

-BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH-

**IN THE MATTER OF APPLICATION OF ROCKY
MOUNTAIN POWER FOR APPROVAL OF AN
INDOOR AGRICULTURAL LIGHTING TARIFF,
ELECTRIC SERVICE SCHEDULE NO. 22**

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**DOCKET No. 19-035-T06
Exhibit No. DPU 1.0 DIR**

FOR THE DIVISION OF PUBLIC UTILITIES
DEPARTMENT OF COMMERCE
STATE OF UTAH

Direct Testimony of

Abdinasir M. Abdulle, Ph.D.

June 6, 2019

1 **INTRODUCTION**

2 **Q. Please state your name, business address, and employment for the record.**

3 A. My name is Dr. Abdinasir M. Abdulle. My business address is 160 E. 300 South, Salt
4 Lake City, Utah 84114. I am employed by the Utah Division of Public Utilities (Division
5 or DPU).

6 **Q. On whose behalf are you testifying in this proceeding?**

7 A. I am testifying on behalf of the Division.

8 **Q. Would you summarize your education background for the record?**

9 A. I have a Ph.D. in Economics from Utah State University. I have been employed by the
10 Division for almost 19 years.

11 **Q. What is the purpose of your testimony?**

12 A. As is explained in the Direct Testimony of Mr. Robert Meredith, Rocky Mountain Power
13 (“RMP”) is proposing for approval a new tariff option, Schedule 22, for Indoor
14 Agricultural Lighting customers in Utah. My testimony will provide the Division’s
15 response to RMP’s proposed Schedule 22.

16 **Q. What is the purpose of the Schedule 22?**

17 A. In his Direct Testimony, Mr. Meredith, indicates that the purpose of Schedule 22 is to
18 provide Utah Indoor Agricultural customers rates that are cost-based, and better reflect
19 their unique characteristics.

20 **Q. What prompted RMP to propose this new Schedule 22 tariff?**

21 A. The new tariff was prompted by RMP receiving a request from a greenhouse customer
22 (Customer A) that uses electricity to supplement light for its tomato production.
23 Customer A is planning to expand its operations by 2.6 times its current size either at its
24 current location or outside RMP's service territory. Customer A asked RMP for an
25 alternative rate schedule that reflects its unique load profile. Customer A is currently
26 served at transmission voltage on Schedule 9.

27 To verify Customer A's claim, RMP performed a study comparing the energy usage
28 pattern of Customer A to that of a typical Schedule 9 customer. The results of this
29 comparison showed that Customer A's energy usage pattern is different from that of a
30 typical Schedule 9 customer.

31 **Q. How does Customer A's energy usage pattern differ from that of a typical Schedule**
32 **9 customer?**

33 A. According to RMP, the study showed that Customer A uses energy primarily in the
34 months of November through March, which is outside of the summer months and during
35 nighttime and morning hours. Furthermore, Customer A contributes significantly (i.e.,
36 greater than 1 MW) in only three of RMP's 12 monthly system coincident peaks. On the
37 other hand, typical Schedule 9 customers have much less of a seasonal pattern of energy
38 consumption and use power steadily throughout each 24-hour day. Furthermore,
39 Schedule 9 customers significantly contribute to each of the 12 monthly system peaks.

40 In addition, since Customer A's usage occurs during the night and mornings, it will
41 promote more efficient use of RMP's system by increasing the load during the low

42 consumption hours with minimal impact to RMP's peaks. Therefore, Customer A's load
43 pattern is beneficial to the system.

44 **Q. Did RMP perform any other studies to determine whether Schedule 9 rates are**
45 **appropriate for Customer A?**

46 A. Yes. To determine whether Customer A's revenues cover its cost of service, RMP
47 modified the 2017 annual cost of service study filed on June 15, 2018 by separately
48 identifying Customer A, removing its load from the Schedule 9 class, and inputting all
49 pertinent factors for this separate class. Using this modified cost of service study, RMP
50 determined that, under Schedule 9, Customer A is paying about 17% more than its cost of
51 service.

52 RMP calculated the marginal impact of simultaneously lowering the rates and expanding
53 the customer's facilities to all other Utah customers, as the difference between the
54 incremental revenue and the incremental expense. Where incremental revenue is the
55 difference between Customer A's current revenue and Customer A's revenue from the
56 expanded facility and lower rates. RMP calculated the incremental revenue as
57 **\$1,965,675.**

58 The incremental expense was calculated as the sum of the incremental power cost and the
59 increase in wheeling expense associated with the additional load from the expansion.

60 RMP calculated the incremental expense to be about **\$747,533**. Hence, the marginal
61 impact, associated with the combination of expansion of Customer A's facility and lower
62 rates, is a net benefit of about **\$1,218,142**.

63 **Q. Based on these studies, what did RMP conclude?**

64 A. Based on Customer A's unique seasonal pattern of energy usage, hourly profile,
65 contribution to RMP's 12 monthly system coincident peaks, and the fact that it is
66 overpaying by 17% under Schedule 9, RMP concluded that a new tariff, Schedule 22,
67 that provides lower cost-based rates that reflect Customer A's unique and beneficial
68 characteristics could be developed.

69 **Q. How would separating Customer A from Schedule 9 and lowering its rates under**
70 **Schedule 22 affect other customers?**

71 A. Generally, it depends on whether the separated customer was paying more or less than
72 cost of service. If it were paying less than cost of service, lowering its rates would push
73 costs on other RMP customers. However, if it were paying more than cost of service,
74 lowering its rates (by not more than the percent of over-payment to meet its cost of
75 service) would not have an impact on the rates paid by other customers. Therefore, for
76 this case, since Customer A is overpaying its cost of service by 17%, lowering it rates
77 would not push costs to other customers.

78 **Q. What is the Division's position regarding RMP's justification for the development of**
79 **Schedule 22?**

80 A. The Division encourages and supports practices and policies that promote or improve
81 efficient use of utility services and assets. The Division reviewed Mr. Meredith's Direct
82 Testimony and the calculations contained in the accompanying spreadsheets and agrees
83 that Customer A exhibits unique characteristics and is overpaying under Schedule 9. The

84 Division also agrees that if Customer A simultaneously expands as planned and pays
85 lower rates under Schedule 22, it would benefit the system and would not push costs to
86 other customers.

87 The incremental usage will happen during non-peak hours and, hence, improve the
88 efficient use of the system and generate additional revenue without meaningfully
89 contributing to the peak.

90 **Q. Does RMP have alternative ways to provide Customer A cost-based alternatives**
91 **that reflect its unique energy usage profile?**

92 A. Yes. RMP could provide or enter into a special contract with Customer A and still
93 capture the economic opportunity provided by the expansion of Customer A's operations.
94 However, Schedule 22 provides lower cost-based rates, is open to all other customers that
95 have similar load sizes and profiles as Customer A, and is more transparent. This may
96 induce other customers to either expand operations or locate within RMP territory and
97 therefore, provide additional benefits. This is RMP's claim and the Division agrees with
98 it.

99

100 **PROPOSED SCHEDULE 22**

101 **Q. Would you please provide a brief description of Schedule 22 as proposed by RMP?**

102 A. Yes. Schedule 22 is available to all Indoor Agricultural Lighting customers with loads
103 over 1 MW (registered 1 MW or more, more than once in the preceding 18-month period)
104 and using at least 75 percent of its energy for indoor lighting. If the customer registers

105 less than 1 MW for more than 18 months or if the percent of its energy used for indoor
106 lighting drops below 75%, the customer will no longer be eligible for this schedule and
107 will be transferred to the appropriate service schedule. Schedule 22 is available after the
108 eligible load exceeds 30 MW. This will ensure that the benefits associated with the
109 combination of lower rates and expansion of Customer A's facilities could be realized
110 and the other customers could be kept from getting harmed. Since the potential customers
111 with similar characteristics as Customer A could be taking service at any voltage level,
112 Schedule 22 is designed to provide rates for services at secondary, primary, and
113 transmission voltages.

114 **Q. Would you please comment on RMP's proposed availability of Schedule 22?**

115 A. Yes. The Division does not oppose RMP's proposed load size and energy usage
116 limitations of Schedule 22. The Division also does not oppose RMP's proposed removal
117 of any customer from Schedule 22 that violates the proposed load size and energy usage
118 limitations. However, the Division is concerned about the possibility, however remote,
119 that a customer under Schedule 22 may choose to use energy during the peak period in
120 violation of the characteristics that made it unique and qualified it for this Schedule in the
121 first place.

122 **Q. What does the Division propose to discourage such violation?**

123 A. Similar to those customers who registered less than 1 MW for more than 18 month or
124 their energy usage for indoor lighting went below 75%, the Division proposes that

125 customers moving their energy usage period to the system peak period should no longer
126 be eligible for Schedule 22 and should be moved to the appropriate schedule.

127 **Q. Does the Division have other concerns about creating a new rate schedule?**

128 A. Yes. The Division has generally resisted the expansion of the use of special contracts,
129 which are essentially a separate rate class with one customer. Similarly, the Division is
130 hesitant in supporting the creation of special tariffs serving one customer. The problem
131 that could arise is that other customers with a supposed “special” characteristic could
132 insist that it should be given its own rate schedule citing as precedent previously created
133 tariffs. In addition to the administrative burden multiple special tariffs would pose for the
134 Utility and the Commission, an unrestrained process would not guarantee that the special
135 characteristics would provide net benefits to the system.

136 **Q. How does the Division propose mitigating the potential problems with creating new
137 rate schedule?**

138 A. The Commission needs to make it clear that a utility company, or one of its customers,
139 requesting its own schedule has the burden of proof of showing: (1) that it operates in a
140 manner significantly different from the operations of a typical customer on its current
141 electric service schedule; (2) that other customers will not be harmed by the creation of
142 an additional electric service schedule; and (3) there is a net benefit to the system in
143 moving to a newly created electric service schedule. All three of these factors appear to
144 be present in the current request before the Commission.

145

146 **PROPOSED RATE DESIGN**

147 **Q. For the purpose of Rate Design for Schedule 22, did RMP make changes from**
148 **Schedules 8 and 9?**

149 A. Yes. To design rates for this schedule, RMP made several modifications that differ from
150 Schedules 8 and 9. First, the Month of May has been moved from the summer season to
151 winter season. Based on its study of the forecast wholesale Palo Verde prices, RMP
152 determined that May is one of the lowest cost months. Hence, moving it from the high
153 cost summer months to lower cost winter months is deemed to be appropriate for the new
154 proposed schedule.

155 Second, the On-Peak period has been modified from what it was in Schedules 8 and 9.¹
156 By reviewing the system and distribution coincident peaks, RMP determined that during
157 the summer season, most peaks occurred during the late afternoon/early evening
158 timeframe and during winter season, most peaks occurred during both late
159 afternoon/early evening and morning timeframe. Consequently, RMP proposes On-Peak
160 periods that capture 95% of peaks in both the summer and winter seasons.² These
161 proposed On-Peak periods are shorter periods than those of Schedules 8 and 9.

¹ For schedules 8 and 9, the On-Peak periods were 7:00 a.m. to 11:00 p.m. for October through April inclusive Monday through Friday, except holidays and 1:00 p.m. to 9:00 p.m., Monday through Friday, except holidays.

² For Schedule 22: the On-Peak periods are, 3:00 to 9:00 p.m. during June through September, and 8:00 to 10:00 a.m. and 3:00 to 9:00 p.m. during October through May.

162 Finally, the definition of Facilities kW has been changed to the average of the two highest
163 kW readings during the 12-month period ending in the billing month. This change is
164 intended to stabilize the fixed cost recovery after the On-Peak period has been shortened.

165 **Q. Would you please comment on these proposed modifications from Schedules 8 and**
166 **9?**

167 A. Yes. The Division reviewed the basis of these proposed changes and does not oppose
168 them.

169 **Q. What rates did RMP propose?**

170 A. The rates RMP proposes include a Customer Service Charge, Facilities Charge, Power
171 Charge, and Energy Charge. The Customer Charge is the same as that of Schedules 8 and
172 9. The Facilities Charge, with its new definition, is set to recover the same level of
173 revenues as would be recovered from the Schedule 9 Facilities Charge. The Power
174 Charge is set to recover the portion of the demand-related production cost and the
175 demand-related transmission cost above the revenue collected through the Facilities
176 Charge. The Power Charge differential between the summer and winter seasons for
177 Schedules 8 and 9 was preserved. The Energy Charges were set such that the differentials
178 between the season and time of use periods are the same as those of the forecast 2020
179 Palo Verde wholesale power prices. The specific prices that RMP is proposing are
180 reproduced here for ease of reference.

181 **Table 1. Proposed Schedule 22 Prices**

Description	Unit	Secondary Price	Primary Price	Transmission Price
Customer Service Charge	Customer	\$70	\$70	\$259
Facilities Charge	kW	\$1.37	\$1.37	\$1.37
Power Charge				
Summer – On-Peak	kW	\$8.16	\$8.05	\$7.83
Winter – On-Peak	kW	\$5.86	\$5.61	\$5.31
Energy Charge				
Sumer – On-Peak	kWh	\$0.092314	\$0.088608	\$0.086679
– On-Peak	kWh	\$0.050770	\$0.047064	\$0.045134
Winter – On-Peak	kWh	\$0.041108	\$0.037402	\$0.035473
- Off-Peak	kWh	\$0.034356	\$0.030650	\$0.028721

182

183 **Q. What is the Division’s position regarding RMP’s proposed Rate Design?**

184 A. The Division reviewed RMP’s proposed Rate Design and the Exhibits that support it. The
185 Division noted that the Facilities Charges that are listed for the Primary and Secondary
186 voltage levels in Exhibit_(RMM-4) are \$1.65 per kW-month. This is just a typographical
187 error. It should be \$1.37 as is shown in Table 1 and in the proposed Tariff Sheets
188 (Original Sheet No. 22.2). However, the correct Facilities Charge, instead of the wrong
189 one, was used in the calculations. Therefore, this typographical error does not have
190 financial consequence. The Division did not see any other problems with the supporting
191 Exhibits.

192 The Division determined that the proposed rates are cost-based and could encourage
193 other large Indoor Agricultural Lighting customers to relocate in RMP's Utah service
194 territory. Therefore, the Division does not oppose the proposed Schedule 22 rate design.

195 **Q. Have you reviewed the Proposed Tariff Sheets?**

196 A. Yes. I reviewed the proposed Tariff Sheets. They correctly reflect the information
197 discussed above. Therefore, the Division does not oppose them.

198 **Q. What is the Division's recommendation regarding the proposed new Tariff,
199 Schedule 22?**

200 A. The Division believes that the proposed Schedule 22 provides an economic opportunity
201 that would benefit all Utah customer rather than burden them. The rates in the Schedule
202 are cost-based and creating a new Schedule 22 would reduce the likelihood of other
203 customers demanding their own electric service schedule. Therefore, the Division
204 concludes that Schedule 22 is in the public interest and recommends the Commission
205 approve it with the conditions discussed above.

206 **Q. Does that conclude your Direct Testimony?**

207 A. Yes.