BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

)) Docket No. 20-035-34
In the Matter of the Application of Rocky Mountain Power for Approval of Electric Vehicle Infrastructure Program (EVIP)	 Direct Testimony of Alex Ware On behalf of the Office of Consumer Services

October 19, 2021

INTRODUCTION AND BACKGROUND

Q. WHAT IS YOUR NAME, OCCUPATION AND BUSINESS ADDRESS?

A. My name is Alex Ware. I am a utility analyst with the Utah Office of

4 Consumer Services (OCS). My business address is 160 East 300 South,

Salt Lake City, Utah 84111.

analyst for the OCS.

A.

Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.

I earned a Masters of Public Policy and B.S. in Economics from the
University of Utah. I previously was employed as a performance auditor
for the Utah Office of the Legislative Auditor General, where my duties
involved conducting in-depth compliance, financial, and efficiency and
effectiveness audits of various state funded agencies and programs.

Those audits and associated recommendations were presented before the
Legislative Audit Subcommittee. I have worked for the OCS since 2018
and completed utility analyst training courses from New Mexico State
University, Michigan State University, and the University of Wisconsin. I
have previously submitted testimony before the Utah Public Service
Commission (PSC) on a number of occasions in my capacity as a utility

21	Q.	WILL YOU PLEASE PROVIDE A BRIEF OVERVIEW OF ROCKY
22		MOUNTAIN POWER'S (RMP) APPLICATION IN THIS DOCKET?
23	A.	Yes. Pursuant to Utah Code § 54-4-41, Recovery of Investment in Utility-
24		Owned Vehicle Charging Infrastructure (effective July 1, 2021), RMP
25		requests approval of the PSC to create an Electric Vehicle Infrastructure
26		Program (EVIP). The EVIP would span ten years and utilize \$50 million
27		collected from ratepayers. In its application, RMP explains there are four
28		parts of its EVIP proposal ¹ :
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30		1. Company-Owned Chargers: RMP proposes to build 20 to 25
31		charging station locations during the first five years of the program.
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33		2. Make-Ready Infrastructure: RMP proposes to provide infrastructure
34		between the utility grid and vehicle chargers to customers through
35		an application process.
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37		3. Incentives: RMP proposes to continue vehicle charger incentives
38		under Tariff Schedule 120 which was created in 2017 through the
39		Sustainable Transportation and Energy Plan (STEP) program.
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¹ Docket No. 20-035-34, Application, p.5 to 7.

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41		4. Innovation Partnerships and Projects: RMP states that it will work
42		with a number of organizations to create an "enduring regional
43		electric vehicle ecosystem" that has the latest technology.
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45	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
46	A.	The purpose of my testimony is to show that RMP's application to create
47		the EVIP is not in the public's interest as filed and requires changes before
48		it should be considered for approval by the PSC. Specifically, I will
49		address my concerns regarding the following topics:
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51		Reporting requirements
52		Extension and evaluation of Schedule 2E
53		Electric Vehicle Charging Education
54		Extension of Schedule 120
55		Tariff language within proposed Schedule 60
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57		I note that my silence on an issue in RMP's application and proposed
58		tariffs under consideration in this docket should not be assumed to be tacit
59		agreement.
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CONCERNS REGARDING REPORTING REQUIREMENTS

Q. DOES RMP'S APPLICATION UNDER CONSIDERATION IN THIS

DOCKET CLEARLY ESTABLISH REPORTING REQUIREMENTS FOR

64 **ITS PROPOSED EVIP?**

A. No. RMP does not propose any plan for reporting to the PSC, neither on the performance of the plan nor the specific accounting of revenue collection from tariff Schedules 60 and 198 and associated capital

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Q. IS IT TYPICAL FOR PROGRAMS OF REGULATED UTILITIES TO

HAVE REPORTING REQUIREMENTS?

investments and other spending.

A. Yes, it is typical for all ratepayer-funded programs of regulated utilities to have well established reporting requirements.

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Q. WHY ARE REPORTING REQUIREMENTS IMPORTANT?

76 A. First and foremost, RMP must provide at least annual filings showing the 77 complete accounting of the revenue collected through tariff Schedules 60 78 and 198 as well as all expenses charged to the program. It is standard 79 regulatory practice to have at least annual reporting for any tariff collecting 80 revenues from customers to ensure that the accounting is being done 81 correctly, including the proper application of a carrying charge. Reporting 82 requirements are necessary to keep track of the full set of investments 83 and expenses associated with the program, to understand the basic

elements of the program such as the total spending and total revenue collection, and to evaluate how much RMP is spending in each aspect of the program and how the balance is changing. In this case, it is particularly important to track this accounting because the enabling statute only authorizes a "maximum" of \$50 million of ratepayer funding.²

Reporting requirements are also important to ensure that the program is being implemented in a manner consistent with the public interest across time. Ten years is a long time for a single utility program to be approved, especially in the context of the quickly evolving electric vehicle (EV) and EV charging station markets. Periodic review is essential to ensure that the utility is making proper use of ratepayer funds and continuing to meet conditions required by statute and the PSC.

Finally, reporting requirements are necessary to demonstrate that individual expenditures made within the program are appropriate and prudent.

Q. CAN THE PRUDENCY OF THE INVESTMENTS FUNDED BY EVIP BE EVALUATED SOLEY FROM RMP'S APPLICATION IN THIS DOCKET? A. No. While RMP witness James A. Campbell asserts the EVIP is prudent in his direct testimony³, I assert that prudency is unknowable at this time.

² Utah Code § 54-4-41 (2)(a).

³ 20-035-34, Direct Testimony of James A. Campbell, August 23, 2021, line 317.

While the PSC could approve the program based on the application and some modifications proposed by the OCS and likely other parties, the PSC cannot pre-approve the specific investments because RMP has only provided broad statements about the types of facilities it plans to include. It is clear from the application that the proposed EVIP is in the early planning stages and the actual infrastructure investments and locations of those investments are yet to be determined. Therefore, it is vital that clear and detailed reporting requirements are established now so that the prudency of investments under the proposed EVIP can be periodically evaluated over the life of the program.

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Q. ARE THERE OTHER UTILITY PROGRAMS THAT CAN PROVIDE AN EXAMPLE OF HOW TO ESTABLISH REPORTING REQUIREMENTS IN THIS DOCKET?

Yes. RMP's Sustainable Transportation and Energy Plan (STEP) and Dominion Energy Utah's (DEU) Infrastructure Tracker Program (ITP) both include reporting requirements we can consider for the EVIP. For the STEP program, RMP is required to report annual budgets by project, annual spending by project, and annual revenues. These requirements would also be appropriate for accounting and annual reporting of the EVIP.

DEU has a more complicated ITP prudence review process that was recently reviewed and refined by key stakeholders and approved by

the PSC. DEU submits an annual filing of its ITP construction plan and budget followed by a technical conference. It then files quarterly budget variance reports, as well as at least annually an ITP tracker rate adjustment. The key stakeholders refined this prudence review process to make it more transparent and clarify reporting and actions to be taken before approval of final ITP rates. A modified version of this process would be appropriate for periodic review of the overall EVIP implementation and specific investments therein. I recommend that, in addition to the annual filings to the PSC of the EVIP accounting, RMP should be required to make periodic filings in which it presents its EVIP-related investment and construction plan, as well as report on the progress of general program implementation. The periodic filings should be accompanied with a technical conference and a comment period to facilitate input from interested stakeholders.

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Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS FOR REPORTING REQUIREMENTS TO BE APPLIED TO RMP'S EVIP PROGRAM?

I recommend to the PSC that RMP be required to annually report the EVIP's annual budget, annual spending by investment, and annual revenues. I also recommend that the PSC require RMP to periodically make filings, establish a comment period, and hold technical conferences to update interested parties on the progress of the overall program's implementation and actual investments. This process should also facilitate

150		stakeholder input and prudence review of the specific investments made
151		by RMP using this ratepayer funding source.
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153	<u>SCHE</u>	EDULE 2E: RESIDENTIAL SERVICE ELECTRIC VEHICLE TIME OF USE
154	PILO [*]	T PROGRAM
155	Q.	HOW DO YOU RESPOND TO RMP'S PROPOSAL TO POSTPONE THE
156		EXPIRATION OF THE SCHEDULE 2E PILOT PROGRAM FOR SIX
157		MONTHS.
158	A.	I agree that there is benefit to waiting six months to determine the fate of
159		the Schedule 2E pilot so that RMP has time to compile and report on the
160		program's performance to the PSC and interested parties.
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162	Q.	DOES THE UNCERTAINTY REGARDING SCHEDULE 2E PILOT
163		CAUSE YOU CONCERN?
164	A.	Yes. Although I agree with the six-month continuation of Schedule 2E
165		followed by an evaluation, I am concerned about the lost opportunity if
166		there is not a continuation of Schedule 2E or a replacement time-of-use
167		(TOU) rate associated with residential customer use of home electric
168		vehicle chargers.
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170	Q.	PLEASE EXPLAIN YOUR CONCERNS.
171	A.	I have concerns that as the EVIP expands vehicle charging infrastructure,
172		new customers could increase system peaks, drive the need for costly

investments, and inadvertently harm non-participating customers if they do not understand the best hours in which to charge their vehicles to maximize the capacity of the existing grid and minimize any necessary additional investments to meet this new load. A TOU rate can reduce this need for additional investments. Because a TOU rate inherently has a customer education component, it incentivizes customers to select offpeak vehicle charging times via price signals. If the TOU rate expires, there would be neither education nor price signals for when it would be the best time to charge an electric vehicle.

LACK OF EDUCATION ON HOW EV CHARGING IMPACTS THE SYSTEM

- Q. DOES RMP PROPOSE ANY EDUCATIONAL COMPONENT AS PART OF ITS EVIP?
- 186 A. No, not explicitly. The only aspect of RMP's proposed EVIP that could be
 187 interpreted as a minor educational component is the off-peak discount rate
 188 associated with its company-owned vehicle chargers. However, the EVIP
 189 application does not include any educational component for privately190 owned vehicle chargers.

- Q. HAS RMP MADE ANY COMMITMENTS TO DEVELOP ELECTRIC
 VEHICLE CHARGING EDUCATION IN THE PAST?
- 194 A. Yes. In its application to create its Plug-in Electric Vehicle (PEV) STEP
 195 program, RMP specifically indicated its intention to provide education to

participants on the system impacts of vehicle charging. The application stated, "This includes development of a website containing detailed information about the PEV Program and tools for customers to better understand impacts on the grid and appropriate charging behavior."

Subsequently, in its Supplemental Application to Implement Electric Vehicle Incentive and Time of use Pricing Programs, RMP committed "to allocate a portion of the Program budget annually to outreach and awareness for EVs."

Although this commitment was less specific about appropriate charging behavior it did specifically include a reference to PEV cost and benefits. Certainly, the impacts of different charging behavior should be included in any discussion or outreach addressing PEV cost and benefits.

Q. DID RMP FOLLOW THROUGH ON ITS COMMITMENT TO BUILD A WEBSITE THAT INCLUDES EDUCATION ON APPROPRIATE VEHICLE CHARGING BEHAVIOR?

A. No. While RMP did build a webpage titled "Charging your electric vehicle", it only contains information on the charging infrastructure a customer may need. The webpage does not include information to educate customers on

⁴ Docket No. 16-035-36, STEP Application, p. 10, September 12, 2016.

⁵ Docket No. 16-035-36, Supplemental Application, paragraph 8, bullet 2, January 31, 2017.

appropriate charging behaviors such as off-peak charging.⁶ I have attached a copy of this webpage to my testimony as OCS Exhibit 1D.

I acknowledge that the majority of the electric vehicle portion of the STEP docket, referred to as Phase 3, focused on disputes over the time-of-use rate pilot. Also, the settlement covering other portions of Phase 3 did not specifically address consumer education. In my opinion, this is an additional reason why the PSC should require an educational component now in this docket. It appears that absent a specific requirement, RMP will not view such education as a priority element of the EVIP program.

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Q. WHY IS AN EDUCATIONAL COMPONENT IMPORTANT TO THIS EVIP?

The EVIP is about more than just company-owned commercial vehicle charging stations. RMP is also requesting to continue financial incentives for privately-owned vehicle chargers under tariff Schedule 120 for the duration of the 10-year EVIP – as discussed more in the next section. As the adoption of privately-owned vehicle chargers increases, it is vital that customers are aware of the impacts to the grid when vehicles are charged during peak hours. Encouraging appropriate charging behavior is essential to minimize system peaks and avoid the need for costly grid upgrades.

⁶ https://www.rockymountainpower.net/savings-energy-choices/electric-

vehicles/charging-your-ev.html

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Q. WHAT IS YOUR RECOMMENDATION REGARDING EV CHARGING

EDUCATION?

I recommend that the PSC should require RMP to include a robust vehicle charging education program for customers as part of the overall EVIP.

Such a program should include an explanation of how different charging behaviors, such as on and off-peak charging, impact the grid. This explanation should include recommendations for best charging times and explain how certain patterns of charging behavior could drive the need for additional electric system investments, raising rates and harming all customers, especially non-participating customers.

I further recommend that RMP be required to work with key stakeholders to evaluate if there is a need for additional education components to help ensure that the EVIP is a success.

Lastly, in the next section, I also recommend changes to tariff schedule 120 that are partially tied to the implementation of a vehicle charging education program.

SCHEDULE 120: PLUG-IN ELECTRIC VEHICLE INCENTIVE PILOT

PROGRAM

Q. WHAT DOES RMP PROPOSE IN THIS DOCKET FOR THE SCHEDULE

120 PILOT PROGRAM?

A. In his direct testimony, RMP witness Robert Meredith recommends that Schedule 120 vehicle charger incentives be extended for the duration of the proposed 10-year EVIP.

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Q. DO YOU HAVE CONCERNS WITH MR. MEREDITH'S PROPOSAL?

Yes. I am concerned about a blanket extension of Schedule 120 for ten years, the entire length of the EVIP. I am also specifically concerned about the inclusion of incentives for residential Level 2 chargers in the current context of the phase-out of Schedule 2E and the lack of an educational component to the EVIP.

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Q. WHY IS A TEN-YEAR EXTENSION PROBLEMATIC?

In my opinion, a ten-year extension of Schedule 120 is problematic for several reasons. The electric vehicle market is evolving quickly so I question the reasonableness of extending pilot program incentives for ten years without a review to assess if the incentives are at the correct levels for the existing market. The cost of level 2 chargers has been coming down and we should have a better understanding of whether additional price drops are expected. It is important to set appropriate incentives so that we avoid free ridership as much as possible. Also, while I understand that tariffs can be adjusted over time, I believe setting the expiration of Schedule 120 so far into the future may set expectations with participants that makes reducing or eliminating incentives more difficult later.

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Q. WHAT IS YOUR PROPOSED SOLUTION?

I recommend that Schedule 120 receive a much shorter extension. In my opinion, it is reasonable to extend these incentives for only two or three years, after which the program should be reevaluated. If the incentives still make sense at that time, Schedule 120 could always be extended again if RMP specifically demonstrates that it is the best use of EVIP funds and in the public interest. It is less disruptive to participants to extend a program than to end it early.

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Q. WHAT IS YOUR RECOMMENDATION REGARDING THE

RESIDENTIAL COMPONENT OF THE INCENTIVES INCLUDED IN

292 **SCHEDULE 120?**

293 Α. Without an educational component as previously discussed, it is not in the 294 public interest to continue using ratepayer funds on residential incentives 295 under Schedule 120. These incentives, by increasing the number of 296 residential EV chargers, could impact system peaks and lead to additional 297 costs for all customers, especially non-participating customers. The 298 residential incentives should be removed from Schedule 120 at this time. 299 The PSC should require a specific demonstration that residential 300 incentives are in the public interest prior to including them in Schedule 301 120. Such a demonstration should include at least a basic education 302 program for customers who privately-own vehicle chargers, explaining the

preferred hours for charging and the potential impacts to the electric system of charging during peak hours.

However, I note that it isn't clear that the residential incentives would be in the public interest and the best use of the EVIP funds even if an education program is in place. A future filing should evaluate all aspects of the public interest and I recommend that the PSC consider an education program as a necessary but not sufficient condition for approval.

NEW SCHEDULE 60 EVIP TARIFF

- Q. PLEASE DESCRIBE NEW TARIFF SCHEDULE 60 THAT RMP IS PROPOSING IN THIS DOCKET.
- 315 A. Schedule 60, titled "Company Operated Electric Vehicle Charging Station
 316 Service", is the newly proposed tariff that explains the electric usage rates,
 317 time periods, and special conditions proposed by RMP to govern its
 318 Company-owned EV charging stations.

- Q. DO YOU HAVE ANY CONCERNS WITH THE LANGUAGE OF SCHEDULE 60 AS PROPOSED?
- 322 A. Yes I do. I will address specific concerns with these three proposed special conditions:

325		1. Special Condition #1 states that RMP may impose a penalty on
326		customers who do not make their charging station available to
327		others after session completion.
328		2. Special Condition #5 indicates that RMP intends to increase the
329		prices in Schedule 60 annually by the same percentage as base
330		retail rate increases.
331		3. Special Condition #6 indicates that RMP may, at its discretion, file
332		additional rate changes if the need arises.
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334	Q.	PLEASE EXPLAIN YOUR CONCERN WITH SPECIAL CONDITION #1.
335	A.	My concern with Special Condition #1 is the specific language proposed
336		by RMP and the fact that it does not comport with standard requirements
337		for tariff conditions. RMP's currently proposed language is as follows:
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339		1. The Company may impose a penalty on any individual who,
340		upon session completion, does not make their station available
341		to others.
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343		While I generally agree with the sentiment of the condition, RMP has not
344		detailed what the penalty is and how it would be applied. Also, RMP does
345		not have the authority to institute such a penalty without review and
346		approval by the PSC. Therefore, I propose this alternate language for
347		Special Condition 1: "Customers are expected to make a charging station

available immediately following session completion. If cause arises, the Company may seek approval from the Commission to institute a penalty policy."

In the alternative, RMP could propose specific terms and conditions for a proposed penalty in its rebuttal testimony. Such a proposal should include specific penalty rates, terms and conditions, and supporting evidence of its proposal. RMP would need to include clear and compelling evidence supporting whatever it proposed, providing adequate details of its proposed penalty policy to facilitate review during the remainder of this docket.

Q. PLEASE EXPLAIN YOUR CONCERN WITH SPECIAL CONDITION #5.

A. I have both stylistic and substantive concerns with this condition. RMP proposes the following language in Special Condition #5:

5. For the first five years of the Electric Vehicle Incentive Program, prices listed on this tariff shall change by the same percentage as base retail price changes rounded to the nearest cent.

My primary concern about the language in Special Condition #5 is that EVIP rates should adjust by the same percentage as other rate classes considering all rate elements, not just base rates. It is particularly

important for annual EVIP rate changes to also include the annual changes passed through the Energy Balancing Account (EBA). If in any year the EBA has a large increase due to an increase in power costs, RMP's base rates approach would not pass any of such an increase to Schedule 60 customers. While I acknowledge that Schedule 60 will not initially be a cost-based rate, RMP's proposal appears designed to ensure that Schedule 60 rates basically keep pace with changes affecting other rate schedules. I support that approach. Therefore, annual changes to EVIP rates should be based on the percentage all rates have changed, not just base rates, which typically change much less frequently and may not capture significant changes in energy costs.

Second, I am concerned that the tariff language indicates these changes "shall" take place, despite the caveat listed in special condition #6 and the fact that other factors could arise to influence the actual, annual rate changes. A tariff is meant to give current, not future, rates. While it is appropriate to describe the likely trajectory of rates, it would be inappropriate to use the word "shall" in describing these future changes.

To remedy these two problems, I recommend that Special

Condition #5 be rewritten such that it reads: "For the first five years of the

Electric Vehicle Incentive Program, the Company intends to request to

change prices listed on this tariff by the same percentage as retail price

changes rounded to the nearest cent."

394	Q.	PLEASE EXPLAIN YOUR CONCERN WITH SPECIAL CONDITION #6.
395	A.	My concern with Special Condition #6 relates to language that could be
396		misleading. RMP proposes the following language:
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398		6. The Company may at its discretion file with the Commission to
399		change rates on this schedule as the need arises.
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401		It is important that the language of this condition accurately reflects that
402		the PSC would need to agree and approve any proposed change in rates.
403		I recommend the language be rewritten as: "The Company may at its
404		discretion file a request with the Commission to change rates on this
405		schedule as the need arises."
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407	Q.	PLEASE SUMMARIZE YOUR RECOMMENDATIONS FOR SCHEDULE
408		60.
409	A.	My recommendations are as follows:
410		1. To remedy the tariff language giving RMP inappropriate authorization to
411		charge undefined penalties, I propose Special Condition #1 to be rewritten
412		as: "Customers are expected to make a charging station available
413		immediately following session completion. If cause arises, the Company
414		may seek approval from the Commission to institute a penalty policy."
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416		In the alternative, RMP could propose (in its rebuttal testimony) specific
417		rates, terms and conditions for penalties, along with evidence supporting
418		its proposal, to be addressed within this docket.
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420		2. To remedy the potentially misleading language and potentially skewed
421		annual rate increases, I recommend that the words "shall" and "base" be
422		deleted from Special Condition #5 along with minor additional changes as
423		described above.
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425		3. To better represent the actual process for tariff changes, I recommend
426		that the words "a request" be inserted in Special Condition #6.
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428		I have attached a redline version to RMP's proposed tariff Schedule 60 as
429		OCS Exhibit 2D that includes these recommendations.
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431	Q.	PLEASE SUMMARIZE YOUR RECOMMENDATIONS TO THE PSC.
432	A.	I recommend that the PSC require RMP to make the following changes to
433		its EVIP prior to approving its proposal.
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435		1. I recommend that RMP be required to annually report the EVIP's
436		annual budget, annual spending by investment, and annual
437		revenues. I also recommend that RMP be required to periodically
438		make filings, establish a comment period, and hold technical

conferences to update interested parties on the overall program's implementation and actual investments. This process should also facilitate stakeholder input and prudence review of the specific investments made by RMP using this ratepayer funding source.

2. I recommend that RMP be required to include a robust vehicle charging education program for customers as part of the overall EVIP. Such a program should include an explanation of how different charging behaviors, such as on and off-peak charging, impact the grid. This explanation should include recommendations for best charging times and explain how certain patterns of charging behavior could drive the need for additional electric system investments, raising rates and harming non-participating customers. I further recommend that RMP be required to work with key stakeholders to evaluate if there is a need for additional education components to help ensure that the EVIP is a success.

3. I recommend that tariff Schedule 120 be extended for only two or three years and be subject to reevaluation following that extension.

4. I recommend that the residential incentive be eliminated from tariff
Schedule 120 at this time. Following the implementation of a
vehicle charging education program as part of the EVIP, a future

462		filing should reevaluate if reinstituting this residential incentive is in
463		the public interest.
464		
465	5.	I recommend that Special Condition #1 in draft tariff Schedule 60
466		should be reworded to: "Customers are expected to make a
467		charging station available immediately following session
468		completion. If cause arises, the Company may seek approval from
469		the Commission to institute a penalty policy."
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471		In the alternative, RMP could propose (in its rebuttal testimony)
472		specific rates, terms and conditions for penalties, along with
473		evidence supporting its proposal to be evaluated in the remainder
474		of this present docket.
475		
476	6.	I recommend that Special Condition #5 in draft tariff Schedule 60
477		should be reworded to: "For the first five years of the Electric
478		Vehicle Incentive Program, the Company intends to change prices
479		listed on this tariff by the same percentage as retail price changes
480		rounded to the nearest cent."
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482	7.	I recommend that Special Condition #6 in draft tariff Schedule 60
483		should be reworded to: "The Company may at its discretion file a

request with the Commission to change rates on this schedule as
the need arises."

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487 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

488 A. Yes.