

**Summary of Rocky Mountain Power's Responses to Midway City's Discovery Requests**

**PLEASE NOTE: CONFIDENTIAL DOCUMENTS ARE MARKED IN YELLOW  
AND MAY ONLY BE ACCESSED BY PERSONS WHO EXECUTE A NON-DISCLOSURE AGREEMENT**

<b>Date Requested</b>	<b>Description</b>	<b>Response/Date Provided</b>	<b>Bates Numbers</b>
N/A	RMP bid packet	3/10/2020 (RMP Initial Disclosures)	RMP000001-RMP000098
N/A	Summary of bids	3/11/2020	RMP000140-RMP000148
3/24/2020	Bids with line item analysis of costs	3/26/2020	RMP000099-RMP000124
3/26/2020	Copies of RMP system studies which show the low voltages under maximum load conditions with a loss of a 138 kV line	4/2/2020	CONFIDENTIAL RMP000125-RMP000126
	All geo-technical work performed in the area that was used as a basis for the bids received from RMP	4/2/2020 To make best efforts to meet Midway City's request for underground bids by February 15, 2020, no site-specific geotechnical samples for bearing and thermal properties were obtained for design values in the bid documents. RMP discussed putting all this at the contractor's risk; however, the company did not do this as it was concerned contractors would price a lot of risk in the thermal properties of the in-situ soils which would inflate the bid price. The bid document values for thermal properties of in situ soils	RMP000127

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		therefore were based on a previous project with a similar soil type as found in Midway area soils (sandy lean clays with low water table). Midway City has been provided a copy of the bid documents and the bid results. Per the bid documents, the contractor of the winning bid would obtain geotechnical data in the area and verify the bid basis values prior to cable manufacture and construction. Any changes to cost or cable sizing would be coordinated between the contractor, Rocky Mountain Power, and Heber Light & Power engineering as well as any changes to project costs.	
3/30/2020	1. System one-line diagram showing the RMP Park City transmission system including 44 kV, 69 kV (if present) and 138 kV systems to include the system supplying power and energy from Railroad Substation, Hale Substation and Cottonwood Substation to loads in between including all interconnections with Heber Light and Power, the Park City area, the Jordanelle area and other major loads in the area between those three major substations. Please include the line conductor sizes, ampacities (normal and short time emergency) and conductor type (AAC, ACSR, CU, etc.) Include all generation within that area along with ratings and generation one-line diagrams.	4/13/2020	CONFIDENTIAL RMP000128

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	2. System one-line diagram showing the Heber Light and Power 44 kV transmission system including all interconnections to RMP, substations, substation ratings and all generation including generation one line diagrams interconnected to the HL&P System.	3/20/2020	N/A [per HL&P's counsel, please see diagram included in HL&P 46kV load flow study, attached to direct testimony of Craig Michaelis as Exhibit ICPE-1]
	3. Substation one-line diagrams for all substations within the load area with data showing substation transformer voltage and kVA (MVA) ratings. The substations are to include but not limited to: a. Hale Substation b. Silver Creek Substation c. Wallsburg Substation d. Midway Substation e. Cottonwood Canyon Substation f. Railroad Substation g. Snyderville substation	4/13/2020	CONFIDENTIAL RMP000128
	4. Summer peak and winter peak load for each substation for each year 2017, 2018, 2019 and the projected peak loads for 2020, 2021 and 2022.	4/13/2020	CONFIDENTIAL RMP000129-RMP000135
	5. Actual load flow for 2019 and projected load flows for 2020, 2021 and 2022. The load flow should show the normal and worst-case single contingency conditions	4/13/2020	CONFIDENTIAL RMP000136-RMP000138
	6. Load flow study showing the Cottonwood-Snyder 138 kV line outage and provide all system conditions which resulted in voltages as low as 63% nominal. Provide both summer and winter conditions for normal and peak loading.	4/13/2020 See response to request no. 5; a summer conditions load flow is not available.	CONFIDENTIAL RMP000136-RMP000138

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	<p>7. Results of the load flow studies and system conditions that would provide issues, black outs and partial loss of load to:</p> <ul style="list-style-type: none"> <li>a. Midway City</li> <li>b. Brighton</li> <li>c. Deer Valley</li> <li>d. Park City</li> <li>e. Kimball Junction</li> <li>f. Summit Park</li> <li>g. Kamas</li> <li>h. Oakley</li> </ul>	<p>4/13/2020 See response to request no. 5</p>	<p>CONFIDENTIAL RMP000136-RMP000138</p>
	<p>8. Potential equipment damage resulting from such a condition and the cause of such damage.</p>	<p>4/13/2020 Low voltage can cause damage to equipment. As voltage lowers, current in some electrical equipment such as motors increases to keep the power constant. Increased current can cause thermal damage if not adequately protected in its design.</p>	<p>N/A</p>
	<p>9. How much local generation was included with the load flow under the highest projected load system conditions and loss of a major 138 kV transmission line to the Park City/ Heber City/Jordanelle system?</p>	<p>4/13/2020 No local generation was included in the analysis</p>	<p>N/A</p>
	<p>10. For the last five years a list of the 138 kV outages including causes and dates for any transmission line or substation outage including momentary and extended. Show the total outage duration and the customers affected.</p>	<p>4/13/2020</p>	<p>CONFIDENTIAL RMP000139</p>

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	11. Basis for up to 620 hours of exposure to the risk of inadequate voltage to customers in the Heber Valley and Park City area during the 2020-2021 winter to include projected loads and projected lack of local generation.	4/13/2020 The 620 hours of exposure was calculated by taking the hourly peak load measurements for the Park City area for an entire year and sorting them largest to smallest. They are then adjusted for a future year. Hours above 175 MW were counted to arrive at the 620 hour value. The 175 MW value was derived by running load flow analyses to determine the Park City area loading value at which the voltage issues begin to occur.	N/A