

**IV. Montana-Dakota Exhibit 4 -MONTANA-DAKOTA'S ASSESSMENT OF
PENDING ENVIRONMENTAL REGULATIONS TO THE BIG STONE PLANT**

1 Montana-Dakota's analysis of the operational impacts of the alternative scenarios developed by
2 OTP demonstrates that the AQCS Project should be implemented to assure that the current
3 function of the Big Stone Plant in Montana-Dakota's system is maintained, including
4 dispatchable baseload and load following capability. In contrast, the other alternatives would
5 dramatically increase the exposure of Montana-Dakota's customers to the market price of power
6 and to fluctuations in the price of natural gas, while reducing the load following capability of the
7 Plant.

8 The Big Stone Plant represents a significant low cost baseload resource as part of Montana-
9 Dakota's portfolio accounting for approximately 20 percent of the Planning Resource Credits
10 required to meet the Midwest ISO's resource adequacy requirements while meeting
11 approximately 23 percent of Montana-Dakota's retail customers' energy requirements. As a low
12 cost producer the Big Stone Plant is also a significant contributor to wholesale sales that provide
13 benefits to Montana-Dakota's retail customers.

14 Montana-Dakota separately analyzed the cost effectiveness of the Big Stone AQCS Project as
15 part of its 2011 Integrated Resource Plan (2011 IRP) submitted to the Commission on May 12,
16 2011. As summarized in the Executive Summary of the IRP and as provided in more detail in
17 the Supply Side and Integration Analysis in Attachment C of the 2011 IRP, the AQCS Project
18 allowing the continued operation of the Big Stone Plant was modeled as a resource addition
19 beginning in 2015. In Montana-Dakota's IRP, the AQCS project was compared with other
20 alternatives to determine if it would be more cost-effective to retire the Big Stone plant or install
21 the AQCS to continue the operation of the plant

22 The results of the Base Case analysis in the 2011 IRP and the results of each scenario modeled to
23 test various sensitivities indicate that the AQCS Project is a least cost alternative to meet the
24 capacity and energy requirements of Montana-Dakota's customers. The sensitivity scenarios
25 consisted of various assumptions regarding carbon taxes, low and high natural gas prices, low
26 and high load growth, high environmental costs, higher capital costs for combustion turbines,
27 and higher costs for the Big Stone AQCS project. In the Big Stone AQCS scenario, the project
28 cost was incrementally increased to determine at what point other alternatives would be selected
29 over the Big Stone AQCS project. With the modeled cost of the Big Stone AQCS project nearly
30 doubled from the original estimated cost, the project was still selected as part of Montana-
31 Dakota's resource plan recommended in the 2011 IRP.

32 Montana-Dakota is not requesting any decision on cost recovery at this time. This Application is
33 solely a request for an advance determination that it is prudent for Montana-Dakota to undertake
34 the design, construction and operation of the Big Stone AQCS Project.

35 Montana-Dakota expects to seek cost recovery for the Big Stone AQCS Project through retail
36 rates in future general rate cases or other cost recovery mechanisms. Montana-Dakota

Docket No.
PU-11-163/ PU-11-165

MDU-304

1 understands that it must show that the project costs are reasonable. (N.D. Cent. Code § 49-05-
2 16) Montana-Dakota further understands that the Commission may accept, modify, or reject any
3 of the project costs found to be unreasonable in a future cost recovery proceeding, even though
4 the Commission has made a determination that the Big Stone AQCS is prudent and should be
5 implemented.