

1 **Q. Please state your name, business address, and present position with Rocky**
2 **Mountain Power (the “Company”), a division of PacifiCorp.**

3 A. My name is Paul H. Clements. My business address is 1407 West North Temple
4 Street, Suite 310, Salt Lake City, Utah 84116. My present position is Director,
5 Commercial Services for Rocky Mountain Power.

6 **Q. How long have you been in your present position?**

7 A. I have been in my present position since June 2015. I previously held similar
8 positions within PacifiCorp since December 2004.

9 **Q. Please describe your education and business experience.**

10 A. I have a B.S. in Business Management from Brigham Young University. I have
11 been employed with PacifiCorp since 2004 as an originator/power marketer
12 responsible for negotiating qualifying facility contracts, negotiating interruptible
13 retail special contracts, and managing wholesale or market-based energy and
14 capacity contracts with other utilities and power marketers. I also worked in the
15 merchant energy sector for approximately six years in pricing and structuring,
16 origination, and trading roles for Duke Energy and Illinova.

17 **PURPOSE AND SUMMARY OF TESTIMONY**

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

19 A. The purpose of my testimony is to support the Company’s application for approval
20 of a renewable energy service contract between Facebook, Inc. (“Facebook”) and
21 Rocky Mountain Power (“the Contract”). Specifically, I provide a comprehensive
22 overview of the material terms and conditions of the Contract, as follows:

- 23
- Contract objective and basic structure;

- 24 • Contract rate calculation and rate design;
- 25 • Billing mechanics; and
- 26 • Renewable resource procurement process.

27 **Q. Please summarize your testimony.**

28 A. The Contract allows Facebook, a potential new large customer in Utah, to meet all
29 of its energy needs with new renewable resources acquired on its behalf. The
30 Contract includes rates for when Facebook is served by those renewable resources
31 and rates for when Facebook is served by Company resources, either during periods
32 when Facebook is ramping up and still acquiring the renewable resources or periods
33 when the amount of renewable resources acquired does not match the Facebook

34 load. [REDACTED]
35 [REDACTED]
36 [REDACTED]
37 [REDACTED]
38 [REDACTED]
39 [REDACTED]
40 [REDACTED]
41 [REDACTED]
42 [REDACTED]

43 [REDACTED] rates reflect the costs incurred by the Company and in
44 some instances provide a benefit to all customers. The Company can serve the
45 Facebook load in the near-term with existing resources, so customers benefit if the
46 Facebook rate exceeds the marginal cost of energy.

47 The Contract includes a billing mechanism to account for two unique
48 aspects related to the interaction of the renewable resource production and the
49 energy consumption at the Facility: 1) variability in the monthly solar production
50 and 2) variability in the percentage of load served by the renewable resource. [REDACTED]

51 [REDACTED]

52 [REDACTED]

53 [REDACTED]

54 The Contract also includes procedures by which the parties work together
55 to acquire the renewable resources. Facebook is responsible for the financial
56 obligations under any contract between the Company and a renewable resource,
57 and adequate credit provisions are in place to ensure the Company and other
58 customers are protected in the event the Contract is terminated early.

59 **CONTRACT OBJECTIVE AND BASIC STRUCTURE**

60 **Q. Please briefly describe the counterparty to the Contract.**

61 A. Facebook is a large technology company that desires to expand its global business
62 operations by building one or more new data centers in phases in Utah. Facebook's
63 objective is to meet some or all of its electricity needs with renewable resources.
64 Facebook has stated that access to renewable energy is a prerequisite to siting its
65 data center in Utah. The ability of the local utility to provide a contract that allows
66 Facebook to achieve its objective is critical to its decision on where to locate.

67 **Q. Please describe the objective of the Facebook contract.**

68 A. The Company worked closely with Facebook to develop a contract that would meet
69 its stated objective of procuring through the Company enough renewable resources

70 to meet 100 percent of the annual electric energy needs at its data center. Facebook,
71 like most customers with renewable goals and like most state renewable portfolio
72 standards, measures its objective on an annual kilowatt hour (kWh) basis. For
73 example, if Facebook consumes 400 million kWh over the course of one year, it
74 will purchase output from renewable resources that produce 400 million kWh over
75 the course of one year. Facebook also desires to actively participate in the selection
76 of the renewable resources to be acquired on its behalf and desires a contract
77 structure that easily allows for additional renewable resources to be acquired as new
78 data center phases are developed.

79 **Q. Please describe the basic structure of the Facebook contract.**

80 A. The Contract incorporates where possible the general terms and conditions included
81 in the Company's standard master electric service agreement. The Contract also
82 includes terms consistent with Utah Code 54-17-806 and the Company's proposed
83 Schedule 34, Renewable Energy Tariff.

84 The Contract first includes the general terms and conditions under which
85 the Company will acquire a renewable resource(s) on Facebook's behalf. It then
86 sets forth the rates for the electric service the Company will provide to Facebook.

87 The Company expects to eventually meet all of Facebook's electric energy
88 needs on an annual basis from specific new renewable resources to be acquired on
89 behalf of Facebook. [REDACTED]

90 [REDACTED]

91 [REDACTED]

92 [REDACTED]

93 [REDACTED]
94 [REDACTED]
95 [REDACTED]
96 [REDACTED]
97 [REDACTED]
98 [REDACTED]
99 [REDACTED]

100 [REDACTED] The contract structure and rate design also make
101 Facebook responsible for the full cost of any renewable resources acquired on its
102 behalf. The actual cost of the renewable resource is passed through at 100 percent
103 to Facebook. Importantly, Facebook is also responsible for any costs associated
104 with the renewable resources in the event of early termination or default. This type
105 of energy service arrangement is referred to as “Renewable Supply” service in the
106 Contract.¹ [REDACTED]

107 [REDACTED]

108 The Contract also includes rates when Facebook utilizes Company
109 generation resources without being matched to its own renewable resources. [REDACTED]

110 [REDACTED]
111 [REDACTED]
112 [REDACTED]
113 [REDACTED]

¹ If not otherwise defined in my testimony, any capitalized terms used in my testimony refer to defined terms in the Contract.

114 [REDACTED] Under either scenario,
115 this service is referred to as “Company Supply.” [REDACTED]
116 [REDACTED]
117 [REDACTED]
118 [REDACTED]
119 [REDACTED]
120 [REDACTED]
121 [REDACTED]
122 [REDACTED]

123 I will describe in detail later in my testimony the various rates for both
124 Renewable Supply and Company Supply.

125 Lastly, the Contract contemplates additional load occurring in multiple
126 phases at the Facility [REDACTED]
127 Being able to add new phases under the Contract was a critical requirement for
128 Facebook to accommodate potential growth. Facebook desires a contract structure
129 that enables the growth of its Utah Facility under the Contract. The Contract allows
130 additional data center phases to be added [REDACTED]

131 [REDACTED] and to add concurrent new renewable resources to meet the
132 additional energy requirements. [REDACTED]

133 [REDACTED]
134 [REDACTED]

[REDACTED]

135 **CONTRACT RATE CALCULATION AND RATE DESIGN**

136 *General Overview*

137 **Q. Please describe the rates included in the Contract.**

138 A. The Contract includes two different sets of rates depending on whether Facebook
139 is meeting its energy needs with Renewable Supply or if Facebook is utilizing
140 Company Supply. [REDACTED]

141 [REDACTED]
142 [REDACTED]
143 [REDACTED]
144 [REDACTED]
145 [REDACTED]

146 The Contract includes a Renewable Supply charge and a Company Supply
147 charge, [REDACTED]
148 [REDACTED]
149 [REDACTED]
150 [REDACTED]
151 [REDACTED]
152 [REDACTED]

153 **Q. Have you prepared an exhibit that illustrates the applicability of the various
154 charges to Renewable Supply and Company Supply?**

155 A. [REDACTED]
156 [REDACTED]
157 [REDACTED]

158

[REDACTED]

159

[REDACTED]

160

Q. Please describe in general terms what each rate component is intended to capture.

161

162

A. The Company Supply or Renewable Supply charges capture the cost of the energy consumed by Facebook, whether that energy comes from the acquired renewable resource (Renewable Supply) or from Company system resources (Company Supply). [REDACTED]

163

164

165

[REDACTED]

166

[REDACTED]

167

[REDACTED]

168

[REDACTED]

169

[REDACTED]

170

[REDACTED]

171

[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

190

[REDACTED]

191

[REDACTED]

192

[REDACTED]

193

[REDACTED]

194

[REDACTED]

195

Rates for Company Supply Service

196 Q.

Please describe the rates for “Company Supply” service.

197 A.

[REDACTED]

198

[REDACTED]

199

[REDACTED]

200

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

Facebook has stated its intent to acquire an amount of renewable resources sufficient to meet 100 percent of its annual usage. Given the large scale and energy needs of the Facebook Facility, Facebook is able to utilize large, utility-scale renewable projects to meet this objective with the additional benefit that larger projects typically have lower cost due to economies of scale. The load at the Facility will ramp up over time as the Facility reaches full capacity and grow further when and if Facebook decides to build additional Facility Phases. Recognizing there cannot be an exact match of the renewable resource additions as the Facility ramps up load, there may be times that Facebook will require more Company Supply than it will when it reaches steady-state operations. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Q. [REDACTED]

223 A. An important starting point is that Facebook is a new large customer to the system
224 and has not previously been included in resource planning, and Facebook is
225 evaluating locating in Utah against locating in other states. [REDACTED]

226 [REDACTED]

227 [REDACTED]

228 [REDACTED]

229 [REDACTED]

230 [REDACTED]

231 [REDACTED]

232 [REDACTED]

233 [REDACTED]

234 [REDACTED]

235 [REDACTED]

236 [REDACTED]

237 [REDACTED]

238 [REDACTED]

239 [REDACTED]

240 [REDACTED]

241 [REDACTED]

242 [REDACTED]

243 [REDACTED]

244 Q. [REDACTED]
245 [REDACTED]
246 [REDACTED]
247 A. [REDACTED]
248 [REDACTED]
249 [REDACTED]
250 [REDACTED]
251 Q. [REDACTED]
252 [REDACTED]
253 [REDACTED]
254 A. [REDACTED]
255 [REDACTED]
256 [REDACTED]
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262 [REDACTED]
263 [REDACTED]
264 [REDACTED]
265 [REDACTED]
266 [REDACTED]

267 **Q. Does the Company expect to incur near-term incremental transmission and**
268 **generation costs to serve Facebook’s load?**

269 A. No. Figure ES.2 in the Executive Summary of the Company’s 2015 Integrated
270 Resource Plan Update (2015 IRP Update) shows a comparison of power and natural
271 gas prices and includes a concluding statement in the bullet below the figure that
272 says: “PacifiCorp’s updated resource portfolio continues to show that customer
273 loads over the front ten years of the planning horizon will be met with front office
274 transactions (firm market purchases) and energy efficiency.”⁴ This illustrates the
275 Company can reasonably meet Facebook’s load with market [REDACTED]

276 [REDACTED]
277 [REDACTED] This is further supported by the lack of change in the
278 timing of the next major generation plant addition in the 2015 IRP Update. Figure
279 ES.1 in the Executive Summary of the 2015 IRP Update shows a material drop in
280 the load forecast compared to the 2015 Integrated Resource Plan (2015 IRP).
281 Appendix A to the Executive Summary includes additional details related to the
282 load forecast. Between the 2015 IRP and the 2015 IRP Update, the forecast system
283 load between the period 2017 and 2025 dropped by an average of 204.7 MW.
284 However, this drop in the load forecast did not change the timing of the next
285 generation plant. It remains in 2028.

286 **Q. What conclusion can you draw from the information in the 2015 IRP Update**
287 **as it relates to the new Facebook load?**

⁴ PacifiCorp – 2015 IRP Update, page 2.

288 A. It is reasonable to assume that Facebook's load will not require a new major plant
289 addition since the large drop in load between the 2015 IRP and the 2015 IRP Update
290 did not move the timing of the next generation resource. And it is reasonable to
291 assume that the new Facebook load could be served with market purchases and
292 existing transmission assets over the initial years of the Contract. Therefore,
293 Facebook's payments towards fixed costs during the initial years of the Contract
294 will provide a benefit to Company customers.

295 Q. [REDACTED]
296 [REDACTED]

297 A. [REDACTED]
298 [REDACTED]
299 [REDACTED]
300 [REDACTED]
301 [REDACTED]

302 Q. [REDACTED]
303 [REDACTED]

304 A. [REDACTED]
305 [REDACTED]
306 [REDACTED]

307 Q. [REDACTED]
308 [REDACTED]

309 A. [REDACTED]
310 [REDACTED]

311 [REDACTED]
312 [REDACTED]
313 [REDACTED]
314 [REDACTED]
315 [REDACTED]
316 [REDACTED]
317 [REDACTED]
318 [REDACTED]
319 **Q.** [REDACTED]
320 [REDACTED]
321 **A.** [REDACTED]
322 [REDACTED]
323 [REDACTED]
324 **Q.** **How were the rates for the [REDACTED] Company Supply Charge determined?**
325 **A.** [REDACTED] Company Supply Charge rates are intended to reflect the rate that
326 would otherwise apply if Facebook were billed under Schedule 9, with the
327 exception of the demand-side management surcharge. [REDACTED]
328 [REDACTED]
329 [REDACTED]
330 [REDACTED]
331 [REDACTED]
332 [REDACTED]
333 [REDACTED]

334

[REDACTED]

335

[REDACTED]

336 **Q. Does the Schedule 9-Based Rate used for the [REDACTED] Company Supply**
337 **Charge change over the term of the Contract?**

338 A. Yes. The Schedule 9-Based Rate changes consistent with any changes to the
339 Schedule 9 tariff rates.

340 **Q. While not expected, if Facebook does not contract for any renewables, what**
341 **would be the applicable rate for service after the initial five year period?**

342 A. The rate would be Schedule 9-Based Rates for all service.

343 *Rates for Renewable Supply Service*

344 **Q. Please describe the rates for “Renewable Supply” service.**

345 A. The rates for Renewable Supply service recover costs incurred to provide Facebook
346 renewable energy equal to its load at the Facility, as measured on an annual kWh
347 basis. Under this scenario, the Company incurs costs to acquire the renewable
348 resource(s), costs due to transmission service and firming and shaping service, and
349 other costs that are captured elsewhere in the Contract [REDACTED]

350

[REDACTED]

351 The cost of the renewable resource(s) is captured in the Renewable Supply
352 Charge. [REDACTED]

353

[REDACTED]

354 **Q. How is the Renewable Supply Charge calculated?**

355 A. The Renewable Supply Charge is a weighted average charge applied to all kWh of
356 Renewable Supply delivered to Facebook and recovers the total Cost of Renewable

357 Supply. The Cost of Renewable Supply is defined in Section 4.6 of the Contract
358 and includes all costs associated with a contract with a Customer Renewable
359 Resource for Renewable Supply. The Cost of Renewable Supply is determined for
360 each Customer Renewable Resource at the time the Company enters into a contract
361 for the output and is memorialized in the Renewable Resource Appendix included
362 in the Contract as Exhibit E. [REDACTED]

363 [REDACTED]
364 [REDACTED]
365 [REDACTED]
366 [REDACTED]

367 **Q.** [REDACTED]
368 [REDACTED]
369 [REDACTED]

370 **A.** [REDACTED]
371 [REDACTED]
372 [REDACTED]
373 [REDACTED]

374 **Q.** [REDACTED]

375 **A.** [REDACTED]
376 [REDACTED]
377 [REDACTED]
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393 Q. [REDACTED]
394 A. [REDACTED]
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430 [REDACTED]

431 [REDACTED]

432 [REDACTED]

433 **Q.** [REDACTED]

434 [REDACTED]

435 **A.** [REDACTED]

436 [REDACTED]

437 [REDACTED]

438 [REDACTED]

439 [REDACTED]

440 **BILLING AND TRUE-UP CALCULATION**

441 *General Overview of Billing Mechanism*

442 **Q.** [REDACTED]

443 **A.** [REDACTED]

444 [REDACTED]

445 [REDACTED]

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515 Q. [REDACTED]

516 A. [REDACTED]

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520 Q. [REDACTED]

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522 A. [REDACTED]

523 [REDACTED]

524 [REDACTED]

525 [REDACTED]

526 Q. [REDACTED]

527 [REDACTED]

528 A. [REDACTED]

529 [REDACTED]

530 [REDACTED]

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567 Q. [REDACTED]
568 A. [REDACTED]
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575 Q. [REDACTED]
576 [REDACTED]

577 A.

578

579

RENEWABLE RESOURCE PROCUREMENT

580 **Q. Please describe how Customer Renewable Resources will be acquired.**

581 A. As reflected in Section 4 in the Contract, Facebook will direct the Company to
582 initiate identification of a potential resource. Facebook will provide guidance
583 related to the terms and conditions it seeks, such as the type of renewable resource,
584 the size of the resource, the online date, and the desired location. Facebook will
585 also determine whether to ask the Company to issue a request for proposals or issue
586 its own request, or to instead negotiate bi-laterally with counterparties. Once the
587 terms and conditions of a Company solicitation have been agreed-to, the Company
588 will begin to identify and select the resource. The Contract contemplates a timeline
589 over which this activity will occur, but the timeline may be revised by mutual
590 consent.

591 **Q. What role will Facebook have in the negotiations with the renewable resource**
592 **counterparty?**

593 A. If the Company issues the request for proposals, it is expected that the Company
594 will lead the negotiations with the renewable resource counterparty. Facebook may
595 provide guidance and may participate directly during the negotiations.

596 **Q. Will Facebook be a party in the contract between the renewable resource**
597 **counterparty and the Company?**

598 A. No, the contract will be between the Company and the renewable resource
599 counterparty.

600 **Q. What protections are in place to ensure the renewable resource contract is**
601 **consistent with the terms and conditions included in other renewable contracts**
602 **signed by the Company?**

603 A. The Company has the right to reject unacceptable terms or other conditions
604 associated with the renewable resource contract. Facebook must address the
605 Company's concerns or otherwise mitigate the identified risk to the Company's
606 satisfaction before the Company executes the contract. Ultimately, Facebook is
607 required in the Contract to backstop the obligations for each renewable resource.

608 **Q. How does the Company ensure the renewable resource contract is acceptable**
609 **to Facebook?**

610 A. Prior to execution, Facebook and the Company will create a Renewable Resource
611 Appendix for the resource where the material terms and conditions will be listed.
612 Facebook must agree in writing to those terms and conditions before the Company
613 executes the contract with the renewable resource counterparty.

614 **Q. Who is responsible for the costs, if any, incurred by the Company when**
615 **procuring a renewable resource under Section 4?**

616 A. The Company will inform Facebook of the expected costs to acquire a renewable
617 resource in advance of the procurement process. Once Facebook authorizes the
618 costs, Facebook will reimburse the Company for the costs.

619 **Q. Who is responsible for the costs associated with the renewable resource**
620 **contract once it is executed under Section 4?**

621 A. Facebook will be responsible for all costs associated with the contract between the
622 Company and the renewable resource counterparty. If the Contract is terminated

623 early, the financial obligation under the renewable resource contract remains with
624 Facebook. The Contract includes credit requirements that Facebook must meet in
625 order to protect the Company and other customers if the Contract is terminated
626 early and a financial obligation under the renewable resource contract remains.

627 **Q. Is the Company responsible if the renewable resource counterparty fails to**
628 **perform?**

629 A. No.

630 **Q. Does this conclude your direct testimony?**

631 A. Yes.