

**REDACTED**

Rocky Mountain Power

Docket No. 20-035-04

Witness: Timothy J. Hemstreet

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

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**REDACTED**

Rebuttal Testimony of Timothy J. Hemstreet

October 2020

1 **Q. Are you the same Timothy J. Hemstreet who previously provided direct testimony**  
2 **in this case on behalf of PacifiCorp d/b/a Rocky Mountain Power (“PacifiCorp”**  
3 **or the “Company”)?**

4 A. Yes.

5 **I. PURPOSE AND SUMMARY OF TESTIMONY**

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

7 A. The purpose of my rebuttal testimony is to give an update on the construction progress  
8 and expenditures for the Energy Vision 2020 wind energy projects including TB Flats,  
9 Ekola Flats, and Cedar Springs II (“New Wind Projects”) that were approved by the  
10 Public Service Commission of Utah (“Commission”) in Docket No. 17-035-40. I also  
11 provide an update on the progress of construction of the Dunlap and Foote Creek I  
12 repowering projects. My rebuttal testimony also addresses certain recommendations  
13 made by the Office of Consumer Services (“OCS”) witness Mr. Philip Hayet regarding  
14 the Foote Creek I repowering project.

15 **Q. Please summarize your rebuttal testimony.**

16 A. Wind turbine generator (“WTG”) equipment deliveries from the predominant WTG  
17 equipment supplier, Vestas-American Wind Energy, Inc. (“Vestas”), have been  
18 delayed, which Vestas has attributed to the global COVID-19 pandemic. As a result,  
19 construction progress at the TB Flats and Ekola Flats wind projects have been  
20 impacted. The Company continues to work diligently with its suppliers and contractors  
21 to mitigate the impacts of these delivery delays and bring these beneficial projects  
22 online as soon as practicable while managing cost impacts associated with the extended  
23 construction schedule. To mitigate the impacts of these delays, the Company will place

24 the New Wind Projects in-service in a phased approach. On the date that  
25 interconnection and transmission service is available to allow the energy to flow from  
26 the New Wind Projects to the transmission system, all WTGs on electrical circuits that  
27 are ready to be placed in-service will immediately begin operations. In circumstances  
28 where less than 100 percent of the WTGs are ready to be placed in-service on such  
29 date, the remaining WTGs will be placed in-service on a circuit-by-circuit basis. This  
30 plan allows customers to enjoy the energy and production tax credit (“PTC”) benefits  
31 of the New Wind Projects as soon as possible. The Company has updated its forecasted  
32 costs for the New Wind Projects to reflect costs associated with addressing the impact  
33 of delayed equipment delivery and the resulting extended construction schedules for  
34 the facilities. The Company continues to work with suppliers and contractors to  
35 implement revised schedules to complete the construction of the New Wind Projects in  
36 the most cost effective manner. Because the full extent of the project delays continues  
37 to evolve, any incremental costs in excess of the updated amounts for the New Wind  
38 Projects included in the Company’s rebuttal filing, if any, will be reflected in a future  
39 general rate case.

## 40 **II. ENERGY VISION 2020 NEW WIND PROJECTS AND FOOTE CREEK I**

### 41 **REPOWERING PROJECT CONSTRUCTION STATUS**

42 **Q. What is the current construction status of the TB Flats I and II wind facilities?**

43 A. For the nominal 500 megawatt (“MW”) TB Flats I and II wind facilities, all WTG  
44 foundations and access roads are complete. There are two collector systems in the  
45 project; the first collector system is complete, and all cabling for the second collector  
46 system has been laid. Terminations for the second collector system are nearing

47 completion, and associated testing is underway as fiber installation continues to  
48 proceed. The first collector substation and backfeed power is complete, allowing WTG  
49 commissioning activities to proceed. The second collector substation is 80 percent  
50 complete; the step-up transformer has been placed with fencing, gravel and final testing  
51 remaining to be completed. The transmission line connecting the two collector  
52 substations is complete, as is the transmission line connecting the project to the Shirley  
53 Basin substation. WTG delivery and erection activities are continuing at the project  
54 with more than half of the WTGs now erected.

55 **Q. What is the current construction status of the Ekola Flats wind facility?**

56 A. For the nominal 250 MW Ekola Flats facility, all 63 foundations and access roads are  
57 complete; the collector system is complete; and the substation is now complete and  
58 able to provide backfeed power so that WTG commissioning activities can proceed.  
59 All General Electric safe harbor turbines have been erected and nearly all of these  
60 turbines have reached mechanical completion. All Vestas turbine deliveries have been  
61 completed, and those turbines are now being erected. The operations and maintenance  
62 building is nearly complete, and crews are focused on continuing erection and  
63 commissioning activities.

64 **Q. What is the current construction status of the Cedar Springs II wind facility?**

65 A. For the nominal 200 MW Cedar Springs II facility, the collector substation is nearly  
66 complete and soon will be able to be synchronized with the transmission grid. All of  
67 the 72 foundations have been completed, and WTG erection activities are proceeding.  
68 Backfeed power to WTGs will soon be available so that commissioning activities can  
69 proceed after WTGs achieve mechanical completion. Work on the collector system is

70 approximately 80 percent complete and approximately 65 percent of the turbines have  
71 been erected.

72 **Q. What is the construction status of the Foote Creek I repowering project?**

73 A. Foundations for all 13 of the new WTGs are complete. The new switchgear building  
74 has been set and internal components are being assembled. The 68 original WTGs are  
75 dismantled and components are being hauled offsite. The new collection circuits have  
76 been placed and are now being prepared for testing. Duct work for the fiber  
77 communication system has been installed from the switchyard to the operations  
78 building. All WTG components have been delivered, and seven have been erected.

79 **Q. What is the construction status of the Dunlap repowering project?**

80 A. Construction efforts at the Dunlap project are complete. The repowered project was  
81 placed in service on September 7, 2020, completing construction at all of the facilities  
82 for which repowering was pre-approved in Docket No. 17-035-39. Final reclamation  
83 activities are now underway at the project site.

84 **Q. Has the Company received force majeure notices from contractors that are**  
85 **involved in the equipment supply and construction of the New Wind Projects and**  
86 **Foote Creek I repowering project?**

87 A. Yes. As a result of the COVID-19 pandemic, the Company has received force majeure  
88 notices from all of the major contractors involved in these projects.

89 **Q. Has the COVID-19 public health emergency had a material impact on the**  
90 **Company's construction schedule for the New Wind Projects or the Foote Creek**  
91 **I repowering project?**

92 A. First and foremost, the Company is working closely with its contractors and suppliers

93 to ensure that work on these projects proceeds in a manner that protects the safety of  
94 the people working on the projects and the local public where the projects are located.  
95 Work at all projects is proceeding under COVID-19 mitigation plans to address worker  
96 health and safety. As mentioned above, the pandemic has resulted in force majeure  
97 notices and claims by all major contractors that the pandemic has disrupted the WTG  
98 supply chain and construction activities, resulting in delayed equipment deliveries,  
99 delivery of equipment that may occur out of sequence from originally planned  
100 deliveries, and slower than anticipated construction progress. At the TB Flats and Ekola  
101 Flats projects, equipment delivery delays have affected the construction schedules and  
102 turbine construction activities. At the Cedar Springs II project, equipment delivery  
103 delays have also occurred with the WTG equipment being supplied by General Electric,  
104 but work is underway to mitigate the impact of those equipment delays and achieve the  
105 project schedule. At the Foote Creek I repowering project, equipment delivery has not  
106 been significantly delayed, and work is underway to keep the project on schedule.  
107 Across all of the projects, delayed turbine deliveries and COVID-19 worker safety  
108 protocols have decreased productivity and affected production beyond the schedule  
109 delays associated with the WTG equipment supply.

110 The Company is working diligently with the equipment suppliers and balance  
111 of plant construction contractors to mitigate the impacts of delayed equipment delivery  
112 to the projects, and construction delays due to COVID-19 impacts, while ensuring that  
113 the people working on the projects and the general public in the communities hosting  
114 these projects are protected by complying with all governmental requirements, orders

115 and directives. The Company and its contractors are also working to firm up schedules  
116 for remaining equipment deliveries and turbine erection and commissioning activities.

117 **Q. Does the delay in the project schedules threaten the ability of the projects to**  
118 **qualify for production tax credits?**

119 A. No. The Internal Revenue Service has issued a notice (Notice 2020-41) in response to  
120 the COVID-19 pandemic providing for a one-year extension in the Continuity Safe  
121 Harbor such that wind projects must be in-service prior to January 1, 2022, in order to  
122 qualify for the full value of PTCs.

123 **Q. How will the construction delays affect the commercial operations dates for the**  
124 **New Wind Projects and Foote Creek I?**

125 A. Although construction is delayed, I anticipate that the Ekola Flats, Cedar Springs II and  
126 Foote Creek I wind projects will still reach full commercial operation in late 2020. The  
127 network upgrades and new transmission line components of Energy Vision 2020 are  
128 proceeding on schedule and should allow all completed wind turbines for the New  
129 Wind Projects to be commissioned before the end of the year and their output delivered  
130 to the Company's customers. However, it is likely that the Company will be unable to  
131 commission as many as 45 of the 132 WTGs at TB Flats until late spring or early  
132 summer 2021. As a result, approximately 309 MW of TB Flats WTGs will be brought  
133 online in 2020 with the remaining approximately 194 MW of nameplate capacity  
134 coming online in 2021.

135 **Q. Has the Company adjusted its approach to bringing the new WTGs into**  
136 **commercial operation as a result of the construction delays resulting from the**  
137 **COVID-19 pandemic?**

138 A. Yes. Because transmission service will now be available before all of the WTGs at the  
139 TB Flats project are erected and commissioned, the Company now plans to bring the  
140 WTGs at the project into commercial operation on a circuit-by-circuit basis after the  
141 planned commercial operation date occurs. This means that rather than wait for all  
142 WTGs to be commissioned before the project achieves commercial operation (which  
143 was anticipated to occur just as the newly constructed transmission service was  
144 available), each circuit of WTGs at the project will be placed into commercial operation  
145 when all WTGs on each particular circuit have been commissioned and are ready to  
146 serve customers. Thus, a large number of WTGs will be placed in operation  
147 simultaneously in late 2020, and any WTGs that are not yet commissioned when  
148 transmission service is available will be brought into commercial operation when all  
149 the WTGs on a particular circuit are ready for commercial operation. Because high  
150 winds and weather conditions make wind energy construction in the high plains of  
151 southeast Wyoming difficult in the winter, construction efforts will largely cease in late  
152 November 2020 and resume when conditions are more favorable in the spring of 2021.

153 **Q. What are the benefits of this strategy to bring turbines online on a circuit-by-**  
154 **circuit basis?**

155 A. Customers will benefit by having the WTGs online sooner than might otherwise occur.  
156 In the case of TB Flats, customers will benefit from the zero-fuel cost energy from the



157 projects as soon as those benefits are available, without waiting for every WTG at the  
158 project site to be completed.

159 **Q. Is a circuit-by-circuit approach to commercial operation allowed under the**  
160 **Internal Revenue Service rules for qualifying WTGs for PTC benefits?**

161 A. Yes. Internal Revenue Service guidance does not require that all WTGs on a project  
162 achieve commercial operation at the same time and placing WTGs online on a circuit-  
163 by-circuit basis is an approach that has been used by other Berkshire Hathaway Energy  
164 affiliates as well as other wind project developers.

165 **Q. Has the Company updated its estimated costs for the New Wind Projects in its**  
166 **rebuttal filing?**

167 A. Yes. The Company has included its most current project cost forecasts for the New  
168 Wind Projects in its rebuttal filing. Confidential Exhibit RMP\_\_\_(TJH-1R) provides  
169 these updated forecasted amounts. Overall, project cost estimates for the New Wind  
170 Projects at the time of this filing have increased slightly by approximately  
171 [REDACTED], as compared to the forecast estimates filed by the  
172 Company with its direct testimony.

173 **Q. Do the Company's updated cost estimates for the New Wind Projects include all**  
174 **cost adjustments related to the COVID-19 pandemic and the associated force**  
175 **majeure notices and claims by the Company's suppliers and contractors?**

176 A. Not necessarily. The Company's updated cost estimates include known cost  
177 adjustments at the time of this filing. However, the Company continues to work with  
178 its suppliers and contractors to assess the ongoing delivery delays and associated  
179 construction impacts in order to adjust its plans to the situation and complete

180 construction of the projects in the most cost effective manner. I anticipate that if costs  
 181 of the New Wind Projects exceed the amounts included in the Company's rebuttal  
 182 filing, the Company will seek recovery of those costs in a future rate case proceeding.

183 **Q. The forecasted cost of the Cedar Springs II project has increased as compared to**  
 184 **the amount contained in the Company's application. Can you explain the change**  
 185 **in the forecasted project costs?**

186 A. Yes. As I noted in the cost exhibit filed with my direct testimony (Exhibit  
 187 RMP\_\_(TJH-1)), the costs filed for the Cedar Springs II project in the Company's  
 188 application included only the Build Transfer Agreement costs and did not include  
 189 internal project management costs. This has now been updated in the Company's  
 190 rebuttal filing and Cedar Springs II costs have increased by \$ [REDACTED] as a result, but  
 191 remain \$ [REDACTED] below the pre-approved in-service cost.

192 **Q. The forecasted cost of the TB Flats project has increased as compared to the**  
 193 **amount contained in the Company's application. Can you explain this change?**

194 A. As described above, due to equipment delivery delays and other delivery inefficiencies  
 195 that have impacted construction progress on the project, construction efforts are now  
 196 anticipated to extend into the 2021 construction season. As a result, the forecasted cost  
 197 of TB Flats, as shown in Confidential Exhibit RMP\_\_(TJH-1R), has increased by  
 198 approximately \$ [REDACTED]. These costs are due to extended overheads, equipment  
 199 costs, and administrative and labor costs associated with the longer duration of  
 200 construction that are known and forecast at this time.

201 **III. FOOTE CREEK I PROJECT RECOMMENDATIONS**

202 **Q. OCS witness Mr. Philip Hayet states that the use of the term “repowering” to**  
203 **describe the Company’s efforts at the Foote Creek I project is “rather**  
204 **misleading”<sup>1</sup>? Do you agree?**

205 A. No. The term “repowering” accurately reflects the Company’s efforts at Foote Creek I.  
206 As used in the wind energy industry, the term “repowering” simply means replacing  
207 older wind turbines, or wind turbine components, at existing wind projects with newer  
208 technology while retaining the remainder of the site assets – including land and  
209 transmission rights, site roads, operations and maintenance facilities, and other project  
210 components. The Company’s efforts fit this definition.

211 **Q. Mr. Hayet states his concerns with the Foote Creek I project given that it was not**  
212 **considered in Docket No. 17-035-39, and that the Company proceeded with the**  
213 **Foote Creek I repowering project without any regulatory approval.<sup>2</sup> Should this**  
214 **be cause for concern?**

215 A. No. The Company was not able to fully evaluate the Foote Creek I repowering project  
216 or agree upon necessary commercial arrangements to repower the facility until well  
217 after the Commission had rendered its decision in Docket No. 17-035-39. However,  
218 Action Item 1a of the 2017 Integrated Resource Plan (“IRP”) committed the Company  
219 to evaluate repowering the Foote Creek I project, and the 2017 IRP Update included a  
220 Foote Creek I sensitivity that stated that repowering the project was likely to produce  
221 customer benefits. Finally, the Company did receive a Certificate of Public  
222 Convenience and Necessity from the Wyoming Public Service Commission to repower

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<sup>1</sup> Direct Testimony of Philip Hayet for the Office of Consumer Services, September 2, 2020, line 463.

<sup>2</sup> *Id.* at line 476.

223 the Foote Creek I facility, so the Company’s efforts were not without regulatory  
224 visibility or scrutiny.

225 **Q. Mr. Hayet raises concern that the Foote Creek I project will use some turbines**  
226 **acquired from Berkshire Hathaway Energy Renewables (“BHER”) that were**  
227 **originally purchased in 2016 rather than “2020 model year WTGs.”<sup>3</sup> Should this**  
228 **cause concern?**

229 A. No. Consistent with IRS guidance, a taxpayer can establish the year in which a wind  
230 energy project begins construction through the purchase of wind turbine generator  
231 equipment that ultimately comprises at least 5 percent of ultimate project costs. A  
232 production tax credit (“PTC”) “safe harbor” is created for wind facilities subsequently  
233 constructed using this equipment. This “safe harbor equipment” is then stored and  
234 maintained consistent with the manufacturer’s specifications until it is ultimately  
235 installed at a wind project – which can occur up to five years after the equipment was  
236 purchased, under current IRS guidance. The turbines acquired from BHER allow the  
237 Foote Creek I project to qualify as having begun construction in 2016, so the project  
238 qualifies for 100 percent of the value of the PTC. I imagine Mr. Hayet’s concern  
239 about the vintage of the turbines acquired from BHER would not be alleviated had the  
240 Company acquired all “2020 model year WTGs” for the project consisting only of the  
241 larger 4.2 MW turbines and thereby qualify the project for PTCs at only 40 percent of  
242 their full value as a result of beginning construction of the project in 2019 when site

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<sup>3</sup> *Id.* at lines 482-484.

243 work at the project began, rather than in 2016 when the “safe harbor” turbines were  
244 acquired.<sup>4</sup>

245 **Q. Mr. Hayet raises a question about whether the turbines acquired from BHER**  
246 **were acquired “at the lesser of cost or fair market value.”<sup>5</sup> Can you shed light on**  
247 **this?**

248 A. Yes. The turbines were acquired from BHER at cost. There is no “market” for safe  
249 harbor turbines because safe harbor equipment cannot be transferred from one  
250 consolidated taxpayer to another and still retain its ability to qualify a wind project as  
251 having begun construction in a certain year. Because there was no market reference  
252 meaning safe harbor equipment could not be procured from the marketplace, the BHER  
253 turbines were acquired at BHER’s cost.

254 **Q. Mr. Hayet wonders why the Company felt the need “to rush into this project in**  
255 **2019”<sup>6</sup> given the Company likely knew it would be soliciting additional renewable**  
256 **resources when it filed its 2019 IRP in October 2019. Why was the Company**  
257 **motivated to move forward when it did?**

258 A. When the Company decided to move forward with repowering Foote Creek I in June  
259 2019, it was understood that 100 percent PTCs would only be available for wind  
260 projects that reached commercial operation prior to January 1, 2021. Under the PTC  
261 rules that were in effect at that time, wind energy projects that would be solicited in a

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<sup>4</sup> On December 18, 2015, Congress enacted changes to the federal Internal Revenue Code extending the full value of the PTC for wind facilities that began construction in 2015 and 2016. The legislation also provided for a phase-out of the PTC over three years, reducing the PTC to 80 percent of the full value for wind facilities beginning construction in 2017, 60 percent for wind facilities beginning construction in 2018, and 40 percent for wind facilities beginning construction in 2019.

<sup>5</sup> Direct Testimony of Phillip Hayet, lines 508-509.

<sup>6</sup> *Id.* at lines 511-512.

262 future request for proposals would likely only be able to qualify for PTCs at 40 percent  
263 value given a planned Q4 2023 in service date, which was the assumption in the 2019  
264 IRP.<sup>7</sup> Thus, the Company was motivated to move forward with the repowering effort  
265 at this site, which has remarkable wind energy characteristics, to secure the value of  
266 100 percent PTCs for its customers. Delaying action would only have resulted in a less  
267 beneficial project for customers and would have resulted in customers continuing to  
268 pay higher costs for energy produced by the original turbines and under the existing,  
269 higher-cost wind energy lease structure for the facility.

270 **Q. Mr. Hayet states that the Foote Creek I project provides only “very modest**  
271 **benefit.”<sup>8</sup> Do you agree?**

272 A. No. While Company witness Mr. Rick Link will address this in more detail in his  
273 rebuttal testimony, the economics of the Foote Creek I repowering project are very  
274 robust, with benefits of \$48 million in the medium gas, medium CO<sub>2</sub> price policy  
275 scenario, upon which the Company’s decision to move forward with the project was  
276 based. Even in the highly conservative low gas, CO<sub>2</sub> price policy scenario the project  
277 results in \$6 million in benefits to customers.

278 **Q. If the Company had delayed the repowering of Foote Creek I, as Mr. Hayet**  
279 **believes would have been more prudent, would customers have benefited?**

280 A. No. As described in Company witness Mr. Rick Link’s workpapers,<sup>9</sup> I understand the  
281 present value of the 100 percent PTCs associated with the Foote Creek I repowering  
282 project to be worth approximately \$ [REDACTED]. Thus, delaying the project such that

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<sup>7</sup> See Action Item 2b, page 276, in PacifiCorp’s 2019 Integrated Resource Plan, Volume I, October 18, 2019.

<sup>8</sup> *Id.* at line 526.

<sup>9</sup> See Proprietary Workpapers of Company Witness Rick Link, “FC1 and PM” folder, file “Table 3, Repower Foote Creek I 3\_19 IRP 2019.07.11 13 WTG Clean Fig 2.xlsm”, “Generic” tab, cell \$D\$1766.

283 it was considered later and qualified for only 40 percent of that PTC value would have  
 284 reduced benefits to customers to approximately \$ [REDACTED]—a reduction in benefits  
 285 of \$ [REDACTED]. This reduction in value would still have rendered the project economic  
 286 for customers, but customers would have lost out on those additional PTC benefits.

287 **Q. Mr. Hayet recommends that the Commission disallow the Company’s request to**  
 288 **recover the costs of the Foote Creek I repowering project.<sup>10</sup> Is Mr. Hayet’s**  
 289 **recommendation reasonable given his position that the project isn’t sufficiently**  
 290 **beneficial to customers?**

291 A. No. Mr. Hayet recommends only that the costs of the Foote Creek I repowering project  
 292 be excluded from the Company’s revenue requirement, but he does not recommend the  
 293 logical corollary to his position: that if the project was not prudent and its costs should  
 294 not be recovered in rates then customers should therefore be held harmless by being  
 295 returned to the status quo without the project. Were the Commission to adopt  
 296 Mr. Hayet’s recommendation, it would only be balanced for the Company’s revenue  
 297 requirement to be increased, rather than reduced, to cover the increased costs associated  
 298 with continued operation of the original turbine equipment at the site without the cost  
 299 savings and PTC benefits realized from the project. Such an adjustment would factor  
 300 in costs related to the lower amount of generation available to serve customers from  
 301 the original facility and its earlier co-ownership and power sales agreement structure.  
 302 Because that result would actually harm customers by causing them to pay higher costs,  
 303 the Commission should not adopt Mr. Hayet’s recommendation.

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<sup>10</sup> *Id.* at lines 689-690.

304 **IV. CONCLUSION**

305 **Q. Please summarize your recommendations.**

306 A. I recommend that the Commission allow the Company to recover its forecasted costs  
307 for the New Wind Projects and wind repowering projects, including the Foote Creek I  
308 project, as filed with its rebuttal testimony in rates. The Company has diligently and  
309 prudently managed the projects to ensure customers will receive the projects' benefits  
310 as cost-effectively and as soon as feasible in light of the unusual circumstances of a  
311 global pandemic.

312 **Q. Does this conclude your rebuttal testimony?**

313 A. Yes.



**REDACTED**

Rocky Mountain Power  
Exhibit RMP\_\_ (TJH-1R)  
Docket No. 20-035-04  
Witness: Timothy J. Hemstreet

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

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**REDACTED**

Exhibit Accompanying Rebuttal Testimony of Timothy J. Hemstreet

Updated EV2020 Wind Capital Costs

October 2020

CONFIDENTIAL

**New Wind Comparison to Pre-Approved Amounts**

**New Wind Project Capital Costs**

<b>New Wind Project</b>	<b>Online Date</b>	<b>Pre-Approved In-Service Capital Cost (\$m)</b>	<b>Direct Capital Cost (\$m)</b>	<b>Rebuttal Capital Cost (\$m)</b>	<b>Direct Capital Cost Minus Rebuttal Capital Cost (\$m)</b>
Cedar Springs II <sup>1</sup>	Dec-20				
Ekola Flats	Nov-20, Dec-20				
TB Flats	Nov-20, Dec-20, Jun-21				
<b>New Wind Projects Total</b>		<b>\$1,189.2</b>	<b>\$1,219.9</b>		<b>\$16.3</b>

Notes:

<sup>1</sup> Costs as filed for Cedar Springs II include only Build Transfer Agreement costs and do not include internal project management costs of approximately \$4.1 million or unused project contingency.

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