

Rocky Mountain Power
Docket No. 17-035-36
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Surrebuttal Testimony of Rick A. Vail

October 2017

1 **Q. Are you the same Rick A. Vail that filed direct and rebuttal testimonies on behalf**
2 **of Rocky Mountain Power, a division of PacifiCorp, in this case?**

3 A. Yes.

4 **Q. What is the purpose of your surrebuttal testimony?**

5 A. I will address certain arguments asserted by Glen Canyon’s witness Keegan Moyer in
6 his rebuttal testimony filed in this proceeding on September 25, 2017.

7 **Q. What specifically will you be addressing?**

8 A. In his rebuttal testimony, Mr. Moyer takes issue with several components of my direct
9 testimony. Although I disagree with much of what Mr. Moyer claims, in this surrebuttal
10 testimony, I address his claim that PacifiCorp’s transmission function should assume
11 some level of generation redispatch in the interconnection study process for the Glen
12 Canyon qualifying facilities (“QFs”). Introducing generation redispatch into the
13 interconnection process would conflict with Federal Energy Regulatory Commission
14 (“FERC”) precedent governing large generation interconnection procedures and with
15 PacifiCorp’s FERC-jurisdictional Open Access Transmission Tariff (“OATT”), which
16 governs our processing of large generator interconnections in Utah under Schedule 38.
17 I also explain why, even assuming it is appropriate to introduce generation redispatch
18 into an interconnection study, that option is not available in this case because firm rights
19 over the Glen-Canyon-to-Sigurd line cannot be redispatched. Finally, I briefly respond
20 to the rebuttal testimony of Glen Canyon witness Mr. Hans Isern.

21 **Q. Does Mr. Moyer accurately frame the issue presented by this case?**

22 A. No. Mr. Moyer argues at lines 379-382 that: “The issue comes down to a decision as to
23 which entity the Commission determines has the responsibility for arranging the

24 delivery component of transmission service, and what actions that party should take to
25 make sure that costs are minimized or wholly avoided in doing so.” That statement
26 completely misconstrues the nature of this case. Both parties agree that PacifiCorp is
27 responsible for obtaining transmission service for the Glen Canyon QFs.

28 The issue in this case is Glen Canyon’s attempt to avoid cost responsibility for
29 network upgrades necessary to provide *interconnection* service by deferring those
30 upgrades to the transmission-study phase or by inappropriately considering
31 transmission-service generation re-dispatch in an interconnection study. Under either
32 scenario, Glen Canyon is attempting to shift the cost responsibility for interconnection-
33 related network upgrades—that are necessary only because the Glen Canyon QFs are
34 seeking interconnection service on the Glen-Canyon-to-Sigurd transmission line and
35 are therefore appropriately borne by Glen Canyon—to PacifiCorp’s retail and third-
36 party transmission customers.

37 **Q. Please respond to Mr. Moyer’s allegation that PacifiCorp’s position in this case is**
38 **discriminatory towards QFs.**

39 A. That is simply not true. As PacifiCorp has explained numerous times in this case, QFs
40 operate under the guiding principle of the Public Utility Regulatory Policies Act of
41 1978 (“PURPA”)—that a utility’s customers are supposed to be indifferent to the
42 addition of a QF to the system. Mr. Moyer attempts to re-write this standard,
43 encouraging the Commission to adopt a balancing of QF and existing customer
44 interests. That is not what PURPA requires. *Customer* indifference is not a flexible
45 standard that can give way to accommodate the needs of the QF. Making sure that QFs
46 pay all appropriate interconnection costs is entirely consistent with that standard.

47 **Q. In his testimony, Mr. Moyer now suggests that Glen Canyon only asks this**
48 **Commission to borrow the redispatch concepts from the OATT’s transmission-**
49 **service provisions and use them in the interconnection context. Has this been Glen**
50 **Canyon’s position throughout this case?**

51 A. No. Glen Canyon’s position morphed in rebuttal testimony. Glen Canyon previously
52 asserted that PURPA, Schedule 38, the OATT, PacifiCorp’s avoided-cost pricing
53 methodology, and an amendment to the network operating agreement between
54 PacifiCorp’s merchant and transmission functions (referred to as the “NOA
55 Amendment”) somehow imposed the *obligation* to model the NOA Amendment’s
56 redispatch option (applicable to transmission service) as part of Glen Canyon’s
57 interconnection studies.

58 Mr. Moyer now concedes that the “specific application of the NOA Amendment
59 is limited to transmission service,” but nonetheless argues that “there is no reason that
60 the technical *principles* of redispatch discussed in the NOA Amendment cannot also be
61 used in interconnection studies.”¹

62 **Q. Is Mr. Moyer correct—can the *transmission* redispatch principles be used in the**
63 ***interconnection* studies?**

64 A. No. Mr. Moyer essentially argues that the deliverability analysis in the network
65 resource (“NR”) interconnection study is a *transmission service* assessment, so
66 PacifiCorp should apply the transmission-service-related redispatch tool set forth in the
67 NOA Amendment in Glen Canyon’s interconnection study.² As was the case with Glen

¹ Rebuttal Testimony of Keegan Moyer (Moyer Rebuttal) at 8, lines 154-157.

² Moyer Rebuttal, lines 262-267 (“Because interconnection studies for NR interconnection service study whether the interconnecting generator is capable of delivery to the aggregate of load—delivery that is the obligation of

68 Canyon’s earlier attempts to justify this concept, Mr. Moyer’s new theory also fails in
69 two critical respects:

70 • FERC has made it abundantly clear that interconnection service—even NR
71 interconnection service with deliverability analysis considerations—is *not*
72 transmission service, and redispatch assumptions are *only* used for transmission
73 service studies.

74 • A utility’s obligation to make transmission arrangements to deliver QF power
75 does not mean that a utility is required to use its existing transmission service
76 rights to move that power, and the NOA Amendment did not change this.

77 **Q. Can you expand on the first issue that redispatch assumptions are only used for**
78 **transmission service studies?**

79 A. Yes. By way of background, the type of redispatch Mr. Moyer is referring to is called
80 planning redispatch, which involves a transmission provider’s evaluation of whether
81 out-of-merit-order generation-resource assumptions can be used to alter flows and
82 create additional available transfer capability (“ATC”) to grant a request for firm
83 *transmission* service in a constrained area of the system without constructing new
84 facilities or upgrades. Redispatch is explicitly referenced in the *transmission service*
85 sections of the PacifiCorp OATT. Redispatch is not mentioned in the interconnection
86 portions of the OATT,³ nor is it a concept we use in the interconnection study process.

87 **Q. Has FERC addressed whether generation redispatch should be part of an**
88 **interconnection study?**

89 A. Yes. FERC has explicitly held that generation redispatch is *not* considered in
90 interconnection studies, even for NR interconnection service like Glen Canyon’s:

RMP for QFs under PURPA—it is reasonable to require PacifiCorp Transmission to determine whether redispatch will ease existing transmission constraints, thereby eliminating the identification of unnecessary network upgrades.”).

³ See, e.g., Large Generator Interconnection Procedures (OATT Part IV) or Large Generator Interconnection Agreement (OATT Appendix 6).

91 In response to EEI, we clarify that the Interconnection Feasibility Study
92 must consider transmission contingencies, **but not generation**
93 **redispatch**. **Generation redispatch refers to decisions the system**
94 **operator makes to manage congestion**. These decisions take into
95 account the relative running costs of the available generating facilities.
96 LGIP section 3.2.2.2 states that the approach used to study Network
97 Resource Interconnection Service assumes that some portion of existing
98 Network Resources is displaced by the output of the Generating Facility.
99 However, because the purpose of the Network Resource Interconnection
100 Service study is **only to determine whether the aggregate of**
101 **generation in the local area can be delivered to the aggregate of load**
102 **on the Transmission System**, consistent with the Transmission
103 Provider’s reliability criteria and procedures, the generation that is
104 displaced for study purposes is selected on the basis of its impact on
105 Transmission System operation, not on the basis of the generating
106 facilities’ relative costs of producing energy.⁴

107 FERC’s explanation makes it clear that redispatch assumptions are not included in
108 interconnection studies because interconnection service does not assess actual delivery.
109 This is true even for NR interconnection studies that contain a deliverability analysis
110 *component*—but it is a component that FERC emphasizes in the passage above is *only*
111 to determine whether the aggregate of generation in the local area can be delivered to
112 the aggregate of load on the system. Contrary to Mr. Moyer’s claims, this is not a
113 transmission-service-related assessment.

114 **Q. But hasn’t Glen Canyon argued that once a generator secures NR interconnection**
115 **service, any future transmission service request will not require a study or**
116 **additional upgrades?**

117 A. Yes. Glen Canyon has attempted to confuse this issue throughout this proceeding. For
118 example, in its Motion for Preliminary Injunction in this case, Glen Canyon quotes
119 Section 4.1.2.2 of the PacifiCorp Large Generator Interconnection Agreement
120 (“LGIA”) for the following proposition:

⁴ Order No. 2003-A at P 558 (emphasis added).

121 [W]hen a QF—such as Glen Canyon Solar—“satisfies the requirements
122 for obtaining Network Resource Interconnection Service, any future
123 transmission service request for delivery from the [QF] within
124 [PacTrans’] System of any amount of capacity and/or energy, up to the
125 amount initially studied, will not require that any additional studies be
126 performed or that any further upgrades associated with such [QF] be
127 undertaken, regardless of whether or not such [QF] is ever designated
128 by a Network Customer as a Network Resource and regardless of
129 changes in ownership of the [QF].”⁵

130 What Glen Canyon does not acknowledge is that, in Order No. 2003-A, FERC cleared
131 up any residual confusion over that provision by adding the following sentence to that
132 same OATT provision: “The provision of Network Integration Transmission Service or
133 firm Point to Point Transmission Service may require additional studies and the
134 construction of additional upgrades.”⁶ Thus, contrary to Glen Canyon’s claims, FERC
135 has made explicitly clear that, even when a generator is interconnected using NR
136 interconnection service, it is *not* a delivery service, and the separate transmission-
137 service request for that project may reveal the need for additional upgrades to deliver
138 the output to the designated loads.

139 **Q. In addition to the fact that applying transmission service redispatch assumptions**
140 **to NR interconnection studies would be contrary to FERC policies, can you**
141 **describe the second reason that Mr. Moyer’s theories are unworkable?**

142 A. Yes. Mr. Moyer’s claims that PacifiCorp must apply NOA-Amendment-type redispatch
143 “principles” in QF interconnection studies essentially translate into a bold and
144 unsupported requirement that Glen Canyon has continued to assert throughout the
145 course of this proceeding: that PacifiCorp must use its existing transmission rights to

⁵ Glen Canyon Solar’s Motion for Preliminary Injunction at p. 7, ¶ 23.

⁶ See *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 at PP 544-545 (2004)

146 reduce QF interconnection costs at the expense of PacifiCorp's customers and third-
147 party transmission customers. Mr. Moyer is wrong. A utility's obligation to make
148 transmission arrangements to deliver QF power has never included a requirement to
149 use existing transmission service rights to move QF energy. And nothing in the NOA
150 Amendment, PURPA, Schedule 38, avoided-cost pricing, or the OATT change this.

151 **Q. The NOA Amendment doesn't require PacifiCorp to use its existing transmission**
152 **service rights to deliver QF power?**

153 A. No. Once PacifiCorp and a QF execute a power purchase agreement, PacifiCorp must
154 submit a request for *new* transmission service to deliver QF power, and that request
155 must be studied under the OATT process. If transmission service is requested in a
156 constrained area of the system, then the OATT offers two options: planning redispatch
157 or construction of upgrades to relieve the congestion and provide the firm transmission
158 service. The NOA Amendment simply modified the type of planning redispatch options
159 that could be considered if QFs have caused or contributed to the constraints at issue.

160 **Q. But Mr. Moyer suggests that redispatch is based on common principles that "were**
161 **not created by PacifiCorp out of whole cloth for the NOA Amendment." Is that**
162 **accurate?**

163 A. No. We actually did propose, and FERC approved, a modified version of traditional
164 planning redispatch for the NOA Amendment. As I noted earlier, under the OATT,
165 traditional planning redispatch contemplates a transmission provider studying whether
166 existing resources could be delivered firm in a different manner, *i.e.*, through a
167 redispatch that alters flows and creates additional ATC in a constrained area so a new
168 transmission service request can be granted. In the NOA Amendment, PacifiCorp

169 proposed a modification to traditional OATT planning redispatch to permit
170 PacifiCorp's transmission function to grant new requests for transmission service in
171 constrained areas without requiring upgrades (even if additional ATC could not be
172 created using traditional planning redispatch⁷), as long as PacifiCorp's merchant
173 function agrees to limit the operation of its designated network resources within
174 existing transmission rights. As described in the FERC order approving the NOA
175 Amendment:

176 PacifiCorp states that the practice under its proposed amendment is
177 distinguished from current OATT process because, while traditional
178 planning redispatch contemplates delivering designated network
179 resources in a different manner, the proposed Network Operating
180 Agreement amendment involves a network customer (in this case,
181 PacifiCorp Energy) agreeing to operate its network resources within
182 certain limits because there is insufficient capacity to accommodate all
183 of the designated network resources without limitation.⁸
184

185 This modification was narrowly tailored to address a specific problem— *i.e.*, PacifiCorp
186 transmission's inability to grant new transmission service requests and ensure firm
187 delivery without construction of upgrades in areas where QFs had caused or contributed
188 to constraints. PacifiCorp's merchant function can choose this option to the extent it is
189 more economic for customers than constructing upgrades caused solely by QF siting
190 choices.

191 **Q. Mr. Moyer claims that the NOA Amendment redispatch “principles” should also**
192 **be used to reduce QF interconnection costs. Do you agree?**

193 A. Absolutely not. Not only is applying any type of redispatch assumption to

⁷ *PacifiCorp*, FERC Docket No. ER15-741, Transmittal Letter at p. 4. (Dec. 24, 2014) (explaining that if traditional planning redispatch cannot be used, upgrades will be necessary to create additional ATC and provide firm transmission service).

⁸ *PacifiCorp*, 151 FERC ¶ 61,170 (2015).

194 interconnection studies inconsistent with FERC policies, but the type of redispatch
195 assumptions in the NOA Amendment are also specifically designed to protect
196 *customers* from *transmission* service costs, not to protect *QFs* from *interconnection*
197 service costs by forcing a utility to assume it will use its existing transmission service
198 rights for purposes of the interconnection study.

199 **Q. Mr. Moyer testifies that Glen Canyon is not seeking to avoid interconnection costs.**
200 **Do you agree?**

201 A. I cannot speak to Glen Canyon’s motivation, but the central tenet of their position is
202 that any costs related to upgrading the transmission system should be handled in the
203 transmission study process, not the interconnection study process. The reason that
204 argument is important is because Glen Canyon wants to shift costs away from itself and
205 onto PacifiCorp’s customers.

206 **Q. Mr. Moyer asserts that your direct testimony contradicts PacifiCorp’s Business**
207 **Practice #70, titled “Generation Interconnection Procedures for Qualifying**
208 **Facility 200 Projects.” Is that correct?**

209 A. No. Mr. Moyer focuses on a single statement: “PacifiCorp Transmission will attempt
210 to identify alternatives to alleviate any transmission capacity issues.” But the following
211 sentence clarifies the intent of the previous sentence: “Potential alternatives could
212 include, but are not limited to, the construction of new transmission infrastructure or
213 the implementation of a remedial action scheme (‘RAS’).” This passage makes no
214 mention of generation redispatch (which, as discussed above, is only a transmission
215 service study assumption), but instead focuses on transmission contingencies.
216 PacifiCorp’s transmission function, the author of that Business Practice, did not intend

217 (nor did it write) that it would engage in generation redispatch in an interconnection
218 study. Instead, that language can be taken at face value; that interconnection service
219 requests often cannot be accommodated without transmission upgrades. That is the case
220 with Glen Canyon. There is nothing inconsistent between that passage and PacifiCorp's
221 position in this case.

222 **Q. Mr. Moyer contests your claim that the only appropriate type of interconnection**
223 **service for QFs is network resource interconnection service. How do you respond?**

224 A. Although Mr. Moyer correctly notes that neither FERC nor this Commission have
225 explicitly stated that a QF is *required* to obtain network resource interconnection
226 service, Mr. Moyer conveniently fails address how any other approach shifts
227 identification of *interconnection-related* network upgrades to the transmission service
228 studies, which ultimately means PacifiCorp's customers and third-party transmission
229 service customers bear those interconnection costs through rates. This means that the
230 customer indifference standard simply cannot be met unless a QF is required to obtain
231 network resource interconnection service, allowing the interconnection-related
232 network upgrades to be appropriately borne by the cost-causing QF.

233 In addition, as I discussed at length in my direct testimony, network resource
234 interconnection service is also appropriate given the FERC decision in the *Pioneer*
235 *Wind* case, which requires utilities to use firm network transmission delivery for QFs.

236 **Q. Mr. Moyer cites a passage in Order No. 2003-A for the proposition that a FERC-**
237 **jurisdictional generator (i.e., non-QF) can combine the “as-available” type of**
238 **energy resource (ER) interconnection service with a request for network**
239 **transmission service. Do you agree that approach would also work for QF**
240 **interconnection customers?**

241 A. No. That may work, as FERC suggests, for FERC-jurisdictional interconnections, but
242 there are two major reasons it cannot work for QFs. The first reason is the shift in cost
243 responsibility between the QF and a utility’s customers, which I just discussed. The
244 second reason is that the passages cited by Mr. Moyer include FERC’s assumptions that
245 the interconnection customer and the transmission-service customer are the same entity,
246 and that single entity can submit the interconnection-service request and transmission-
247 service request simultaneously. In the case of QFs, however, the interconnection
248 customer is the QF and the transmission service customer is PacifiCorp’s merchant
249 function. Those two services are requested by different customers at different times,
250 governed by different regulatory bodies (i.e., the QF interconnection is state-
251 jurisdictional, and the transmission service is FERC-jurisdictional), and subject to
252 different cost-allocation rules.

253 **Q. Is Mr. Moyer correct that there is significant “operational ATC” over the Glen-**
254 **Canyon-to-Sigurd path?**

255 A. No. “Operational ATC” is not an accepted concept. Mr. Moyer appears to have coined
256 that phrase. Mr. Moyer conceded that “there is no long-term firm available transfer
257 capability (ATC) on this Glen Canyon to PACE transmission path[.]”⁹ That is the key

⁹ Moyer Surrebuttal, lines 565-566.

258 for determining whether Glen Canyon’s capacity could be delivered on a firm basis
259 over this path in the interconnection study. The point Mr. Moyer appears to attempt to
260 make is that there may be significant northbound transmission capacity available if not
261 used by APS on any given day. But that simply means that there may be *non-firm*
262 transmission capacity on the line. The existence of non-firm capacity has no bearing on
263 the availability of long-term firm ATC.

264 **Q. Mr. Moyer contends that southbound flows over the Glen-Canyon-to-Sigurd path**
265 **create “counterflows” that should free up northbound ATC over that path, thus**
266 **creating room for the output of the Glen Canyon projects. Is this correct?**

267 A. No. Accounting for counterflows in determining firm ATC can create an oversubscribed
268 condition. In compliance with NERC’s MOD-001-1a, R1 requirement, PacifiCorp uses
269 the “Rated System Path Methodology” described in MOD-029.¹⁰ Counterflows are
270 managed on a day-to-day operational basis; they are not a basis for long-term planning.

271 **Q. Even if PacifiCorp engaged in some form of interconnection-level generation**
272 **redispatch, would that help Glen Canyon?**

273 A. No. As explained by Kelcey A. Brown in her direct testimony, PacifiCorp’s merchant
274 function does not have the requisite network transmission service over the Glen-
275 Canyon-to-Sigurd transmission path year-round, and APS has a transmission service
276 call option that prevent NOA Amendment redispatch “principles” from being applied
277 to Glen Canyon’s interconnection study. Regarding the first issue, PacifiCorp holds
278 two seasonal reservations over the Glen-Canyon-to-Sigurd path. During the summer
279 season, PacifiCorp holds a 95 MW point-to-point reservation over this path. The NOA-

¹⁰ See <http://www.nerc.com/files/MOD-029-1a.pdf>.

280 Amendment-style redispatch is a creature of *network* transmission service, not point-
281 to-point transmission service, so applying the NOA Amendment redispatch
282 “principles” to Glen Canyon’s interconnection study (even if that were appropriate,
283 which it is not for the reasons I discussed above) would not work during the summer
284 season. Second, Ms. Brown also discusses a legacy transmission contract that gives
285 APS a call option on the Glen-Canyon-to-Sigurd path, which she explains means that
286 PacifiCorp’s existing transmission rights cannot be used to deliver non-curtable QF
287 power because they must be available if APS exercises its call option.

288 **Q. Is the Glen-Canyon-to-Sigurd line the only constraint at issue? In other words,**
289 **even if the transmission-service-type and legacy-contract issues were resolved,**
290 **would that guarantee Glen Canyon interconnection service without upgrades?**

291 A. No. Glen Canyon has—from the beginning—focused on PacifiCorp’s 95 MW of
292 transmission service rights on just this path, so that has been our focus in responding.
293 But there are issues beyond that path. For example, in Glen Canyon’s original, non-QF
294 interconnection study, the addition of its projects at the Glen Canyon substation also
295 required additional new transmission facilities north of the Sigurd substation.
296 Specifically, if the QF interconnection study ultimately identifies the same
297 requirements, Glen Canyon’s NR interconnection would require the construction of a
298 new 345 kV line of approximately 130 miles between the Emery and Oquirrh
299 substations.¹¹ Those interconnection-related upgrades would not be avoided even if the
300 issues on the Glen-Canyon-to-Sigurd path could be resolved.

¹¹ See Exhibit RMP ____ (RAV-1SR), System Impact Study Report.

301 **Q. Mr. Hans Isern accused you of misleading this Commission in stating that, during**
302 **a March 2, 2017 meeting with Glen Canyon, PacifiCorp informed Glen Canyon**
303 **that the statement made in the September 23, 2016 email attached to Glen**
304 **Canyon’s motion for preliminary injunction was a mistake.¹² What is your**
305 **response?**

306 A. Although I did not personally attend the March 2, 2017 meeting, I was directly involved
307 in preparing for the meeting with Mr. Brian Fritz and other members of the PacifiCorp
308 team. Mr Fritz, as Mr. Isern notes, was present at the meeting in person. I was also well
309 aware of what the company planned to discuss at the meeting, which included
310 responding to a January 31, 2017 letter from sPower, Glen Canyon’s owner. In that
311 letter, Glen Canyon makes assertions based on the representations made in the
312 September 23, 2016 email. As part of the meeting, the PacifiCorp team made it clear to
313 Glen Canyon that the concepts in the email were mistaken and ESM’s transmission-
314 related NOA-Amendment redispach tool would not be used in Glen Canyon’s
315 interconnection studies. A copy of sPower’s January 31, 2017 letter is attached as
316 Exhibit RMP___(RAV-2SR).

317 **Q. Does this conclude your surrebuttal testimony?**

318 A. Yes.

¹² Rebuttal Testimony of Hans Isern at 3, lines 45-55.