

Company: San Diego Gas & Electric Company (U 902 E)  
Proceeding: Real Time Pricing Pilot Rate  
Application: A.21-12-006/A.21-12-008  
Exhibit: SDG&E-XX

**PREPARED REBUTTAL TESTIMONY OF**  
**RAY UTAMA (CHAPTER 4)**  
**ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

**January 30, 2023**



## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	ADDITIONAL RATE SCHEDULES WILL INCREASE IMPLEMENTATION COST .....	1
	A.    Cal Advocates’ Proposal to Include Net Energy Metering (NEM) in Stage 1 of the RTP Pilot Would Add Significant Costs .....	2
	B.    SBUA’s Simultaneous Argument for Both An Expansion of the Export Compensation Pilot and A Reduction of Implementation Costs Is Unreasonable.....	5
III.	MEASURES TO AVOID NON-BENEFICIAL RATE ARBITRAGE .....	7
IV.	SDG&E WILL USE THE CEC’S MIDAS DATABASE TO THE EXTENT POSSIBLE .....	8
V.	SUMMARY AND CONCLUSION .....	9



1 electric vehicle (EV) customers on the Electric Vehicle High Power Rate (EV-HP) schedule.<sup>2</sup>  
2 As addressed in the prepared supplemental direct testimony of SDG&E witness Jeff DeTuri  
3 (Chapter 1), limiting Stage 1 of the Dynamic Pricing Pilots is designed to minimize costs, while  
4 making the RTP Pilot Stage 1 available to the majority of eligible Time-of-Use (TOU) customers  
5 and offering the Export Compensation Pilot Stage 1 to customers who are well positioned to  
6 participate in the rate.<sup>3</sup>

7 SDG&E is not opposed to opening these rates up to more rate schedules, and indeed  
8 proposes to do so in Stage 2 of the Pilots, but urges the Commission to take an incremental  
9 approach for these very new and untested rates. Each additional participating rate schedule will  
10 require additional costs to establish billing compatibility with potentially little to no customer  
11 interest for those rate schedules. To the extent there is significant customer interest or other  
12 factors that would weigh in favor of adding additional rate schedules for Stage 2 of either Pilot,  
13 SDG&E will consider those factors, but it does not, at this time, believe the cost of increasing  
14 eligibility to more rate schedules will be justified for Stage 1 of the Pilots. SDG&E addresses  
15 the specific proposals below.

16 **A. Cal Advocates' Proposal to Include Net Energy Metering (NEM) in Stage 1**  
17 **of the RTP Pilot Would Add Significant Costs**

18 Cal Advocates proposes to replace Schedule EV-TOU-5 with Schedule DR-SES in the  
19 Stage 1 of the RTP Pilot because Schedule EV-TOU-5 has inherent cost shift issues and  
20 including a NEM specific rate (i.e., Schedule DR-SES) in Stage 1, would be beneficial for

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<sup>2</sup> *Id.*

<sup>3</sup> Prepared Supplemental Direct Testimony of SDG&E Witness Jeff DeTuri (Chapter 1) (August 15, 2022) at JDT-5.

1 purposes of gathering performance data and optimizing the design of Stage 2 of the RTP Pilot.<sup>4</sup>  
2 SDG&E disagrees with this proposal because (1) adding a NEM-specific rate for Stage 1 will  
3 add significant billing complexity; and (2) SDG&E believes EV-TOU-5 is likely to have  
4 customers interested in this particular rate.

5 Including DR-SES rate schedule in Stage 1 of the RTP Pilot will add significant billing  
6 complexity that is associated with the NEM programs,<sup>5</sup> this would include 1) configuring the  
7 billing system for both consumption and generation calculations and 2) configuring the billing  
8 system to allocate generation charges to offset consumption charges. Schedule DR-SES consists  
9 of only NEM customers as the schedule is only available to residential customers with Solar  
10 Energy Systems. SDG&E proposed to include all TOU rate schedules, as well as customers  
11 enrolled in NEM programs, in Stage 2 of the RTP Pilot to minimize cost and reduce  
12 implementation complexity of Stage 1 of the RTP Pilot.<sup>6</sup> Including NEM programs in Stage 2 of  
13 the RTP Pilot will allow SDG&E: 1) to build the foundation with the RTP import rates before  
14 adding the NEM layer, and 2) additional time to work through the intricacy and complexity of  
15 the NEM rates and billing to minimize cost shift and avoid potential rate arbitrage.

16 Additionally, SDG&E believes that Schedule EV-TOU-5 is an appropriate rate to include  
17 in Stage 1 of the RTP Pilot as it is the rate schedule with the highest number of residential  
18 customers with EVs, who, as relatively early adopters of EV technology, may be more  
19 technologically inclined and better suited for the RTP Pilot than customers on other rate  
20 schedules. Adding Schedule DR-SES with the associated NEM program, to Stage 1 of the RTP

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<sup>4</sup> Cal Advocates Prepared Testimony of Thomas Brawley (Chapter 2) at 2-4 to 2-5.

<sup>5</sup> Prepared Supplemental Direct Testimony of SDG&E Witness Ray Utama (Chapter 4) (August 15, 2022) at RU-5 to RU-6.

<sup>6</sup> *Id.*

1 will add approximately \$2M and an additional 6 months to implement Stage 1 of the RTP Pilot.  
2 This is due to having to configure the components needed to accurately bill NEM, which was  
3 originally slated for Stage 2.

4 Similarly, VGIC recommends including Schedules EV-TOU and EV-TOU-2 in Stage 1  
5 of the RTP Pilot.<sup>7</sup> SDG&E's schedule EV-TOU is available to residential customers with  
6 separately meter EV charging facilities, and Schedule EV-TOU-2 is available for residential  
7 customers households with EVs, but are not separately metered. VGIC argues that customers  
8 utilizing submetering to enroll in these rates, by definition, will own networked chargers, which  
9 generally have the capability to be managed by a third-party to respond to dynamic price  
10 signals.<sup>8</sup> Again, SDG&E does not disagree that some customers on these rates may benefit from  
11 the RTP Pilot, and indeed, SDG&E is proposing to include all other TOU rate schedule  
12 (including EV-TOU and EV-TOU-2) in Stage 2 of the RTP Pilot. However, every additional  
13 rate schedule added to the Stage 1 Pilot will add significant costs and SDG&E believes it is more  
14 prudent to wait until Stage 2 and any lessons learned from Stage 1 can improve implementation  
15 of more widespread eligibility. Including Schedules EV-TOU and EV-TOU-2 would increase  
16 the implementation cost of RTP Stage 1 by approximately \$0.5M, and is unlikely to add value  
17 given SDG&E has already proposed to include the most popular EV rate schedule. Including the  
18 additional EV rate schedules would also add an additional 2 months to implement Stage 1 of the  
19 RTP Pilot due to having to configure the components needed to accurately bill the incremental  
20 EV schedules, which was originally slated for Stage 2.

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<sup>7</sup> Opening Testimony of Ed Burgess on Behalf of VGIC at 18.

<sup>8</sup> *Id.*

1           **B.     SBUA’s Simultaneous Argument for Both An Expansion of the Export**  
2           **Compensation Pilot and A Reduction of Implementation Costs Is**  
3           **Unreasonable**

4           SBUA proposes to include all Small Commercial customer TOU rates in Stage 1 of the  
5 Export Compensation Pilot, arguing that all customers are paying for the pilots; therefore, all  
6 customers should equally benefit from the pilot.<sup>9</sup> SBUA further argues that SDG&E’s  
7 implementation cost estimates of \$12.6M are too high and costs should be capped at \$10M.<sup>10</sup>  
8 SBUA’s expert has no basis for his position that the costs estimates are too high and his  
9 proposed cap of \$10M is baseless and arbitrary. Further, SDG&E has proposed a Stage 2 for the  
10 Export Compensation Pilot that will be open to Small Commercial customers and therefore,  
11 contrary to assertions of SBUA, SDG&E has responded to requests for expanded eligibility.<sup>11</sup>

12           Although SDG&E recognizes that its proposal for Stage 1 of the Export Compensation  
13 Pilot is relatively limited, SDG&E has proposed and anticipates that Stage 2 of the Export  
14 Compensation Pilot to be expanded to all other customer classes pending the results and  
15 feedback from Stage 1 of the Pilots.<sup>12</sup> Because this is a new and innovative rate that has some  
16 potential downsides, such as rate arbitrage as addressed below, and has potential barriers to  
17 participation, such as the need for a Rule 21 interconnection, SDG&E proposed for Stage 1 of  
18 the Export Compensation Pilot to be available to only customers on EV-HP to minimize  
19 implementation costs and offering it to customers who are well positioned to participate.<sup>13</sup>

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<sup>9</sup> Direct Testimony of Michael Brown on Behalf of SBUA at 19.

<sup>10</sup> *Id.* at 6.

<sup>11</sup> *Id.* at 19 (arguing that SDG&E fails to respond to the Scoping Memo request for expanded eligibility for an export compensation rate).

<sup>12</sup> Prepared Supplemental Direct Testimony of SDG&E Witness Ray Utama (Chapter 4) (August 15, 2022) at RU-3 to RU-4.

<sup>13</sup> Prepared Supplemental Direct Testimony of SDG&E Witness Jeff DeTuri (Chapter 1) (August 15, 2022) at JDT-5.

1 SDG&E anticipates that it will be beneficial to all customers to keep initial participation limited  
2 to a smaller group to limit costs of implementation and use lessons learned to better implement  
3 Stage 2. Including small commercial rate schedule TOU-A, which has the greatest number of  
4 small commercial class participants, to Stage 1 of the Export Compensation Pilot would increase  
5 the implementation cost by approximately \$0.2M and an additional 1 month to implement Stage  
6 1 of the Export Compensation Pilot. This is due to having to configure the components needed  
7 to accurately bill the small commercial rate, which was originally slated for Stage 2.

8 Additionally, as addressed in the supplemental direct testimony of SDG&E witness Jeff DeTuri  
9 (Chapter 1), the Dynamic Pricing Pilots have potential universal benefits for all customers  
10 including: reducing grid costs, reducing greenhouse gases, enabling greater integration of  
11 renewables, and reducing the likelihood of blackouts.<sup>14</sup>

12 Finally, SBUA's proposal of \$10M cap to implement the Dynamic Pricing Pilots is  
13 arbitrary and baseless.<sup>15</sup> SBUA provides no support for the number it has proposed, stating only  
14 that the "EV program will be relatively small and may expand as more customers adopt EV  
15 rate."<sup>16</sup> Mr. Brown uses the term "EV program" to refer to both the RTP Pilots and the Export  
16 Compensation Rate, but seems to misunderstand that the RTP Pilot has eligibility well beyond  
17 EV owners. Further, he leans on his "experience" which "leads [him] to believe that this project  
18 could be implemented for \$10 million, which is more reasonable."<sup>17</sup> What Mr. Brown fails to  
19 acknowledge is that he has not demonstrated experience in rate implementation. His statement  
20 of qualifications includes utility experience in the acquisition of power, project management for

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<sup>14</sup> *Id.* at JDT-24.

<sup>15</sup> Direct Testimony of Michael Brown on Behalf of SBUA at 6.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*



1 maintenance, construction and licensing of power plants, patents, and negotiating and  
2 participating in utility agreements and energy projects. He does not have experience in rate  
3 design or rate implementation. Accordingly, his experience and cost estimates should be given  
4 no weight. SDG&E has provided subject matter expert testimony that must hold greater weight  
5 than SBUA's arbitrary cost caps and believes a cost cap may pose a risk that could limit the  
6 number of rate schedules and customer features offered on the Dynamic Pricing Pilots.  
7 Moreover, and importantly, SDG&E does not object to memorandum account treatment for  
8 projected costs, meaning that SDG&E will be required to prove that all costs are reasonable and  
9 just for purposes of cost recovery.<sup>18</sup>

### 10 **III. MEASURES TO AVOID NON-BENEFICIAL RATE ARBITRAGE**

11 Cal Advocates recommends that SDG&E require customers enrolled in the Export  
12 Compensation Pilot rate to also be enrolled in the RTP Pilot rate in order to avoid rate  
13 arbitrage.<sup>19</sup> Rate arbitrage can occur during hours when the Export Compensation Pilot rate is  
14 higher than the TOU import rate, incentivizing customers with battery storage to charge at the  
15 lower TOU import rates and export at the higher Export Compensation Pilot rates. This creates a  
16 cost-shifting problem where the customer would get compensation without providing additional  
17 benefits to the grid.

18 SDG&E is aware of the rate arbitrage possibility and while still exploring options to  
19 mitigate non-beneficial rate arbitrage, SDG&E plans to build mitigation measures in its billing  
20 system to avoid such non-beneficial rate arbitrage. One of the ways being considered is to  
21 combine the interval data so that the import and export intervals are netted before import or

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<sup>18</sup> Prepared Rebuttal Testimony of SDG&E Witness Eric Dalton (Chapter 7) (January 30, 2023) at ED-2.

<sup>19</sup> Cal Advocates Prepared Testimony of Thomas Brawley (Chapter 2) at 2-5 to 2-6.

1 export rates are applied. Thus, if a customer with a battery storage continuously cycles between  
2 charging and discharging, they will only be charged or compensated on the netted value for that  
3 interval. Further, if Stage 1 of the Export Compensation Pilot is limited to customers on the EV-  
4 HP rate schedule, as SDG&E has proposed, SDG&E will be able to test its mitigation measures  
5 on a relatively small population of customers, and any potential cost shift due to mitigation  
6 failure would be minimal.<sup>20</sup> SDG&E will incorporate any lessons learned from Stage 1 to more  
7 effectively design Stage 2 of the Export Compensation Pilot.

8 **IV. SDG&E WILL USE THE CEC'S MIDAS DATABASE TO THE EXTENT**  
9 **POSSIBLE**

10 For the Dynamic Pricing Pilots, SDG&E plans to develop a page on the SDG&E website,  
11 similar to the current site for posting Schedule Electric Vehicle Grid Integration Pilot Program  
12 (VGI) prices.<sup>21</sup> Hourly prices for the Dynamic Pricing Pilots will be accessible conveniently  
13 from the SDG&E dedicated webpage for use by customers, and other interested parties. In  
14 addition to the website, SDG&E proposed to develop an Application Programming Interface (API)  
15 to transmit price signals for third parties that have machine-to-machine automation capabilities.<sup>22</sup>

16 Cal Advocates proposed for SDG&E to utilize MIDAS instead of developing a separate  
17 API to minimize redundant efforts and costs.<sup>23</sup> MIDAS is the California Energy Commission  
18 (CEC) operated database that serves as a central repository of current, future, and historic time-  
19 varying rates, greenhouse gas emissions associated with electrical generation, and California

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<sup>20</sup> As of August 5, 2022, there are a total of 22 customer accounts (bundled and departed load) on the EV-HP rate schedule, with only 5 being eligible bundled customer accounts.

<sup>21</sup> Prepared Supplemental Direct Testimony of SDG&E Witness Ray Utama (Chapter 4) (August 15, 2022) at RU-10.

<sup>22</sup> *Id.*

<sup>23</sup> Cal Advocates Prepared Testimony of Thomas Brawley (Chapter 2) at 2-9 to 2-10.

1 Flex Alert Signals. Under the updated load management standards, large California utilities and  
2 large Community Choice Aggregators (CCA) will be required to maintain up-to-date rates in the  
3 MIDAS database.<sup>24</sup> If the MIDAS database is capable of storing and transmitting hourly prices  
4 required by the RTP and Export Compensation pilots, with similar machine-to-machine  
5 automation capabilities of an API, then SDG&E agrees that the use of MIDAS could replace the  
6 proposed separate API to transmit price signals for the Dynamic Pricing Pilots. As the Load  
7 Management Rulemaking continues to advance, and once SDG&E determines that MIDAS  
8 could function the same and be as timely as the proposed API, SDG&E would utilize MIDAS  
9 and minimize redundant efforts to transmit price signals for the Dynamic Pricing Pilots.

10 For other customers, without machine-to-machine capability, SDG&E believes that a  
11 dedicated webpage showing hourly prices for the Dynamic Pricing Pilots is still appropriate.  
12 SDG&E does not anticipate that retrieving data from MIDAS will be user friendly as it is  
13 accessible through a public API in two standard machine-readable formats: extensive markup  
14 language (XML), and JavaScript Object Notation (JSON).<sup>25</sup> A dedicated SDG&E webpage can  
15 be conveniently accessed by any customers without requiring any programming skills.

## 16 **V. SUMMARY AND CONCLUSION**

17 This concludes my prepared rebuttal testimony.

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<sup>24</sup> See CEC, CEC Adopts Standards to Help Consumers Save Energy at Peak Times (October 12, 2022) available at <https://www.energy.ca.gov/news/2022-10/cec-adopts-standards-help-consumers-save-energy-peak-times>.

<sup>25</sup> See CEC, MIDAS Documentation Version 1.2: Connecting to and Interacting with the MIDAS Database and Application Programming Interface (2021) available at <https://www.energy.ca.gov/publications/2021/market-informed-demand-automation-server-midas-documentation-version-12>.