

**BEFORE THE PUBLIC UTILITIES COMMISSION OF
THE STATE OF SOUTH DAKOTA**

In the Matter of the Application of Northern)
States Power Company dba Xcel Energy) Docket No. EL11-019
for Authority to Increase its Electric Rates)

COST RECOVERY FOR THE NOBLES WIND PROJECT

**TESTIMONY AND EXHIBIT OF KAVITA MAINI
ON BEHALF OF
THE COMMISSION STAFF**

Public VERSION

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1 **I. INTRODUCTION**

2 **Q. Please state your name and occupation.**

3 A. My name is Kavita Maini. I am the principal and sole owner of KM Energy
4 Consulting, LLC.

5 **Q. Please state your business address.**

6 A. My office is located at 961 North Lost Woods Road, Oconomowoc, WI 53066.

7 **Q. Please state your educational and professional background.**

8 A. I am an economist with over 20 years of experience in the energy industry. I
9 graduated from Marquette University, Milwaukee, Wisconsin with a Masters in
10 Business (1986) and a Masters in Applied Economics (1991). From 1991 to
11 1997, I worked for Wisconsin Power & Light as a Market Research Analyst and
12 Senior Market Research Analyst. In this capacity, amongst other responsibilities,
13 I conducted linear optimization modeling for asset valuation and resource
14 planning purposes. From 1997 to 1998, I worked as Senior Analyst at Regional
15 Economic Research, Inc. in San Diego, California where I learned to use neural
16 network models for load forecasting purposes. From 1998 to 2002, I worked as a
17 Senior Economist at Alliant Energy Integrated Services' Energy Consulting
18 Division. In this capacity, I assisted with internal strategic planning and was
19 responsible for analyzing wholesale energy market dynamics. I also assisted
20 industrial, commercial and institutional customers in optimizing rates and
21 minimizing costs in regulated and deregulated states.

22 Since 2002, I have been an independent consultant. Aside from assisting retail
23 customers with their pricing decisions in regulated and deregulated states, I have

24 provided comments as a technical expert related to a variety of energy policy
25 issues on behalf of the Wisconsin Industrial Energy Group in various Wisconsin
26 regulatory and federal regulatory proceedings. I have also conducted workshops
27 on several energy related matters. In Minnesota, I was the lead expert in
28 developing comments for several of Xcel Energy's and Otter Tail Power
29 Company's renewable and transmission cost rider proceedings including the
30 utilities' integrated resource plans. In North Dakota, I was the expert witness on
31 Otter Tail's case dealing with renewable power and transmission cost recovery
32 issues.

33 I represent the Wisconsin Industrial Energy Group Midwest Industrial Customers
34 (MIC) at MISO. The MIC is a coalition of four end user associations including the
35 Wisconsin Manufacturers' and Commerce, American Forestry & Paper
36 Association, Wisconsin Paper Council and Wisconsin Industrial Energy Group.
37 As a representative of MIC, I participate in several MISO committees and
38 working groups. I represent the End Use Sector at the Planning Advisory
39 Committee (PAC). The PAC is responsible for providing policy guidance to MISO
40 relating to transmission planning. As such, this includes considerable discussion
41 related to MISO's use of futures scenarios and input assumptions in its screening
42 and hourly production cost models.

43 **Q. Please summarize your relevant experience in evaluating integrated**
44 **resource plans and renewable generation related costs.**

45 **A.** The following are relevant recent cases and experience:

- 46 • Expert witness in the Otter Tail Power combined rate case and renewable
47 energy rider proceeding in North Dakota in 2009 (PU-08-862 and PU-08-742)
48 on behalf of Large Industrial Group.
- 49 • Comments and Reply Comments related to Otter Tail's Integrated Resource
50 Plan in MN (MPUC Docket No. E017/RP-10-623) on behalf of Minnesota
51 Chamber of Commerce.
- 52 • Comments related to Xcel Energy's Transmission Cost Recovery Rider
53 (MPUC Docket No. E002/M-10-1064) and Xcel Energy's Renewable Energy
54 Rider (MPUC Docket No. E002/M-10-1066) on behalf of Minnesota Chamber
55 of Commerce; similar filings for Otter Tail Power Company on behalf of
56 Minnesota Chamber of Commerce (MPUC Docket No. E017/M-09-1484,
57 MPUC Docket No. E017/M-10-1061).
- 58 • Comments related to Xcel Energy's 2010 Integrated Resource Plan (MPUC
59 Docket No. E002/RP-10-825 comments are due on May 21, 2012) on behalf
60 of Minnesota Chamber of Commerce.
- 61 • Technical support and analysis regarding cost recovery of wind generation
62 related costs (Whispering Willows East) in Interstate State Power & Light's
63 rate case in Minnesota (MPUC Docket No. E001/GR-10-276).
- 64 • Represent Midwest Industrial Customers (MIC) at MISO. The MIC is a
65 coalition of four end user associations including the Wisconsin Manufacturers'
66 and Commerce, American Forestry & Paper Association, Wisconsin Paper
67 Council and Wisconsin Industrial Energy Group.

68 Q. **On whose behalf are you testifying in this proceeding?**

69 A. I am testifying on behalf of the South Dakota Public Utilities Commission Staff
70 ("Staff").

71 Q. **What is the purpose of your testimony in this proceeding?**

72 A. This testimony reflects Staff's position regarding cost recovery associated with
73 Xcel Energy's ("Xcel") Nobles Wind Project ("Nobles").

74 **II. NOBLES WIND INVESTMENT**

75 Q. **Please briefly describe the Nobles Wind Project.**

76 A. Xcel's petition in Minnesota for approval of Nobles describes it as follows:

77 "The Nobles Wind Project is a 201 MW wind energy
78 generation facility consisting of 134 General Electric ("GE")
79 1.5 MW sle wind turbines located within a project site
80 encompassing approximately 25,000 acres in Nobles County,
81 Minnesota."

82 **See Exhibit _____(KM-1), Schedule 1, page 29 of 67**

83 The project was built by enXco and the ownership of the project was transferred
84 to Xcel Energy. Commercial operation began in December 2010.

85 Q. **Please describe the revenue requirements being sought by Xcel in the
86 current rate case.**

87 A. Xcel originally sought \$2.085 million in direct testimony. However, it updated its
88 revenue requirement to \$2.039 million to reflect actual investment placed in
89 service through 2011. Xcel intends to submit these revised numbers in its
90 rebuttal testimony. **See Exhibit _____ (KM-1), Schedule 2.** This revenue
91 requirement is based on the Commission's approved rate of return from Xcel's
92 last base rate case.

93 Q. **Should the Commission approve this amount of revenue requirement for**
94 **Nobles?**

95 A. No; for reasons outlined below, Staff believes that Xcel should not be granted
96 this amount of revenue requirement. In fact, the testimony that follows will
97 demonstrate that the entire amount should be denied. It will conclude that
98 Nobles was not built for capacity or energy reasons; rather, it was built for policy
99 reasons. Specifically, it was built primarily to satisfy Minnesota's Renewable
100 Energy Standard ("RES") that requires Xcel to fulfill roughly 25% of its 30%
101 renewable requirements through wind. It should be noted that prior to Nobles
102 being built, Xcel was already fulfilling South Dakota's voluntary Renewable
103 Energy Objective ("REO") of 10% by 2015.

104 Notwithstanding the foregoing, Staff has made concerted efforts to recognize that
105 at the time the decision was made, there were estimated fuel and non-fuel
106 benefits. Staff is providing recommended adjustments based on these estimated
107 benefits in spite of the challenges associated with assessing the reasonableness
108 of the assumptions used to calculate the benefits four years after the fact. In the
109 event that the Commission determines that this method of adjusting the revenue
110 requirements is not compatible with traditional ratemaking principles, Staff
111 recommends that the entire revenue requirement be denied.

112 **III. NOBLES WAS NOT BUILT FOR ENERGY OR CAPACITY NEEDS**

113 Q. **Was Nobles built as a result of including wind to satisfy capacity needs in**
114 **the 2007 resource plan?**

115 A. No; since wind is an intermittent resource, its dependable capacity is a small
116 fraction of its installed capacity and is not viewed as a reasonable resource for
117 capacity purposes. This is further reinforced by the following response from Xcel:

118 "Wind is primarily just an energy resource and not a capacity
119 resource. **Wind replaces fuel that would have been**
120 **consumed in the production of generation from other**
121 **resources that already exist or that would have been**
122 **added to the system regardless of the addition of wind**
123 **(emphasis added).**As a result we did not, and do not plan to
124 install any additional capacity resources to back-up the
125 Nobles Wind Project or other wind generation. Therefore,
126 there are no associated costs as such."

127
128 **See Exhibit _____(KM-1), Schedule 3.**

129
130 **Q. Was Nobles built as a result of including wind to satisfy energy deficiency**
131 **needs in the 2007 resource plan?**

132 A. No; as per the foregoing response from Xcel, wind replaces fuel that would have
133 been consumed in the production of generation from other resources that already
134 exist or that would have been added to the system regardless of the addition of
135 wind. This is further demonstrated by the fact that Xcel forced wind in the model
136 to comply with renewable policy. **See Exhibit _____(KM-1), Schedule 4.**

137 **Q. Please explain how Xcel justified the selection of wind in its 2007 resource**
138 **plan?**

139 A. Xcel indicates that wind generation was chosen to comply with the various state
140 mandates for renewable resources. Xcel stated the following:

141 "We are required to comply with state mandates for
142 renewable resources, absent circumstances justifying a
143 request to be released from those obligations. Consequently,
144 the resource modeling process selects the amount of wind
145 resources needed to comply with our system requirements.
146 Therefore, in our 2007 Resource Plan, we identified the

147 amount of wind that would be needed to comply with the
148 renewable energy standards in all of our jurisdictions.”

149 **See Exhibit _____(KM-1), Schedule 5.**

150 Q. **What did Xcel state that it did once the decision to acquire wind was**
151 **identified in the resource plan?**

152 A. Xcel stated that it conducts a competitive bidding process and compares actual
153 project proposals against other wind projects as well as other, non-renewable
154 resource options. Xcel stated the following in response to a discovery request:

155 “The outcome of resource planning is not an actual selection
156 of a new resource. Our work in resource planning is a
157 programmatic assessment to examine whether it is
158 reasonable to proceed to actual acquisition which is the step
159 where competition among resources occurs. When we
160 acquire individual wind projects through competitive bids or
161 other competitive processes, we focus the analysis further
162 by comparing actual project proposals against other wind
163 projects as well as other, non-renewable resource options.”

164
165 **See Exhibit _____(KM-1), Schedule 6.**

166 Q. **Did Xcel implement a competitive bidding process to compare**
167 **renewable and non-renewable projects?**

168 A. No; Xcel implemented a competitive bidding process for build/transfer projects for
169 wind generation only. There were no non-renewable projects that were compared
170 to the build/transfer options in the competitive bidding process.

171 Q. **Was Nobles identified as part of this competitive bidding process?**

172 A. Yes; Xcel conducted a Request for Proposal (RFP) for a build/transfer option for
173 wind generation and was able to demonstrate that building Nobles was cost
174 competitive as compared to other bids as well as Purchase Power Agreements

175 (PPA) for wind generation only. For example, Witness McCarten states the
176 following:

177 "The Nobles wind project arose out of our ongoing efforts to
178 acquire timely and cost-effective wind energy generation
179 resources to serve our customers and to comply with the
180 renewable requirements and objectives of the states in
181 which we operate. To maintain a robust system and
182 minimize impacts to our customers, we need a diversified
183 portfolio of wind resources, including Company-owned
184 resources. Prior to the Nobles project coming on-line,
185 however, less than 10 percent of our wind resources were
186 Company owned. The Nobles wind project helps bring more
187 balance to our wind energy portfolio.

188 In order to meet the renewable requirements and objectives
189 of the states in which we serve, we initiated a competitive
190 bidding process in 2007. The Nobles wind project was
191 selected pursuant to this process in which we evaluated 30
192 proposals submitted in response to a request for proposal
193 ("RFP") for up to 500 MW of wind energy generation."

194 **See McCarten Direct Testimony, Pages 6-7.**

195 Xcel also provided the initial screening of the responses to the RFP for a
196 build/transfer option for wind only. **See also Exhibit _____(KM-1),**
197 **Schedule 7 (Confidential).**

198 **Q. What are your findings so far?**

199 **A.** So far, my findings have established that:

- 200 1) Nobles was not built to fulfill capacity or energy needs;
- 201 2) Nobles was chosen as part of a competitive bidding process that compared
202 build/transfer bids for wind generation; and
- 203 3) It is Xcel's position that Nobles was built to comply with the renewable
204 requirements of the states in which it operates.

205 **Q. Has Xcel been able to demonstrate that Nobles needed to be constructed in**
206 **2010 to comply with South Dakota's renewable policy?**

207 A. No; it is Staff's opinion that Xcel has failed to demonstrate that Nobles needed to
208 be constructed in 2010 to meet South Dakota's renewable policy for the following
209 reasons:

210 1) At the time the decision was made to construct Nobles, Xcel had already
211 reached and in fact slightly surpassed REO, a voluntary goal, of 10% by
212 2015, see SDCL §49-34A-101. In sharp contrast, Minnesota has a stringent
213 RES mandate with not only fulfilling 30% by 2020, but prescribed timelines for
214 fulfilling this mandate as well as a requirement that roughly 25% must be
215 achieved through wind generation.

216 2) Unlike Minnesota, South Dakota has no financial repercussions or penalties
217 for not complying with its REO – it is a goal, not a mandate.

218 3) Xcel sought an exemption for a Certificate of Need in Minnesota on the basis
219 that Nobles was being built to meet Xcel's obligation under Minnesota's RES.

220 4) South Dakota's REO statute seeks a comparison of renewable resources with
221 other non-renewable resources, see SDCL §49-34A-104. Since Nobles was
222 not built to fulfill capacity or energy needs, there are no non-renewable
223 resources for comparison per se. In other words, Nobles could be viewed as
224 a "discretionary" and not a necessary supply side resource from South
225 Dakota's perspective.

226 5) In the absence of fulfilling capacity or energy needs, the only other option was
227 to examine the economics (i.e. costs and benefits) associated with Nobles.
228 Xcel's analysis with and without Nobles indicates that costs exceed benefits
229 by including Nobles.

230 I describe each of these reasons in more detail below.

231 **IV. NOBLES WAS NOT BUILT TO FULFILL SOUTH DAKOTA'S RENEWABLE**
232 **POLICY NEEDS**

233 **1. STATE RENEWABLE POLICIES ARE SIGNIFICANTLY DIFFERENT**

234 **Q. Are the state renewable mandates the same for Minnesota, North Dakota**
235 **and South Dakota?**

236 **A.** No. There are significant differences.

237 In Minnesota, Xcel has a 30% renewable energy standard mandate out of which
238 roughly 25% must be achievable from wind generation. Further, there is a
239 prescribed timeline for fulfilling the mandate as follows:

240 (1) 2010 15%

241 (2) 2012 18%

242 (3) 2016 25%

243 (4) 2020 30%

244 **See Minnesota Statute 216B.1691.**

245 North Dakota and South Dakota have an REO of 10% by 2015. This is a
246 voluntary standard and not a mandate such as that established by Minnesota.

247 **Q. What percentage of South Dakota's REO was already fulfilled before**
248 **building Nobles?**

249 **A.** Xcel indicated that prior to building Nobles, it had already procured and
250 purchased enough renewable resources to meet South Dakota's requirements at
251 10.3%. **See Exhibit _____ (KM-1), Schedule 8.** Thus, it was not necessary
252 to construct any wind or other renewable resources from South Dakota's REO

253 perspective at the time the decision was made to build Nobles. In 2008, Xcel was
254 already meeting the South Dakota goal that needed to be fulfilled by 2015.

255 **2. NO FINANCIAL IMPACTS DUE TO NON COMPLIANCE IN SOUTH DAKOTA**

256 **Q. Are there financial repercussions associated with not meeting the**
257 **renewable energy objective in South Dakota?**

258 **A.** No, unlike Minnesota, there are no financial repercussions. SDCL §49-34A-101
259 states that "[t]his objective is voluntary, and there is no penalty or sanction for a
260 retail provider of electricity that fails to meet this objective." In Minnesota,
261 however, the statute states the following:

262 **Subd. 7. Compliance.**

263 The commission must regularly investigate whether an
264 electric utility is in compliance with its good faith objective
265 under subdivision 2 and standard obligation under subdivision
266 2a. If the commission finds noncompliance, it may order the
267 electric utility to construct facilities, purchase energy
268 generated by eligible energy technology, purchase renewable
269 energy credits, or engage in other activities to achieve
270 compliance. If an electric utility fails to comply with an order
271 under this subdivision, the commission may impose a
272 financial penalty on the electric utility in an amount not to
273 exceed the estimated cost of the electric utility to achieve
274 compliance. The penalty may not exceed the lesser of the
275 cost of constructing facilities or purchasing credits. The
276 commission must deposit financial penalties imposed under
277 this subdivision in the energy and conservation account
278 established in the special revenue fund under section
279 216B.241, subdivision 2a. This subdivision is in addition to
280 and does not limit any other authority of the commission to
281 enforce this section.

282 **See Minn. Statute §216B.1691**

283 **3. CERTIFICATE OF NEED EXEMPTION FOR NOBLES IN MINNESOTA**

284 **Q. Did Xcel seek a petition for approval of Nobles before the Minnesota Public**
285 **Utilities Commission?**

286 A. Yes; on December 3, 2008, Xcel sought such a request in MPUC Docket No. E-
287 002/M-08-1437. Further, as part of the same petition, Xcel also sought an
288 exemption for a Certificate of Need ("CON").

289 Q. **Did Xcel provide an explanation of the exemption for the CON?**

290 A. Based on Xcel's responses, it is my understanding that its CON exemption
291 request for Nobles was done on the basis that it was intended to meet Xcel's
292 obligation of Minnesota's RES. Xcel also stated that "[t]he two wind energy
293 projects proposed in this petition are specifically designed to help the Company
294 meet our obligations under the RES." **See Exhibit 1, Schedule 1, page 27 of**
295 **67.**

296 Further, Xcel stated the following as part of a response to a Data Request:

297 "The Company's CON exemption request for Nobles, a renewable
298 resource, was made pursuant to Minn. Stat. § 216B.243, Subd. 9
299 and in consideration of the following conditions:
300 1) The Nobles Wind Project is a wind energy conversion system that
301 is contemplated by the RES statute;
302 2) It is intended to meet or exceed Xcel Energy's obligations of the
303 RES; and
304 3) It is a reasonable and prudent approach for Xcel Energy to satisfy
305 the RES."

306 **See Exhibit _____(KM-1), Schedule 9.**

307 All other large generating facilities of 50 MW or more have to obtain a CON
308 under this statute. There is not an exemption available for non-renewable
309 generation facilities. So, essentially, the exemption was granted on the primary
310 basis that it was intended to meet Xcel's obligation of Minnesota's RES.

311 **4. IMPLICATIONS OF NOT CONSTRUCTING NOBLES FOR CAPACITY OR ENERGY NEED**

312 Q. **From Staff's perspective, what are the Implications for constructing Nobles**
313 **since it was not built to satisfy capacity or energy need?**

314 A. South Dakota's REO statute seeks a comparison of renewable resources with
315 other non-renewable resources. Since Nobles was not built to fulfill capacity or
316 energy needs, there are no non-renewable resources for comparison per se.
317 Rather Nobles is displacing energy or capacity from existing units or new units
318 that would have been built anyway. In other words, Nobles is more of a
319 "discretionary" rather than a necessary supply side resource from Staff's
320 perspective.

321 Since Nobles was not constructed to satisfy need, any costs incurred to build this
322 resource must therefore be compared on the basis of costs and benefits.

323 **5. NOBLES COSTS EXCEED BENEFITS**

324 **Q. Did Xcel provide a cost benefit analysis for Nobles?**

325 A. Yes. Xcel conducted runs using the Strategist model with and without Nobles.
326 The Strategist model is a preliminary screening model used to identify whether it
327 is appropriate to examine the actual acquisition of resources. Xcel provided the
328 Present Value of Revenue Requirements (PVRR) of various sensitivities with and
329 without Nobles using this screening capacity expansion tool.

330 **Q. What did this analysis indicate?**

331 A. This analysis indicated that in Xcel's base case and various sensitivity runs, the
332 costs associated with building Nobles exceeded the benefits. All sensitivities and
333 the base case included assumptions for carbon. Only at a \$30/ton carbon
334 assumption do the costs and benefits roughly break even. The base case
335 included a carbon price of \$17.50/ton. Not surprisingly and from a relative
336 standpoint, the lower the assumed price of carbon, the more the costs exceed

337 the benefits. See Exhibit _____ (KM-1), Schedule 1 (Table 3, page 56 of
338 67 Confidential).

339 Q. **Why was a carbon price assumption of \$17.50/ton used in the base case?**

340 A. According to the Next Generation Energy Act, the Minnesota Commission is
341 required to estimate how the future regulation of carbon dioxide emissions will
342 affect the cost of generating electricity. See Minn. Stat. §216H.06. The Act
343 directed the Commission to establish a range of estimates by January 1, 2008.
344 The Commission issued an Order in December 2007 establishing a range of
345 \$4/ton to \$30/ton for CO2 emitted in 2012 and thereafter. The Commission's
346 Order also required electric utilities to apply these estimates in all proceedings to
347 acquire electric generation resources to serve the needs in Minnesota. See
348 Docket No. E-999/CI-07-1199.

349 It is likely that Xcel used this assumption to be somewhat in the middle of the
350 range prescribed by the Minnesota Commission's Order.

351 Q. **Is there an approved federal law on carbon regulation at present?**

352 A. No; none exists today.

353 Q. **Does South Dakota have a similarly prescribed policy?**

354 A. No. It is my understanding that no such prescribed policy exists in South Dakota.

355 Q. **Based on these findings, does Staff conclude that Nobles was built for the
356 purpose of fulfilling Minnesota's RES mandate and not for South Dakota's
357 REO?**

358 A. Yes; for reasons identified above it is Staff's opinion that Xcel has failed to
359 demonstrate that Nobles needed to be constructed in 2010 to meet South

360 Dakota's renewable policy. Rather, it was built for the purpose of fulfilling
361 Minnesota's RES mandate.

362 Q. **Does Xcel allocate costs associated with energy efficiency programs in**
363 **Minnesota to its South Dakota jurisdiction and vice versa?**

364 A. No. Each jurisdiction is assigned the costs it incurs for energy efficiency
365 initiatives. Each jurisdiction has its own policy regarding energy efficiency and
366 Xcel accordingly and appropriately allocates these costs.

367 Q. **Should Xcel utilize the same method for fulfilling renewable policy and**
368 **allocating costs associating with such policy?**

369 A. Yes; since each jurisdiction has a different policy, the costs should be assigned
370 to those jurisdictions that cause the costs. Xcel should utilize the same
371 fundamental principle for allocating costs to jurisdictions regarding renewable
372 resources as it does for energy efficiency.

373 Q. **Based on these findings and in accordance with traditional ratemaking**
374 **principles, should the entire cost recovery for Nobles be denied?**

375 A. Yes; Since Xcel did not build Nobles to address capacity or energy deficiencies
376 and since Xcel has failed to demonstrate that Nobles needed to be constructed in
377 2010 to meet South Dakota's REO, there are strong justifications to deny the
378 entire cost recovery.

379 V. **STAFF'S RECOMMENDED ADJUSTMENT TO NOBLES' REVENUE**
380 **REQUIREMENTS**

381 Q. **Notwithstanding the foregoing conclusion, did Staff also consider non-**
382 **traditional ratemaking mechanisms to identify a methodology where for**
383 **example, the fuel savings and other non-fuel savings could be recognized?**

384 A. Yes. Staff has made efforts to identify a non-traditional mechanism which would
385 allow for recognition of such savings. Staff utilized the estimated cost benefit
386 analysis associated with Nobles at the time Xcel filed the petition to seek approval
387 to build this project in Minnesota. As discussed earlier, Xcel used a planning
388 screening model called Strategist to estimate the PVRR of costs and benefits
389 associated with Nobles. Staff calculated the percentage by which the estimated
390 costs exceeded the benefits and used that percentage to identify the amount of
391 revenue requirements that must be disallowed. The rationale behind this method
392 is to consider what information Xcel used when making the decision to build
393 Nobles.

394 Q. **Did Staff include other disallowances in addition to the one described**
395 **above?**

396 A. Yes; Staff believes that the costs needed to be capped at [confidential begins]
397 [REDACTED] [confidential ends] at the outset since that is the amount included
398 in the same petition where Xcel provided the PVRR costs and benefits and
399 sought approval to build the project in Minnesota. **See Exhibit _____(KM-**
400 **1), Schedule 1 Page 29 of 67.**

401 Since Xcel sought to demonstrate that Nobles was a less expensive option
402 through competitive bidding with other build/transfer wind generation options, it
403 stands to reason that the utility should be held accountable to this amount.

404 Further, in PPA arrangements, suppliers cannot seek recovery of cost overruns
405 and neither should Xcel be allowed to do so.

406 **Q. At the outset, what do you wish to clarify?**

407 A. I want to clarify that in this testimony, I am utilizing the revenue requirements of
408 \$2.039 million as the starting point. As mentioned earlier on in the testimony, this
409 is the amount requested by Xcel and it is based on Xcel's approved rate of return
410 of 8.32% from the last base rate case. I recommend that to the extent the
411 Commission makes a determination to adjust the rate of return, that the revenue
412 requirements be adjusted accordingly prior to making the adjustments I describe
413 below.

414 **Q. Prior to providing the numerical calculations utilizing the methodology**
415 **provided above, please explain what components are included in the costs**
416 **and benefits.**

417 A. Xcel calculated the following:

- 418 • PVRR of the gross revenue requirements that included capital costs,
419 operating costs and production tax credits
- 420 • PVRR of the benefits that includes fuel savings, O&M savings, avoided
421 capacity and energy payments and avoided emissions costs

422 **Q. Please provide the numerical calculation of the adjustments.**

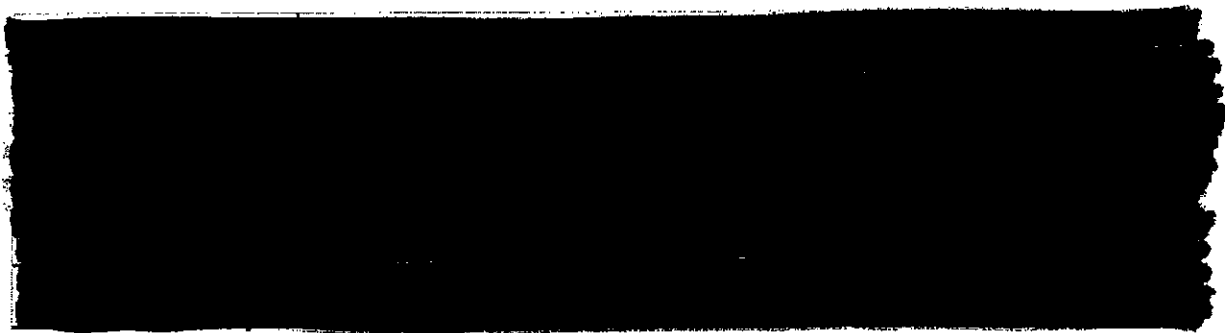
423 A. Xcel's actual costs exceed the amount in the Nobles petition by [confidential
424 begins] [redacted] [confidential ends] million. This results in a [confidential
425 begins] [redacted] [confidential ends] reduction at the outset. The requested

426 revenue requirement of \$2.039 million is reduced to [confidential begins]
427 [redacted] [confidential ends] million with this first base adjustment.

428 The next step consisted of utilizing the cost benefit case with the \$4/ton
429 assumption for carbon to identify the percentage by which the PVRR of the gross
430 revenue requirements exceeded the PVRR of the benefits. We found that the
431 \$4/ton carbon case is reasonable to give some quantifiable recognition to
432 emission reductions because at the time constructing Nobles was being
433 contemplated, there was no actual legislation on carbon emissions – in fact, none
434 exists today.

435 In the \$4/ton carbon case, the PVRR of the benefits was [confidential begins]
436 [redacted] [confidential ends] lower than the PVRR of the gross revenue
437 requirements. See Table 1. This results in reducing the adjusted revenue
438 requirements from [confidential begins] [redacted] [confidential ends] million to
439 [confidential begins] [redacted] [confidential ends] million or a net reduction of
440 [confidential begins] [redacted] [confidential ends] from Xcel's requested amount.

441 **Table 1: Nobles: Costs Exceed Benefits Calculation (Confidential)**



442

443 Q. To be clear, is Staff recommending a [confidential begins] [redacted] [confidential
444 ends] disallowance to the revenue requirement?

445 A. Yes. Once again, it should be noted that the [confidential begins] [redacted]
446 [confidential ends] disallowance is based on the revenue requirement of \$2.039
447 million to be provided in Xcel's rebuttal testimony that utilizes the 8.32% rate of
448 return authorized by the Commission in a previous rate case. As mentioned
449 earlier, to the extent the Commission authorizes a different rate of return, the
450 revenue requirements should be adjusted accordingly prior to calculating the
451 [confidential begins] [redacted] [confidential ends] disallowance.

452 Q. Was there rationale to lower the revenue requirements further that were not
453 considered?

454 A. Yes. Given actual results so far, Staff is giving Xcel the benefit of the doubt by
455 taking their 2008 estimates. Since Nobles was not built based on need, there are
456 justifiable reasons for adjusting the costs and the benefits based on Nobles
457 actual operations in 2011 when it was in service for one full year. These include
458 the following:

459 1) On the gross revenue requirement side, the production tax credits were
460 based on a 41% capacity factor whereas the actual capacity factor for Nobles
461 for 2011 was 32.76%. See Exhibit _____(KM-1), Schedule 10. This
462 would result in raising the PVRR of the gross revenue requirements.

463 2) On the benefits side, no adjustments were made to fuel savings even though
464 in 2011, the estimated savings were significantly lower at [confidential
465 begins] [redacted] [confidential ends] million using actual hourly Nobles output

466 and locational marginal prices (LMPs) instead of the projected [confidential
467 begins] [REDACTED] [confidential ends]. Further, as a result of surplus of
468 capacity at MISO, the prices for capacity in 2011 were very low (i.e. \$10 per
469 MW month or less for the summer months¹ as opposed to Xcel's projected
470 forecast using [confidential begins] [REDACTED]
471 [REDACTED] [confidential ends].

472 3) It is also not clear if Xcel included the costs associated with the cycling of coal
473 plants needed to accommodate wind.

474 4) Finally, it should be noted that Staff made repeated attempts to ask for a
475 Renewable Energy Credit (REC) value to justify building so far in advance of
476 need, Xcel did not provide such a value. See Exhibit _____(KM-1),
477 Schedule 12(a) and Schedule 12(b). However, when there were discussions
478 with Xcel regarding the prescribed methodology to adjust the revenue
479 requirements downwards, Xcel provided a REC value of \$3/MWh and stated
480 that they wanted this value to be recognized. There is no documentation or
481 rationale for why this estimate was given especially since no estimate was
482 provided in earlier inquiries. Since Xcel has not sold any RECs to date, there
483 is no justification to recognize this value.

484 Q. **What are the impacts on the revenue requirement for Nobles should the**
485 **Commission wish to consider lesser or greater impacts of carbon?**

486 A. The revenue requirements would be [confidential begins] [REDACTED] [confidential
487 ends] million (i.e., [confidential begins] [REDACTED] [confidential ends] disallowance)

¹ See Exhibit 1 _____(KM-1) Schedule 11.

488 for the \$0/ton carbon case and [confidential begins] [redacted] [confidential ends]
489 million (i.e., [confidential begins] [redacted] [confidential ends] disallowance) for
490 the \$17.50/ton carbon case. If the Commission wishes to place lower or higher
491 emphasis on carbon than what Staff recommends, it can require Xcel to revise
492 the amount in the rate base accordingly. Also, as mentioned earlier, to the extent
493 the Commission authorizes a different rate of return, the revenue requirements
494 should be adjusted accordingly prior to calculating the disallowance.

495 Q. **In the event the Commission does not want to consider the foregoing non-**
496 **traditional method of adjusting the revenue requirements for Nobles, what**
497 **is your recommendation?**

498 A. On behalf of Staff, my recommendation is complete disallowance of costs for
499 reasons identified earlier in my testimony.

500 Q. **Does this conclude your testimony?**

501 A. Yes.