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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of PacifiCorp's 2017 Integrated Resource Plan	**DOCKET NO. 17-035-16** **Initial Comments of Utah Clean Energy and Southwest Energy Efficiency Project**

I. INTRODUCTION

Utah Clean Energy (UCE) and the Southwest Energy Efficiency Project (SWEEP) are grateful for the opportunity to participate in the Integrated Resource Plan (IRP) public process and to submit comments regarding the demand-side management (DSM) resources included in PacifiCorp's 2017 IRP.[1] Utah Clean Energy has attended public input meetings, submitted stakeholder feedback to PacifiCorp (the Company), and filed data requests regarding IRP inputs and assumptions. These comments are structured with our recommendation first, followed by supporting information and concerns.

Utah Clean Energy's comments on the 2017 IRP are submitted in two parts:

[1] In these comments demand-side management or DSM refers to Class 2 DSM.

1) Utah Clean Energy's and SWEEP's comments related to the level of demand-side management (DSM) resources incorporated into the 2017 IRP, provided herein.
2) Utah Clean Energy's recommendations regarding 2017 IRP acknowledgement and planning improvements going forward.

II. SUMMARY OF COMMENTS

Energy efficiency continues to be a least-cost, least risk energy resource. UCE and SWEEP are concerned about the dramatic reduction of energy savings in the 2017 IRP as compared to the planned level of savings in the 2015 IRP. In Utah, the proposed reduction in the 2017 IRP is a 32% cut in electricity savings in 2018 and 28% through 2034, with similar cuts system-wide. The cost for DSM in the 2017 IRP continues to be highly cost-effective, yet more expensive market purchases are selected to the exclusion of DSM. The reduced level of DSM proposed is a reversal of a long track record of steady growth in DSM by Rocky Mountain Power in Utah. We recommend that the IRP Action Plan be updated to reflect a goal that the Company strive to achieve all cost-effective DSM rather than targeting the reduced level of DSM in the 2017 IRP.

III. RECOMMENDATION

2017 IRP Should Call for the Acquisition of All Cost-Effective DSM

Utah Clean Energy and SWEEP are concerned by the dramatic reduction in the amount of DSM in planned in the 2017 IRP as compared to the 2015 IRP. Historically, the level of DSM selected in the IRP was considered a "floor" and the company's DSM team would strive to achieve cost effective DSM above this amount if demand existed. While we are not requesting that PacifiCorp rerun their DSM analysis in the 2017 IRP, we do request that the 2017 IRP Action Plan be updated such that the Company commits

to achieve all cost-effective DSM, and the level of electricity savings selected in the 2017 IRP be treated as the minimum target, rather than a maximum cap that should not be exceeded. Specifically, we propose a change to the langue in the 2017 IRP Action Plan as presented below:

Current DSM language in 2017 IRP Action Plan:

• *Acquire cost-effective Class 2 DSM (energy efficiency) resources targeting annual system energy and capacity selections from the preferred portfolio as summarized in the following table. PacifiCorp's state-specific processes for planning for DSM acquisitions is provided in Appendix D in Volume II of the 2017 IRP.* [2]

Recommended DSM language for updated 2017 IRP Action Plan

• Acquire <u>all</u> cost-effective Class 2 DSM (energy efficiency) resources targeting annual system energy and capacity selections <u>at least equal to</u> the preferred portfolio as summarized in the following table. PacifiCorp's state-specific processes for planning for DSM acquisitions is provided in Appendix D in Volume II of the 2017 IRP. (*Underlined language added*.)

IV. DETAILS ABOUT CONCERNS AND SUPPORTING INFORMATION

A. Energy Efficiency is a Priority Energy Resource in Utah

Energy efficiency is a cost-effective energy resource for Utahns and is a least-cost and least-risk energy resource offering important risk-reduction, grid stability, and local

[2] PacifiCorp 2017 IRP Volume 1, Page 268
https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_VolumeI_IRP_Final.pdf

economic benefits. It is in the best interest of all ratepayers for PacifiCorp to achieve all cost-effective energy efficiency. The sooner the utility can help its customers implement energy efficiency measures, the sooner those measures begin reducing energy consumption and demand on the grid, and saving the customer money. When energy efficiency measures are *not* implemented these savings and economic benefits are lost.

Energy efficiency is a key component of Utah's *10-Year Strategic Energy Plan*[3] and the premise of the subsequent *Utah Energy Efficiency and Conservation Plan*[4] both of which were developed at the request of Governor Herbert. Pursuing "energy conservation, energy efficiency, and environmental quality" is also a recognized part of the state energy policy for the State of Utah.[5] Utility energy efficiency also helps Utah's businesses remain competitive by helping to keep utility costs low and also benefits Utah's economy by supporting an estimated 30,000 Utah workers who are employed in the energy efficiency sector.[6]

Rocky Mountain Power has a history of delivering cost effective demand-side management (DSM) programs that help meet Utah's growing energy demand in a manner that reduces risk for all customers. But unfortunately the 2017 IRP proposes to curtail electricity savings significantly.

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[3] Governor's Office of Energy Development, *Utah's 10-Year Strategic Energy Plan* (2011), http://energy.utah.gov/resource-areas/energy-information/10-year-strategic-energy-plan/
[4] Utah Governor's Office of Energy Development, *Utah Energy Efficiency and Conservation Plan* (2014) http://energy.utah.gov/utah-energy-efficiency-conservation-plan/
[5] Utah Code 63M-4-301. State energy policy https://le.utah.gov/xcode/Title63M/Chapter4/63M-4-S301.html
[6] United States Department of Energy (2017) https://energy.gov/downloads/2017-us-energy-and-employment-report

B. The Proposed DSM Selections in 2017 IRP Show Significant Reductions as Compared to DSM Selections in the 2015 IRP

PacifiCorp's 2017 IRP proposes significant cuts to Class 2 DSM beginning in 2018 and continuing through 2034. As compared to the level of DSM selected in the 2015 IRP, the 2017 IRP shows a 20% reduction of electricity savings system-wide through 2034. In the 2017 IRP the level of DSM is 8,143,860 MWh and in the 2015 IRP the level of DSM is 10,164,480 MWh across PacifiCorp's service territory – a reduction of 2,020,320 MWh. In each state the reductions through 2034 are as follows: Utah -28%, California -33%, Oregon +10%, Washington -25%, Idaho +0.4%, Wyoming -24%. (See UCE Worksheet 1.0 filed with these comments.)

Oregon is the only state that show a meaningful increase in DSM, where the potential study on Class 2 DSM and the associated DSM plan is developed be a third-party, the Energy Trust of Oregon. This increase to DSM levels in Oregon comes at a time when retail sales are expected to decline in that state (see more in Section D, beginning on page 9).

In Utah, PacifiCorp's 2017 IRP proposes significant cuts to Class 2 DSM beginning in 2018. The 2015 IRP called for 351,640 MWh of DSM in 2018.[7] And the 2017 IRP called for 240,790 MWh in 2018, a 32% reduction.[8] It is difficult to understand how such

[7] 2015 IRP, page 62, unnumbered table: https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2015IRP/PacifiCorp_2015IRP-Vol2-Appendices.pdf

[8] 2017 IRP, page 67 Table D.4: http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_VolumeII_2017_IRP_Final.pdf

a dramatic reduction would be proposed in only two years. What's more, the 2018 projection in the 2017 IRP is 27% less than what Rocky Mountain Power is expecting to achieve in 2017 according to the Company's November forecast of 330,444 MWh.[9] This proposed reduction comes at a time when the Company suspended the DSM surcharge for four months, illustrating that DSM continues to be a highly cost-effective energy resource and is able to achieve significant electricity savings despite temporary suspension of the tariff rider.[10]

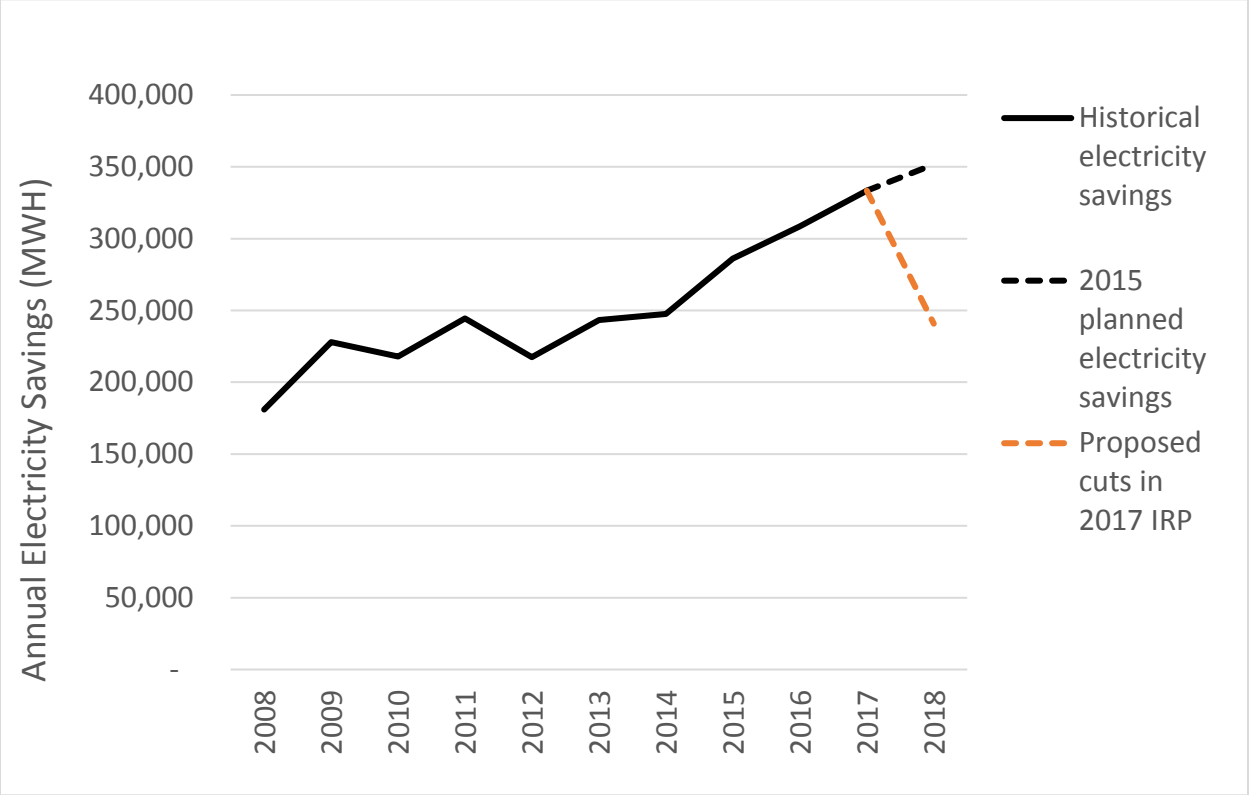
A 32% reduction in the amount of Utah electricity savings in 2018 represents 110,850 MWh of electricity that is *not* saved in that year alone. To put this amount of lost electricity savings into perspective, 110,850 MWh is equivalent to the annual electricity consumption of 12,317 average Utah homes.[11]

This reduction is a reversal in the electricity savings trend that has been achieved by Rocky Mountain Power in Utah. Every year since 2008 their programs have generally been fairly constant or have resulted in increased electricity savings from DSM, and have not ever seen a reduction on the scale being proposed in the 2017 IRP (see Figure 1 below). In addition, due in part to Rocky Mountain Power's successful DSM programs, Utah was recently ranked as the fourth most improved state for energy efficiency by the American Council for an Energy Efficient Economy, gaining 3 spots in its national

[9] Docket No: 16-035-30, Rocky Mountain Power – DSM Semi-Annual Forecast Reports 2016, Attachment 1: 2017 Forecast Savings compared to Resource Plan Targets: https://psc.utah.gov/2016/07/15/docket-no-16-035-30/
[10] Docket No: 17-035-T10, Rocky Mountain Power's Proposed Tariff Revisions to Electric Service Schedule No. 193, Demand Side Management (DSM) Cost Adjustment: https://psc.utah.gov/2017/07/14/docket-no-17-035-t10/
[11] Assumes that the average Utah home consumes 750 kWh per month.

scorecard.[12] A reduction in delivered electricity savings in 2018 and future years would undermine this progress.

Figure 1 - Historical and Planned Annual Electricity Savings in Utah by Rocky Mountain Power[13]



C. Risk Reduction Benefits of DSM vs Market Purchases

Utah should acquire all cost effective DSM because the average cost of DSM bundles is below the cost of market purchases, and DSM offers important risk-reduction benefits. The weighted average cost of DSM, based on the DSM bundles selected in the 2017 IRP,

[12] American Council for an Energy Efficient Economy, *The 2017 State Energy Efficiency Scorecard* (September 2017) http://aceee.org/sites/default/files/publications/researchreports/u1710.pdf

[13] Annual MWH data from Rocky Mountain Power annual DSM reports from 2008 through 2011 and the PacifiCorp Integrated Resource Plans from 2015 and2017. See notes 7 and 8.

is $0.02/kWh in 2018 and below $0.03/kWh through 2025.[14] We question why more DSM was not selected in these early years given that the cost for DSM is so cost-effective.

In the 2017 IRP, DSM is, in part, being replaced by market purchases, as stated in the IRP:

"*Decreased selection of energy efficiency resources relative to the 2015 IRP is driven by reduced loads and reduced costs for wholesale market power purchases and renewable resource alternatives*." [15]

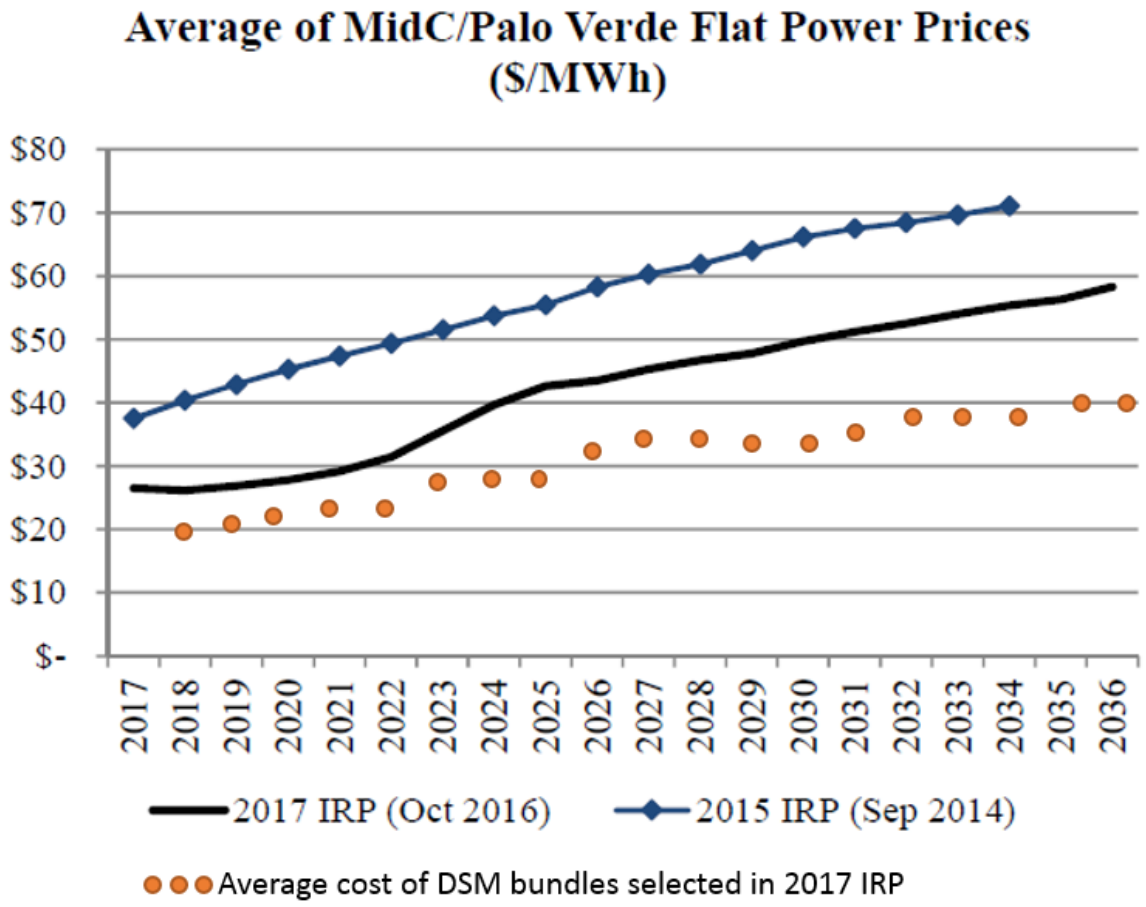
In PacifiCorp's 2017 Class 2 Decrement Study, market purchases are shown to range from just under $30/MWh in 2017 to nearly $60/MWh in 2036.[16] The cost of DSM will continue to be a more cost-effective resource over this timeframe (see Figure 2 below). Relying on market purchases instead of DSM increases economic risks to ratepayers since the price of market purchases is subject to price fluctuations each year while the price of DSM is expected to remain more cost-effective than market purchases every year.

[14] The weighted average annual DSM costs were estimated based on a review of (a) Class 2 DSM cost bundles selected by the Company available in a confidential workbook titled "SO Portfolio (FG-GW4)", and (b) costs and savings data available for each of the selected cost bundles available in a workbook titled "IRP2017 DSM2 potential-20161021 with adjustments".

[15] 2017 IRP, page 4: https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_VolumeI_IRP_Final.pdf

[16] Average of MidC/Palo Verde Flat Power Prices from RMP 2017 Class 2 Decrement Study, page 5 Figure 2 – 2017 IRP vs. 2015 IRP Forecasted Market Prices

Figure 2 - Cost of DSM Compared to Market Purchased in 2017 IRP[17]



D. Reduced Load Growth Doesn't Translate to Diminished DSM Potential

PacifiCorp's load growth projections are down in the 2017 IRP and the plan shows that DSM will meet 88% of Utah's forecasted load growth. However, just because load growth is down does not mean that cost-effective DSM potential is diminished. In addition to questioning the Company's decision to reduce DSM selections in favor of

[17] The original table in Figure 2 is from Rocky Mountain Power's DSM Decrement Study handout with average DSM cost superimposed by Utah Clean Energy. For the source of the average DSM costs, see note 14.

additional market purchases, we question the Company's explanation that reduced load growth is partly responsible for reduced DSM savings.

DSM reductions are being proposed in all states except Oregon, where a 10% increase in electricity savings through 2034 was selected in the 2017 IRP.[18] As noted previously, in Oregon the DSM potential assessment and DSM plans are developed independent of PacifiCorp by the Energy Trust of Oregon, which also implements DSM programs for PacifiCorp. We question the decrease in DSM in Utah and the increase in DSM in Oregon when Utah is projected to see a slight increase in forecasted annual sales growth between 2017 and 2026 (+0.11%) and when Oregon is forecasted to see a slight decrease in annual sales growth during the same time period (-0.13%) (see Figure 3 below).[19] An increase in the amount of DSM selected in Oregon while sales are forecasted to decline demonstrates that DSM is a viable energy resource even when sales growth is projected to decline. If Energy Trust of Oregon can find additional electricity savings opportunities in Oregon even when sales growth is falling, we believe that PacifiCorp should be able to do so for Utah as well when sales growth is increasing.

[18] Savings in Idaho remain relatively unchanged from the 2015 IRP.
[19] The tables in Figure 3 are taken from the 2017 IRP on pages 16 and 17, https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_VolumeI_IRP_Final.pdf

Figure 3 - Forecasted Retails Sales Growth, post-DSM in Utah and Oregon from 2017 IRP

Utah

Table A.12 summarizes Utah state forecasted sales growth by customer class.

Table A.12 – Forecasted Retail Sales Growth in Utah, post-DSM

Utah Retail Sales – Megawatt-hours (MWh)							
Year	Residential	Commercial	Industrial	Irrigation	Lighting	Public Authority	**Total**
2017	6,696,419	8,402,810	8,329,787	199,895	77,765	280,969	**23,987,646**
2018	6,625,352	8,470,814	8,317,408	196,470	77,982	280,959	**23,968,985**
2019	6,526,580	8,528,238	8,422,789	192,466	78,087	280,959	**24,029,121**
2020	6,454,747	8,575,851	8,504,675	188,368	78,358	281,715	**24,083,714**
2021	6,410,141	8,588,882	8,572,928	184,763	78,164	280,959	**24,115,838**
2022	6,420,793	8,648,462	8,671,514	181,250	78,176	280,959	**24,281,155**
2023	6,433,763	8,713,821	8,773,258	177,495	78,182	280,959	**24,457,479**
2024	6,484,638	8,788,396	8,884,190	173,538	78,404	281,715	**24,690,881**
2025	6,440,021	8,839,447	8,984,607	154,147	78,186	280,959	**24,777,368**
2026	6,463,388	8,896,420	8,396,408	118,936	78,187	280,959	**24,234,297**
Average Annual Growth Rate							
2017-26	**-0.39%**	**0.64%**	**0.09%**	**-5.61%**	**0.06%**	**0.00%**	**0.11%**

Oregon

Table A.9 summarizes Oregon state forecasted retail sales growth by customer class.

Table A. 9 – Forecasted Retail Sales Growth in Oregon, post-DSM

Oregon Retail Sales – Megawatt-hours (MWh)						
Year	Residential	Commercial	Industrial	Irrigation	Lighting	**Total**
2017	5,408,380	5,076,308	1,849,639	330,637	37,893	**12,702,857**
2018	5,393,855	5,115,251	1,769,573	327,078	37,923	**12,643,680**
2019	5,378,539	5,098,874	1,763,691	322,898	37,934	**12,601,937**
2020	5,293,038	5,103,759	1,762,377	318,439	38,046	**12,515,659**
2021	5,223,123	5,104,908	1,770,168	313,909	37,941	**12,450,049**
2022	5,229,132	5,103,511	1,774,498	309,780	37,941	**12,454,862**
2023	5,234,327	5,106,544	1,794,852	305,586	37,942	**12,479,251**
2024	5,263,095	5,136,531	1,803,903	300,173	38,049	**12,541,752**
2025	5,236,271	5,145,302	1,826,703	294,032	37,942	**12,540,250**
2026	5,230,030	5,155,635	1,844,084	287,757	37,942	**12,555,448**
Average Annual Growth Rate						
2017-26	**-0.37%**	**0.17%**	**-0.03%**	**-1.53%**	**0.01%**	**-0.13%**

E. Transmission and Distribution Deferral credit was Dramatically Reduced without Supporting Rationale and Documentation Filed in the IRP

According to PacifiCorp's response to UCE data request 2.3, the Company recalculated its transmission and distribution deferral credit for the first time since 2009. The new value for the transmission and distribution (T&D) deferral credit ($13.56/kW-year) is significantly lower than the value used previously (in both the 2013 IRP and the 2015 IRP the Company used a value of $54/kW-year [20,21]) and the value used by other utilities. The new, lower credit is among the lowest T&D deferral credit nationally.[22] It is unclear how these changes impacted the selection of DSM in the 2017 IRP. However, the Company did not discuss its changes to the T&D deferral credit as part of the IRP stakeholder process.

It appears from their response to UCE's data request that PacifiCorp estimated the deferral credit based on a short term transmission and distribution plan. Given that the IRP extends through 2036, this estimate likely does not reflect transmission and distribution investments avoidable through demand-side management over the planning horizon. The Company's failure to include mention of this analysis as part of the planning cycle highlights the need for more transparent distribution system planning and the ability of demand-side measures to reduce the need for distribution system upgrades.

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[20] PacifiCorp *2015 Integrated Resource Plan,* Volume 1, page 124: https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2015IRP/PacifiCorp_2015IRP-Vol1-MainDocument.pdf

[21] PacifiCorp *2013 Integrated Resource Plan*, Volume 1, page 147: https://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2013IRP/PacifiCorp-2013IRP_Vol1-Main_4-30-13.pdf

[22] As per literature review and analysis presented in Sierra Club comments to the Public Utility Commission of Oregon, pages 41-42, http://edocs.puc.state.or.us/efdocs/HAC/lc67hac163049.pdf

F. Overall Amount of DSM in 2017 IRP is Overly Conservative and Doesn't Reflect Likely Technological Advancements to Come

We understand that utility DSM potential studies err on the side of cautious, conservative estimates for energy efficiency. For this reason, the level of energy efficiency selected in the 2017 IRP should not be perceived as a maximum or cap since the cautious potential study estimates feed into the IRP. According to experts from The Regulatory Assistance Project (RAP) and the Energy Futures Group (EFG), by their nature potential studies tend to overlook energy savings that result from emerging technologies and therefore result in significantly understating achievable potential savings in the medium and long term.[23] The achievable potential framework is useful from a practical standpoint, but too often projections of achievable savings are seen as precise forecasts or even upper limits on what level of demand reduction can be attained through energy efficiency.[24] In addition, RAP and EFG report that labeling a projection as achievable may sometimes have the consequence of insinuating that anything above the forecast is by definition "unachievable."[25] RAP and EFG also recommend that achievable savings projections should also be benchmarked against savings levels that have been attained in other jurisdictions and projected savings from studies conducted elsewhere.[26] Under the 2015 IRP, Rocky Mountain Power's planned level of electricity savings was equal to 1.32% of the utility's retail sales while under the new 2017 IRP this

[23] Chris Kramer and Glenn Reed, The Regulatory Assistance Project, *Ten Pitfalls of Potential Studies* (November 2012) http://www.raponline.org/wp-content/uploads/2016/05/energyfutures-kramerreed-tenpitfallsesdraft2-2012-oct-24.pdf
[24] See note 24
[25] See note 24
[26] See note 24

ratio falls to 0.9%. This comes at a time when several leading American electric utilities exceed 1.5% and two have attained an electricity savings level equal to 3% of retails sales.[27] On the basis of comparison with other utilities, the level of DSM selected in the 2017 IRP fall below the benchmark for achievable DSM being realized by leading utilities and should be increased.

V. CONCLUSION AND RECOMMENDATIONS

Rocky Mountain Power has a strong track record of electricity savings through its DSM programs, which has provided significant cost savings to utility ratepayers.

The level of energy savings identified in the 2017 IRP is a remarkable step backward for PacifiCorp and its ratepayers, who are at risk of losing out on significant saving. The level of energy savings identified in the IRP action plan should be considered a "floor" rather than a target or cap on DSM acquisition. Rocky Mountain Power should be directed to develop an Action Plan to *meet and exceed* the energy savings levels specified in the IRP as long as the energy savings continue to be cost effective at the portfolio level, since these investments are a least-cost, least-risk strategy over the medium and long term. Specifically, we request that the Commission direct Rocky Mountain Power update its Action Plan to achieve all cost effective DSM in 2018 and in future years as per the language we recommend on page 3 of these comments.

RESPECTFULLY SUBMITTED,

[27] American Council for an Energy Efficient Economy, *2017 Utility Energy Efficiency Scorecard* (June 2017): http://aceee.org/sites/default/files/publications/researchreports/u1707.pdf

Utah Clean Energy

/s/ Kevin Emerson_____

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