

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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

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April 27, 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 and direct testimony on April 6, 2017 in Phase 3 of this  
8 Docket.

9 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

10 A. In my rebuttal testimony I respond to direct testimony of witnesses for  
11 Utah Clean Energy (UCE) and Southwest Energy Efficiency Project  
12 (SWEET) (together UCE/SWEET), Western Resource Advocates (WRA),  
13 the Division of Public Utilities (Division), and ChargePoint.

14 I will present my rebuttal in the categories of: incentive offerings,  
15 Time of Use (TOU) rates, and miscellaneous issues.

16 The Office's absence of comment on any issue advanced by any  
17 other party should not be taken as an indication of support or  
18 disagreement.

19

## 20 **INCENTIVE OFFERINGS**

21 **Q. PLEASE IDENTIFY THE SUBJECT MATTER OF UCE/SWEET**  
22 **TESTIMONY YOU WILL ADDRESS?**

23 A. I will discuss the incentive payment offerings proposed in the testimony of  
24 UCE/SWEEP witness Mr. Kevin Emerson.

25 **Q. WHAT IS THE FIRST INCENTIVE PROPOSAL YOU WILL DISCUSS?**

26 A. I will begin with Mr. Emerson's proposal for an incentive offering for  
27 residential Level 2 Chargers.

28 **Q. PLEASE DESCRIBE HIS PROPOSAL.**

29 A. Mr. Emerson correctly points out that the Company's original STEP filing  
30 proposed that the Plug-in Electric Vehicle (PEV) incentive program would  
31 include an incentive offer for residential Level 2 chargers. However, in the  
32 Company's supplemental filing for Phase 3 the charger incentive was  
33 removed and replaced with incentives for participation in TOU rates. Mr.  
34 Emerson specifically recommends a \$500 incentive payment for  
35 residential Level 2 chargers capped at 75% of charger and installation  
36 costs. He proposes that this category of incentives be limited to 100 Level  
37 2 chargers for the first year. Funding would be provided by reallocating  
38 \$50,000 from the Grant-Based Custom Projects and Partnerships  
39 category. The incentive should be monitored and potentially reduced after  
40 the first year. Any unused funds could be shifted to the general Grant-  
41 Based Customer Project program.

42 **Q. WHAT IS THE OFFICE'S OPINION OF UCE/SWEEP'S RESIDENTIAL**  
43 **LEVEL 2 CHARGER PROPOSAL?**

44 A. The Office shares UCE/SWEEP's concern that the Company presented a  
45 significant redesign of the residential incentives without providing any

46 explanation or evidence supporting its change in design. I further note that  
47 the time of use workgroup that met in the months leading up to this Phase  
48 3 filing had also contemplated a program that would offer incentives for  
49 residential Level 2 chargers. The Office remains supportive of the concept  
50 of incentives for residential Level 2 chargers. However, we suggest that  
51 some clarification to UCE/SWEEP's proposal is necessary and we offer  
52 one recommendation that we consider essential if incentives are to be  
53 offered for residential Level 2 chargers.

54 **Q. PLEASE EXPLAIN THE CLARIFICATIONS TO WHICH YOU REFER.**

55 A. The Office suggests two clarifications. First, Mr. Emerson suggests that  
56 any unused funds could be shifted to the Grant-Based Custom Project  
57 program. The Company has a similar proposal that incentive funds from  
58 the various categories of incentives that have not been allocated by  
59 September would then be swept from those categories and reallocated to  
60 the Grant-Based Custom Project program. The Office recommends that if  
61 Level 2 charger incentives are included in the program, unused funds  
62 should be reallocated in September consistent with the Company's  
63 proposal.

64 Second, at page 18, Table 1 of Mr. Emerson's direct testimony he  
65 indicates that UCE/SWEEP propose no changes to the Company's  
66 proposed incentives and annual cap for Participation in Time of Use Rate  
67 in Electric Service Schedule 2E. The Table indicates an incentive "up to"  
68 \$200 per customer with an annual cap of \$200,000. The Company's full

69 proposal includes an up to incentive of \$200 per customer for participation  
70 in TOU rates and an additional \$200 for customers selected to participate  
71 in the load research study at its conclusion. UCE/SWEEP has clarified to  
72 the Office that its proposal does not remove the load research  
73 participation incentive.

74 **Q. WHAT IS THE RECOMMENDATION THE OFFICE PROPOSES FOR**  
75 **UCE/SWEEP'S RESIDENTIAL LEVEL 2 CHARGER INCENTIVE?**

76 A. Mr. Emerson states that "this incentive could help increase the pool of  
77 residential customers to recruit to participate in the TOU rate pilot".  
78 (Emerson direct page 11, lines 212-213). Although we do not dispute his  
79 statement the Office asserts that TOU participation should be mandated  
80 for residential customers who receive an incentive. Therefore, the Office  
81 recommends that if the Commission adopts Mr. Emerson's proposal to  
82 provide an incentive for residential Level 2 chargers it should include as a  
83 condition of receiving that incentive a requirement to participate in TOU  
84 rates.

85 **Q. ARE THERE OTHER UCE/SWEEP INCENTIVE PROPOSALS THAT**  
86 **YOU WOULD LIKE TO ADDRESS?**

87 A. Yes. Mr. Emerson proposes that multi-family customers be broken out as  
88 a separate sub-category within the non-residential category and be  
89 provided an incentive offering of \$8,000 capped at 80% of the cost of the  
90 EV charger and installation per single port charger and \$10,000 (also

91 capped at 80%) for dual port chargers and installation. (Emerson direct  
92 page 14, lines 272 – 275).

93 **Q. DOES THE OFFICE AGREE THAT A SUB-CATEGORY SHOULD BE**  
94 **CREATED FOR MULTI-FAMILY CUSTOMERS?**

95 A. No. The Office believes that it is not necessary to create a sub-category  
96 for this group of customers. However, we support tariff language that  
97 clarifies the fact that multi-family dwellings are eligible for incentives in the  
98 Non-Residential AC Level 2 Charger category, which the description in the  
99 application indicates. Further, we could support a higher level of incentive  
100 for multi-family dwellings that are selected in the Non-Residential AC  
101 Level 2 Charger category if it were justified by the unique circumstances  
102 faced by those types of customers. For example, it may take a higher  
103 incentive level to promote the charging infrastructure because of the  
104 potential disconnect between the financial interests of the building owner  
105 and/or management, any existing HOA, and the residents.

106 **Q. DO YOU HAVE ANY FURTHER COMMENTS REGARDING OTHER**  
107 **UCE/SWEEP INCENTIVE PROPOSALS?**

108 A. Not specifically. Mr. Emerson suggests increasing the incentive offering  
109 for Non-Residential Level 2 Chargers and DC Fast Chargers. The Office  
110 has no basis to either accept or reject his assertions regarding costs of  
111 these chargers.

112 **Q. DO YOU HAVE ANY FINAL COMMENTS REGARDING THE DESIGN**  
113 **OF THE INCENTIVE PROGRAM?**

114 A. Yes. Although the Office raised different issues than those raised by  
115 UCE/SWEEP, I think both of us share the overall concern that the design  
116 of the incentives has not received robust enough input and analysis to  
117 justify that the details are in the public interest in particular for the  
118 residential portion of the incentive program.

119

120 **TIME OF USE RATES**

121 **Q. HAS THE OFFICE REVIEWED THE DIRECT TESTIMONY REGARDING**  
122 **TIME OF USE RATES PRESENTED BY THE OTHER PARTIES?**

123 **A.** Yes. I reviewed the testimony in consultation with others in the Office and  
124 our expert witnesses. Essentially, the positions are as follows: WRA  
125 agrees with the Company's proposal, the Division has several concerns  
126 with the TOU rates and "anticipates reviewing other parties' proposals and  
127 believes a useful proposal or hybrid proposal will be possible later in this  
128 proceeding" (Davis direct page 8, lines 120-121), and UCE/SWEEP  
129 proposed two different TOU rates, one that incorporates two tiers into both  
130 the on- and off-peak time periods and the other that introduces a third  
131 "super off peak" period.

132 **Q. WHAT IS THE OFFICE'S VIEW REGARDING A TOU RATE WITH A**  
133 **THIRD "SUPER OFF PEAK" PERIOD?**

134 **A.** At first the Office was receptive to the idea to incorporate a third "super off  
135 peak" period. However, after further discussing the idea with other parties  
136 and the Company, we could not find a rational, analytical basis for

137 selecting hours that could be priced differently as a super off peak period.

138 Therefore, the Office opposes including this concept into the TOU pilot

139 program.

140 **Q. WHAT IS THE OFFICE'S VIEW REGARDING INCORPORATING TIERS**  
141 **INTO A TOU RATE?**

142 **A.** The Office has some initial concerns about the complexity of combining  
143 the two rate design concepts. In addition, such a combined rate structure  
144 appears to be designed to achieve two potentially competing objectives: 1)  
145 conservation, i.e. consuming less energy, 2) shifting the time of  
146 consumption. However, after additional discussion with the parties and  
147 evaluation of potential TOU rates that could be used in a load research  
148 study, the Office has concluded that including a TOU rate that  
149 incorporates different rates for different tiers of energy consumption may  
150 provide interesting study results. Therefore, the Office could support a  
151 pilot program that compares two TOU rates with similar price differentials  
152 between on and off-peak, one that simply had two time periods and the  
153 other that incorporates two tiers of energy use within each time period.

154 The Office does not support defining the first tier in both pricing  
155 periods to include consumption up to 1000 kWh, as is currently embedded  
156 in the UCE/SWEEP proposal. In fact, UCE/SWEEP's testimony indicated  
157 that they also have a preference to use a different break point between the  
158 tiers. The Office is currently working to evaluate where the reasonable  
159 division (kWh) between Tier 1 and Tier 2 rates should be set. The



160 response to some outstanding data requests is anticipated to facilitate this  
161 analysis.

162 **Q. PLEASE SUMMARIZE THE PRINCIPLES THAT THE OFFICE NOW**  
163 **SUPPORTS IN A TOU PILOT PROGRAM AFTER THE ADDITIONAL**  
164 **STUDY AND ANALYSIS COMPLETED SINCE DIRECT TESTIMONY**  
165 **WAS FILED.**

166 **A.** In general, the Office advocates that the following principles be  
167 incorporated in the TOU pilot program.

168 First, the pilot must include a valid sample design to provide  
169 statistically significant results that the results can be generalized.

170 Second, the pilot should include two TOU rates with a clear  
171 difference in design to compare and study the impact on changes in  
172 customer consumption.

173 Third, the differential of rates between on and off peak periods  
174 should be set high enough to promote change but not too high such that  
175 customers are not attracted to the rate or that it ends up simply being  
176 punitive.

177 At this time, we think good options for the TOU rates would be to study  
178 either a) our proposal for two TOU rates and evaluate the impacts of the  
179 larger number of on-peak hours proposed by the Company compared to a  
180 rate with fewer on peak hours or b) two TOU rates with similar differentials  
181 between on- and off-peak pricing and identical number of hours in the

182 periods with one rate incorporating higher pricing for a second tier of  
183 energy use in both the on- and off-peak periods.

184

185 **MISCELLANEOUS ISSUES**

186 **Q. WHAT IS THE FIRST ISSUE THAT YOU WILL ADDRESS?**

187 A. The first issue I will address is that of extending by one year the Load  
188 Research Study period as proposed by WRA witness, Mr. Kenneth  
189 Wilson, making it a 24-month rather than 12-month study.

190 **Q. PLEASE DISCUSS MR. WILSON'S 24-MONTH LOAD STUDY**  
191 **PROPOSAL.**

192 A. The Company's proposal is for a 12-month load research study. Mr.  
193 Wilson states that he would prefer having the Company collect data for a  
194 second year. (Wilson direct page 7, lines 141-142). He identifies two  
195 advantages of a two-year load study:

196 1) There will be twice as much data for analysis, providing the potential  
197 for more accuracy and better conclusions.

198 2) Two years of data may show variations in charging behavior under  
199 different weather conditions. (Wilson direct page 8)

200 Mr. Wilson recommends that the Public Service Commission  
201 (Commission) approve the Application for the pilot with the addition of a  
202 second year for the load study. (Wilson page 2, lines 28 – 29)

203 **Q. DOES ANY OTHER PARTY ADDRESS THE LENGTH OF THE LOAD**  
204 **STUDY?**

205 A. Yes. Division witness, Mr. Robert Davis indicates that the “Division  
206 agrees that the study should last at least 12 – 24 months...” (Davis direct  
207 page 11, line 180). However, he does not make a specific  
208 recommendation to extend the load study.

209 **Q. WHAT IS THE OFFICE’S RECOMMENDATION REGARDING**  
210 **EXTENDING THE LOAD STUDY TO 24-MONTHS?**

211 A. For the reasons expressed by Mr. Wilson the Office supports the  
212 extension. We believe that having more data in general as well as results  
213 over a potentially greater variety of weather conditions will be informative.  
214 Also, as stated by Mr. Wilson, extending the load study will not push it  
215 beyond the limits of the planned pilot period. Unless the Company’s  
216 rebuttal testimony contains justification to hold the load study to 12 months  
217 the Office recommends that the Commission require the load study to be  
218 conducted over a 24-month period.

219 **Q. WHAT IS THE SECOND ISSUE YOU WISH TO ADDRESS?**

220 A. The second issue is that of operating, maintenance, administrative, and  
221 general expenses (OMAG). Mr. Davis addresses this issue beginning at  
222 page 14 of his direct testimony.

223 **Q. WHAT DOES THE DIVISION RECOMMEND REGARDING OMAG?**

224 A. Mr. Davis states that in “Phase One of the Commission’s Report and  
225 Order, the Commission directed the Company to include all program-

226 related OMAG expenses in the STEP budgets”<sup>1</sup>. He recommends the  
227 same treatment be required for Phase 3 programs.

228 **Q. DOES THE OFFICE AGREE WITH MR. DAVIS’**  
229 **RECOMMENDATION REGARDING THE TREATMENT OF OMAG**  
230 **EXPENSES?**

231 A. Yes. Consistent with our position in earlier Phases of this docket  
232 the Office agrees that OMAG expenses for Phase 3 should be  
233 identified, tracked, reported and charged against the PEV Incentive  
234 budget consistent with the other STEP programs.

235 **Q. YOU INDICATED YOU WOULD ADDRESS CHARGEPOINT**  
236 **TESTIMONY. WHAT ISSUE OF THE CHARGEPOINT TESTIMONY**  
237 **WILL YOU ADDRESS?**

238 A. Mr. James Ellis states that ChargePoint supports “a program structure  
239 where the rebates are provided if the charging stations can communicate  
240 to provide data and load management tools to the utility to create grid  
241 benefits” (Ellis direct page 6, lines 111 – 113).

242 **Q. WHAT IS THE OFFICE’S POSITION REGARDING CHARGING**  
243 **STATIONS PROVIDING DATA TO THE COMPANY?**

244 A. The Office asserts that as a condition of receiving incentives for DC Fast  
245 Chargers and for Grant-Based Custom Projects and Partnerships  
246 participants must be required to provide data to the Company.

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<sup>1</sup> Report and Order, In the Matter of the Application of Rocky Mountain Power to Implement Programs Authorized by the Sustainable Transportation and Energy Plan Act, 16-035-36, December 29, 2016, pp. 6-8, and p. 16, item 7.

247 **Q. DO THE COMPANY'S PROPOSED TARIFFS REQUIRE THAT**  
248 **RECIPIENTS OF INCENTIVES PROVIDE THIS INFORMATION?**

249 A. Not specifically. Original Sheet No. 120.2 for DC Fast Charger  
250 Prescriptive Incentives at 3 reads: Pre-approval criteria *may* include, but is  
251 not limited to: (emphasis added)

252 e. Consent to provide charger usage data;

253 Likewise, Original Sheet No. 120.3 Grant-Based Custom Project and  
254 Partnerships Incentive at 2 reads: The selection process *may* include, but  
255 is not limited to: (emphasis added)

256 e. Consent to provide charger usage data;

257 **Q. DOES THE OFFICE HAVE ANY RECOMMENDATIONS RELATED TO**  
258 **THESE TWO TARIFF SHEETS?**

259 A. Yes, the Office recommends that the tariff sheets be revised in such a  
260 manner to specify that providing charger usage data is an absolute  
261 requirement from all recipients of these incentives and not subject to  
262 Company prerogative.

263 **Q. DOES THE OFFICE HAVE ANY RESPONSE TO THE OTHER ISSUES**  
264 **RAISED BY CHARGEPOINT?**

265 A. Yes. I will address three additional issues in ChargePoint's testimony, roll  
266 over of unused funds, requirements for residential charger incentives and  
267 a cap on Grant-Based Custom Projects.

268 ChargePoint proposes that any unused funds in the Non-residential  
269 and DC Fast Charger Prescriptive incentive categories roll over to the

270 following year. My understanding is that the statute delineates a specific  
271 amount per year for this program, thus the Company is not permitted to  
272 roll-over any unused funds from one year to a subsequent year.

273 ChargePoint recommends that in the program design for TOU  
274 Prescriptive Incentive the Company explicitly require that “these home  
275 units be smart; capable of communicating through a network to provide  
276 data and load management tools and capabilities” (Ellis direct pages 7 &  
277 8, lines 147-148. The Office has stated its support for incentives for  
278 residential Level 2 chargers. However, ChargePoint’s recommendation  
279 that the home units be “smart” is offered with no information about the cost  
280 implications associated with increased functionality of these devices. The  
281 Office opposes the expanded requirements recommended by ChargePoint  
282 absent cost justification.

283 For Grant-Based Custom Projects ChargePoint recommends that  
284 the proposal include a 75% cap on the incentive in keeping with other  
285 program categories. The Office agrees that Grant-Based Custom Projects  
286 should be required to fund a portion of the project costs and not be fully  
287 funded with STEP funds.

288

## 289 **SUMMARY**

290 **Q. PLEASE SUMMARIZE THE OFFICE’S RECOMMENDATIONS.**

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

- 293           • Consider redesigning the residential incentives to include  
294           residential Level 2 chargers. If incentives for residential Level 2  
295           chargers are offered, recipients should be required to participate in  
296           TOU rates;
- 297           • Create TOU pilot rates with smaller differentials than those initially  
298           proposed by RMP and either evaluate the impacts of two different  
299           rates as proposed by the Office in direct testimony or by including  
300           tiered pricing in one option;
- 301           • Extend the Load Research Study to 24-months;
- 302           • Treat OMAG related to the Programs in Phase 3 of this docket as  
303           ordered in Phase 1; and
- 304           • Obtain consent to provide charger usage data as a condition of  
305           receiving DC Fast Charger Prescriptive Incentives and Grant-  
306           Based Custom Projects and Partnerships Incentives.
- 307           • Require Grant-Based Custom Projects to have a portion funded by  
308           the grant recipient.

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

310   A.    Yes, it does.