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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

<p>In the Matter of the Investigation of the Costs and Benefits of PacifiCorp's Net Metering Program</p>	<p>Docket No. 14-035-114</p>
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PREPARED TESTIMONY IN OPPOSITION TO STIPULATION OF

STEVEN S. MICHEL

ON BEHALF OF

WESTERN RESOURCE ADVOCATES

August 31, 2017

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Steven S. Michel. My business address is Western Resource Advocates, 409
3 East Palace Avenue, Unit 2, Santa Fe, New Mexico 87501.

4

5 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?**

6 A. I am testifying on behalf of Western Resource Advocates (“WRA”).

7

8 **Q. HAVE YOU ALREADY PROVIDED TESTIMONY IN THIS CASE?**

9 A. Yes, I submitted rebuttal testimony on July 25, 2017 and surrebuttal testimony on August
10 8, 2017.

11

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN OPPOSITION TO THE**
13 **STIPULATION?**

14 A. The parties other than WRA have entered into a *Settlement Stipulation* (“Stipulation”) to
15 resolve the issues in this Case. WRA is opposed to the Commission approving that Stipulation as
16 it is presented, and my testimony provides the reasons for WRA’s position, and the modifications
17 to the stipulated provisions WRA believes the Commission should insist upon before approval.

18

19 **Q. PLEASE BRIEFLY DESCRIBE THE SETTLEMENT STIPULATION.**

20 A. The *Settlement Stipulation* results from negotiations among various parties to this case at
21 different points in time. Some of the discussions, including the recent discussions that resulted in
22 the terms of the Stipulation, included representatives of the Governor’s Office of Energy
23 Development. Although WRA submitted testimony in this Case and participated in some of the

24 early discussions, WRA was excluded from the specific discussions that reached the core
25 agreements underlying the Stipulation. And while WRA was able to participate in later
26 discussions, by that time the fundamental terms of the agreement were fixed and WRA's concerns
27 were not addressed.

28 The Stipulation would immediately end the statutory net metering program and replace it
29 with a Transition Program for new customers installing solar distributed generation ("DG"). The
30 Transition Program would last up to three years – earlier if the Commission concludes an "Export
31 Credit Proceeding" in less than three years. Current net metering customers would have their net
32 metering structure preserved until December 31, 2035.

33 During the transition, customers would have their usage measured every 15 minutes, and
34 in those periods where production exceeded consumption they would receive an export credit to
35 their monthly bill. The credit for residential customers would be slightly more than \$0.09/KWh.
36 The average residential retail rate currently exceeds \$0.10/KWh. The total value of the export
37 credits provided would be recovered by PacifiCorp from all customers through its Energy
38 Balancing Account ("EBA"). In those periods when a customer's usage exceeded its production,
39 the customer would be charged PacifiCorp's retail rate.

40 The export credit would remain in place for transition customers until December 31, 2032.
41 A total cap on development during the transition period of 240 MW, divided between residential
42 and commercial customers, was also agreed to. Customers that install a system during the
43 Transition Program, but after the cap is reached, would be subject to the outcome of the Export
44 Credit Proceeding as soon as that docket concluded.

45 The Export Credit Proceeding would commence immediately upon the conclusion of this
46 Case. That proceeding will gather data and develop an export credit for future solar DG customers

47 and Post-Cap Transition Customers. The export credit can be based upon a number of solar DG
48 cost and benefit considerations, and the level and period for which it will be available to new solar
49 DG customers would presumably also be decided in that proceeding – as well as whether the 15
50 minute measurement interval should be continued or replaced with some other measurement
51 interval. Once new tariffs are implemented in the Export Credit Proceeding, the Transition
52 Program would end.

53 Finally, the Stipulation would not preclude a party from proposing new rates, rate classes
54 and rate structures in a general rate case for future solar DG customers other than grandfathered
55 NEM or Transition Customers. This means that PacifiCorp’s initial proposal to segregate rooftop
56 solar customers into a new, separate rate class with a demand charge could be resurrected in the
57 near future.

58

59 **Q. PLEASE SUMMARIZE WRA’S OPPOSITION TO THE STIPULATION.**

60 A. WRA does not oppose the entire Stipulation. Most of the provisions make sense. However,
61 several features of the Stipulation, in my opinion, are not in the public interest and should be
62 rejected or modified. Specifically, our concerns are:

63 1) The 15 minute measurement interval is confusing and its impacts are
64 uncertain for rooftop solar customers;

65 2) Allowing PacifiCorp to immediately recover the value of export credits
66 through the EBA or another pass-through mechanism will increase customer bills by
67 potentially tens of millions of dollars – without any general rate case determination that the
68 Company’s current revenues are insufficient to support its cost of service;

69 3) The Transition Program caps create a potential time gap that could
70 temporarily halt all rooftop solar development in Utah; and

71 4) The Stipulation resolves few of the important issues in this docket, but
72 instead moves them into a new docket while at the same time ending net metering and
73 substituting a short-lived interim program.

74

75 **Q. WHAT DO YOU RECOMMEND?**

76 A. The Commission should require that the outcome proposed by the Stipulation be revised,
77 and if not revised, find that the Stipulation is not in the public interest. Specifically, the
78 Commission should find that:

79 1) The measurement interval for establishing solar DG exports and imports should be
80 hourly rather than every 15 minutes;

81 2) PacifiCorp should not be permitted to pass through its EBA or other mechanism
82 the value of the export credits until after the conclusion of its next general rate case;

83 3) Once 75% of the transition period installation caps have been reached, PacifiCorp
84 should notify the Commission and parties, and a new docket should be immediately opened
85 to establish some level of program certainty for customers that install systems after the cap
86 is reached but before the Export Credit Proceeding is concluded; and

87 4) The Commission should decide now that a separate rate class for solar DG
88 customers is not warranted and is not in the public interest.

89 I will address each of these issues, and my recommended resolution, in more detail in the remainder
90 of my testimony.

91

92 **HOURLY MEASUREMENT INTERVAL**

93 **Q. PLEASE EXPLAIN YOUR CONCERN WITH THE 15 MINUTE MEASUREMENT**
94 **PERIOD.**

95 A. The Stipulation calls for transition customers to have their energy measured every 15
96 minutes. In other words, net usage or production would be determined every 15 minutes, and for
97 periods of over-production the customer would be compensated by an export credit of slightly
98 more than \$0.09/KWh for residential customers. Periods of net consumption would be billed at the
99 prevailing retail rate. Each month, the charges and credits would be reconciled into a final bill.

100 I have several reasons for opposing the 15 minute interval. First, for a typical residential
101 customer, the concept of 15 minute intervals will be mind-boggling. The standard for measurement
102 in the electricity sector is hourly or longer. The industry commonly uses the terms “kilowatt-*hour*”
103 or “megawatt-*hour*,” not “kilowatt-*minute*.” Time-of-use (“TOU”) rates and peak periods are all
104 identified by the hour in which they occur. Power sale transactions are also typically made on an
105 hourly or longer basis. To use a measured period of less than an hour would be difficult to
106 administer and difficult for customers to understand. Imagine trying to explain to a residential
107 customer that their *monthly* bill from PacifiCorp will be based upon measuring kilowatt-*hours*
108 every 15 *minutes*.

109 Even if customers are able to understand the concept underlying this new system of
110 charging them, they will have little ability to respond to this presumed price signal. I am unaware
111 of any jurisdiction in the United States that requires a 15 minute measurement interval for
112 residential customers. The transition from monthly to hourly netting will be challenging enough
113 for customers without adding the difficult concept of a 15 minute interval.

114 In addition, as I discussed in my rebuttal testimony, there is little data available to ascertain
115 the impact that a more frequent than hourly reconciliation would have. The sparse load information
116 we have today for PacifiCorp's system is hourly. Because there is little data, there is no basis to
117 conclude that hourly measurement is not sufficient to fairly capture the economics of a rooftop
118 solar customer's production and consumption patterns. On the other hand, the shortened interval
119 will increase the periods when an export credit, as opposed to a netting against consumption,
120 occurs – and change the economics of solar DG installation in uncertain but adverse ways.

121 I am also concerned that a 15 minute interval lends itself to a future residential demand
122 charge rather than a time-of-use rate. Demand is often measured in 15 minute intervals whereas
123 TOU rates are measured hourly. In my rebuttal testimony I discussed the reasons why a demand
124 charge makes little sense for residential customers, and how it can be used as a tool to hobble
125 rooftop solar development. The Office of Consumer Services recommended a TOU rate for rooftop
126 solar customers, and I believe that makes a great deal of sense. Once a 15 minute interval is in
127 place, it will become the status quo that must be unwound. TOU rates provide an actionable price
128 signal, based upon energy value each hour, which a customer can understand. Customers that are
129 assigned 15 minute measurement intervals pursuant to the Stipulation will find it confusing and
130 challenging to migrate to TOU rates that evaluate usage hourly.

131

132 **DISALLOW PASS-THROUGH RATE RECOVERY OF EXPORT CREDIT VALUE**

133 **Q. PLEASE EXPLAIN THE ISSUE OF ALLOWING PACIFICORP IMMEDIATE**
134 **RATE RECOVERY OF THE VALUE OF THE EXPORT CREDIT THROUGH THE EBA**
135 **OR ANOTHER MECHANISM.**

136 A. The stipulating parties have agreed that, going forward, PacifiCorp will be able to pass
137 through the Energy Balancing Account or another mechanism the value of the export credits it
138 provides to customers. Currently, under net metering, the value of exports is subsumed within the
139 net bill that a customer receives, and PacifiCorp's rates are not impacted. Under the Stipulation,
140 PacifiCorp's Utah customers will have to pay additional charges that would not exist in the absence
141 of the Stipulation. At the same time, these additional charges will result in additional revenues to
142 PacifiCorp – without any showing in a general rate case that PacifiCorp needs additional revenues
143 to recover its cost of service.

144

145 **Q. WHY IS A GENERAL RATE CASE DECISION IMPORTANT BEFORE**
146 **ADJUSTING CUSTOMER RATES OR ALLOWING A PASS-THROUGH OF COSTS?**

147 A. The importance lies in the potential to unfairly increase customer rates based upon an
148 isolated cost item, when that cost is in fact offset by other reductions in a utility's cost-of-service.

149 The issue is explained well in a utility commission order from New Mexico (Case 2361):

150 It would be completely unfair to ratepayers to allow a utility to selectively pick a
151 few expense items, which may have increased over what had previously been
152 allowed in rates, to justify a rate increase. Other expense items may have
153 decreased or revenues may have increased over their respective allowances in
154 current rates. The end-result, after reviewing the utility's complete cost of service,
155 may indicate that just and reasonable rates are something less than what the
156 increases in the selective items would otherwise indicate.... Unless a complete
157 picture is presented, the Commission cannot possibly fulfill its duty to determine
158 just and reasonable rates.

159

160 The provision of the Stipulation allowing PacifiCorp to begin collecting export credit values from
161 its customers, through its EBA or otherwise, flies in the face of long-standing regulatory principles
162 of fairness and proper ratemaking.

163

164 **Q. IS THE AMOUNT OF THE PROPOSED PASS-THROUGH RECOVERY**
165 **SIGNIFICANT?**

166 A. It certainly could be. Given the caps and export credit values that have been negotiated in
167 the Stipulation, the amount paid to PacifiCorp by Utah customers could be tens of millions of
168 dollars, without any showing that additional revenues are needed by PacifiCorp to achieve its
169 revenue requirements. One can understand the potential magnitude of these proposed payments to
170 PacifiCorp with a simple calculation. Assume:

- 171 1) 240 MW cap is achieved,
172 2) rooftop solar has a 35% capacity factor,
173 3) customers export 35% of their production, and
174 4) average export credit is \$70/MWh.

175 With those assumptions, the value of the export credits that PacifiCorp will recover from its Utah
176 customers each year is:

177 $(240 \text{ MW}) \times (8760 \text{ hours/year}) \times (35\%) \times (35\%) \times \$70/\text{MWh} = \$18.0 \text{ million/year}$

178 In addition, because the exported power is credited at less than the average retail rate,
179 customers that have not oversized their systems will pay that difference in the hours they are
180 importing power, which would increase the revenues to PacifiCorp about another 10% (the
181 differential between the average retail rate and the export credit) i.e., to approximately \$20
182 million/year.

183 **Q. HOW DOES YOUR CALCULATION OF A POTENTIAL \$20 MILLION/YEAR**
184 **IMPACT SQUARE WITH STIPULATION EXHIBIT A, WHICH IMPLIES THAT THE**
185 **IMPACT IS \$5.2 MILLION PER YEAR?**

186 A. I believe Exhibit A is misleading in several respects. First, the exhibit assumes only 85,000
187 MWh of transition solar produced each year. Assuming a 35% solar capacity factor and that 35%
188 of the energy produced is exported, 85,000 MWh represents a development level of about 80 MW,
189 which is one-third of the 240 WM cap. If the cap is reached before PacifiCorp's next general rate
190 case, the impact will be closer to the \$20 million per year that I calculated.

191 Second is that Exhibit A subtracts from the EBA adjustment \$2.6 million that it portrays
192 as "Export Costs" being allocated to all states because it represents the market value of solar plus
193 avoided line losses. That value, however, would have been realized by customers through a lower
194 EBA pass-through even if net metering were continued. So, the notion that this is a complete offset
195 to the \$7.8 million pass-through is wrong.

196 Another concern with Exhibit A is that subtracting avoided line losses and a "Market Value
197 of Solar Exports" (equal to the Four Corners hub price of approximately \$28/MWh) from the \$7.8
198 million export credits creates the untested impression that the \$5.2 million remainder is a subsidy
199 to solar DG customers. This in turn provides an undetermined, but handy, dollar target for
200 opponents of solar DG to use in efforts to discredit the solar industry and constrain development.

201 Finally, to be fair, the export credit of \$92 used in the exhibit appears to be high. A blended
202 export credit across all the affected customer classes would be closer to \$70, the number I used in
203 my calculation. When that amount is used, the \$20 million/year is more representative of the
204 ultimate increase in annual rates to Utah customers from today's situation if the development cap

205 is reached before a general rate case is filed. The \$5.2 million shown in the exhibit downplays and
206 understates the real potential impact of the EBA pass-through.

207

208 **Q. GIVEN THAT YOU REPRESENT AN ENVIRONMENTAL ORGANIZATION,**
209 **WHY DO YOU CARE ABOUT RATE IMPACTS AND THIS UNFAIR RATEMAKING**
210 **ISSUE?**

211 A. Environmental advocacy does not require a blind eye to economic impacts. Achieving good
212 environmental outcomes often depends on minimizing the economic impact of the good results.
213 The Stipulation calls for an unjustified rate increase to PacifiCorp without any showing that the
214 Company requires those revenues to cover its cost of service. Moreover, this explicit pass-through
215 of costs will likely be understood, unfairly, to represent and quantify the subsidized cost of rooftop
216 solar to Utah's non-solar customers.

217

218 **Q. WHAT DO YOU RECOMMEND?**

219 A. I recommend that the Commission not allow PacifiCorp to pass through its EBA, or any
220 other pass-through mechanism, the value of export credits until after new rates are implemented
221 at the conclusion of PacifiCorp's next general rate case.

222

223 **TRANSITION CAP TRIGGER**

224 **Q. PLEASE EXPLAIN THE ISSUE SURROUNDING THE TRANSITION CAP.**

225 A. The stipulating parties have agreed to a cap on development during the Transition Program,
226 which ends with the implementation of new rates following the Export Credit Proceeding. The
227 parties anticipate that will occur no later than October 1, 2020, or three years after it begins. The

228 caps are 170 MW for residential and small commercial customers and 70 MW for larger
229 commercial customers. These appear to be reasonable caps. However, if the caps are reached prior
230 to the conclusion of the Export Credit Proceeding, those post-cap customers will have the
231 economics of their future usage and exports governed by the then-unknown outcome of the Export
232 Credit Proceeding. In other words, those Post-Cap Transition Customers will not have any
233 certainty of the economics of their installation past October 1, 2020 - or earlier if the Export Credit
234 Proceeding ends sooner.

235

236 **Q. WHY IS THAT A PROBLEM?**

237 A. If the cap is reached and there is no certainty to the economic arrangement that Post-Cap
238 Transition Customers will have, there is a strong likelihood that development will halt completely
239 until the Export Credit Proceeding outcome is concluded. This could be very disruptive to the solar
240 industry and Utah's economy in general.

241 Also, as I discussed in my rebuttal testimony, this runs contrary to Bonbright's recognition
242 that it is in the public interest for customers investing large amounts of money to have some
243 reliance and certainty that the economic structure in place when the investment is made can be
244 preserved. In Principles of Public Utility Rates, Bonbright *et al.* discuss the public interest and the
245 "Status Quo Criterion," where the authors explain the need for fairness and certainty:

246 To the extent that people have committed themselves to irrevocable, or inflexible and
247 costly investment decisions, it is considered to be unfair to change the cost or price structure
248 substantially because such changes inherently alter the wealth position of affected parties.

249

250 *Bonbright* at 74-5.

251

252 **Q. WHAT DO YOU RECOMMEND?**

253 A. The Commission should assure itself that it has the tools available to address the situation
254 of the stipulated caps being reached before the Export Credit Proceeding can be concluded. While
255 the Stipulation calls for web-based updates of development levels, I do not believe that is enough.
256 The Commission should require PacifiCorp to immediately notify the Commission and parties to
257 this Case once 75% of the cap for any group of customers is reached. That notice should in turn
258 cause the docketing of a proceeding for the Commission to determine what action, if any, it should
259 take to assure that the transition away from net metering is smooth and not disruptive.

260

261 **NO SEPARATE RATE CLASS**

262 **Q. WHAT IS YOUR CONCERN ABOUT THE POSSIBILITY OF A SEPARATE**
263 **RATE CLASS FOR ROOFTOP SOLAR DG CUSTOMERS?**

264 A. Except with respect to NEM and Transition Customers, the stipulating parties have not
265 prevented any party from raising any issues, or advocating any positions, they choose in future
266 PacifiCorp rate cases. This contrasts sharply with another Stipulation provision that bars
267 stipulating parties from undermining the Stipulation though legislation or litigation. One of the
268 primary points of contention in this docket has been PacifiCorp's initial proposal to assign future
269 solar DG customers to a separate rate class with a demand charge. If the issue of a separate rate
270 class is not found to be contrary to the public interest in this Case, it begs the question of what, if
271 anything, this current docket will have accomplished other than ending net metering and putting
272 off all substantive issues until later.

273

274 **Q. WHAT DO YOU RECOMMEND, AND WHY?**

275 A. The argument favoring a separate rate class for rooftop solar customers is based upon the
276 premise that rooftop solar customers differ from other residential customers because they both
277 import and export electricity, and require “stand-by” service for when their systems are not
278 generating. An additional argument relates to rooftop solar customer usage peaking in the spring,
279 whereas the peak for other customers occurs in the summer.

280 The differences between rooftop solar customers and other residential customers are not,
281 however, of a nature that supports a new rate class. One should not look behind the meter to decide
282 how and what to charge various residential and commercial customers. The rate a customer pays
283 should not depend on whether a customer has a solar installation that reduces its demand, goes on
284 vacation, or has controls to cycle its cooling loads. Whether customer-owned rooftop solar is
285 producing during an hour, or an air conditioner is switched off in that same hour, can look exactly
286 the same at the point of sale. Going beyond that, to look at why, rather than how, a customer’s
287 usage appears as it does, would create a slippery slope that would have each customer with its own
288 unique rate. The same logic could be used to segregate customers with electric heating or water
289 heating loads, electric hot tubs, vacation homes or refrigerated air conditioners, and argue that they
290 too should be assigned separate rate treatment.

291 That type of distinction should be avoided. Residential rates should apply to all residential
292 customers, commercial rates to commercial customers, and so on. The means by which a customer
293 manages its usage should not trigger a different rate.

294 I believe the Commission has a strong record before it to decide that rooftop solar
295 customers should not be separated into a new rate class. It should do so now both for reasons of
296 judicial economy and to avoid the uncertainty that leaving this issue unresolved can create. While

297 I recognize that a current Commission cannot bind a future Commission, it is also true that a
298 decision on the merits now will be difficult to reverse in the future. A decision now will also
299 provide a reasonable amount of important certainty for the solar industry going forward. So, I
300 recommend that the Commission determine now that residential solar DG customers should
301 remain in the residential class of customers.

302

303 **CONCLUSIONS**

304 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

305 A. Yes. While I hope I am wrong, I worry that the Settlement preserves profitability for Utah's
306 solar industry in the short-term by jeopardizing the long-term sustainability of solar DG in Utah. I
307 say this primarily because of the 15 minute measurement interval, the potential Transition Program
308 gap, and the export credit value pass-through which can be used to target the economics of future
309 solar DG customers. Much will depend on the outcome of an Export Credit Proceeding that
310 immediately follows this one, and which presumably will decide the issues that this docket was to
311 resolve.

312 That said, with the several modifications that I recommend, I believe the stipulated
313 outcome can provide the public interest benefits that it should. Those modifications are to:

314 1) require measurement of usage and exports for transition customers hourly, rather than
315 every 15 minutes;

316 2) disallow rate recovery of the value of export credits through PacifiCorp's EBA or otherwise
317 until after the conclusion of the Company's next general rate case;

318 3) require PacifiCorp to immediately notify parties and the Commission if and when it reaches
319 75% of the agreed upon Transition Program caps, and have that notice trigger the opening
320 of a docket; and

321 4) determine that residential solar DG customers should not be separated into a new rate class.

322

323 **Q. DOES THIS CONCLUDE YOUR TESTIMONY IN OPPOSITION TO THE**
324 **STIPULATION?**

325 A. Yes.