently accommodate approximately 473.8 MW of new wind generation: (i) the Rolling Hills Site mentioned below, and (ii) the expansion of the Pomeroy Site also mentioned below. MidAmerican also acquired a third party-developed 119.6 MW site (Laurel) in Marshall County. These three (3) sites currently accommodate the 593.4 MW of 2011 projects mentioned in "B" above. In addition, MidAmerican has acquired the Eclipse (200.1 MW), Morning Light (101.2 MW) and Vienna (105.6 MW)<sup>1</sup> wind farm sites, each a third party-developed site. These sites will allow MidAmerican to achieve construction of 1,000.3 MW of the 1,001 MW of Wind VII capacity authorized by the Board.

#### **443.9 MW Rolling Hills Site**

The Rolling Hills Site, located in Adair, Adams and Cass Counties, is a wind farm which interconnects to the 345 kV line between the Council Bluffs Substation and the Madison County Substation. All 443.9 MW of the farm's current wind turbine capacity were in-service by December 31, 2011.

The transmission studies have been completed for 250 MW of wind generation interconnection at the Rolling Hills Site and were previously provided to the Board with the February 2011 update.

MISO needs to complete additional transmission studies for two additions at the Rolling Hills Site, of 92 MW and 101.2 MW, before final system upgrade requirements can be determined. It is anticipated that MISO's studies will be complete and system upgrade costs determined in the second quarter 2013. Operation of the additions is guided by the provisional generation interconnection agreement with MISO. Until any identified upgrades (if any) are completed, maximum output may be subjected to limits that can reduce output by as much as 193.9 MW, resulting in a maximum output of 250 MW. The limits (if any) are established on a quarterly basis. MidAmerican is actively engaged in discussions with MISO to minimize the impact and duration of any future limitations.

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<sup>1</sup> The Vienna wind farm site has been acquired with a capacity of up to 150 MW. However, only 105.6 MW was developed under Wind VII. Plans for developing the remaining capacity have not been determined.

### 29.9 MW Expansion at Pomeroy Site

This project is a 29.9 MW expansion of MidAmerican's Pomeroy Site. (MidAmerican has increased the capacity of this expansion by 5.9 MW.) The initial 123 MW at the Pomeroy site were built as part of Wind III, and subsequent expansions of 75 MW and 58.5 MW were constructed as part of Wind IV. As noted in the January 2010 update (page 7), the System Impact Study completed for the latter Pomeroy expansion was evaluated for up to an 80 MW expansion. The 29.9 MW expansion project was partially studied as part of Wind IV but was ultimately built as part of Wind VII. All turbines at the Pomeroy Site are in-service. An amended and restated generation interconnection agreement with MISO was executed in October 2011 for a total of 292 MW, which is limited to 280 MW of net output until additional studies, and any subsequent network upgrades, are completed. Additional studies by MISO are scheduled to be completed and system upgrade costs determined in the second quarter 2013.

### 119.6 MW Laurel Site

The Laurel Site, located in Marshall County, is a wind farm that was developed by a third party. The site interconnects to the ITC Midwest 161 kV line between the Marshalltown Substation and the Jasper Substation. All turbines at the Laurel Site are in-service. All system studies, on-site upgrades, and off-site upgrades required for this site have been completed and were previously submitted in prior updates.

### 200.1 MW Eclipse Site

The Eclipse Site, located in Audubon and Guthrie Counties, is a wind farm that was developed by Clipper Windpower Development Company Inc. ("Clipper") and acquired and constructed by MidAmerican. This project interconnects to the 345 kV Fallow Avenue Substation that taps the 345 kV line between Council Bluffs Substation and Grimes Substation. In addition to the Eclipse Substation (the wind farm collector substation), the construction of the Fallow Avenue Substation, as well as a 345 kV line from Fallow Avenue to the Eclipse Substation, were required. MidAmerican and MISO completed an amended and restated interconnection agreement in March 2012. The wind farm was placed in-service in October 2012.

### 101.2 MW Morning Light Site

The Morning Light Site, located in Adair County, is a wind farm that was also developed by Clipper and acquired and constructed by MidAmerican. This project interconnects to the 345 kV Fallow Avenue Substation that taps the 345 kV line between Council Bluffs Substation and Grimes Substation. In addition to the Morning Light wind farm collector facilities at the Fallow Avenue Substation, the expansion of the 345 kV bus at the Fallow Avenue Substation was required. MidAmerican and MISO completed an amended and restated interconnection agreement in March 2012. The wind farm was placed in-service in October 2012.

### 105.6 MW Vienna Site

The Vienna Site, located in Tama and Marshall Counties, is a wind farm that was developed by RPM Access, LLC and acquired and constructed by MidAmerican. The site interconnects to the ITC Midwest 161 kV line between the Marshalltown Substation

and the Traer Substation. A provisional generation interconnection agreement was in place, with MISO and ITC Midwest, having been negotiated by RPM Access, LLC, until December 2012. MidAmerican and MISO completed an amended provisional interconnection agreement in December 2012 to show the change in ownership from RPM Access, LLC to MidAmerican and to account for revisions to certain equipment specifications such as transformer size, wind turbine blade length, and wind turbine generator size. The wind farm was placed in-service in November 2012.

In addition to the wind farm collector substation, which was constructed by MidAmerican, MidAmerican will complete any required system upgrades that are necessary to accommodate the project's interconnection under the provisional generation interconnection agreement. It is anticipated that MISO's studies will be complete and system upgrade costs determined in the second quarter 2013. Until any identified upgrades (if any) are completed, maximum output may be subjected to limits that can reduce output by up to as much as 105.6 MW. The limits (if any) are established on a quarterly basis. MidAmerican is actively engaged in discussions with MISO to minimize the impact and duration of any future limitations.

### **Next Report**

MidAmerican will file the next status update by August 15, 2013, as ordered by the Board.