

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of)	
Rocky Mountain Power for Authority)	Docket N. 11-035-200
to Increase its Retail Electric Utility)	
Service Rates in Utah and for)	Direct Testimony
Approval of its Proposed Electric)	Leland Hogan
Service Schedules and Electric)	On behalf of
Service Regulations)	The Utah Farm Bureau Federation

June 22, 2012

1 **INTRODUCTION**

2 **Q. WHAT IS YOUR NAME, OCCUPATION AND BUSINESS LOCATION?**

3 A. My name is Leland Hogan. I am President of the Utah Farm Bureau Federation, the
4 state's largest farm and ranch organization with more than 30,000 member families
5 statewide. I serve as Chairman of the Farm Bureau Pumper Committee representing
6 members on irrigation issues. I also serve as Vice Chairman of the Governor's
7 Agriculture Advisory Board. I own and operate a farm in Tooele County producing cattle
8 and hay.

9

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS GENERAL RATE CASE?**

11 A. I represent the interests of Rocky Mountain Power's (RMP or the Company) Utah
12 irrigation customers who are on electric rate schedule 10. My testimony will discuss: 1)
13 the contribution of Utah agriculture to the Utah economy; 2) the unique economics of
14 agriculture and irrigation farming; and 3) the issues that the Public Service Commission
15 should consider when implementing any rate increase for the irrigation customer class.

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17 **I. UTAH AGRICULTURE, THE UTAH ECONOMY AND IRRIGATION**

18

19 **Q. HOW IMPORTANT IS AGRICULTURE TO THE UTAH ECONOMY?**

20 A. According to the 2011 Annual Utah Agriculture Statistics Report, agriculture
21 contributes approximately \$1.33 billion¹ in farm commodity sales.

22 A 2010 study released by Utah State University evaluated the economic impact
23 of agriculture and food in Utah. The analysis reported agriculture and food contributes

¹ 2011 Utah Agriculture Statistics and Utah Department of Agriculture Annual Report

24 \$15.2 billion² in economic activity annually and employs more than 66,000 Utahns
25 through forward and backward linkages – transportation, energy, chemicals, processing,
26 manufacturing and so forth.

27 According to the U.S. Department of Agriculture Economic Research Service,
28 eighty-nine (89) percent of the state’s population resides in urban communities while
29 only eleven (11) percent reside in rural communities³. Utah is the 9th most urban state in
30 the United States. Food and agriculture are the driving force for our rural economy,
31 vitally important to rural communities. These communities depend on agriculture for
32 economic activity and tax revenues to fund roads, schools and other rural infrastructure
33 and ultimately is a major contributor to their overall quality of life.

34

35 **Q. UTAH IS AN ARID STATE. WHAT ALLOWS UTAH’S FARMERS AND RANCHERS**
36 **TO ACHIEVE THE ECONOMIC IMPACT THAT YOU JUST DESCRIBED?**

37 A. Utah farmers and ranchers rely on irrigation systems which are powered by electric
38 pumps to make their pastures, farm fields and orchards productive. During the growing
39 season, these irrigation systems often run on a continual basis when there is no
40 precipitation. Without irrigation, Utah farms and ranches could not produce sufficient
41 crop yields to remain profitable and in business.

42

43 **Q. YOU INDICATED THAT IRRIGATION IS POWERED BY ELECTRICITY. HOW DOES**
44 **THE PRICE OF ELECTRICITY IMPACT THE ECONOMICS OF IRRIGATION**
45 **FARMING?**

46 A. Food production, as an industry, is highly energy intensive. Increased costs of electricity,

² The Economic Impact of Agriculture of the State of Utah, Utah State University, January 2010 or
<http://ag.utah.gov/news/documents/USUageconstudy2010-02.pdf>

³ USDA Economic Research Service, State Fact Sheets – Utah or <http://www.ers.usda.gov/statefacts/ut.htm>

47 fuel and fertilizer in recent years means approximately half of farmer's and rancher's
48 costs of production are energy related.

49

50 **Q. CAN YOU PROVIDE AN EXAMPLE OF HOW CHANGES IN ELECTRIC RATES**
51 **WOULD ADVERSLEY IMPACT UTAH AGRICULTURE?**

52 Utah's largest cash crop is alfalfa hay, with \$226.8 million in sales in 2010⁴. Utah's dry,
53 high desert climate which makes irrigation a necessity, also provides an environment
54 that produces a very high quality dairy feed. Utah hay growers rely on dairy farms as
55 their most important market. Dairy demand establishes alfalfa hay prices in Utah and in
56 the region. Utah's recognized high quality provides some sales in the price competitive
57 Asian export market. Utah alfalfa hay growers compete for markets with hay growers in
58 the Rocky Mountain Region, the Northwest and Canada (the latter who have a
59 government subsidized transportation system to their west coast providing a pricing
60 advantage in the Asian market). Energy costs are major components in alfalfa hay
61 pricing and low electricity is key to Utah's competitiveness, especially in the Asian
62 market where they compete against subsidized farming operations.

63

64 **II. ECONOMICS OF AGRICULTURE AND IRRIGATION FARMING**

65

66 **Q. IN YOUR INTRODUCTION, YOU DESCRIBE THE ECONOMICS OF AGRICULTURE**
67 **AS BEING UNIQUE. PLEASE EXPLAIN.**

68 A. Unlike most sectors of the economy, agriculture has historically, and continues to be
69 unable to effectively pass along increased costs of production to the processors and
70 consumers. Commodity prices are set through national and international markets. Higher

⁴ 2011 Utah Agriculture Statistics and Utah Department of Agriculture Annual Report

71 production costs, including electricity for irrigation creates a cost/price squeeze for
72 irrigators.

73 Agriculture is highly competitive. Increased costs of production locally means
74 Utah irrigators are less competitive in regional, national and global markets.
75 To sell Utah grown farm commodities below cost of production ultimately affects
76 long term economic viability of our farms and ranches. This cost/price squeeze will over
77 time lead to the liquidation of a limited asset – Utah’s prime and unique farmland and
78 valuable open space.

79 Utah food producers are “price takers” not “price makers.” To that point, farmers
80 and ranchers deliver a commodity locally to a limited number of processors, brokers and
81 middlemen who pay a price established regionally or nationally, with little local
82 influence.

83 To deal with these market realities, Utah has one of the highest percentages of
84 its farmers and ranchers taking non-farm jobs to make economic ends meet. According
85 to USDA National Agriculture Statistics Service (NASS) Utah is tied for second among
86 the 50 states with 62 percent⁵ of the Utah’s farming and ranching operations working off
87 their farms, earning non-farm income to meet their financial obligations.

88

89 **Q. YOU EXPRESSED THE IMPORTANCE OF THE PRICE/COST SQUEEZE ON UTAH**
90 **FARMERS. CAN YOU GIVE AN EXAMPLE OF SUCH A COST/PRICE SQUEEZE?**

91 A. Yes. In 2009-10, Utah farmers and ranchers found themselves in an especially painful
92 cost/squeeze when diesel fuel prices in most rural areas exceeded \$4.50 per gallon.

93 Although demand for locally grown agriculture products was strong, the reality that

⁵ 2007 Census of Agriculture, Vol. 1, Chapter 2, Table 46

or

http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1_Chapter_2_US_State_Level/st99_2_046_046.pdf

94 diesel fuel costs had doubled in a short period created a cost/price squeeze with food
95 producers unable to recoup their full cost of production in the market. This squeeze
96 created a financial burden that in some cases led to the sale of farms. Other food
97 producers renegotiated their mortgage loans or annual operating loans and even
98 liquidated equity in their business.

99 **Q. ARE UTAH'S IRRIGATION FARMERS IN A BETTER POSITION NOW?**

100 A. No. Fuel prices declined for a time after reaching all time highs in 2008, possibly due to
101 the global economic recession and reduced demand for oil. The political unrest in the
102 Middle East has led to global volatile in oil prices ranging from \$85 - \$118 per barrel this
103 year. At the pump, gas and diesel prices are up again, with some analysts predicting
104 gas and diesel fuel prices could exceed the record 2008 price levels in coming months.

105 Market uncertainty for alfalfa hay is creating price volatility. Alfalfa hay prices in
106 Utah are heavily influenced by local dairy demand, weather and the California dairy
107 market. Prices for milk produced by dairy farmers in Utah are set under the Federal Milk
108 Marketing Order and milk produced by California dairy farmers is priced under the
109 California's Milk Marketing Order.

110

111 **Q. WHAT ARE MILK MARKETING ORDERS?**

112 A. In the 1930s, the U.S. Federal Government established a system of Milk Marketing
113 Orders (MMO) to provide for the orderly marketing of milk. These Milk Marketing
114 Orders, on a regional basis, establish pricing for what was considered a very perishable
115 food commodity. Some consider the order system outdated because it is less than
116 effective in recognizing market forces related to price and demand. Prices continue to
117 be set by the Federal Government and are set based on a relationship - fluid milk usage
118 in cheese manufacturing. It is a pricing system that is complicated and understood by

119 few.

120 The milk prices to Utah dairy farmers, based on Federal MMO pricing, show
121 extreme volatility between 2002 and 2007 with a low of \$11.80 and a high of \$18.90⁶.
122 More recent price trends report 2009 milk prices established through the Federal MMO
123 as low as \$10.50 per hundredweight increasing to a summer 2010 average price of
124 of \$15.00 per hundredweight. Prices in 2011 have increased, averaging in the
125 \$16.00 - \$17.00⁷ range. Volatility returned in 2012, with prices again dropping.

126 According to the Utah Dairymen's Association, the 2011 statewide
127 average milk production cost is \$17.00 – 17.50 per hundredweight.

128

129 **Q. HOW IS FEDERAL ENERGY POLICY AFFECTING UTAH IRRIGATORS?**

130 A. Alfalfa hay and feed corn are the major feed cost components used by dairy farmers.
131 Corn prices are being influenced by federal energy policy that is providing a market
132 subsidy to corn and blended fuel mandates converting corn into ethanol for auto fuels.
133 Approximately 40 percent of corn production is now being converted into ethanol for use
134 in automobiles as bio-fuels. Corn prices have escalated dramatically in recent years.
135 From 2001 to 2006, prices averaged just over \$2.00 per bushel⁸. Corn prices have
136 increased by nearly 300 percent between 2007 and 2011 exceeding \$6.50⁹ per bushel.
137 2012 heat and drought could increase prices and add to the cost/price squeeze.

138

139 **Q. HOW HAS CORN PRICE INCREASES AND MILK PRICES BELOW COST OF**
140 **PRODUCTION ADVERSELY AFFECTED IRRIGATORS?**

141 A. Lack of economic stability for Utah dairy farmers has led to uncertainty for alfalfa hay

⁶ USDA National Agricultural Statistics Service, Utah Agriculture or www.nass.usda.gov

⁷ Ibid

⁸ Agricultural Prices (February 2012) USDA, National Agricultural Statistics Service.

⁹ Ibid

142 growers and wild fluctuations in market prices the last two years. According to UDSA
143 NASS, Utah baled hay prices averaged about \$150 per ton during the winter months of
144 2009, falling to around \$100 per ton as summer production came on. The 2010 prices
145 showed stayed relatively constant at \$95-113 per ton. The past 15 months have seen
146 increases in prices due to last year's wet spring and 2012 potential drought.

147 Escalating of energy inputs costs, federal energy policy increasing the cost of
148 corn, a major feed component, and prices set through government Milk Marketing
149 Orders pricing milk at prices that do not cover the cost of production has contributed to
150 the number of dairy farms in Utah dropping from more than 800 in 2000 to less than
151 360 in 2012.

152 Local demand from a decreasing number of Utah dairy farms has created
153 uncertainty, volatility and downward price pressure in the Utah alfalfa hay market. Utah
154 irrigators continue to face local market uncertainty in 2012.

155

156 **Q. CONSIDERING THE WEAK ECONOMIC CONDITIONS, HOW WILL AN INCREASE IN**
157 **ELECTRICITY PRICES IMPACT UTAH FARMERS?**

158 A. Because the climate in Utah during the production season is usually dry, Utah farmers
159 and ranchers must rely on irrigation to make their farmland productive. Utah is second
160 only to Nevada as the nation's most arid state. Electricity is the primary energy source
161 for the state's irrigation pumps. Increased electricity costs would increase the costs of
162 production for producing alfalfa hay, Utah's number one cash crop, but would also
163 increase the cost of production for fruit farmers, small grain farmers, and vegetable
164 farms who pump irrigation water. As previously noted, farmers cannot easily pass along
165 increased costs of production to their customers.
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An increase in electric rates to pump irrigation water for farming would further exacerbate the cost/price squeeze food producers already face. As has been previously pointed out a high percentage of Utah farmers and ranchers are augmenting their incomes from non-farm jobs to help meet financial obligations. Stability in the cost of energy inputs for Utah’s farms and ranches would help maintain the important economic contribution agriculture makes to our rural communities – providing jobs, paying taxes and funding important local infrastructure needs and contributing to Utah’s overall economy.

III. RATE INCREASE CONSIDERATIONS FOR THE IRRIGATION CLASS

Q. WHAT RATE INCREASE HAS THE COMPANY PROPOSED FOR THE SCHEDULE 10 IRRIGATION CLASS IN THIS FILING?

A. The Company has proposed an 13.5 % increase for the irrigation class, the largest increase for any retail customer class. The average rate increase for all retail customers is 10.5%. The proposed increase for farmers and ranchers using electric pumps for irrigating their fields is three percentage points higher than the average requested increase. It is particularly notable that the Company is proposing a higher increase for Schedule 10 than Schedule 9 (proposed at 12.5%) despite the fact that the Company’s own COS study indicates the return for Schedule 10 is higher than the return for Schedule 9 (0.79 versus 0.77)

Q. HOW SHOULD THE UTAH PUBLIC SERVICE COMMISSION RESPOND TO THE COMPANY’S PROPOSAL FOR IRRIGATION RATES?

A. This question is extremely difficult to answer because of a number of inter-related and

193 philosophical issues. Utah has had a proud history of embracing self-sufficiency. Self
194 sufficiency in meeting our most basic need, our food, goes back to early settlement by
195 our pioneer ancestors. Recognizing the volatility in the energy sector, it seems that as a
196 state and nation, we would want to protect our ability to produce domestically our food
197 and fiber. Placing additional economic burdens in an already stressed economic sector,
198 will put our food producing capabilities at additional risk. We are currently seeing food
199 price volatility at the grocery store driven by increased fuel costs, adverse weather
200 conditions and politically motivated policies.

201 In the food price equation, it's important to recognize where the consumer dollar
202 goes. According the USDA Economic Research Service (ERS), 19 cents out of every
203 dollar spent at the grocery store goes to the food producer – the farmer or rancher. That
204 means about 80% of every consumer dollar spent on food is attributed to non-farm
205 costs¹⁰.

206 When farmers and ranchers are caught in the cost/price squeeze attributed to
207 a combination of low commodity prices coupled with escalating input costs, more are
208 forced to take non-farm jobs and/or borrow against the equity in their property. Selling at
209 less than the cost of production means undermining Utah's farm and ranch assets which
210 is unfair to our food producers and undermines our local food security. In addition,
211 during tight lending periods like we are witnessing today, getting operating loans based
212 on equity is difficult at best.

213 With irrigators a small part of the overall revenue picture for the Company,
214 making up less than one percent of the total revenues, the Commission should keep any
215 rate increase to a minimum to lessen the adverse impacts farmers and ranchers who

¹⁰ USDA Economic Research Service (2006) or
<http://www.ers.usda.gov/Publications/eib48/Spreads/17/index.htm>

216 rely on affordable power rates to run their operations. By keeping the power rate as low
217 as possible, the Commission will benefit Utah's rural communities which rely heavily on
218 agriculture as an economic engine.

219

220 **Q. HOW DO YOU SUPPORT SUCH A POSITION?**

221 A. As presented earlier in my testimony, any increase in the schedule 10 rates adversely
222 impacts the economic viability of irrigation farmers. Therefore, the Commission should
223 take into consideration the following factors in making its spread decision in this
224 proceeding:

225 (1) The company's actual cost to serve irrigation customers are currently
226 unknown because the load sample for irrigators is very inaccurate,

227 (2) Irrigators are a very small part of the Company's overall revenue,

228 (3) The irrigation class consumption has remained flat and therefore has not
229 been a significant driver behind the Company's need to build more power
230 plants or transmission lines, and

231 (4) Irrigators have been willing to work with the Company to help manage their
232 peak loads by actively participating in load control programs.

233

234 I discuss in greater detail each of these factors below.

235

236 **Q. HOW WOULD YOU DESCRIBE THE ENERGY NEEDS OF THE IRRIGATORS**
237 **TAKING SERVICE UNDER SCHEDULE 10?**

238 A. Inconsistent and unpredictable. There are many factors affecting their demand for
239 energy. For example, climate conditions affect demands for energy. Variability in
240 temperature, wind, and moisture complicate the consistency of energy demand.

241 Another factor affecting electricity and pumping is the crop being produced.
242 Determining crop often is related to the irrigator's crop rotation. That may be determined
243 by nutrient management or soil related disease issues. Rotating from alfalfa hay to small
244 grains will lower the water demands and reduce the irrigation season. Irrigation seasons
245 for crops like alfalfa and corn are longer than irrigation seasons for wheat or barley.
246 Lastly, when farmers fallow or idle their land for soil health, they will have little or no
247 demand for electricity. Each of these factors, independent or combined, vary the
248 irrigator's power demand.

249

250 **Q. GIVEN THE UNPREDICTABILITY OF PUMPER ENERGY DEMAND, HAS IT BEEN**
251 **DIFFICULT TO MEASURE ENERGY DEMAND FOR PUMPERS?**

252 A. Yes.

253

254 **Q. WHAT EVIDENCE DO YOU HAVE TO DRAW THIS CONCLUSION?**

255 A. On November 30, 2010, the Division of Public Utilities published a report entitled,
256 "Report of the Division of Public Utilities on Workgroups I-II: Load Research and Peak
257 Hour Forecasting." ("Report") Within the Report (page 12), it was agreed by the parties
258 collaborating on the Report that load research for irrigation class was "problematic."¹¹

259

260 **Q. HOW DOES UNRELIABLE LOAD RESEARCH AFFECT ENERGY STUDIES?**

261 A. Any study based on unreliable data will produce unreliable study results. If decisions
262 about energy demand are based on faulty results, then the rates would inaccurately
263 reflect energy demand. Within the same above stated Report, the Office of Consumer
264 Services (OCS) stated that "problems with the irrigation load data make the Cost of

¹¹ Report of the Division of Public Utilities on Workgroups I-II: Load Research and Peak Hour Forecasting, Division of Public Utilities et al., November 30, 2010 (Docket 09-035-23), p 12

265 Service (COS) results for this customer class unreliable and the Company has no
266 credible support for its claim that the irrigation class is contributing substantially less than
267 the Company's average rate of return.”

268

269 **Q. BASED ON THE REPORT, WHY ARE THE COSTS OF SERVICE FOR THE**
270 **IRRIGATOR CLASS OVERSTATED?**

271 A. The Company's load research sample is selected from actively irrigating customers, not
272 all irrigation customers. Other classes are sampled over an entire population. Ten
273 percent of the irrigators are cited as active, but have zero electricity usage during an

274 irrigation season. Omitting those farmers who use no electricity from the load research
275 biases the study towards higher contribution to peak. Recognizing that during any
276 production season, there is a percentage of the irrigators who are idling their land for
277 soil health issues.

278

279 **Q. GIVEN THE LOAD SAMPLING PROBLEM, HOW SHOULD RATES FOR THE**
280 **IRRIGATION CLASS BE SET?**

281 A. Since the rate setting algorithm for irrigators is beset with many inaccuracies, setting the
282 rate for irrigators should provide stability in this important food production sector and not
283 disrupt the contributions they make to rural communities.

284 New rates for irrigators could be set based on the average retail increase. This
285 average rate increase should be considered the upper limit for any rate increase to be
286 applied to Schedule 10. Based on all the uncontrollable issues food producers face as
287 described in earlier testimony, the rates could be set using a lower than average
288 increase.

289

290 **Q. HOW DO THE RATES FOR IRRIGATORS IMPACT THE COMPANY'S OVERALL**
291 **REVENUE?**

292 A. In 2009, the revenue from irrigators was 0.8% of the Company's Utah revenues.
293 Because irrigators are less than 1% of the Utah revenue, changes to the rates of the
294 irrigation class have almost no effect on the Company's Utah revenue.

295

296 **Q. WHY SHOULD THE SIZE OF THE IRRIGATOR CLASS FACTOR INTO THE**
297 **COMMISSION'S DECISION ON HOW TO SET IRRIGATOR RATES?**

298 A. Because the irrigators are such a small class, their rates have little effect on the
299 rates and costs paid by other classes. Conversely, increases to the Schedule 10 rates
300 have the potential to do great harm to the farmers and ranchers of Utah. The revenue
301 impact on the other customers is simply not large enough to justify the potential harm
302 done to irrigators and the customers and rural communities they support by increasing
303 irrigation rates more than other classes.

304

305 **Q. HAS INCREASED DEMAND FROM IRRIGATION CUSTOMERS CAUSED THE**
306 **COMPANY TO BUILD MORE POWER PLANTS AND TRANSMISSION LINES?**

307 A. No. First of all, as I described earlier, irrigators are a very small customer class and
308 cannot be a driver for the Company's recent capital investments. These investments are
309 driven by the growth in urban populations, businesses and large industrial customers.
310 Second, annual power usage by irrigators has remained relatively flat or dropped over
311 the last several years. According to the Company, irrigators used 198 million kWh in
312 2002 versus 184 million kWh between July 2009 and June 2010. The Company is

313 forecasting irrigators using 187 million kWh between July 2011 and June 2012.¹² The
314 numbers point to the fact, the irrigators are not the cause of resource and infrastructure
315 growth in the utility's system.

316

317 **Q. HOW DO IRRIGATORS HELP THE COMPANY MANAGE SYSTEM PEAK DEMAND**
318 **IN THE SUMMER?**

319 A. Pumpers are actively participating in load control programs that help the Company
320 manage and reduce load during its peak periods. The Company offers incentives like
321 reduced rates to irrigators who are willing to sign on for interruptible service. This helps
322 reduce the farmers' input costs and reduce load during peak periods. Certainly, this
323 provides a mutually beneficial outcome for food consumers, irrigators and the utility. In
324 short, this interruptible program provides the Company with an important tool that helps
325 keep down overall energy costs.

326

327 **SUMMARY**

328

329 **Q. PLEASE SUMMERIZE THE FARM BUREAU'S TESTIMONY ON IRRIGATION RATES**
330 **IN THIS GENERAL RATE CASE PROCEEDING.**

331 The Farm Bureau asks the Commission to carefully consider any rate increases for the
332 irrigation class, particularly recognizing the unreliability of the Company's load sampling
333 for Schedule 10 as well as several special circumstances that affect this class. In
334 summary, the Farm Bureau concludes the following:

335 • Because of load sampling problems, the Company cannot accurately determine the cost

¹² Eelkema Direct, Table 3, pg. 12.

336 of service for Schedule 10. Therefore, the Commission should not approve a rate
337 increase for Schedule 10 that is any higher than the average retail rate increase.

338 In addition, Farm Bureau offers the following reasons why the Commission should
339 consider a lower increase:

340

- 341 • Irrigators make up less than 1% of the Company's Utah revenue. Their small size also
342 minimizes the impact of irrigator rates on other customer classes. This cannot justify
343 the disproportionate harm that rate increases cause Utah's farmers and ranchers.
- 344 • Schedule 10 consumption has been flat and therefore has not been a primary driver for
345 the new plant and other infrastructure investments made by the Company.
- 346 • Irrigators are an important contributor to Utah's rural economic and cultural fabric.
347 Higher power rates adversely impacts financial stability of farmers and ranchers and
348 lessens the economic contribution food producers make to rural communities.
- 349 • Lastly, Schedule 10 customers have assisted the Company in its management of usage
350 during the summer peak period by their participation in irrigation load control programs.

351

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

353 A. Yes.