

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application)	Docket No. 16-035-36
of Rocky Mountain Power to)	Phase 3
Implement Programs Authorized)	Direct Testimony of
By the Sustainable Transportation)	Cheryl Murray for the
And Energy Plan Act)	Office of Consumer Services

April 6, 2017

1 **Q. WHAT IS YOUR NAME, TITLE, AND BUSINESS ADDRESS?**

2 A. My name is Cheryl Murray. I am a utility analyst for the Office of Consumer
3 Services (Office). My business address is 160 East 300 South, Salt Lake
4 City, Utah.

5 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS DOCKET?**

6 A. Yes. I provided direct testimony on behalf of the Office on November 9,
7 2016 in Phase 1 of this Docket.

8 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

9 A. In my testimony I will:

- 10 1) introduce additional Office witnesses who will provide direct testimony
11 in Phase 3 of this Docket;
12 2) address Rocky Mountain Power Company's (Company) proposed tariffs
13 Schedule No. 120 and Schedule No. 2E; and
14 3) provide the Office's overall position on key issues related to the PEV
15 Pilot Program.

16

17 *Phase 3 Issues*

18 **Q. WHAT ISSUES ARE ADDRESSED IN PHASE THREE OF THIS**
19 **DOCKET?**

20 A. This proceeding involves the electric vehicle incentive program as
21 authorized by the Sustainable Transportation and Energy Plan (STEP Act)
22 of 2016, specifically Utah Code Annotated § 54-20-103.¹

23 **Q. WHAT IS THE COMPANY REQUESTING IN PHASE 3 OF THIS**
24 **DOCKET?**

25 A. In its January 31, 2017 filing the Company requests approval of its
26 Supplemental Application to implement Electric Vehicle Incentive and Time
27 of Use Pricing Programs Authorized by the Sustainable Transportation and
28 Energy Plan. More specifically, the Company requests approval of a Plug-
29 In Electric Vehicle (PEV) Incentive Pilot Program (PEV Program) and a
30 Time of Use (TOU) pricing pilot program (EV TOU Pilot) (together EV Pilot
31 Program), as required by statute.

32 The Supplemental Application modifies portions of the Company's
33 original September 12, 2016 filing and includes two tariffs²:

- 34 1) Electric Service Schedule No. 120 - Plug-in Electric Vehicle Incentive
35 Pilot Program; and
36 2) Electric Service Schedule No. 2E – Residential Service – Electric
37 Vehicle Time-of-Use Pilot Option.

38

39 The Company states that its proposed PEV/TOU Pilot program was
40 designed to encourage PEV adoption, minimize cost shifting, promote

¹ U.C.A. § 54-20-103 authorizes the Sustainable Transportation and Energy Plan Act (STEP Act)

² The Office will not address Schedule 80 which is also included in the filing.

41 economic efficiency and to encourage customer acceptance and use of
42 EV's. Through the PEV and TOU Pilot program, the Company hopes to
43 gain a better understanding of PEV charging behavior.

44

45 *Additional Office Witnesses*

46 **Q. WHO ARE THE OTHER WITNESSES TESTIFYING ON BEHALF OF**
47 **THE OFFICE IN THIS PROCEEDING AND WHAT ISSUES WILL THEY**
48 **ADDRESS?**

49 A. The Office has two witnesses in addition to myself.

50 1) Mr. James Daniel will address the rate design and other elements
51 of rate Options 1 and 2, components of the Company's proposed EV TOU
52 Pilot.

53 2) Mr. Jacob Thomas will address the Company's proposed load
54 research study and offer the Office's recommendations for improvements
55 to the proposed study.

56

57 *Program Budget and Allocation of Funds*

58 **Q. WHAT IS THE BUDGET DESIGNATED FOR THE ELECTRIC VEHICLE**
59 **PILOT PROGRAM?**

60 A. The STEP Act³ requires the Public Service Commission (Commission) to
61 authorize the Company to allocate \$2,000,000 of customer revenues
62 collected annually for five years to the electric vehicle incentive program

³ Utah Code Annotated § 54-7-12.8 (6)(b)(i).

63 described in Section 54-20-103. Because the Legislature allocated
 64 \$2,000,000 funding for this specific Program on an annual basis there can
 65 be no over or under spending in one year that can be adjusted in a future
 66 year.

67 **Q. HOW DOES THE COMPANY PROPOSE TO ALLOCATE THE \$2,000,000**
 68 **ANNUAL FUNDS?**

69 A. Page 9 of the direct testimony of William J. Comeau includes the following
 70 Table 1 that provides the estimated budget for 2017.

71

72 **Table 1 - Annual Incentive Caps and Estimated 2017 Budget**

PEV Program Year	Incentive Measure	Annual Incentive Caps	Administrative/ Outreach & Awareness Costs	Total
2017	Time of Use Pilot	\$200,000*	Up to \$500,000*	
	Non-Residential AC Level 2 Chargers	\$400,000*		
	DC Fast Chargers	\$400,000*		
	Grant-based custom projects and partnerships	\$500,000**		
Total		\$1,500,000	\$500,000	\$2,000,000

73

74 *This is the maximum amount of funds that may be spent annually. A minimum of
 75 \$100,000 will be allocated to outreach and awareness.

76 **After September 30th each year, any remaining funds below the maximum annual
 77 spending limits from Outreach and Awareness costs, as well as Non-Residential AC
 78 Level 2 and DC Fast Charger incentives, may be re-allocated to Grant-based custom
 79 projects and partnerships, increasing its incentive cap for the calendar year.
 80

81 **Q. WILL THE COMPANY POTENTIALLY MODIFY THE ALLOCATION OF**
 82 **FUNDS AS IDENTIFIED IN TABLE 1?**

83 A. Yes. Mr. Comeau testifies that “as the Company gains more experience
84 with the PEV Program, it will become more apparent where allocations
85 should be targeted to benefit our customers the most.” He further states
86 that the Company will adjust funding for incentives and outreach as the PEV
87 Program progresses (Comeau Direct Testimony lines 186-188).

88 **Q. WILL THE COMPANY REQUEST COMMISSION APPROVAL FOR**
89 **THESE CHANGES?**

90 A. Mr. Comeau indicates that the Company will file with the Commission for
91 approval to remove or add measures as necessary (Comeau Direct
92 Testimony line 188). In response to a question at the February 16, 2017
93 technical conference Mr. Comeau also stated the Company would ask for
94 Commission approval for changes to the annual funding levels and would
95 work with stakeholders on issues related to funding level changes to the
96 annual incentive caps for incentive measures. Although the Company has
97 stated its intent in this regard the Office asserts that the Commission should
98 make it a requirement for approval of the Program.

99 **Q. ARE THERE ISSUES WITH THE TOU PILOT PROGRAM THAT CAUSE**
100 **THE OFFICE CONCERN?**

101 A. In the Office’s view a major component of the PEV Pilot Program is the Load
102 Research Study related to TOU rates. The Company plans to provide a
103 comprehensive report to the Commission at the pilot’s conclusion.
104 Company witness Robert M. Meredith identifies two broad group categories
105 of information that the Company will include in the report: “usage

106 characteristics for pilot participants, including changes thereto as a result of
107 the pilot offerings, and customer experience with time of use rates.”
108 (Meredith Direct Testimony lines 137-138).

109 The Office views the information to be gleaned from the Load
110 Research Study as essential but we are concerned with the Company’s
111 ability to recruit participants⁴. At lines 175-176 of his Direct Testimony Mr.
112 Meredith states that “The Company would recruit for the RAG⁵ from a list of
113 customers that have a PEV registered with the Utah Department of Motor
114 Vehicles (“DMV”)”. In the February 16, 2017 technical conference it was
115 noted that the DMV may not release that information but the Company may
116 be able to use a third party for the information. As of this date the Office is
117 uncertain as to where or how the Company will be able to obtain a list of
118 potential participants that have a registered PEV. This creates an obstacle
119 for the program that may, at a minimum, delay the Company’s ability to
120 begin the Load Research Study.

121 In his direct testimony Mr. Thomas addresses additional Office
122 concerns and offers the Office’s recommendations to improve the Load
123 Research Study.

124

125

⁴ “Until the Company begins working with the EV population data it will not know the exact number of customers it will need for the load research study”. Meredith direct page 10, lines 211 – 213.

⁵ RAG (Randomly Assigned Group) will be assigned by the Company to participate in TOU option 1, option 2 or the control group of the load research study.

126 *Proposed Tariffs*

127 **Q. PLEASE IDENTIFY THE TARIFFS ASSOCIATED WITH THE PEV PILOT**
128 **PROGRAM.**

129 A. The Company has two tariffs related to the PEV Pilot Program.

130 1) Schedule No. 120 Plug-in Electric Vehicle Incentive Pilot Program;

131 2) Schedule No. 2E Residential Service – Electric Vehicle Time-of-Use Pilot
132 Option.

133 **Q. PLEASE DESCRIBE TARIFF SCHEDULE NO. 120 PLUG-IN ELECTRIC**
134 **VEHICLE INCENTIVE PILOT PROGRAM.**

135 A. Schedule No. 120 identifies the incentives to be offered to participants in
136 the PEV Pilot Program. Original Sheet No. 120.1 includes Table 1 Plug-in
137 Electric Vehicle (PEV) Infrastructure Offerings. This Table includes the
138 Category, Measure and Incentives offered under the PEV incentive pilot
139 program. It also references a Company website where, in the future, more
140 details can be obtained including changes to incentive payment levels.
141 Schedule No. 120 describes the Applicability, Customer Participation,
142 Availability and Special Conditions for participation. In addition, available
143 incentive offers are identified:

144 • Incentives are offered to qualifying residential customers who
145 participate in the Time-of-Use Pilot Program (with a footnote that
146 TOU load research participants may be eligible for a separate \$200
147 incentive per customer).

148 • Incentives are also offered to qualifying non-residential participants
149 who purchase plug-in electric vehicle charging stations, including an
150 option for grant-based customer projects and partnerships.

151 **Q. DOES THE OFFICE HAVE ANY SUGGESTED MODIFICATIONS TO**
152 **SCHEDULE NO. 120?**

153 A. Yes. The Office suggests minor language modifications and the inclusion
154 of additional information. Our suggested language modifications are:

155 1) Original Sheet No. 120.1 includes a Table 1 identified as “Plug-in Electric
156 Vehicle (PEV) Infrastructure Offerings”. This Table includes the incentive
157 amount to be offered for customers participating in Schedule No. 2E, the
158 Time of Use Pilot Program⁶. Hence, the term “infrastructure” does not
159 encompass the totality of the incentive offerings. The Office suggests the
160 title should be changed to “Plug-in Electric Vehicle (PEV) Pilot Program
161 Offerings” or something similar to better capture the range of measures
162 eligible for incentives.

163 2) The Office recommends two changes to Original Sheet No. 120.2. Our
164 suggested language change applies to both item 2 under Non-Residential
165 AC Level 2 Charger Prescriptive Incentive: and item 4 under DC Fast
166 Charger Prescriptive Incentive. The current language in both sections
167 reads: “Incentives will be available on a first come first serve with an annual

⁶ The Company's original filing included a residential incentive for Level 2 chargers.

168 cap.” The Office suggests both sentences should read: Incentives will be
169 available on a first come first served **basis** with an annual cap.

170 3) Currently Original Sheet No. 120.1 includes a Footnote “¹See Electric
171 Service Schedule No. 2E. TOU load research participants *may* be eligible
172 for a separate \$200 incentive per customer”. [emphasis added]. The Office
173 believes changing “may be eligible” to “are eligible” is more appropriate.
174 The Company explained that “may” was used for flexibility and that
175 participants must meet all requirements to receive the incentive. However,
176 meeting requirements for incentive payments is always the case with tariffs
177 of this nature and “are eligible” does not relieve participants of any
178 compliance obligation while implying less Company discretion than “may”.

179 **Q. DOES THE OFFICE HAVE ANY OTHER RECOMMENDATIONS FOR**
180 **SCHEDULE NO. 120?**

181 A. Yes. Nowhere in the tariff is there an indication of when customers
182 participating in the TOU Pilot Program will receive the incentive payment.
183 In response to OCS data request 14.2 the Company states that “customers
184 will receive the up to \$200 incentive when they sign up for the time of use
185 rates in Schedule No. 2E”. One aspect of evaluating this Program comes
186 from a survey to be conducted of participants. At page 7, lines 147 – 161
187 Mr. Meredith identifies survey questions the responses to which will be
188 included in a final report to the Commission. The Office believes that
189 participant responses can be helpful for determining the appropriateness
190 and perceived value of TOU rates. The Office understands that an upfront

191 incentive payment will likely be helpful in acquiring participants for the
192 Program. However, getting customers to participate in surveys is not
193 always a successful endeavor. Therefore, the Office asserts that the
194 incentive payment should be split with \$100 paid on signing up and \$100
195 paid upon completion of the survey⁷. This information must be added to
196 Schedule No. 120.

197 **Q. DOES THE OFFICE HAVE ANY SUGGESTED CHANGES REGARDING**
198 **TARIFF SCHEDULE NO. 2E?**

199 A. Yes. Again, minor revisions are suggested.

200 1) Only households with a plug-in electric vehicle registered at the
201 address are eligible to participate in Schedule No. 2E. Therefore, the
202 Office suggests that in the section on "AVAILABILITY" on Original Sheet
203 No. 2E.1 that qualifying information should be added.

204 2) In keeping with the language of Original Sheet No. 2E.3 item 1, item
205 2 on that page should be modified to read: Customer on this tariff schedule
206 who **is** not...(change the word **are** to **is**).

207 **Q. DOES THE OFFICE HAVE ANY OTHER CONCERNS WITH THE**
208 **TARIFFS ASSOCIATED WITH THE PEV PILOT PROGRAM?**

209 A. Yes we do. While some modest language changes have been identified,
210 the Office has significant concerns regarding the lack of information
211 regarding Load Research Study Participation.

⁷ If the incentive amount is modified the Office suggests an equal split of the total incentive payment amount.

212 **Q. PLEASE DESCRIBE THE OFFICE'S CONCERN.**

213 Other than a modest footnote on Schedule No. 120.1 and mention on
214 Schedule No. 2E.3 under Special Conditions 2 neither tariff contains any
215 explanation or details about the Load Research Project and customer
216 participation in it. The Office believes that the load research study should
217 have a separate tariff including elements such as:

- 218 • Requirements for participation;
- 219 • Amount of payment to participants;
- 220 • When payment will be made;
- 221 • Description of the three groups participants may be randomly
222 assigned to;
- 223 • Availability, Special Conditions; and
- 224 • Purpose of the Load Research Study.

225 Although typically the Company's load research studies are conducted
226 somewhat "behind the scenes" without posted information the Office
227 asserts that this is not the Company's typical load research study because
228 the funding source is legislatively mandated STEP funding, therefore the
229 Company must provide more specific details regarding customer
230 requirements and participation as well as information about the Load
231 Research Study in general.

232

233

234

235 *Additional Issues*

236 Guarantee Payment Provision

237 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED GUARANTEE**
238 **PAYMENT PROVISION INCLUDED IN ITS PROPOSED PEV TOU RATE.**

239 A. The Company's proposed Schedule No. 2E includes a guarantee payment
240 provision that limits the bill impact exposure for a customer that participates
241 in the PEV Pilot Program to no more than 10% over what the customer
242 would have otherwise paid under residential rate Schedule No. 1 during the
243 same period. Specifically, the tariff reads:

244

245 **GUARANTEE PAYMENT:** The Company shall guarantee
246 against increase of Customer costs for the first 12 months of
247 enrollment on this tariff schedule. If the total annual energy costs
248 incurred on this Schedule exceed 10% over what costs would
249 have been for the same period under Schedule 1 rates, the net
250 difference, Guarantee Payment, will be credited on the customer's
251 bill following the last month of the one-year commitment. No
252 Guarantee Payment shall be given if Customer terminates service
253 before the end of the initial one-year period.

254 The guarantee payment is meant to provide cost assurance to participants
255 and encourage customers to participate in TOU rates.

256

257 **Q. DOES THE OFFICE HAVE CONCERNS WITH THE COMPANY'S**
258 **PROPOSED GUARANTEE PAYMENT?**

259 A. Yes. The Office is concerned that the guarantee payment could affect the
260 customer's PEV charging behavior since the customer knows the
261 consequences are limited or capped. However, the Office believes that the
262 load research study, if designed correctly, will yield enough important
263 analysis to offset any concerns about potential impacts from the guarantee
264 payment. It is important for customers to have enough confidence in the
265 mitigation of rate impacts such that they are willing to participate.

266 In contrast, our concerns are greater relative to the available to select
267 group (ASG). The Office is not as confident about the value added of these
268 self-selected participants in the TOU pilot. Thus, without additional
269 information comparing the estimated costs versus potential benefits, the
270 Office recommends against the full guarantee payment for the ASG
271 customers.

272

273 Outreach and Education

274 **Q. TABLE 1 ABOVE (PAGE 4) SHOWS A BUDGET OF UP TO \$500,000**
275 **PER YEAR FOR ADMINISTRATIVE, OUTREACH AND AWARENESS**
276 **COSTS. WHAT ARE THE COMPANY'S PLANS REGARDING THESE**
277 **FUNDS?**

278 A. Currently the Company's plans are largely unknown. The Company issued
279 an RFP to find an administrator for the program but until those requests are

280 evaluated the Company is uncertain as to precisely what bidders will offer
281 so they have not determined what work will be assigned to a third party and
282 what will be kept in-house. It is important to note that Table 1 shows a
283 minimum of \$100,000 annually will be committed to outreach and education.
284 However, in order for the Company to launch a successful outreach and
285 education campaign that amount may be inadequate and may need to be
286 increased from the \$500,000 included in the overall category of expense.

287 **Q. HAS THE OFFICE INQUIRED AS TO THE COMPANY'S OUTREACH**
288 **AND EDUCATION PLANS?**

289 A. Yes, but as noted above the Company has no definite plans at this time.
290 The Office views the education portion of the PEV Pilot Program, especially
291 as it relates to TOU rates (Schedule No. 2E), as critical to deriving value
292 from ratepayer funds that are being committed to the PEV Pilot Program. It
293 is essential that customers understand how the TOU rates work, how the
294 time of day or night that they charge a PEV can impact the system and why
295 it matters.

296 Due to the importance of outreach and education the Office suggests
297 that additional technical conferences be required of the Company to provide
298 specific information regarding its plans as they are developed.

299

300 *Company Final Report on the PEV Pilot Program*

301 **Q. WHAT INFORMATION WILL THE COMPANY PROVIDE IN ITS FINAL**
302 **REPORT TO THE COMMISSION?**

303 A. Mr. Meredith describes two broad categories of information that the
304 Company intends to provide in its final report to the Commission: “usage
305 characteristics for pilot participants, including changes thereto as a result of
306 the pilot offerings, and customer experience with time of use rates⁸.” At
307 page 7, lines 140 – 161 of his direct testimony, he lists the minimum details
308 the report should contain according to the discussions held by the working
309 group.

310 **Q. DOES THE OFFICE HAVE ANY RECOMMENDATIONS FOR**
311 **ADDITIONAL INFORMATION THAT SHOULD BE INCLUDED IN THE**
312 **COMPANY’S FINAL REPORT TO THE COMMISSION?**

313 A. Yes. As identified in the Direct Testimony of Mr. Daniel at lines 261 – 269,
314 in addition to the items identified in the Company’s filing the Company’s final
315 report to the Commission should include:

- 316 1) An analysis of the results of the load research program;
- 317 2) An analysis of the survey responses of the PEV TOU pilot project
318 participants;
- 319 3) An analysis of the costs and benefits attributable to the PEV program
320 components for both PEV program participants and non-participants; and
- 321 4) A statistical analysis of the differences in hourly energy consumption
322 between the TOU pilot project participants on Rate Options 1 and 2.

323

⁸ Customer experience information will come from the survey discussed in this testimony at lines 185 – 195.

324 The Office recommends that the reporting details identified by Mr. Meredith
325 as well as these four analyses should be articulated in the Commission's
326 order as requirements to be included in the Company's final report to the
327 Commission.

328

329 *Extension of Pilot Program and Commission Report to the Legislature*

330 **Q. DOES THE STEP ACT ANTICIPATE THAT THE PEV PILOT PROGRAM**
331 **WILL BE EXTENDED AT THE CONCLUSION OF THE FIVE YEARS OF**
332 **THE STEP PROGRAM?**

333 A. The issue of extending the entire STEP Program is addressed in Utah Code
334 Annotated § 54-20-106. Extension of the pilot program.

335 Before the first day of the legislative session in the final year
336 of the pilot program period, the commission shall submit a report and
337 recommendation to the Legislature regarding whether, in the
338 discretion of the commission, the Legislature should, for the
339 sustainable transportation and energy plan:

340 (1) Extend the plan or a portion of the plan as a ratepayer funded
341 program;

342 (2) Implement the plan or a portion of the plan as a state funded
343 program; or

344 (3) Discontinue the plan or a portion of the plan.

345

346 **Q. DOES THE OFFICE HAVE ANY COMMENTS REGARDING THE**
347 **COMMISSION'S FINAL REPORT AND RECOMMENDATIONS?**

348 A. The Office encourages the Commission to take input from stakeholders
349 regarding its final report to the Legislature. The Office asserts that no
350 additional ratepayer money should be used to fund any portion of an
351 extension of the STEP Program without a cost benefit study that
352 demonstrates ratepayers will receive benefits above costs they will bear.

353 The Office further contends that there should be no presumption that
354 the pilot program will be extended and that no part of the plan should be
355 extended as a ratepayer funded program unless it passes a cost benefit
356 analysis showing benefits to ratepayers.

357 **Q. PLEASE SUMMARIZE THE OFFICE'S RECOMMENDATIONS.**

358 A. If the Commission approves the PEV Pilot Program the Office recommends
359 that the Commission require the Company to:

- 360 • Modify the language in Schedule No. 120 and Schedule No. 2E in
361 accordance with the suggested language changes in this testimony
362 in lines 155 – 173 and 200 – 206, respectively;
- 363 • Include on Schedule No. 120 the provision that the incentive for
364 participation in TOU rates will be paid half at sign up and half upon
365 completion of the survey;
- 366 • Create a tariff for the Load Research Study Group;

- 367 • Request the Commission to schedule technical conferences on an
368 appropriate timeline for the Company to provide specific information
369 regarding outreach and education plans as they are developed;
- 370 • Include additional information in the Company's final report to the
371 Commission as identified in this and Mr. Daniel's testimony;
- 372 • Request Commission approval for changes to the annual incentive
373 caps of incentive measures and administrative/outreach and
374 awareness costs (see Table 1 Comeau direct page 9); and
- 375 • Include the type of EV charging equipment installed into the home as
376 part of its load research study supporting the TOU EV pilot
377 evaluations, as further explained in the testimony of Mr. Thomas.

378 We further recommend that the Commission take input from Stakeholders
379 for the Commission's final report to the Legislature.

380 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

381 **A. Yes, it does.**