

Main Offices  
Albuquerque, NM 87158 -1105  
P 505 241-0675  
F 505 241-2347  
PNM.com



November 22, 2023

Melanie Sandoval  
Records Bureau Chief  
[Prc.records@prc.nm.gov](mailto:Prc.records@prc.nm.gov)  
New Mexico Public Regulation Commission

*RE: Public Service Company of New Mexico, Grid Modernization Application  
Cost-Benefit Analysis  
NMPRC Case No. 22-00058-UT*

Dear Ms. Sandoval:

Public Service Company of New Mexico (“PNM”) is filing in the New Mexico Public Regulation Commission’s (“NMPRC” or “Commission”) Case No. 22-00058-UT, the Supplemental Testimony in Support of Cost-Benefit Analysis of PNM witnesses Omni B. Warner, James W. Shields, Mario A. Cervantes, Jonathan C. Hawkins, Eric C. Morgan, and Michael J. Settlage. This Supplemental Testimony supports the Cost-Benefit Analysis for PNM’s proposed Grid Modernization plan and was filed in response to the NMPRC’s May 31, 2023 *Order Regarding Cost Benefit Analysis* and the Hearing Examiner’s July 10, 2023 *Order Staying Proceeding*.

A copy of this information is being provided to the individuals listed on the service list for Case No. 22-00058-UT. If you have any questions regarding this filing, please contact me at 505-241-4733.

Respectfully,

*/s/ Carey Salaz*

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Carey J. Salaz

Director, Regulatory Policy and Case Management

Cc: COS for Case No. 22-00058-UT

GCG#531803

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

**IN THE MATTER OF PUBLIC SERVICE COMPANY OF )  
NEW MEXICO'S APPLICATION FOR AUTHORIZATION )  
TO IMPLEMENT GRID MODERNIZATION )  
COMPONENTS THAT INCLUDE ADVANCED )  
METERING INFRASTRUCTURE AND APPLICATION )  
TO RECOVER THE ASSOCIATED COSTS THROUGH )  
A RIDER, ISSUANCE OF RELATED ACCOUNTING )  
ORDERS, AND OTHER ASSOCIATED RELIEF )**

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**Case No. 22-00058-UT**

**SUPPLEMENTAL TESTIMONY  
IN SUPPORT OF COST-BENEFIT ANALYSIS  
OF  
MICHAEL J. SETTLAGE**

**November 22, 2023**

**NMPRC CASE NO. 22-00058-UT**  
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**BENEFIT ANALYSIS OF**  
**MICHAEL J. SETTLAGE**

**WITNESS FOR**  
**PUBLIC SERVICE COMPANY OF NEW MEXICO**

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Self-Verification

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**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

2 **A.** My name is Michael J. Settlage. I am a Pricing Principal for PNM Resources, Inc.  
3 (“PNMR”) and am employed by PNMR Services Company. This rebuttal  
4 testimony is submitted for Public Service Company of New Mexico (“PNM”). My  
5 business address is 414 Silver Ave SW, Albuquerque, New Mexico 87102.

6  
7 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?**

8 **A.** Yes. I filed Rebuttal Testimony on February 8, 2023, as well as Supplemental  
9 Testimony on March 8, 2023. At hearing, I adopted the Direct Testimony of PNM  
10 witness Stella Chan filed on October 3, 2022.

11

12 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?**

13 **A.** My Supplemental Testimony supports portions of PNM’s Cost-Benefit Analysis  
14 (“CBA”), filed in response to the New Mexico Public Regulation Commission’s  
15 (“Commission” or “NMPRC”) May 31<sup>st</sup> *Order Regarding Cost Benefit Analysis*  
16 and the Hearing Examiner’s July 10<sup>th</sup> *Order Staying Proceeding*.

17

18 Specifically, my CBA Supplemental Testimony describes my role and the role of  
19 the Pricing group in providing information to Black & Veatch to work with PNM  
20 to conduct a CBA in support of PNM’s filing. As described in the CBA  
21 Supplemental Testimony of PNM witness Omni Warner, PNM modeled the same

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1 technology types that were proposed in its initial application. Specifically, PNM  
2 Exhibit LES-3, which was attached to the Direct Testimony of PNM witness Laura  
3 Sanchez in this first phase of this proceeding (PNM Exhibit 2), provided an  
4 overview of PNM’s Grid Modernization Implementation Plan (“Implementation  
5 Plan” or “Grid Modernization plan”). My role in the CBA included quantifying the  
6 benefits of advanced metering infrastructure (“AMI”) that result from enabling the  
7 implementation of robust time-varying rates on PNM’s system.

8  
9 Currently, PNM has legacy Time-of-Use (“TOU”) rates that are mandatory for a  
10 large majority of the commercial rate classes. In PNM’s pending rate case, Case  
11 No. 22-000270-UT (“Rate Case”), PNM has proposed pilot Time-of-Day (“TOD”) rates,  
12 which significantly modifies the on-peak and off-peak periods, as well as the  
13 ratio between on-peak and off-peak pricing. As stated in Case No. 22-000270-UT,  
14 PNM intends that upon full deployment of AMI, it will propose in its next rate case  
15 that TOD rates become default rates for all customers.

**II. OVERVIEW OF CBA PROCESS AND RESULTS**

16  
17  
18 **Q. PLEASE SUMMARIZE THE INFORMATION THAT YOU PROVIDED TO**  
19 **BLACK & VEATCH FOR THE CBA?**

20 **A.** I support the data used by Black & Veatch to conduct a CBA for AMI as it relates  
21 to adoption of a robust time-varying rate structure (“TOU/TOD rates”). The data I

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1 support includes the projected peak load reduction that widespread adoption of  
2 TOU/TOD rates will foster, resulting in value for customers.

3  
4 PNM’s proposed TOD pilot on-peak and off-peak periods and rate ratios are  
5 currently pending before the Commission in NMPRC Case No. 22-00270-UT  
6 (“Rate Case”). Because PNM understands that the Commission may alter these on-  
7 peak periods and the on-peak to off-peak rate ratios in the Rate Case, to quantify  
8 the benefits of AMI for purposes of implementing a widespread, robust time-  
9 varying rate in the future, PNM decided to use modeling assumptions first  
10 introduced in a December 15, 2022 Integrated Resource Plan (“IRP”) stakeholder  
11 meeting that are consistent with the TOD sensitivities to be presented in PNM’s  
12 upcoming 2023 IRP.<sup>1</sup> As discussed below in more detail, these modeling  
13 assumptions are likely more conservative than PNM’s proposed TOD pilot rate in  
14 the Rate Case—depending upon the Commission’s ultimate approval related to the  
15 TOD pilot proposal.

16  
17 I also support the calculation of the annualized TOD pilot residential rates, as  
18 proposed in Case No 22-00270-UT, which are used for the CBA of Integrated Volt-  
19 Var Management (“IVVM”); Distributed Energy Resource Management System  
20 (“DERMS”); Fault Location Isolation & Service Restoration (“FLISR”); and

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<sup>1</sup> See <https://www.pnmforwardtogether.com/presentations>. This same information also was presented at a September 28, 2023 IRP stakeholder meeting.

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1           Distribution Planning Tools. While PNM understands the TOD pilot rate is subject  
2           to change in the upcoming Rate Case, as discussed above, in the case of the these  
3           distribution-related program, PNM believes that using these rates was more  
4           accurate than the current legacy TOU rates.

5

6           I provide more detail in Section III below about the modeling assumptions used to  
7           conduct the CBA to determine the benefits of AMI as it relates to TOU/TOD rates.

8

9   **Q.    OVER WHAT TIME PERIOD DID PNM PROJECT THE BENEFITS OF**  
10 **ITS TOU/TOD IMPLEMENTATION?**

11 **A.**    PNM’s benefit calculation for AMI assumes more limited adoption of TOU/TOD  
12       rates until full implementation of AMI in approximately the 2030 timeframe. As  
13       noted above, PNM anticipates seeking approval of default TOD rates in a rate case  
14       after full AMI implementation. To be conservative in determining benefits, PNM  
15       used 2030 for adoption of a default TOU/TOD rate in order to permit enough time  
16       to complete AMI deployment and conduct a subsequent rate case.

17

18                           **III.    TOU/TOD DEPLOYMENT ASSUMPTIONS**

19 **Q.    WHAT ASSUMPTIONS DID PNM APPLY TO THE TOU/TOD**  
20 **DEPLOYMENT TO CALCULATE THE BENEFITS OF AMI?**

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1    **A.**    In coordination with Black & Veatch, PNM used the following modeling  
2           assumptions for the AMI CBA regarding adoption of a more robust TOU/TOD rate  
3           in the future.

4           *Modeling Assumptions:*

- 5           •    Using data from the IRP as discussed above, two scenarios were run for the  
6               AMI CBA, one using a more conservative time-varying rate impact and one  
7               using the least conservative time-varying rate impact. Specifically, Scenario 1  
8               uses a 2023 IRP portfolio that shows the lowest impact for implementation of  
9               a TOU/TOD default rate. Scenario 2 uses a 2023 IRP portfolio that shows the  
10              highest impact for implementation of a TOU/TOD default rate.
- 11          •    The residential only TOU/TOD pilot begins in 2024, assuming Commission  
12              approval in the Rate Case. Upon full implementation of AMI and a subsequent  
13              rate case, a TOU/TOD rate will be the default rate with an opt-out provision.
- 14          •    Beginning in 2030, the modeling assumes 80% of residential customers will  
15              participate in the default residential TOU/TOD rate, with 20% of residential  
16              customers opting out.<sup>2</sup>
- 17          •    The modeling focuses on residential customers only and does not address peak  
18              load savings resulting from adoption of TOU/TOD rates by commercial  
19              customers.

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<sup>2</sup> This 80% assumption applies with the exception of the EV customers referenced in the following bullet.



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- 1           • Beginning in 2030, the modeling assumes 80% of residential customers will  
2           participate in the default residential TOU/TOD rate, with 20% of residential  
3           customers opting out.
- 4           • For purposes of the TOU/TOD rates, electric vehicle (“EV”) impacts are  
5           modeled separately based on National Renewable Energy Laboratory  
6           (“NREL”) EV profiles. Specifically, the model assumes that 25% of customers  
7           with at least one electric vehicle will participate in an overnight EV charging  
8           rate, meaning that the remaining electric vehicle owners will be on the default  
9           TOU/TOD rate.<sup>3</sup>
- 10          • The TOU/TOD model is focused on morning and evening peak periods from 5-  
11          8 pm in June, July, and August and 5-8 am and 5-8 pm in the other months.
- 12          • Customer load shifting response is estimated based on the American Council  
13          for Energy-Efficient Economy (“ACEEE”) national report<sup>4</sup> regarding pricing  
14          ratios for time-varying rates that shows, on average, many TOU/TOD rates use  
15          an on/off peak pricing ratio of about 2 to 1, which typically reduces residential  
16          consumption during peak pricing periods by 6% and total energy consumption  
17          by 1%.
- 18

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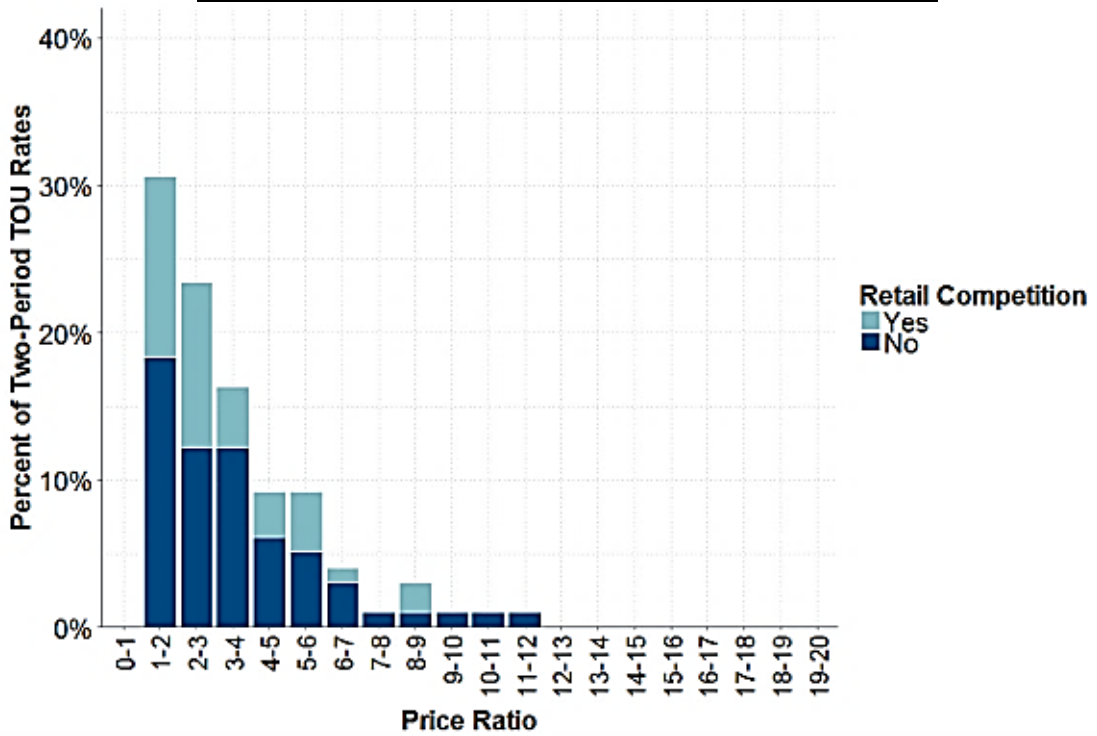
<sup>3</sup> Currently, PNM has a Whole House Electric Vehicle (“WHEV”) pilot as part of Rate Schedule 1A that incentivizes overnight charging for electric vehicles.

<sup>4</sup> Brendon Baatz, *Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency*, ACEEE, Report U1703 (Mar. 2017), available at <https://www.aceee.org/sites/default/files/publications/researchreports/u1703.pdf> (“Rate Design Matters”).

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1 For reference, PNM Figure MJS-1 (CBA) below is from a Brattle Group  
2 presentation dated November 12, 2019.

3  
4 **PNM Figure MJS-1 (CBA) – 2020 Brattle Group summary of ACEEE**  
5 **Survey of Typical On-Peak to Off-Peak Pricing Ratios<sup>5</sup>**



6  
7 This figure demonstrates that around 50% of rates surveyed by Brattle had on-  
8 peak to off-peak ratios of under 3 to 1 or lower. PNM’s proposed 4 to 1 ratio in  
9 its TOD pilot is expected to provide greater reduction in peak demand, but to be  
10 conservative, the CBA study assumed only a 2 to 1 ratio.

11

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<sup>5</sup> Ahmad Faruqui, Ryan Hledik, Sanem Sergici, *A Survey of Residential Time-of-Use (TOU) Rates*, The Brattle Group, at Slide 8 (Nov. 12, 2019), available at [https://www.brattle.com/wp-content/uploads/2021/05/17904\\_a\\_survey\\_of\\_residential\\_time-of-use\\_tou\\_rates.pdf](https://www.brattle.com/wp-content/uploads/2021/05/17904_a_survey_of_residential_time-of-use_tou_rates.pdf).

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1 Q. HOW DO THE INPUT ASSUMPTIONS FOR THE CBA COMPARE TO  
2 THE TOD PILOT PROPOSAL IN PNM’S RATE CASE?

3 A. PNM Table MJS-1 (CBA) shows the TOD-related assumptions used in this CBA  
4 as compared to PNM’s TOD proposal in the Rate Case.

**PNM Table MJS-1 (CBA) – Comparison of TOD Assumptions for CBA to  
Rate Case**

<b>Element</b>	<b><u>CBA Modeling Assumption</u></b>	<b><u>PNM TOD Proposal in Case No. 22-00270-UT</u></b>
<b>TOD Peak Period</b>	Same as PNM TOD pilot proposal; peak period is fixed for entire study period	<ul style="list-style-type: none"> <li>• 5PM to 8PM, M-F, June, July, August</li> <li>• 5AM to 8AM and 5PM to 8PM, M-F, September to May</li> <li>• PNM will propose appropriate time periods for the default TOD rates which may differ from Case No 22-00270-UT.</li> </ul>
<b>On-Peak to Off-Peak Rate Ratio</b>	2:1 year-round	<ul style="list-style-type: none"> <li>• 4:1 June, July, August</li> <li>• 2.5:1 September to May</li> </ul>
<b>Applicable Classes</b>	Residential Only	All non-lighting classes except Rate Schedule 36B

8

9 Q. HOW DID BLACK & VEATCH USE THIS INFORMATION IN THE CBA?

10 A. Black & Veatch leveraged the IRP analysis to inform TOU/TOD savings and cost  
11 impacts. As discussed above, to show a range of impacts for the AMI CBA, Black  
12 & Veatch used 2023 IRP data to show a low and high impact of default TOU/TOD  
13 rates for the CBA. Consistent with the 2023 IRP assumptions, the TOU/TOD  
14 program assumes the utilization of an opt-out only program starting in 2030, with  
15 an anticipated 80% adoption rate with peak time pricing occurring at 5-8 am and 5-  
16 8 pm in non-summer months and 5-8pm during summer months. This IRP analysis  
17 performed on PNM’s revenue requirements on an annual basis was leveraged to  
18 understand the potential impact a TOU/TOD program would have on PNM’s cost  
19 of service.

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1           In an effort to normalize for the future variability of the generation asset mix and  
2           rate cases, a net present value (“NPV”) calculation on the 20-year AMI forecasted  
3           lifecycle of the revenue requirements differential attributed to the TOU/TOD  
4           program was performed for both Scenario 1 and Scenario 2 of the AMI CBA. The  
5           NPV calculation took future savings over a 20-year forecast and translated it into  
6           2023 dollar values. This lump sum savings was applied as a customer savings  
7           benefit to reflect the reduction in peak generation assets needed to meet demand  
8           based on the assumed load shifting under the TOU/TOD program.

9

10   **Q.   DO THE MODELING ASSUMPTIONS USED BY PNM FOR THE CBA**  
11   **RESULT IN A CONSERVATIVE APPROACH?**

12   **A.**   It is likely that the modeling assumptions used by PNM for purposes of the AMI  
13           CBA are conservative. As noted above, PNM used modeling assumptions first  
14           introduced in a 2022 IRP stakeholder meeting that are consistent with the TOD  
15           sensitivities to be presented in PNM’s upcoming 2023 IRP.

16

17           However, if these modeling assumptions are compared to PNM’s TOD pilot  
18           proposed in the Rate Case (see PNM Table MJS-1 (CBA) above) or compared to  
19           other industry data, the CBA for AMI as it relates to TOU/TOD rates is more than  
20           likely conservative. For example, the modeling for the CBA used lower on-peak  
21           to off-peak ratios as compared to the Rate Case pilot. As noted above, the modeling  
22           used a 2:1 on-peak to off-peak pricing ratio, while PNM’s proposed TOD pilot uses

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1 ratios of 4:1 in the summer months and 2.5:1 in the non-summer months. A higher  
2 on-peak to off-peak TOU/TOD rate ratio, as reflected in the rate case, is likely to  
3 result in more peak demand being shifted to off-peak periods, meaning that PNM’s  
4 CBA modeling assumptions were conservative.

5

6 Also, PNM assumes that 20% of its customers will opt-out of the TOU/TOD default  
7 rate, but data from the U.S. Department of Energy indicates that opt-out rates might  
8 be closer to 10% on average.<sup>6</sup>

9

10 Moreover, as noted above, PNM’s modeling assumptions focused on residential  
11 customers only. As the Commission is aware, PNM has proposed to apply a default  
12 TOU/TOD rate to all customer classes with the exception of the lighting classes  
13 and Rate Schedule 36B. Additional peak load savings can likely be expected from  
14 the non-residential customer classes.

15

16 Finally, PNM does not assume widespread adoption of a TOU/TOD rate until 2030,  
17 which builds in time for full AMI deployment and a subsequent rate case. If the  
18 timing for adoption of TOU/TOD rates can be accelerated at all—whether via  
19 Commission approval of this case or based on timing of a future rate case—PNM

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<sup>6</sup> U.S. Department of Energy, *Customer Acceptance, Retention, and Response to Time-Based Rates from the Consumer Behavior Studies* (Nov. 2016), available at [https://www.smartgrid.gov/files/documents/CBS\\_Final\\_Program\\_Impact\\_Report\\_20161107.pdf](https://www.smartgrid.gov/files/documents/CBS_Final_Program_Impact_Report_20161107.pdf).

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1           may experience more benefits of peak load shifting faster than anticipated by the  
2           CBA modeling.

3

4

**IV.    RESULTS OF CBA**

5

**Q.    PLEASE DISCUSS THE RESULTS OF THE CBA FOR AMI.**

6

**A.**    As discussed above, two different scenarios were run for AMI. Scenario 1, which  
7           used a lower time-varying rate impact, yields a Benefit Cost Ratio (“BCR”) of  
8           0.92, while Scenario 2 for AMI with higher time-varying rate impacts yields a BCR  
9           of 1.11.<sup>7</sup> While Scenario 1 for AMI does not indicate that the incremental  
10          quantified benefits of AMI outweigh costs, the range of benefits for AMI would  
11          likely yield a positive result. As discussed above, there are a number of reasons  
12          why the impact of TOU/TOD rates on PNM’s AMI CBA is likely conservative,  
13          supporting the overall probability that customer benefits will outweigh costs for  
14          PNM’s Grid Modernization plan.

15

16

**Q.    ARE THE RESULTS OF THE CBA CONSISTENT WITH THE DATA YOU  
17          PROVIDED AND WHAT YOU MIGHT HAVE EXPECTED?**

17

18

**A.**    Yes. TOU/TOD deployment provides incentives to customers to lower their bill  
19          by shifting their usage from the on-peak periods to other time periods where the  
20          cost of energy and demand are lower for PNM. This results in less demand during

19

20

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<sup>7</sup> Any BCR over 1.0 demonstrates a quantified positive benefits as compared to costs.

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1 on-peak periods, reducing the need to add additional resources and the revenue  
2 requirement associated with those resource additions.

3

4 **Q. DO THE RESULTS ALTER ANY OF YOUR TESTIMONY THAT PNM**  
5 **MUST MOVE FORWARD WITH THE GRID MODERNIZATION**  
6 **PROJECTS?**

7 **A.** No. In fact, the opposite is true. The results reinforce that PNM must get AMI in  
8 place as expeditiously as possible to move to more modern rate designs that will  
9 better support the requirement in the future to transition to carbon free.

10

11 More modern rate designs, supported by AMI capabilities, will offer customers  
12 ways to manage their energy usage that could not happen without AMI. Moreover,  
13 customers, who will have access to their energy usage data through PNM's  
14 proposed Customer Energy Management Platform ("CEMP") when paired with  
15 AMI, will be better able to understand and manage their energy usage in real time—  
16 not only to save money, but also to address customer-driven interests related to  
17 environmental policy.

18

19 In fact, a more robust pricing structure and rate design is required to reflect the  
20 changing energy production landscape and meet PNM and State carbon-free goals  
21 that are fast approaching. PNM will be able to rely on customer data from AMI  
22 applications to develop additional and new rate options. Currently PNM uses a

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1 sample of customers to estimate the usage profiles for all customers. Having  
2 interval data for more customers will allow more detailed analysis of customer  
3 impacts from various rate designs—providing PNM with the tools to fully address  
4 State-driven policy goals and customer-specific needs to transition to more  
5 distributed, renewable energy resources. Also, specific groups of customers, such  
6 as low-income customers, can be analyzed to inform future rate designs with the  
7 goal of designing rates that are easier for customers to adapt to, modify their  
8 consumption to achieve the policy goal of going carbon free, and control or reduce  
9 their bills.

10  
11 **Q. WHY WILL THE MORE ROBUST IMPLEMENTATION OF TIME-**  
12 **VARYING RATES RESULT IN BENEFITS TO CUSTOMERS?**

13 **A.** Generally speaking, proper and accurate price signals will provide incentives to  
14 customers to shift load to off-peak time periods, thus reducing the peak demand  
15 that PNM currently experiences (or would have forecasted in the IRP without  
16 TOU/TOD effects). AMI meters and the accompanying technologies provide  
17 robust and timely information to customers, which enhances their ability to manage  
18 and reduce peak usage. Thus, the ability to implement a more robust TOU/TOD  
19 pricing structure depends on using AMI meters and technologies like the CEMP,  
20 which provides direct customer interaction with their energy usage data.  
21 Reductions in peak demand should over time drive down the costs of serving load



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1           at peak, as well as optimize the use of PNM’s renewable resource portfolio in a  
2           carbon free future.

3

4   **Q.    ARE THERE POTENTIAL BENEFITS NOT CAPTURED IN THE CBA?**

5   **A.**   Yes. AMI enables PNM to develop a more modern rate design—one that goes  
6           beyond even default TOU/TOD rates. PNM has committed to working with  
7           stakeholders to collaborate on creating a modern rate design that fosters PNM’s  
8           transition to carbon free. As discussed in my Rebuttal Testimony filed earlier in  
9           this case, PNM has established a stakeholder-driven approach to a modern rate  
10          design by creating the Pricing Advisory Committee (“PRAC”).<sup>8</sup>

11

12          PNM Figure MJS-2 (CBA) below shows the benefits that additional rate design  
13          options may provide for peak demand reduction.

14

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<sup>8</sup> PNM Exhibit 23 (Settlage Reb.) at 4.

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1  
2

**PNM Figure MJS-2 (CBA) – Average Peak Reduction from Time-Varying Rates<sup>9</sup>**

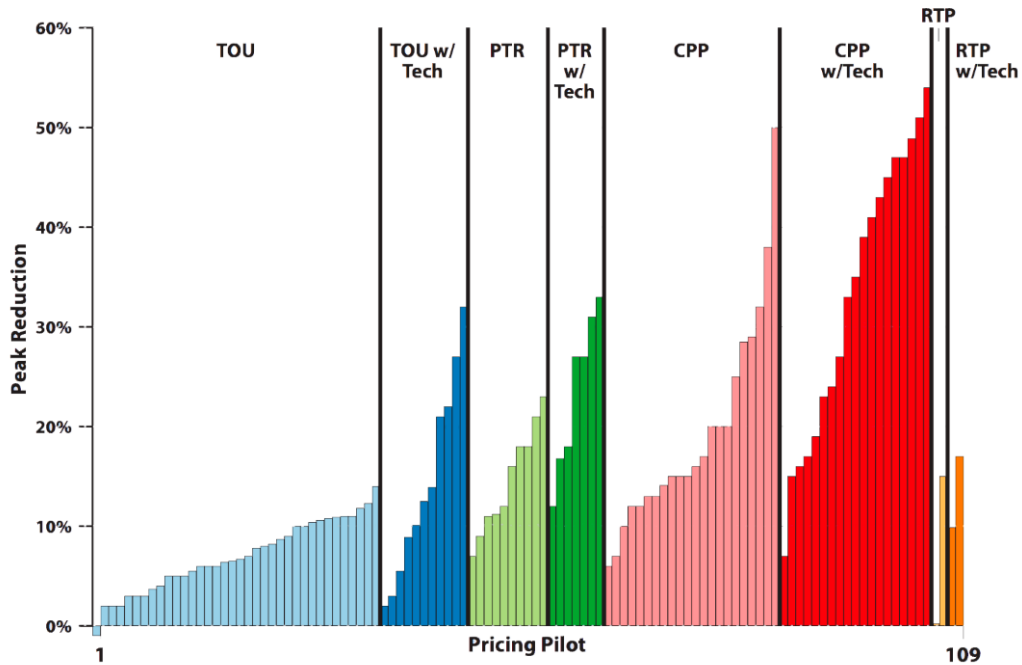


Figure 3. Average peak reduction from time-varying rate pilots. *Source:* Faruqi, Hledik, and Palmer 2012.

3

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11

PNM understands that rate design options like critical-peak pricing (“CPP”) or time-varying rates paired with technology will yield greater reductions in peak demand. While PNM has not proposed these rate design options in this case, AMI will facilitate PNM’s ability to offer these types of rate design options to its customers, and more importantly, to understand the impact of those options or how these rate design options should be refined to support a more modern rate design. PNM considers its TOD pilot as proposed in the Rate Case to be just the stepping stone while transitioning to a rate design that supports the State’s carbon free goals.

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<sup>9</sup> *Rate Design Matters* at 11.

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OF MICHAEL J. SETTLAGE  
NMPRC CASE NO. 22-00058-UT**

**V. SUPPORT FOR OTHER ASSUMPTIONS**

**Q. WHAT HIGH-LEVEL ASSUMPTIONS DID PNM APPLY TO THE TOU/TOD DEPLOYMENT?**

**A.** I also support applying the off-peak TOD pilot rate to certain assumptions related to distribution-level adoption of certain proposed programs. Specifically, I support using the annualized off-peak TOD pilot rate for benefits associated with IVVM, DERMS, FLISR and Distribution Planning Tools, specifically the increased DER hosting capacity that results from these programs. The proposed TOD off-peak pilot rate is appropriate to use in this context, as customers with DERs benefit from the availability of the grid and hosting capacity. The annualized TOD off-peak rate will apply during those hours when the sun is shining—and thus when DERs are producing energy for customers. While the TOD pilot has not yet been approved, the annualized TOD off-peak rate is the most accurate representation of the savings that will occur from DER availability as PNM rolls out its refined TOU/TOD rates.<sup>10</sup>

**PNM Table MJS-2 (CBA):**  
**Annualized Off-Peak Rate for Proposed Residential TOD**

<b>Season</b>	<b>Off-Peak Rate</b>	<b>Effective Months</b>
June - August	\$0.0815945/kWh	25% (3 of 12)
September - May	\$0.0724031/kWh	75% (9 of 12)
<b>Annualized Rate</b>	<b>\$0.0747010/kWh</b>	

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<sup>10</sup> Under PNM’s legacy TOU rates, the on-peak TOU rates apply when the sun is shining. Going forward, these legacy TOU rates will not accurately represent the cost of energy during the day when the sun is shining. As such, PNM believes using the annualized TOD off-peak rate, even though the off-peak rates are pending approval, provides the most accurate assessment for the CBA.

**SUPPLEMENTAL TESTIMONY IN SUPPORT OF COST-BENEFIT ANALYSIS  
OF MICHAEL J. SETTLAGE  
NMPRC CASE NO. 22-00058-UT**

1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2 A. Yes, it does.

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

**IN THE MATTER OF PUBLIC SERVICE COMPANY OF )  
NEW MEXICO'S APPLICATION FOR AUTHORIZATION )  
TO IMPLEMENT GRID MODERNIZATION )  
COMPONENTS THAT INCLUDE ADVANCED )  
METERING INFRASTRUCTURE AND APPLICATION )  
TO RECOVER THE ASSOCIATED COSTS THROUGH )  
A RIDER, ISSUANCE OF RELATED ACCOUNTING )  
ORDERS, AND OTHER ASSOCIATED RELIEF )**

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**Case No. 22-00058-UT**

**SELF AFFIRMATION**

**MICHAEL J. SETTLAGE, Pricing Principal, for PNM Resources, Inc.,** upon penalty of perjury under the laws of the State of New Mexico, affirm and state: I have read the foregoing **Supplemental Testimony in Support of Cost Benefit Analysis of Michael J. Settlage** and it is true and accurate based on my own personal knowledge and belief.

DATED this 22<sup>nd</sup>, day of November, 2023.

/s/ Michael J. Settlage  
**MICHAEL J. SETTLAGE**

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

**IN THE MATTER OF PUBLIC SERVICE COMPANY OF )  
NEW MEXICO’S APPLICATION FOR AUTHORIZATION )  
TO IMPLEMENT GRID MODERNIZATION )  
COMPONENTS THAT INCLUDE ADVANCED )  
METERING INFRASTRUCTURE AND APPLICATION TO ) Case No. 22-00058-UT  
RECOVER THE ASSOCIATED COSTS THROUGH A )  
RIDER, ISSUANCE OF RELATED ACCOUNTING )  
ORDERS, AND OTHER ASSOCIATED RELIEF )  
)  
**PUBLIC SERVICE COMPANY OF NEW MEXICO,** )  
)  
**Applicant** )  
)  
\_\_\_\_\_ )**

**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of **Public Service Company of New Mexico’s Supplemental Testimony in Support of Cost Benefit Analysis of Michael J. Settlage** was emailed to the parties listed below on November 22, 2023:

PRC Records Management	Prc.records@prc.nm.gov;
Christopher Ryan, Hearing Examiner	Christopher.Ryan@prc.nm.gov;
Ana Kippenbrock, Law Clerk	Ana.Kippenbrock@prc.nm.gov;
Judith Amer	Judith.amer@prc.nm.gov;
Arthur O’Donnell	Arthur.O'Donnell@prc.nm.gov;
<b>ABCWUA</b>	
Andrew K. Harriger	akharriger@sawvel.com;
Charles W. Kolberg	ckolberg@abcwua.org;
Dahl Harris	dahlharris@hotmail.com;
Keith W. Herrmann	kherrmann@stelznerlaw.com;
Nann W. Winter	nwinter@stelznerlaw.com;
<b>BAKER PRO SE</b>	
Daniel Baker	dtbaker61@gmail.com;
<b>BERNALILLO COUNTY</b>	
Amanda Edwards-Adrian/Emma Douglas	AE@Jalblaw.com;
Jeffrey H. Albright	JA@Jalblaw.com;
Natalia Sanchez Downey	ndowney@bernco.gov;
<b>BRUNO PRO SE</b>	
William Bruno	wbruno@gmail.com;
<b>City of Albuquerque</b>	
Julie Park	jenniferlucero@cabq.gov;
Jennifer Lucero	jpark@cabq.gov;
Larry Blank	lb@tahoeconomics.com;

<b>CCAЕ</b>	
Cara Lynch	Lynch.Cara.NM@gmail.com;
Charles de Saillan	desaillan.ccae@gmail.com;
<b>IBEW</b>	
Justin Lesky	Jlesky@leskylawoffice.com;
<b>NM AREA</b>	
Brian Andrews	bandrews@consultbai.com;
James Dauphinais	jdauphinais@consultbai.com;
Katrina Reid	office@thegouldlawfirm.com;
Kelly Gould	kelly@thegouldlawfirm.com;
Peter Gould	peter@thegouldlawfirm.com;
<b>NMAG</b>	
Andrea Crane	ctcolumbia@aol.com;
Courtney Lane	clane@synapse-energy.com;
Gideon Elliot	gelliot@nmag.gov;
Jack Smith	JSmith@synapse-energy.com;
Keven Gedko	kgedko@nmag.gov;
Maria Oropeza	Moropeza@nmag.gov;
Nicole Teupell	Nteupell@nmag.gov;
<b>NMPRC Utility Staff</b>	
Bradford Borman	bradford.borman@prc.nm.gov;
Ed Rilkoff	ed.rilkoff@prc.nm.gov;
Elisha Leyba-Tercero	elisha.leyba-tercero@prc.nm.gov;
Jack Sidler	jack.sidler@prc.nm.gov;
Jonah Mauldin	Jonah.Mauldin@prc.nm.gov;
Marc Tupler	Marc.tupler@prc.nm.gov;
<b>NMUS</b>	
Arthur Firstenberg	bearstar@fastmail.fm;
Kathleen Burke	kathleenmariaburke@yahoo.com;
<b>PNM</b>	
Carey Salaz	carey.salaz@pnm.com;
Debrea Terwilliger	dterwilliger@wbklaw.com;
John Verheul	John.Verheul@pnmresources.com;
Mark Fenton	mark.fenton@pnm.com;
Raymond L. Gifford	rgifford@wbklaw.com;
Richard Alvidrez	ralvidrez@mstlaw.com;
Stacey Goodwin	stacey.goodwin@pnmresources.com;
<b>Vecinos United</b>	
Andres Valdez	Vecinosunited2@gmail.com;
<b>Walmart, Inc.</b>	
Andrew D. Teague	Andrew.Teague@walmart.com;
Randy S. Bartell	rbartell@montand.com;
Sharon T. Shaheen	sshahen@montand.com;
Steve W. Chriss	Stephen.Chriss@walmart.com;

<b>WRA</b>	
Caitlin Evans	caitlin.evans@westernresources.org;
Clare Valentine	clare.valentine@westernresources.org;
Cydney Beadles	cydney.beadles@westernresources.org;

Dated this 22<sup>nd</sup> day of November, 2023.

By: /s/Carey Salaz  
Carey Salaz, Director  
PNM Regulatory Policy & Case Management  
Public Service Company of New Mexico