

SRP Price Process Comments with Response

Week ending February 8, 2025

SRP Public Price Process Responses from: 2/3/2025

Name: Patrick Woolsey

Record Number: MI6926262

Delivery Method: Email to Corporate Secretary

Received Date: 1/14/2025

Attachments: Sierra Club 1st Set of Data Requests to SRP
1.13.2025.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI6926262*

Comment:

Sierra Club's First Set of Data Requests to Salt River Project Agricultural Improvement and Power District regarding SRP's 2025 Pricing Proceeding

Date Requested: January 13, 2025

Requested from: Salt River Project Agricultural Improvement and Power District (SRP)

Requested by: Sierra Club

Requester Contact: Patrick Woolsey, [REDACTED]

Requested Response Date: January 24, 2025

Sierra Club respectfully requests that SRP respond to the following data requests on a rolling basis as information becomes available, and no later than January 24, 2025, as the requested data may inform Sierra Club's potential presentation to the SRP board on January 31, 2025. If any of SRP's responses to any of the following questions contain confidential information, please provide a nondisclosure agreement for Sierra Club's signature so that Sierra Club may access that confidential information.

1. Please provide copies of SRP's responses to all written information requests received from other stakeholder organizations or law firms, including AriSEIA, Vote Solar, SWEEP, Earthjustice, Tierra Strategies, and Rose Law Group, related to SRP's pricing proceeding. Please provide these responses on an ongoing basis as they

become available.

2. Please provide copies of the transcript and video recording of the stakeholder interviews of SRP management and consultants conducted on January 16, 2025 as soon as that

transcript and recording become available.

3. Please refer to the Proposed Adjustments to SRP's Standard Electric Price Plans ("Proposal"), page 13. Here, SRP states that it made approximately \$2 billion in capital investments in generation resources from May 2019 through April 2024. a. What percentage of that \$2 billion total was invested in gas-fired generating resources during that 5-year period?

b. What is the total amount (in dollars) of SRP's capital investment in gas-fired generating resources from May 2019 through April 2024?

c. What percentage of that \$2 billion total was invested in coal-fired generating resources during that 5-year period?

d. What is the total amount (in dollars) of SRP's capital investment in coal-fired generating resources from May 2019 through April 2024?

4. Please refer to the Proposal, page 18. Here, discussing generation maintenance and improvements, SRP states that from May 2019 to April 2024, SRP spent approximately \$660 million on power plant betterments, driven largely by work at Palo Verde Generating Station (approximately \$181 million) and Gila River Generating Station (approximately \$125 million).

a. Please describe the \$125 million in spending at Gila River Generating Station during that period.

b. Of the \$660 million spent on power plant betterments from May 2019 through April 2024, how much of that total was spent on gas-fired generating resources?

c. Of the \$660 million spent on power plant betterments from May 2019 through April 2024, how much of that total was spent on coal-fired generating resources?

5. Please refer to the Proposal, page 19. Here, SRP states that the project to "split" the selective catalytic reduction (SCR) system to accommodate both Coronado Generating Station units will cost approximately \$78 million and is expected to be in service by February 2025.

a. Is SRP seeking to recover that \$78 million cost from customers via this pricing proceeding, in whole or in part?

b. If so, how much of that \$78 million cost is SRP seeking to recover from customers via this proceeding?

6. Please refer to the Proposal, page 19. SRP states that the Coronado "split" SCR project and its operational strategy for Coronado "will reliably and economically meet customer load growth while allowing SRP to meet its 2035 Sustainability Goals to reduce CO2 emissions" and that "[t]his approach will result in less CO2 emissions than if CGS Unit 1

were retired in 2025, while maintaining critical capacity to serve SRP customer needs during the highest demand seasons."

a. Has SRP performed any analysis demonstrating that the Coronado split SCR upgrade will provide reliable and economic supply for customer load growth? If so, please provide that analysis.

b. Did SRP perform any analysis of alternatives to the Coronado split SCR project, including analysis of other resources that could replace Coronado and their CO2 emissions relative to Coronado emissions? If so, please provide that analysis.

7. Please refer to the Proposal, page 22. Here, SRP states that its annual generation maintenance expenses have increased nearly \$30 million since Fiscal Year 2020 Test

Year through Fiscal Year 2026 Test Year, which SRP states is primarily attributable to increases for maintenance at Palo Verde Generating Station and a “major overhaul” at Mesquite Generating Station.

a. Please describe the “major overhaul at Mesquite Generating Station planned for Fiscal Year 2026.”

b. From Fiscal Year 2020 Test Year through Fiscal Year 2026 Test Year, has there been an increase in generation maintenance expenses at coal-fired power plants

wholly or partly owned by SRP? If so, what is the dollar amount of SRP’s share of those generation maintenance expenses?

c. During that period, has there been an increase in generation maintenance expenses at SRP’s gas-fired power plants besides Mesquite Generating Station? If so, what

is the dollar amount of that increase?

d. Please provide SRP’s annual generation maintenance expenses in Fiscal Year 2020 Test Year and in Fiscal Year 2026 Test Year at (i) its coal-fired generating facilities and (ii) its gas-fired generating facilities.

8. Please refer to the Proposal, page 31, Table 1.

a. Of the targeted annual 3.4% revenue adjustment for residential customers, (i) what percentage of that increase is attributable to SRP’s spending on coal-fired generating resources, and (ii) what percentage of that increase is attributable to SRP’s spending on gas-fired generating resources?

b. Of the targeted annual 5.9% revenue adjustment for residential customers, (i) what percentage of that increase is attributable to SRP’s spending on coal-fired generating resources, and (ii) what percentage of that increase is attributable to SRP’s spending on gas-fired generating resources?

c. Of the targeted annual 2.4% revenue adjustment for all customer classes, (i) what percentage of that increase is attributable to SRP’s spending on coal-fired generating resources, and (ii) what percentage of that increase is attributable to SRP’s spending on gas-fired generating resources?

9. Please refer to the Proposal, page 15. SRP states that for the Copper Crossing project and Coolidge Expansion Project, it is using a new vendor to achieve savings relative to quotes

from previous vendors. Why wasn’t the lowest-cost vendor used for the Desert Basin and Agua Fria expansion projects?

10. Please refer to the document titled "Derivation of Proposed Changes to SRP's Transmission and Ancillary Services Prices," pages 31-32, Table 3. The portions of Table 3 on these pages provide revenue requirement data for Fiscal Year 2024 for SRP's coal and gas-fired resources.

a. Please provide equivalent data for Fiscal Years 2022 and 2023 for Coronado, Four Corners, Springerville, Craig and Hayden.

b. Please provide equivalent data for Fiscal Years 2022 and 2023 for Agua Fria, Desert Basin, Gila, Kyrene, Mesquite, Santan, and Coolidge.

Response Subject: SRP Corporate Pricing Response to Public Comment #MI6926262

Response Attachments: 20191202_Board_Courtright_Coggins_Implementation PlansAndComplianceWithBART_ppt_SC01.pdf; 20200106_D_Board_Barr_Courtright_Coggins_BARTAlternatives_ppt_SC01.pdf; SRP Management Response to Sierra Club's First Request for Information_SC01.pdf;

**To receive a copy of Attachments please contact the Corporate Secretary's Office and Reference Record #MI6926262*

Response:

Hi Patrick,

Please see the attached SRP Management Response to Sierra Club's First Request for Information_SC01 for response details.

**SRP Management Response to
Sierra Club's First Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

1. Please provide copies of SRP's responses to all written information requests received from other stakeholder organizations or law firms, including AriSEIA, Vote Solar, SWEEP, Earthjustice, Tierra Strategies, and Rose Law Group, related to SRP's pricing proceeding. Please provide these responses on an ongoing basis as they become available.

SRP Response:

All responses from SRP management are posted at [Pricing process documents and materials | SRP](#). If any response references a separate data file or attachment, those materials are available for inspection at SRP's main administrative offices. To receive a copy of a particular record, please submit a specific written request.

2. Please provide copies of the transcript and video recording of the stakeholder interviews of SRP management and consultants conducted on January 16, 2025 as soon as that transcript and recording become available.

SRP Response:

For the interviews on January 16, 2025, if the transcript is not posted on SRP's website, SRP management will provide a copy. The interviews were not video recorded.

3. Please refer to the Proposed Adjustments to SRP's Standard Electric Price Plans ("Proposal"), page 13. Here, SRP states that it made approximately \$2 billion in capital investments in generation resources from May 2019 through April 2024.
 - a. What percentage of that \$2 billion total was invested in gas-fired generating resources during that 5-year period?
 - b. What is the total amount (in dollars) of SRP's capital investment in gas-fired generating resources from May 2019 through April 2024?
 - c. What percentage of that \$2 billion total was invested in coal-fired generating resources during that 5-year period?
 - d. What is the total amount (in dollars) of SRP's capital investment in coal-fired generating resources from May 2019 through April 2024?

SRP Response:

In reference to page 13, the approximately \$2 billion in capital investments in generation resources is also inclusive of capital spent between May 2018 through April 2019. When excluding that year to focus on capital spent from May 2019 through April 2024, \$1,470 million was spent on generation resources. Throughout the Proposed Adjustments to SRP's Standard Electric Plans, all other references to the May 2019 through April 2024 timeframe have the associated dollars referenced.

For the purposes of breaking out into percentages and total amounts, \$1,908M was spent in total on generating resources from May 2018 through April 2024.

- a. Approximately 71% was invested in gas-fired generating resources
- b. Approximately \$1,348M was invested in gas-fired generating resources.
- c. Approximately 12% was invested in coal-fired generating resources.
- d. Approximately \$227M was invested in coal-fired generating resources.

When removing the May 2018 through April 2019 capital, \$1,470M was spent in total on generating resources from May 2019 through April 2024. We see a similar percentage allocation to gas-fired and coal-fired generation in this timeframe.

- a. Approximately 67% was invested in gas-fired generating resources
- b. Approximately \$984M was invested in gas-fired generating resources.
- c. Approximately 14% was invested in coal-fired generating resources.
- d. Approximately \$201M was invested in coal-fired generating resources.

- 4. Please refer to the Proposal, page 18. Here, discussing generation maintenance and improvements, SRP states that from May 2019 to April 2024, SRP spent approximately \$660 million on power plant betterments, driven largely by work at Palo Verde Generating Station (approximately \$181 million) and Gila River Generating Station (approximately \$125 million).
 - a. Please describe the \$125 million in spending at Gila River Generating Station during that period.
 - b. Of the \$660 million spent on power plant betterments from May 2019 through April 2024, how much of that total was spent on gas-fired generating resources?
 - c. Of the \$660 million spent on power plant betterments from May 2019 through April 2024, how much of that total was spent on coal-fired generating resources?

SRP Response:

The \$660M spent on power plant betterments is a subset of the \$2B spent on generation resources from page 13 and is representative of capital spent between May 2019 through April 2024.

- a. The \$125 million in spending at Gila River Generating Station was associated with Gila River Block 1, Block, 4, common equipment, and switchyard refurbishment and reliability projects between May 2019 and April 2024. Approximately 82% of this total allocation was associated with combustion turbine overhauls at Block 1 (FY21) and Block 4 (FY24), a new generator step-up transformer (GSU), GSU repairs, and Block 4 full generator rewind in FY20, significant water and chemistry system updates, controls improvements, and fogger enhancements for FY21-FY23, Block 1 cooling tower rebuild, Block 4 steam turbine repairs, turbine controls

- replacements, environmental catalysts, station transformers, and a new well in FY24. The remaining 18% was allocated to smaller projects, each under \$2M in magnitude.
- b. Approximately 55%, or \$363M, of the \$660M spent on power plant betterments was spent on gas-fired generating resources.
 - c. Approximately 18%, or \$119M, of the \$660M spent on power plant betterments was spent on coal-fired generating resources.
5. Please refer to the Proposal, page 19. Here, SRP states that the project to “split” the selective catalytic reduction (SCR) system to accommodate both Coronado Generating Station units will cost approximately \$78 million and is expected to be in service by February 2025.
- a. Is SRP seeking to recover that \$78 million cost from customers via this pricing proceeding, in whole or in part?
 - b. If so, how much of that \$78 million cost is SRP seeking to recover from customers via this proceeding?

SRP Response:

- a. Yes, the cost of the selective catalytic reduction (SCR) system is included in this proceeding.
 - b. The \$78 million flows through to the Cost Allocation Study through annual depreciation expense. The \$78 million will be depreciated on a straight-line basis through the accounting life of 12/31/2028.
6. Please refer to the Proposal, page 19. SRP states that the Coronado “split” SCR project and its operational strategy for Coronado “will reliably and economically meet customer load growth while allowing SRP to meet its 2035 Sustainability Goals to reduce CO2 emissions” and that “[t]his approach will result in less CO2 emissions than if CGS Unit 1 were retired in 2025, while maintaining critical capacity to serve SRP customer needs during the highest demand seasons.”
- a. Has SRP performed any analysis demonstrating that the Coronado split SCR upgrade will provide reliable and economic supply for customer load growth? If so, please provide that analysis.
 - b. Did SRP perform any analysis of alternatives to the Coronado split SCR project, including analysis of other resources that could replace Coronado and their CO2 emissions relative to Coronado emissions? If so, please provide that analysis.

SRP Response:

In 2019, SRP identified and compared several alternatives for meeting the U.S. Environmental Protection Agency’s (EPA’s) Regional Haze Rule requirements and source-specific, better-than Best Available Retrofit Technology (BART) determination for Coronado Generating Station (CGS). The results of the comparison are summarized in the attached SRP Board presentations.

As described in the December 2019 presentation, SRP considered three options for complying with EPA’s CGS BART determination: 1) install Selective Catalytic Reduction (SCR) on Unit 1 by 2025 by procuring all new components; 2) retire and replace Unit 1 by 2025; and 3) install SCR

on Unit 1 by splitting the existing SCR installed on Unit 2, so that each unit would have SCR upon completion of the project.

As part of Option #3, SRP also proposed voluntarily to operate the CGS units at reduced output beginning in 2026 and to cease coal generation by end of 2032. This operating approach was designed to reduce CO2 emissions from Option #3 to a level comparable to retiring coal operations at Unit 1 by 2025 (Option #2). To implement this operating approach, SRP agreed to a CO2 emissions cap from both CGS units, as described in the January 2020 SRP Board presentation.

Option #3 was selected based on several considerations:

- The split SCR will comply with EPA's BART emission limits for CGS at similar or lower costs and CO2 emission levels than the other alternatives considered.
- At the time of this assessment, SRP's peak demand was projected to grow at three times the national average. The split SCR option preserved the generation capacity provided by the CGS units to meet this unprecedented demand growth.
- At the time of this assessment, alternatives such as energy storage technologies were advancing, but were not yet proven to be capable of reliably meeting SRP's projected demand. The split SCR option provided additional time for SRP to gain more operating experience with battery storage technology, which may ultimately help to reduce the amount of new gas generation that will be needed.
- The commitment to retire both units by 2032 allows additional time for CGS employees and the surrounding communities to plan for closure compared to Option #2.

Construction of the split SCR was completed in late 2024 and SRP will begin operations in 2025 in accordance with CGS BART operating strategy.

7. Please refer to the Proposal, page 22. Here, SRP states that its annual generation maintenance expenses have increased nearly \$30 million since Fiscal Year 2020 Test Year through Fiscal Year 2026 Test Year, which SRP states is primarily attributable to increases for maintenance at Palo Verde Generating Station and a "major overhaul" at Mesquite Generating Station.
 - a. Please describe the "major overhaul at Mesquite Generating Station planned for Fiscal Year 2026."
 - b. From Fiscal Year 2020 Test Year through Fiscal Year 2026 Test Year, has there been an increase in generation maintenance expenses at coal-fired power plants wholly or partly owned by SRP? If so, what is the dollar amount of SRP's share of those generation maintenance expenses?
 - c. During that period, has there been an increase in generation maintenance expenses at SRP's gas-fired power plants besides Mesquite Generating Station? If so, what is the dollar amount of that increase?

- d. Please provide SRP's annual generation maintenance expenses in Fiscal Year 2020 Test Year and in Fiscal Year 2026 Test Year at (i) its coal-fired generating facilities and (ii) its gas-fired generating facilities.

SRP Response:

- a. The Scope of Mesquite major overhaul: This major overhaul involves work on SRP's block 1 combined cycle unit. The work involves a hot gas path inspection and replacement/repair of key components, a steam unit inspection and replacement/repair of key components, replacement of both gas turbine rotors, cooling tower repairs, various valve, pump and motor repairs along with steam piping inspection and repairs.
 - b. There has not been an increase in generation maintenance expenses at coal-fired power plants from Fiscal Year 2020 Test Year through Fiscal Year 2026 Test Year.
 - c. There has been a \$12 million increase in generation maintenance expenses at all other gas-fired power plants besides Mesquite Generating Station from Fiscal Year 2020 Test Year through Fiscal Year 2026 Test Year.
 - d. (i) The annual generation maintenance expenses at coal-fired generating facilities was \$65 million in Fiscal Year 2020 Test Year and \$56 million in Fiscal Year 2026 Test Year. (ii) The annual generation maintenance expenses at gas-fired generating facilities was \$66 million in Fiscal Year 2020 Test Year and \$92 million in Fiscal Year 2026 Test Year.
8. Please refer to the Proposal, page 31, Table 1.
- a. Of the targeted annual 3.4% revenue adjustment for residential customers, (i) what percentage of that increase is attributable to SRP's spending on coal-fired generating resources, and (ii) what percentage of that increase is attributable to SRP's spending on gas-fired generating resources?
 - b. Of the targeted annual 5.9% revenue adjustment for residential customers, (i) what percentage of that increase is attributable to SRP's spending on coal-fired generating resources, and (ii) what percentage of that increase is attributable to SRP's spending on gas-fired generating resources?
 - c. Of the targeted annual 2.4% revenue adjustment for all customer classes, (i) what percentage of that increase is attributable to SRP's spending on coal-fired generating resources, and (ii) what percentage of that increase is attributable to SRP's spending on gas-fired generating resources?

SRP Response:

This specific analysis is not typically performed by SRP, making it challenging to provide a precise quantitative answer due to the fungible nature of expenses and pricing. However, it is important to note that SRP's prices are generally lower because of the continued use of coal-fired and gas-fired resources, compared to a scenario where these resources were retired early or not utilized.

For instance, as highlighted on page 163 of the Integrated System Plan, “the addition of 2,000 MW of firm natural gas in the Balanced System Plan allows the average system cost to be considerably lower than the No New Fossil and Minimum Coal strategic approaches.”

Lower natural gas prices contributed towards the FPPAM price decrease included in Management’s Proposal.

When comparing the average \$/kWh price under the current proposal and that from the last Pricing Process (in 2019), and calculating the average \$/kWh price attributable to coal and natural gas depreciation, O&M, and in-lieu taxes, the amount has declined for both coal and natural gas.

For these reasons, it is correct to say that none of the price increases for residential, residential solar, or all customer classes are attributable to SRP’s spending on coal or natural gas.

9. Please refer to the Proposal, page 15. SRP states that for the Copper Crossing project and Coolidge Expansion Project, it is using a new vendor to achieve savings relative to quotes from previous vendors. Why wasn’t the lowest-cost vendor used for the Desert Basin and Agua Fria expansion projects?

SRP Response:

The LM6000 work at Desert Basin and Agua Fria was performed 2 years prior to the work at Copper Crossing. At that time, the low cost vendor was relatively unknown and had very little experience in building LM6000 units. In addition, the timeline for building the Desert Basin and Agua Fria units was very tight and didn’t allow sufficient time to explore the new vendor option given their significant lack of experience. Over the course of the next couple of years, the new vendor completed multiple units and SRP had sufficient time to complete a thorough evaluation of the vendor so that when the Copper Crossing and Coolidge Expansion evaluations were performed, SRP had strong confidence that the new vendor could complete the projects and result in significant cost savings.

10. Please refer to the document titled “Derivation of Proposed Changes to SRP’s Transmission and Ancillary Services Prices,” pages 31-32, Table 3. The portions of Table 3 on these pages provide revenue requirement data for Fiscal Year 2024 for SRP’s coal and gas-fired resources.
 - a. Please provide equivalent data for Fiscal Years 2022 and 2023 for Coronado, Four Corners, Springerville, Craig and Hayden.
 - b. Please provide equivalent data for Fiscal Years 2022 and 2023 for Agua Fria, Desert Basin, Gila, Kyrene, Mesquite, Santan, and Coolidge.

SRP Response:

Fiscal Years 2022 and 2023 data were not used in or pertinent to the recently published Derivation of Proposed Changes to SRP’s Transmission and Ancillary Services Prices. Because data from those years was not used, Total Annual Cost by Generating Station was not calculated for those years.

In addition, no ancillary study was performed to determine percentage allocation factors - and therefore revenue requirements - for those years. The last update to the Derivation of Proposed Changes to SRP's Transmission and Ancillary Services Prices was in 2019 and is attached for reference. Table 3 can be found on pages 28-30.

Name: Steven Neil

Record Number: a87b3f6e
Delivery Method: Digital Submission
Received Date: 1/17/2025

Comment:

I request the greater or more inclusive of the following two: 1) All the information SRP provided to Christensen Associates, the consultant to the Board of Directors. This includes emails, of course. 2) All the electronic versions of spreadsheets or other file formats which were used in creating any and all pricing presented in the Management's Complete Proposal document and, of course, any inputs it describes. If number 2 is going to take longer than number 1, please provide number 1 now, even a first phase without the emails, and we can talk about the differences between number 1 and number 2. There should be no redaction or alteration between what was provided to the consultant or what was used in preparing the proposal. If the original files contained automated links or references to other files, the links must be in working order in the all of the set of files provided. Errors should be displayed in any cell of any spreadsheet, for example. For textual references, the expectation is that they will name the exact document and the location within the document. I note that the above is the kind of information that other utilities provide in the routine course of their rate increase request and interested parties do not have to make a special request other than to maybe request access to the online store of such. If you send any more files to me or to others I collaborate with that are an incomplete set, that have inoperative links, that have missing data, or the like, this will be considered to be unresponsive and may result in seeking relief.

Response Subject: SRP Corporate Pricing Response to Public Comment #a87b3f6e

Response Attachments: SRP Management Response to Steve Neil Ninth Request for Information_SN09.pdf; Rate Design E-67 Final_SN09.xlsm; Rate Design E-66 Final_SN09.xlsm; Rate Design E-65 Final_SN09.xlsm; Rate Design E-63 Final_SN09.xlsm; Rate Design E-61 Final_SN09.xlsm; Rate Design E50s v5 FINAL_SN09.xlsx; Rate Design E40s Final_SN09.xlsm; E-36 Unbundled Rate Design Review - Final_SN09.xlsm; E-33 Unbundled Experimental Rate Design Review - Final_SN09.xlsm; E-32 Unbundled Rate Design Review - Final_SN09.xlsm; E-29 Unbundled Rate Design Review_SN09.xlsm; E-28

Unbundled Rate Design Review_SN09.xlsb; E-27
Unbundled Rate Design Review_SN09.xlsb; E-26
Unbundled Rate Design Review_SN09.xlsb; E-23 &
E-24 Unbundled Rate Design Review_SN09.xlsb; E-22
Unbundled Rate Design Review_SN09.xlsb; E-21
Unbundled Rate Design Review_SN09.xlsb; E-16
Unbundled Rate Design Review_SN09.xlsb; E-15
Unbundled Rate Design Review_SN09.xlsb; E-14
Unbundled Rate Design Review_SN09.xlsb; E-13
Unbundled Rate Design Review_SN09.xlsb; FY25 Price
Process Yellow Book Schedules_SN09.xlsx; Weighted
Avg Marginal Energy Cost_SN09.xlsx; Streetlights
assets data projected NBV 4-30-25_SN09.xlsx; Meter
Depr FY23 - Aug FY25_SN09.xlsx; Lighting Distribution
O&M_PP25_SN09.xlsx; GSU assets data 4-30-
24_SN09.xlsx; LOLP Study Resultst_SN09.xlsx; FP2025 v5
Phase 2 Revenue Model Nov 2024 Prices PRICE
PROCESS SEND_SN09.xlsx; FP25 v5 Phase 2 Revenue
Model Outputs for Price Process_SN09.xlsx; FY24
Typical Loads and Demand Characteristics (Interval
Data)_SN09.xlsx; Customer Systems Study -
FP25_SN09.xlsx; FP25 Financial Plan Model - CAS
Inputs_SN09.xlsm; FP25 FY26 Cost Allocation Study -
Published 12-02-2024_SN09.xlsx

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #a87b3f6e*

Response Sent by CSO Monday, February 3,
2025 8:07 PM

Response:

See SRP Management Response to Steve Neil Ninth Request for Information_SN09.docx for response details

This response supersedes the previous requested response 1e6860d6.

From: [SRP Corporate Secretary](#)
To: [teven.stuart.neil](#)
Cc: [John M Felty](#); [SRP Corporate Secretary](#)
Subject: SRP Corporate Pricing Response to Public Comment #a87b3f6e
Date: Monday, February 3, 2025 8:06:38 PM
Attachments: [SRP Management Response to Steve Neil Ninth Request for Information_SN09.pdf](#)

Hi Steve,

Please find SRP Corporate Pricing's response to submission id a87b3f6e attached. The remaining attachments have been uploaded to your SRP Data Request SharePoint site under the folder name SN09. This response supersedes the previous requested response 1e6860d6.

Please let us know if you have any issues accessing the documents.

Thank you,

SRP Corporate Secretary's Office

**SRP Management Response to
Steve Neil Ninth Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

I request the greater or more inclusive of the following two: 1) All the information SRP provided to Christensen Associates, the consultant to the Board of Directors. This includes emails, of course. 2) All the electronic versions of spreadsheets or other file formats which were used in creating any and all pricing presented in the Management's Complete Proposal document and, of course, any inputs it describes. If number 2 is going to take longer than number 1, please provide number 1 now, even a first phase without the emails, and we can talk about the differences between number 1 and number 2. There should be no redaction or alteration between what was provided to the consultant or what was used in preparing the proposal. If the original files contained automated links or references to other files, the links must be in working order in the all of the set of files provided. Errors should be displayed in any cell of any spreadsheet, for example. For textual references, the expectation is that they will name the exact document and the location within the document. I note that the above is the kind of information that other utilities provide in the routine course of their rate increase request and interested parties do not have to make a special request other than to maybe request access to the online store of such. If you send any more files to me or to others I collaborate with that are an incomplete set, that have inoperative links, that have missing data, or the like, this will be considered to be unresponsive and may result in seeking relief.

2. I request the greater or more inclusive of the following two: 2) All the electronic versions of spreadsheets or other file formats which were used in creating any and all pricing presented in the Management's Complete Proposal document and, of course, any inputs it describes. There should be no redaction or alteration between what was provided to the consultant or what was used in preparing the proposal. If the original files contained automated links or references to other files, the links must be in working order in the all of the set of files provided. Errors should be displayed in any cell of any spreadsheet, for example. For textual references, the expectation is that they will name the exact document and the location within the document. I note that the above is the kind of information that other utilities provide in the routine course of their rate increase request and interested parties do not have to make a special request other than to maybe request access to the online store of such. If you send any more files to me or to others I collaborate with that are an incomplete set, that have inoperative links, that have missing data, or the like, this will be considered to be unresponsive and may result in seeking relief.

SRP Response:

- **FP25 FY26 Cost Allocation Study - Published 12-02-2024.xlsx** - The worksheets are protected to prevent inadvertent edits but there is no password.
- **FP25 Financial Plan Model - CAS Inputs.xlsm** - This model is owned by MCR Consulting Services. Per SRP's licensing agreement with them, SRP has limited rights over sharing the entire model. This limited model provides a comprehensive view of the financial data for the FP25 FY26 test year.

- Customer Systems Study – FP25.xlsx
- FY24 Typical Loads and Demand Characteristics (Interval Data).xlsx
- FP25 v5 Phase 2 Revenue Model Outputs for Price Process.xlsx
- FP2025 v5 Phase 2 Revenue Model Nov 2024 Prices PRICE PROCESS SEND.xlsx
- LOLP Study Results.xlsx
- Weighted Avg Marginal Energy Cost.xlsx
- GSU assets data 4-30-24.xlsx
- Lighting Distribution O&M_PP25.xlsx
- Meter Depr FY23 – Aug FY25.xlsx
- Streetlights assets data projected NBV 4-30-25.xlsx
- FY25 Price Process Yellow Book Schedules.xlsx
- E-13 Unbundled Rate Design Review.xlsb
- E-14 Unbundled Rate Design Review.xlsb
- E-15 Unbundled Rate Design Review.xlsb
- E-16 Unbundled Rate Design Review.xlsb
- E-21 Unbundled Rate Design Review.xlsb
- E-22 Unbundled Rate Design Review.xlsb
- E-23 & E-24 Unbundled Rate Design Review.xlsb
- E-26 Unbundled Rate Design Review.xlsb
- E-27 Unbundled Rate Design Review.xlsb
- E-28 Unbundled Rate Design Review.xlsb
- E-29 Unbundled Rate Design Review.xlsb
- E-32 Unbundled Rate Design Review - Final.xlsb
- E-33 Unbundled Experimental Rate Design Review - Final.xlsb
- E-36 Unbundled Rate Design Review - Final.xlsb
- Rate Design E40s Final.xlsb
- Rate Design E50s v5 FINAL.xlsx
- Rate Design E-61 Final.xlsb
- Rate Design E-63 Final.xlsb
- Rate Design E-65 Final.xlsb
- Rate Design E-66 Final.xlsb
- Rate Design E-67 Final.xlsb

Name: Steve Neil

Record Number: 2d65bc63
Delivery Method: Digital Submission
Received Date: 1/31/2025

Comment:

The 2019 pricing process Documents page at <https://srpnet.com-prices-priceprocess-2019-docs.aspx> had a link to the 2015 pricing process Documents page at <https://srpnet.com-prices-priceprocess-2015-pricingfaq.aspx> (slashes changed to dashes to satisfy your feedback submittal form's prohibition of slashes) (I note that you have changed some of these links over time and they redirect to altered pages, but still about the 2019 price process.) Wondering why the 2025 documents page does not have a link to the 2019 documents. Can you add it?

Response Subject: SRP Corporate Pricing Response to Public Comment
#2d65bc63

Response:

Steve Neil,

The documents and materials from the 2019 price process were not relied upon in the current proposal and thus are not posted on the website. SRP management does not intend to put those materials on the website.

SRP Public Price Process Responses from: 2/4/2025

Name: Jeffrey D. Gilbert

Record Number: 5de2ad95
Delivery Method: Digital Submission
Received Date: 1/13/2025
Comment:

I believe this message should be directed to the office of the SRP Corporate Secretary. I would appreciate acknowledgement of the requests made below. There are three topic areas noted below. Two have specific document and discussion requests. I hope to be prepared for discussion of the third topic later this week. (Note that I refer to the "Proposed Adjustments to SPR's Standard Electric Price Plans Effective with the November 2025 Billing Cycle" as the "Proposal." (1) The projected growth rate as set forth in the "Current Environment" section of the Proposal and, in particular, "Figure 2. Retail Sales Growth" seem unusual. The graph suggests that, after decades of relatively modest growth, FY25 will be an inflection point that more-or-less quadruples the historical growth rate. FY32, then, appears to show the growth rate moderating to the historical baseline. The accompanying text is phrased in passive terms (for example, "increasingly seeing", "is expected", "the ... forecast ... shows" I request supporting documentation and an opportunity to speak with the relevant party(ies) at SPR with regard to: * Who produced this forecast, what data was used, and does the forecaster have any historical record of accurate forecasts? * What would change in the Proposal if it used a projected growth rate of, say, 2x the historical rate that than 4x? * Is there any risk SPR's grid stability or financial stability if the possible over-investment in supporting this growth rate occurs yet the growth rate falls materially short of the projection? (2) The "Carbon Emissions Reductions" "pillar" of the 2035 Sustainability Goals. There is no cost-benefit analysis associated with this "pillar" - no specifics or measurables concerning the steps planned beyond aspirational remarks. Unless the cost to SPR customers is negligible, there are at least four questions that need to be addressed. I request supporting documentation and an opportunity to speak with the relevant party(ies) at SPR with regard to: * Why is this one of the "sustainability goals?" Absent any cost-benefit analysis, this objective should not be imposed on rate payers. * The foundation of "Net Zero" is not science - there is effectively no basis for the so-called anthropomorphic climate change assertion. Details concerning faults in what constitutes the IPCC modeling process are too long to include here. * Any

reduction in CO2 emission by SPR is meaningless with the enormous coal-fired generation coming on-line in the PRC and India * Apart from financial considerations, “net zero” “renewable” generation environmental costs (land area, hazardous material and waste) reviewed in terms of the supposed benefits. (3) What is the rationale to associate all residential “customer generation” with “Time of Use” plans? SRP pricing plans discourage modest roof-top solar generation. The basis for pushing residential customers into the complicated and potentially cost-prohibitive ToU pricing plans is not clear to me. I have not had an opportunity to study the “Cost Allocation Study” document in detail but I hope to have time to review that document during the period the Board is considering the Proposal. Thank you.

Response Subject: SRP Corporate Pricing Response to Public Comment #5de2ad95

Response:

Jeffrey,

Thank you for your interest in SRP's Pricing Process. Your questions are reproduced below, followed by responses from SRP management. Note that interviews of SRP management concerning the pricing proposal have concluded. Members of the public are invited to orally present their comments and questions at one of the upcoming special Board meetings, currently scheduled for Feb. 6 and Feb. 11, 2025.

1. The projected growth rate as set forth in the “Current Environment” section of the Proposal and, in particular, “Figure 2. Retail Sales Growth” seem unusual. The graph suggests that, after decades of relatively modest growth, FY25 will be an inflection point that more-or-less quadruples the historical growth rate. FY32, then, appears to show the growth rate moderating to the historical baseline. The accompanying text is phrased in passive terms (for example, “increasingly seeing”, “is expected”, “the ... forecast ... shows” I request supporting documentation and an opportunity to speak with the relevant party(ies) at SPR with regard to:

- a. Who produced this forecast, what data was used, and does the forecaster have any historical record of accurate forecasts?
- b. What would change in the Proposal if it used a projected growth rate of, say, 2x the historical rate that than 4x?
- c. Is there any risk SPR's grid stability or financial stability if the possible over-investment in supporting this growth rate occurs yet the growth rate falls materially short of the projection?

SRP Response:

- a. The future growth forecasted in SRP's retail sales is primarily driven by large industrial customers. As stated on page 5 of management's proposal, below

Figure 2, “Stronger large-customer sales are driving overall forecasted energy growth, with large commercial energy sales (reflecting a surging data center market) expected to grow by 55.3% from Fiscal Year 2025 to Fiscal Year 2026.” The inflection that begins during this time frame is the result of the updated expectations of large-customer growth informed by numerous sources. National viewpoints, such as Mordor Intelligence and McKinsey, project the U.S. data center industry to grow by about 10% annually. SRP also uses direct sources, such as tracking the progress of large customers requesting electric service and transmission interconnection in SRP’s service territory. Other variables, such as climate, population, electric vehicle adoption, and economic trends are also monitored, studied, and developed from several industry sources, such as Arizona State University, University of Arizona, Woods & Poole, and the Electric Power Research Institute. These sources are benchmarked against historical trends to develop the annual SRP Corporate Load Forecast.

SRP is proud of our strong historic SRP Corporate Load forecast accuracy. Over the past 12 years, SRP’s forecasts are about twice as accurate as the national average utility forecast on a year ahead basis, based on the responses to the 2023 Itron Utility Benchmarking Survey.

b. SRP has not run this analysis and so cannot answer definitively. Generally, load growth puts downward pressure on prices because the fixed costs of building and operating the grid can be spread over more kWh.

SRP recently finished an industry leading, Integrated System Plan (ISP) which analyzed multiple load forecasts (and other variables) in a scenario planning exercise to evaluate future infrastructure and program investment strategies. While the customer demand in your example may not exactly match one of the load forecasts, the planning teams perform this strategic work to understand the different tradeoffs (reliability, investment, water use, and emissions outputs) of planning without any singly focused view of the future. More about the ISP, including the full report, is available in the response to the next question.

c. There is not risk of grid stability if projected load growth does not materialize. Currently, there is financial risk if SRP makes investments for customers who do not materialize, which is why as part of the Pricing Proposal, SRP Management is proposing that for new large accounts (greater than 20 MW), SRP implement a minimum billing demand of 80% of the customer’s forecasted demand. This will provide financial protection to SRP’s existing customers and mitigates risks of large customer forecast error. Additionally, SRP has policies and procedures in place that require customers who initiate significant infrastructure investments to cover the upfront costs of those investments.

2. The “Carbon Emissions Reductions” “pillar” of the 2035 Sustainability Goals There is no cost-benefit analysis associated with this “pillar” - no specifics or measurables concerning the steps planned beyond aspirational remarks. Unless the cost to SPR customers is negligible, there are at least four questions that need

to be addressed. I request supporting documentation and an opportunity to speak with the relevant party(ies) at SPR with regard to:

- i. Why is this one of the “sustainability goals?” Absent any cost-benefit analysis, this objective should not be imposed on rate payers.
- ii. The foundation of “Net Zero” is not science - there is effectively no basis for the so-called anthropomorphic climate change assertion. Details concerning faults in what constitutes the IPCC modeling process are too long to include here.
- iii. Any reduction in CO2 emission by SPR is meaningless with the enormous coal-fired generation coming on-line in the PRC and India
- iv. Apart from financial considerations, “net zero” “renewable” generation environmental costs (land area, hazardous material and waste) reviewed in terms of the supposed benefits.

SRP Response:

SRP's carbon reduction goal - to reduce the amount of CO2 emitted by generation (per MWh) by 82% from 2005 levels by 2035 (~284 lbs./MWh) and reach net zero carbon emissions by 2050 was informed by SRP's Integrated System Plan, or ISP, which was the culmination of a two-year, multidisciplinary scenario planning analysis and community and customer stakeholder engagement. This body of work analyzed 42 system cases, which used varied future projections of natural gas prices, customer demand, federal policies, market assumptions, temperature assumptions, and technology prices to characterize uncertainty in planning the future power system to 2035.

In parallel, SRP implemented a three-phase residential customer research effort, with a goal of bringing the voice of SRP's residential customers into the planning of the future power system. More specifically, this research was designed to gain an understanding of how customers think about and value sustainability, affordability, and reliability related to their electricity service from SRP, and gauge their reactions to potential energy systems.

The results of these two bodies of work culminated in Board approval of seven System Strategies to guide SRP's future power system investments in a way that aligns with customer expectations and manages the many uncertainties analyzed. Further, SRP produced a Balanced System Plan, which is an illustration of what SRP's power system may look like in 2035 by implementing SRP's seven System Strategies. We constructed the Balanced System Plan to help customers and stakeholders visualize the future power system based on what is known today, striking a deliberate balance between sustainability, affordability, and various power system reliability risks.

Post publication of the ISP, through the 2035 Sustainability Goal Update Process ([linked here](#)), SRP updated its 2035 carbon reduction goal to align with the learnings from the two-year effort of the ISP and the forecasted carbon output of the Balanced System Plan.

To review the considerations, including risks, opportunities, tradeoff analysis of metrics (such as cost, emission, reliability, and customer perspective) of the different 42 systems as well as the Balanced System Plan and the full ISP Report, including customer research, please visit the link below, with the Balanced System Plan represented in Section 8. <https://www.srpnet.com/grid-water-management/future-planning/integrated-system-plan>

3. What is the rationale to associate all residential “customer generation” with “Time of Use” plans?

SRP Response:

Time-of-use plans better align prices with costs and thus equitably recover costs from a more diverse set of usage profiles than Price Plans without time-of-use.

Name: Allison George

Record Number: MI6925887
Delivery Method: Email to Corporate Secretary
Received Date: 1/14/2025
Attachments: Questions for SRP Management FINAL_WRA.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI6925887*

Comment:

2025 Pricing Process Questions for SRP Management

- 1-1. How many "Carbon Reduction Programs" does SRP anticipate it will introduce under its proposed Carbon Reduction Rider?
- 1-2. What Carbon Reduction Programs does SRP potentially see as being available in the future under the Carbon Reduction Rider?
 - a. Please provide a short description of each potential future Carbon Reduction Program.
- 1-3. When a customer chooses a level of participation in SRP's new Carbon Reduction Rider, will the Rider also allow customers a choice of which Carbon Reduction Programs their premium will go towards?
- 1-4. What does SRP define as a Carbon Credit per the Carbon Reduction Rider?
- 1-5. Which quality control measures does SRP intend to use to inform its purchase of Carbon Credits?
- 1-6. Is a "renewable energy certificate," as used throughout SRP's price proposal the same as the a "renewable energy credits" as defined in A.A.C. R14-2-1803?
- 1-7. SRP states that it plans to broaden the Energy Attribute Certificate Rider to include other energy attribute certificates, such as Zero Emission Credits ("ZECs"). What is the full list of energy attribute certificates that SRP believes it may use for this rider?
- 1-8. The proposed adjustments state that residential load growth is expected to grow almost 8% from fiscal year 2025 to fiscal year 2030, while commercial and large industrial growth is forecasted to grow more than 50% over that period. What protections are in place to prevent cost shifting onto residential ratepayers?
- 1-9. According to the proposed adjustments, new hardware designs have been implemented for SRP's combined-cycle fleet, "which enables the units to generate power more efficiently, operate at lower minimum loads while maintaining emission requirements, and operate longer before needing to replace the hardware." How do these upgrades impact forecasts for dispatch, capacity factor, and cumulative annual emissions?

1-10. The proposed adjustments list a number of initiatives for controlling costs. Fuel and the variable nature of fuel costs subject customers to significant risk. Similarly, Navajo Generating Station was closed due to the unfavorable economics of coal plant operation. Please describe cost controlling efforts to reduce fuel price risk for customers associated with both coal and fossil gas generation.

1-11. Why is there a cap (\$300,000) on energy efficiency charge through the System Benefits Charge?

1-12. Customers currently using the E-21 and E-22 ("EZ-3") plans will eventually be moved to the E-23 basic price plan, rather than another time-of-use ("TOU") rate. Please provide justification for the decision to move customers out of a TOU rate and into a non-TOU rate, rather than moving them into one of the active TOU rates.

1-13. What method is used for selecting peak, off-peak, and super off-peak periods for individual tariffs?

1-14. Why are there hours when some tariffs have peak pricing, while other tariffs have super off-peak pricing during the same hours?

1-15. Both residential and non-residential plans have three tiers of energy charges, depending on the hours in which they consume electricity. For residential plans these are on-peak, off-peak, and super off-peak. For non-residential plans these are on-peak, shoulder-peak, and off-peak. Why is there a difference in naming conventions for residential vs. non-residential tariffs?

1-16. Why is there a limit (205 MW) on the total interruptible load served under the Customized Interruptible Rider?

1-17. Please provide a breakdown of any transmission-related investments included in the future test year.

1-18. Please provide a summary of feedback received from customers who participated in the E-28 pilot.

We appreciate the opportunity to provide these questions.

Alex Routhier, Ph.D.

Arizona Clean Energy Manager/Senior Policy Advisor

Western Resource Advocates

Emily Doerfler, Esq.

Arizona Clean Energy Attorney

Western Resource Advocates

Response Subject: SRP Corporate Pricing Response to Public Comment
#MI6925887

Response Attachments: SRP Management Response to Western Resource
Advocates First Request for Information_WRA01.pdf;

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI6925887*

Response:

Hi Allison,

Please see SRP Management Response to Western Resource Advocates First
Request for Information_WRA01.docx for response details.

**SRP Management Response to
Western Resource Advocates First Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

1. How many "Carbon Reduction Programs" does SRP anticipate it will introduce under its proposed Carbon Reduction Rider?

SRP Response:

SRP management has not yet developed a program that is anticipated to fall under the Carbon Reduction Rider. The intent of the proposed rider is to act as an umbrella for future programs.

2. What Carbon Reduction Programs does SRP potentially see as being available in the future under the Carbon Reduction Rider?
 - a. Please provide a short description of each potential future Carbon Reduction Program.

SRP Response:

See response #1.

3. When a customer chooses a level of participation in SRP's new Carbon Reduction Rider, will the Rider also allow customers a choice of which Carbon Reduction Programs their premium will go towards?

SRP Response:

The proposed rider is intended to provide a vehicle under which SRP could offer specific programs. A customer could choose which program to participate in, subject to eligibility and the terms and conditions of the program.

4. What does SRP define as a Carbon Credit per the Carbon Reduction Rider?

SRP Response:

Because SRP does not have a formal program that utilizes carbon credits today, SRP has not developed a formal definition for carbon credits. The rider allows for flexibility as standards or requirements change over time.

5. Which quality control measures does SRP intend to use to inform its purchase of Carbon Credits?

SRP Response:

See response #4.

6. Is a “renewable energy certificate,” as used throughout SRP’s price proposal the same as the a “renewable energy credits” as defined in A.A.C. R14-2-1803?

SRP Response:

No, SRP management does not propose use of that definition.

7. SRP states that it plans to broaden the Energy Attribute Certificate Rider to include other energy attribute certificates, such as Zero Emission Credits (“ZECs”). What is the full list of energy attribute certificates that SRP believes it may use for this rider?

SRP Response:

SRP management proposes broadening, renaming, and making permanent the existing “Renewable Energy Certificate Pilot Rider” to allow flexibility and enable future offerings that may be outside the scope of the existing rider. SRP management is not currently proposing a program for any particular energy attributes other than renewable energy certificates, though it is anticipated that a future program might involve the purchase or retirement of Zero-emissions Credits.

8. The proposed adjustments state that residential load growth is expected to grow almost 8% from fiscal year 2025 to fiscal year 2030, while commercial and large industrial growth is forecasted to grow more than 50% over that period. What protections are in place to prevent cost shifting onto residential ratepayers?

SRP Response:

Results of the Cost Allocation Study show that under both current and proposed prices, Residential customers pay a lower share of the costs SRP incurs to serve them than do General Service and Large General Service customers. That said, SRP has a number of measures in place, and is proposing additional measures, to ensure that residential customers will not cover costs related to new growth from large customers:

- Customers are currently required to pay upfront for any dedicated substation/switchyard and transmission system upgrades required to provide them service
- Customers are currently required to pay upfront for transmission system upgrades that don’t provide value to the rest of SRP customers
- As part of Management’s proposal, new large customers (>20 MW) will be billed at a minimum of their actual load or 80% of their forecasted load, to ensure that the generation capacity costs for those customers are not passed onto other SRP customers. The proposed changes are intended to ensure that new large customers accurately forecast their required capacity and bear the cost associated with any forecasting inaccuracies.

With these protections in place, new large customers will continue contributing to fixed costs, thereby making the grid more efficient and lowering the average cost for all customers.

9. According to the proposed adjustments, new hardware designs have been implemented for SRP's combined-cycle fleet, "which enables the units to generate power more efficiently, operate at lower minimum loads while maintaining emission requirements, and operate longer before needing to replace the hardware." How do these upgrades impact forecasts for dispatch, capacity factor, and cumulative annual emissions?

SRP Response:

The upgrades to SRP's combined cycle fleet allow the units to operate more flexibly to accommodate a generation portfolio with greater penetrations of variable energy resources.

Dispatch: The lower operating minimums improve the flexibility of SRP's combined cycle fleet as intermittent renewable resources like wind and solar have increasing penetration in SRP and the desert southwest generation resource mix. As larger portions of solar and wind operate on the grid, the lower operating minimums of combined cycle units allow SRP to minimize gas generation during times of the day when high amounts of solar are available or when energy markets allow for low-cost energy purchases.

The improved flexibility provided by the larger reliable operating range allows SRP's generation to be more flexible to react quickly when grid conditions require. The ability to ramp up from a lower operating minimum, rather than start a combined cycle, supports the grid during times of quickly changing output from variable energy resources. For example, when a cloud covers a solar farm, the combined cycle units can respond and increase generation quickly to make up the energy need. A lower operating minimum also allows for better response to market conditions because units can be ramped down to respond to lower-cost market conditions on a sub-hourly basis.

Capacity factor: In general, the increased flexibility, unit minimum, and efficiency improvements create opportunity to reduce SRP's combined cycle capacity factors to serve retail needs. Natural gas supply and pricing in real-time has a large influence on total annual operating hours of SRP's combined cycle fleet. If gas prices are lower, capacity factors may go up to pass on reduced costs to SRP customers. If gas prices are higher, capacity factors would be expected to go down in favor of other lower energy resources available to SRP. As renewable penetration increases on SRP's system, the capacity factors of SRP's combined cycle units are expected to continue to decline.

Cumulative annual emissions: In general, the unit changes are expected to produce lower annual emissions. The increased flexibility and lower unit minimums allow SRP to reduce the annual reliable minimum generation output from the combined cycle units, which is expected to reduce cumulative annual emissions.

In permitting the upgrades, SRP did not increase the permitted limits of regulated pollutants on an annualized basis or pounds/MWh basis. SRP will operate within the permitted limits.

In summary, the flexibility and efficiency improvements to SRP's combined cycle fleet enhance SRP's ability to effectively navigate integration of higher levels of renewable resources, while continuing to manage costs to SRP retail customers.

10. The proposed adjustments list a number of initiatives for controlling costs. Fuel and the variable nature of fuel costs subject customers to significant risk. Similarly, Navajo Generating Station was closed due to the unfavorable economics of coal plant operation. Please describe cost controlling efforts to reduce fuel price risk for customers associated with both coal and fossil gas generation.

SRP Response:

SRP has an Energy Risk Management Program to limit exposure to risks inherent in retail and wholesale energy business operations by identifying, measuring, reporting, and managing exposure to market, credit, and operational risks. To meet the goals of the Energy Risk Management Program, SRP uses various physical and financial instruments, including forward contracts, futures, swaps, and options.

SRP utilizes natural gas almost exclusively to fuel its oil or gas-fired units in the Phoenix-Mesa-Scottsdale MSA and plans to continue to do so. SRP purchases natural gas pursuant to energy risk management policies and trading strategies designed to minimize financial and operational risk while ensuring that sufficient gas is available to serve SRP customers.

Natural gas price hedging is primarily accomplished using financial instruments such as exchange-traded futures and options contracts and "over the counter" swaps and options contracts. The vast majority of SRP's hedging activities focus on a rolling six-year period into the future relative to SRP's retail customer demand. In May 2017, SRP implemented and executed a defined hedging program through 2027 to mitigate fuel price risk related to the incremental retail gas requirements attributed to the retirement of the Navajo Generating Station.

Natural gas storage contracts are utilized to balance supply and demand as well as help manage price risk and ensure reliable delivery. Natural gas is delivered to SRP's generating facilities via transportation contracts with El Paso Natural Gas Company and Transwestern Pipeline Company.

Additional Information on SRP's Energy Risk Management Program, derivative instruments, and commodity purchase agreements can be found in SRP's 2024 Combined Financial Statement ([linked here](#)).

11. Why is there a cap (\$300,000) on energy efficiency charge through the System Benefits Charge?

SRP Response:

The energy efficiency charge included in the System Benefits Charge covers the costs of SRP's energy efficiency programs and rebates. The maximum dollar amount that an individual business customer can receive through those programs and rebates for their energy efficiency upgrades is \$300,000. This is to ensure that the programs can provide broad benefits across all SRP customers. Because the rebates and program benefits that an individual business customer can receive is capped, the amount they can pay into the programs is also capped.

12. Customers currently using the E-21 and E-22 (“EZ-3”) plans will eventually be moved to the E23 basic price plan, rather than another time-of-use (“TOU”) rate. Please provide justification for the decision to move customers out of a TOU rate and into a non-TOU rate, rather than moving them into one of the active TOU rates.

SRP Response:

E-21 has on-peak hours from 3 – 6 PM, which has zero overlap with the 6 – 9 PM on-peak hours for E-28.

Similarly, E-22 has on-peak hours from 4 – 7 PM, which only shares one hour with the 6 – 9 on-peak hours of E-28.

Customers remaining on E-21 or E-22 as of the date those plans are eliminated will be moved to E-23 out of concern that if those customers were moved to E-28, they would continue their existing behavior and increase their usage starting at 6 PM or 7 PM when their on-peak ends today. This would result in increased on-peak usage under E-28, and likely higher bills.

SRP will proactively reach out to customers on E-21 and E-22 to encourage them to switch to E-28 or E-16, provide education and reminders, and provide alerts if they do not appear to be shifting load.

13. What method is used for selecting peak, off-peak, and super off-peak periods for individual tariffs?

SRP Response:

Marginal cost is used as the primary driver for determining costing periods for price plans. The goal of this price process was to align as many costing periods as possible between both residential and non-residential price plans, which is why most price plans have an 8 AM – 3 PM super off-peak/off-peak period and a 5-10 PM on-peak period.

In determining TOU hours, SRP management also considered the following:

- LOLP results for 2029-2030 to enable TOU to help avoid the capacity costs associated with projects for which RFPs are current only open (2028/2029 mark the first years new TOU hours can influence capacity costs; resources and contracts before 2028 are mostly “sunk.”)
- In consultation with system planners, long-term trends of capacity constrained hours because SRP wants TOU hours that will be appropriate for longer timeframes. 5-10 PM on-peak hours and 8 AM – 3 PM super off-peak hours aligned well with the trends the planners see.

14. Why are there hours when some tariffs have peak pricing, while other tariffs have super off-peak pricing during the same hours?

SRP Response:

There will be some temporary overlap while frozen price plans coexist with the proposed price plans, but from and after the date on which the frozen plans sunset, there will be no overlapping hours.

15. Both residential and non-residential plans have three tiers of energy charges, depending on the hours in which they consume electricity. For residential plans these are on-peak, off-peak, and super off-peak. For non-residential plans these are on-peak, shoulder-peak, and off-peak. Why is there a difference in naming conventions for residential vs. non-residential tariffs?

SRP Response:

Non-residential plans already have the naming convention of on-peak, shoulder-peak, and off-peak and this proposal continues that.

Beyond the names, there is no difference between the periods. Super off-peak for residential customers corresponds to off-peak for non-residential customers.

16. Why is there a limit (205 MW) on the total interruptible load served under the Customized Interruptible Rider?

SRP Response:

SRP at times will limit participation to price plans, riders, and programs to provide the opportunity to review participation levels. A cap has been in place for the interruptible rider for over 20 years. Participation under the Customized Interruptible Rider has been underutilized. Management has not proposed changing the 205 MW limit. Eligible customers have the opportunity to enroll in SRP's demand response program.

17. Please provide a breakdown of any transmission-related investments included in the future test year.

SRP Response:

SRP maintains its power grid and continues to add new infrastructure in support of a transition to renewables and adapting to an evolving grid. SRP's annual transmission expenses have increased \$42 million since Fiscal Year 2020 Test Year levels, primarily due to increased power delivery technology services expenses and transmission wheeling costs.

The power delivery technology services expenses have increased due to the following:

- Investments made in the High Security Operations Center (HSOC). HSOC is the state-of-the-art project to build an independent computer and network system to enable Operational Technology (OT) functions to be more centralized and secure for hosting shared services for all of SRP's power system.

- Implementation of an Advanced Distribution Management System (ADMS). The growth of more distributed energy resources, such as battery storage and solar, will change how SRP operates today – and the technology needed to support it. SRP will implement an ADMS over the next few years to address those needs now and operate the future distribution grid. SRP’s ADMS will be a modern, scalable system that will allow SRP to adapt and continue to develop new solutions to respond to growth of distributed energy resources. With a single user interface and improved visibility, SRP will be able to better manage the grid as new distributed energy resources become operational.

SRP’s annual transmission wheeling costs have increased mainly due to SRP procuring purchased power generation from Harquahala Generating Station and the subsequent wheeling expenses related to this increased load. In Calendar Year 2024, SRP began to realize cost savings due to transmission enhancements, upgrades and executing a new wheeling contract.

SRP has spent approximately \$2.6 billion on maintenance improvements and replacements of transmission and distribution equipment. Investments in aging infrastructure and new load growth remain two key areas of focus for SRP’s transmission system. Please see Management’s Proposal, pages 16 – 18, for more details.

18. Please provide a summary of feedback received from customers who participated in the E-28 pilot.

SRP Response:

SRP research indicates that about half of customers in the Daytime Saver (E-28) Pilot are satisfied with the plan; satisfaction levels for this plan are seasonal with typically higher satisfaction in the winter (59%) compared to summer months (45%). Customers in the pilot overall had a high recall of emailed content from SRP (monthly energy use emails) with 93% recalling the communications. Other communications, such as those about maximizing savings and end-of-season summaries, had moderate recall rates, highlighting an opportunity for improving communication with these customers. Most customers in the pilot found it moderately easy to adjust their behavior to save during peak hours. The most avoided behavior during peak hours was running the dishwasher (81%), while running the electric oven was the least adopted behavior (41%). Notably, the adoption of these behaviors increased from the previous summer. Only about half of customers in the program maximized A/C related energy saving behaviors like pre-cooling.

Although customers were able to adjust some behaviors, half of participants reported that savings were lower than expected. Most participants anticipated saving 11% or more on their monthly bills, but actual savings averaged 6.5% during the summer. For sustainability-minded customers, the lower-than-expected savings did not deter them from continuing in the Pilot, while for others it was more challenging. The top reason for dropping out of the pilot during both the first and second year in the pilot was not realizing enough savings (Total attrition rate 29%). Likelihood to recommend the plan also remained consistent at 52% highly recommending the plan to friends and family. There is an opportunity to increase satisfaction and likelihood to recommend the plan by communicating savings opportunities to customers. (Research as of December 2024).

SRP Public Price Process

Responses from: 2/5/2025

Name: David Bender

Record Number: f49b5566
Delivery Method: Digital Submission
Received Date: 1/26/2025

Comment:

This fourth set of questions continues numbering from three prior sets previously submitted. 22. Please produce the data required by 18 C.F.R. 292.302(b)(1)-(3) for the most recent six years. Because such data are required “not less often than every two years,” the response to this request should include at least three separate sets of estimated avoided costs for energy, plans for capacity additions, and estimated capacity costs at completion. To the extent that you contend, pursuant to 18 C.F.R. 292.302(d)(1), that “data different than those which are otherwise required” by 18 C.F.R. 292.302 can be used to derive avoided costs, please (a) identify and produce the “different data” that you contend can be used to derive avoided costs, and (b) produce a copy of your notification(s) to FERC pursuant to 18 C.F.R. 292.302(d)(2). 23. Please state whether SRP has ever dispatched generation, or received energy pursuant to a bilateral agreement, at a cost to SRP that exceeds the simultaneous CAISO Western Energy Imbalance Market Load Aggregation Point for SPR (ELPA) price for energy. This includes, but is not limited to, instances when the fuel cost and variable operation and maintenance cost of a generating resource exceed the ELPA price for the generation from that resource. If such events occurred in the most recent five (5) years, identify each such event, separately by hour and generation source, and for each such event also identify (a) the cost to SRP for the energy generated or procured and (b) the ELAP price for energy in that hour. 24. Reference the QF-24 Standard Rate for Qualifying Facilities Under 18 CFR 292.304(c) (which is linked on this page). Please explain the basis for SRP's conclusion that “As of the time of publication of this QF-24 Standard Rate, the Capacity Cost Adjuster is \$0.” This includes, but is not limited to, SRP's existing capacity resources, planned and expected capacity additions, and projected capacity requirements for the next five (5) years or longer if projections beyond five (5) years have been made, and for each capacity resource identified, the overnight cost of the resource when added in dollars per kilowatt and the annual carrying cost of the resource in dollars per kilowatt-year.

Response Subject: SRP Corporate Pricing Response to Public Comment #f49b5566

Response Attachments: Avoided Cost Report 12192024_EJ04.pdf; Avoided Costs Tables.2024_EJ04.pdf; Modifications to SRP's Proposed Standard Rate and Proposed Standard Rate Contract for Qualifying Facilities (January 29 2025)_EJ04.pdf; Standard Rate Contract (Modified January 29 2025) _EJ04.pdf; QF24 Standard Rate (Modified January 29 2025)_EJ04.pdf; SRP Management Response to Earth Justice Fourth Request for Information_EJ04.pdf;

**To receive a copy of Attachments please contact the Corporate Secretary's Office and Reference Record #f49b5566*

Response:

Hi David,

Please see SRP Management Response to Earth Justice Fourth Request for Information_EJ04 for response details.

**SRP Management Response to
Earth Justice Fourth Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

This fourth set of questions continues numbering from three prior sets previously submitted.

22. Please produce the data required by 18 C.F.R. 292.302(b)(1)-(3) for the most recent six years. Because such data are required “not less often than every two years,” the response to this request should include at least three separate sets of estimated avoided costs for energy, plans for capacity additions, and estimated capacity costs at completion. To the extent that you contend, pursuant to 18 C.F.R. 292.302(d)(1), that “data different than those which are otherwise required” by 18 C.F.R. 292.302 can be used to derive avoided costs, please (a) identify and produce the “different data” that you contend can be used to derive avoided costs, and (b) produce a copy of your notification(s) to FERC pursuant to 18 C.F.R. 292.302(d)(2).

SRP Response:

See the attached report *Avoided Cost Report 12192024* and tables *Avoided Costs Tables.2024*. The historic data sought in this data request 22 is not pertinent to the price process or the development of the QF-24 Standard Rate. Nevertheless, SRP will supplement this request with the requested avoided cost data within 30 days.

23. Please state whether SRP has ever dispatched generation, or received energy pursuant to a bilateral agreement, at a cost to SRP that exceeds the simultaneous CAISO Western Energy Imbalance Market Load Aggregation Point for SPR (ELPA) price for energy. This includes, but is not limited to, instances when the fuel cost and variable operation and maintenance cost of a generating resource exceed the ELPA price for the generation from that resource. If such events occurred in the most recent five (5) years, identify each such event, separately by hour and generation source, and for each such event also identify (a) the cost to SRP for the energy generated or procured and (b) the ELAP price for energy in that hour.

SRP Response:

The information sought in this request is beyond the scope of the price process and the QF-24 Standard Rate as it pertains to data that is not considered in the development of either. In addition, certain of the information responsive to this request is confidential as a matter of law pursuant to A.R.S. § 30-805(B) and will not be provided. SRP will provide record(s) of bilateral purchases and the corresponding hourly EIM ELAP price from April 1, 2020, to present within 30 days.

24. Reference the QF-24 Standard Rate for Qualifying Facilities Under 18 CFR 292.304(c) (which is linked on this page). Please explain the basis for SRP's conclusion that "As of the time of publication of this QF-24 Standard Rate, the Capacity Cost Adjuster is \$0." This includes, but is not limited to, SRP's existing capacity resources, planned and expected capacity additions, and projected capacity requirements for the next five (5) years or longer if projections beyond five (5) years have been made, and for each capacity resource identified, the overnight cost of the resource when added in dollars per kilowatt and the annual carrying cost of the resource in dollars per kilowatt-year.

SRP Response:

See the attached documents: (1) *Modifications to SRP's Proposed Standard Rate and Proposed Standard Rate Contract for Qualifying Facilities (January 29, 2025)*; (2) *Standard Rate Contract (Modified January 29, 2025)*; and (3) *QF24 Standard Rate (Modified January 29, 2025)*. These documents were added to the information room on January 30, 2025. The version of the QF24 Standard Rate being produced clarifies that the capacity cost adjuster is not set at zero, but rather, is currently calculated as zero, because at this time SRP does not have a capacity need. Please also note that the revised Standard Rate Contract clarifies that SRP will consider whether a QF selling capacity pursuant to SRP's Standard Contract results in avoided costs of distribution or transmission capacity.

SRP Public Price Process

Responses from: 2/6/2025

Name: Norm Sandler

Record Number: 4e791bd8
Delivery Method: Digital Submission
Received Date: 2/6/2025

Comment:

Board Member Kennedy, thank you for bringing up the “fat” issue. I would politely request of the Board to ask SRP's Leadership to re-visit its proposed plans for decommissioning its current assets and chasing the “rainbow” of free energy... there is no such thing as a free lunch. And the meal can quickly become very expensive. Remember when the Governor of California was forced to buy energy on the spot market? \$5,000 per MWh! Poor Gray Davis didn't know what hit him! Spot-market energy can be very, very expensive. Fat on top of fat on top of fat! And potentially, career ending! SRP is asking, well telling, its customers, me, that I should support an increase to my electric bill so that hundreds of square miles of virgin, and in some cases, sacred, Southwest lands are to be destroyed, killing millions of native creatures, including those on endangered species lists, to build a system that is much less energy efficient, i.e., "lots of fat", than the current system, increasing the length of the supply chain by hundreds of miles thus reducing reliability and increasing the opportunity for system failure and cyber threats, all for a government-driven carbon policy plan that is scientifically unachievable with today's technologies and embarking on a operational and environmental nightmare! Call me crazy, but me and my "fat-free diet" are not in favor of any of that! Also, I've put together a more detailed presentation... above is only the summary. The entire presentation has been emailed to corporatesecretary@srpnet.com for distribution to SRP Leadership and the Board. Can you please confirm? I've had a number of requests. Thank you.

Response Subject: SRP Corporate Pricing Response to Public Comment
#4e791bd8

Response:

Hi Norm,

Thank you for your comments. We are in receipt of the attachment you sent to the Corporate Secretary email address and it will be disseminated to the Board.

Kind regards,

SRP Corporate Secretary's Office

Name: David Bender

Record Number: MI7009299

Delivery Method: Other

Received Date: 2/6/2025

Attachments: Action needed! please upload new comment.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI7009299*

Comment:

A response request for notice of errata to EJ04 from 2/5.

Avoided Cost Tables Revised

Notice of Errata to Response to Earth Justice Data Request No22,

Response Subject: SRP Corporate Pricing Response to Public Comment
#MI7009299

Response Attachments: Notice of Errata to Response to Earth Justice Data
Request No 22_EJ04_S.pdf; Avoided Costs Tables
Revised_EJ04_S.pdf;

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI7009299*

Response:

Hi David,

Please see Notice of Errata to Response to Earth Justice Data Request No 22_EJ04_S.for response details

**SRP Management Notice of Errata to
Earth Justice Fourth Request for Information Regarding SRP's
Proposed Changes to its Electric Rate Schedules**

SRP submits this notice of errata to its February 5, 2025, response to Earth Justice Data Request No. 22. The attached *Avoided Costs Tables Revised* replaces, in its entirety, the *Avoided Costs Tables 2024*. Two resource additions and one resource retirement were added to the 18 CFR 292.302(b)(2) table.

18 CFR 292.302(b)(2)																
Fiscal Year	Calendar Year	Additions								Retirements						
		Solar & Storage	Standalone Storage	Nat. Gas	Wind	Solar	Nuclear	Biomass	Pumped Storage	Nat. Gas	Coal	Wind	Geothermal	Nuclear	Biomass	Solar
FY25	2024	300	340	395	161	200	40	-	-	-	-	-	-	-	-	-
FY26	2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY27	2026	200	250	288	-	55	-	-	-	-	(124)	-	-	-	-	(200)
FY28	2027	-	-	287	-	400	-	-	-	-	-	-	-	-	-	-
FY29	2028	480	400	-	-	394	-	-	-	-	(131)	-	-	-	-	-
FY30	2029	-	-	-	-	-	-	-	-	-	(119)	-	-	(40)	-	-
FY31	2030	-	-	-	-	-	-	-	-	-	-	(63)	-	-	-	-
FY32	2031	-	-	-	-	-	-	-	-	-	(150)	(64)	-	-	-	-
FY33	2032	-	-	-	-	-	-	-	-	(975)	(382)	-	-	-	-	-
FY34	2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(19)
FY35	2034	-	-	-	-	-	-	-	-	-	-	-	(25)	-	(14)	-
FY36	2035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

18 CFR 292.302(b)(3)			
Fiscal Year	Resource Additions	\$/KW-M	Cents/KWh
FY25	Project 1	NA	2.8
FY25	Project 2	\$15.13	0.6
FY25	Project 3	NA	4.1
FY25	Project 4	\$11.92	0.6
FY25	Project 5	\$16.77	2.8
FY25	Project 6	NA	10.2
FY25	Project 7	\$13.30	8
FY25	Project 8	\$12.87	0.6
FY27	Project 9	\$12.75	2.6
FY27	Project 10	NA	3.3
FY27	Project 11	\$8.68	9.3
FY27	Project 12		4.6
FY27	Project 13	\$12.15	4.6
FY28	Project 14	\$15.72	0.7
FY28	Project 15	NA	3.3
FY29	Project 16	\$14.40	4.7
FY29	Project 17	\$11.91	2.9

SRP Public Price Process

Responses from: 2/7/2025

Name: Steven Neil

Record Number: de4ee856
Delivery Method: Digital Submission
Received Date: 1/17/2025

Comment:

SRP stated yesterday that the DG Exported kWh Credit put in place in 2019 is based on utility scale solar purchase power agreements. And that for this pricing process, it wishes to switch to a market-based price such as CAISO ELAP. Since the information made available in this pricing process does not give detail on either of these pricing methods and the actual prices, I request a summary (or more detail if you prefer). -per year from fiscal year 2019 to 2025 (or the closest calendar year if that is easier for you) -whether the energy came from solar or storage -total \$ paid or incurred the obligation to pay -how many MWh were purchased -the \$ per MWh average, as a quality check on the above two values - any other information you would like to add to improve understanding of the information. I have previously made a request for information about the CAISO ELAP data.

Response Subject: SRP Corporate Pricing Response to Public Comment #de4ee856

Response Attachments: SRP Management Response to Steve Neil Tenth Request for Information_SN10.pdf;

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #de4ee856*

Response:

Hi Steve,

Please see the attached SRP Management Response to Steve Neil Tenth Request for Information_SN10 for response details.

**SRP Management Response to
Steve Neil's Tenth Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

1. SRP stated yesterday that the DG Exported kWh Credit put in place in 2019 is based on utility scale solar purchase power agreements. And that for this pricing process, it wishes to switch to a market-based price such as CAISO ELAP. Since the information made available in this pricing process does not give detail on either of these pricing methods and the actual prices, I request a summary (or more detail if you prefer). -per year from fiscal year 2019 to 2025 (or the closest calendar year if that is easier for you) -whether the energy came from solar or storage -total \$ paid or incurred the obligation to pay -how many MWh were purchased -the \$ per MWh average, as a quality check on the above two values -any other information you would like to add to improve understanding of the information. I have previously made a request for information about the CAISO ELAP data.

SRP Response:

Below are the total FPPAM costs for FY19-FY24 for solar and battery expenses. Note that these costs are tracked in a category broader than just solar and storage. A very small portion of the costs below may be attributable to resources other than solar and storage, but these figures are representative of what is requested.

	FY19	FY20	FY21	FY22	FY23	FY24
Total Expense	\$29,674,404	\$38,462,397	\$44,819,210	\$55,238,170	\$61,309,289	\$93,152,686
MWh	287,274	418,303	666,576	1,026,295	1,310,454	2,138,442

SRP provided the data used in the calculation for the Export Credit as part of the Pricing Proposal as a response to 7b6b6359.

Name: Autumn Johnson

Record Number: MI7016477
Delivery Method: Email to Corporate Secretary
Received Date: 2/6/2025
Attachments: Re_ Customer Survey.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI7016477*

Comment:

From: Autumn Johnson

Sent: Thursday, February 6, 2025 3:58 PM

To: John M Felty

Subject: Customer Survey

John,

Can you share the customer survey on TOU that Brandon presented on?

Thank you,

Autumn T. Johnson

CEO

Tierra Strategy

Response Subject: SRP Corporate Pricing Response to Public Comment
#MI7016477

Response Attachments: GM Staff -Pricing Pres 12.13.23 Final_SEIA03.pdf;

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI7016477*

Response:

Hi Autumn,

Please see the attached GM Staff -Pricing Pres 12.13.23 Final_SEIA03.pdf for response details regarding the customer survey on TOU.

Price Process Customer Research

GM Staff Presentation | December 13, 2023

Presented by: Brandon Shoemaker & Jim Tiedmann

Agenda

- Pricing Strategy to Address the Modern Grid
- Pricing Research
- Summary & Next Steps

Modern Grid Economics

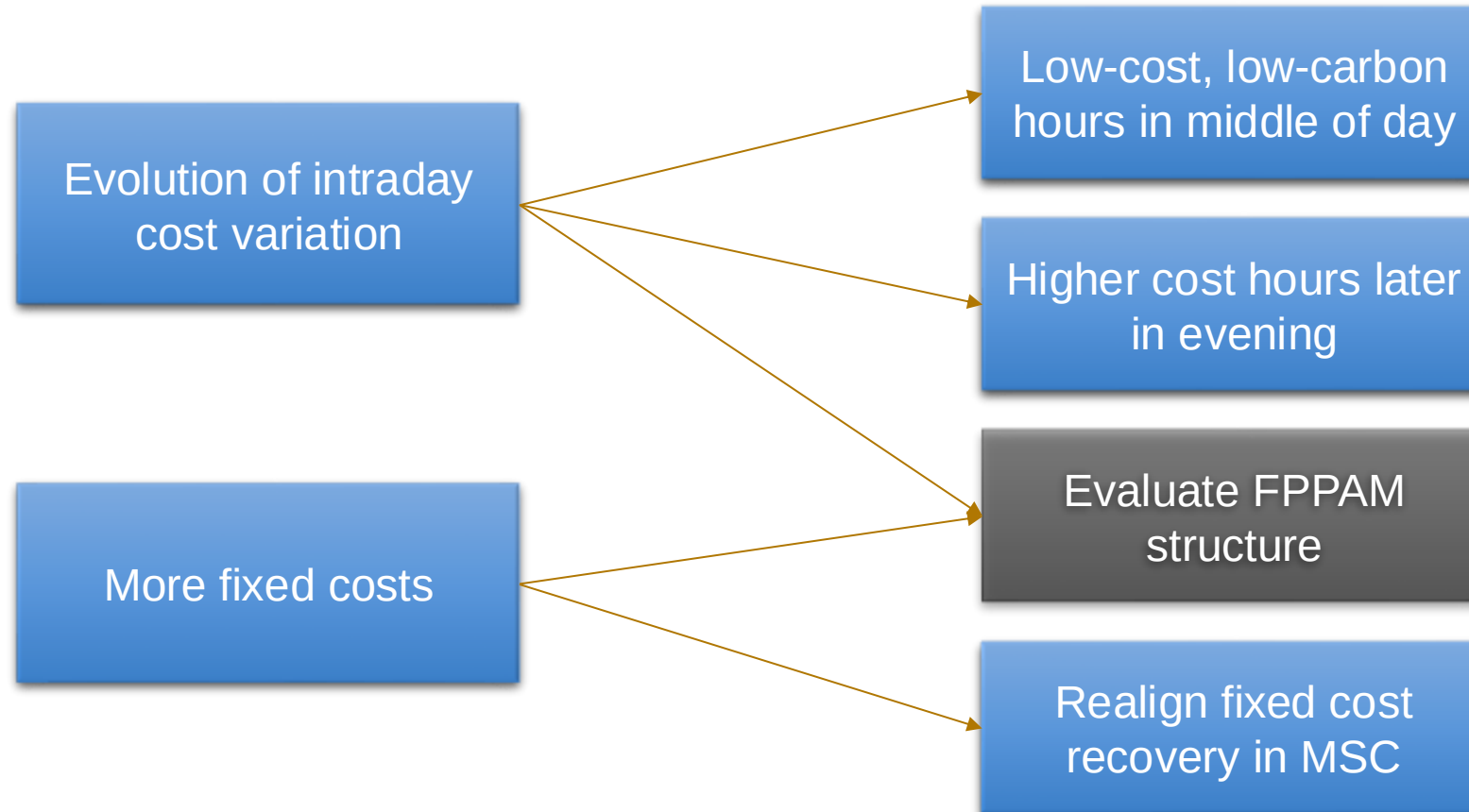
Addressing the Modern Grid

Evolution of intraday
cost variation

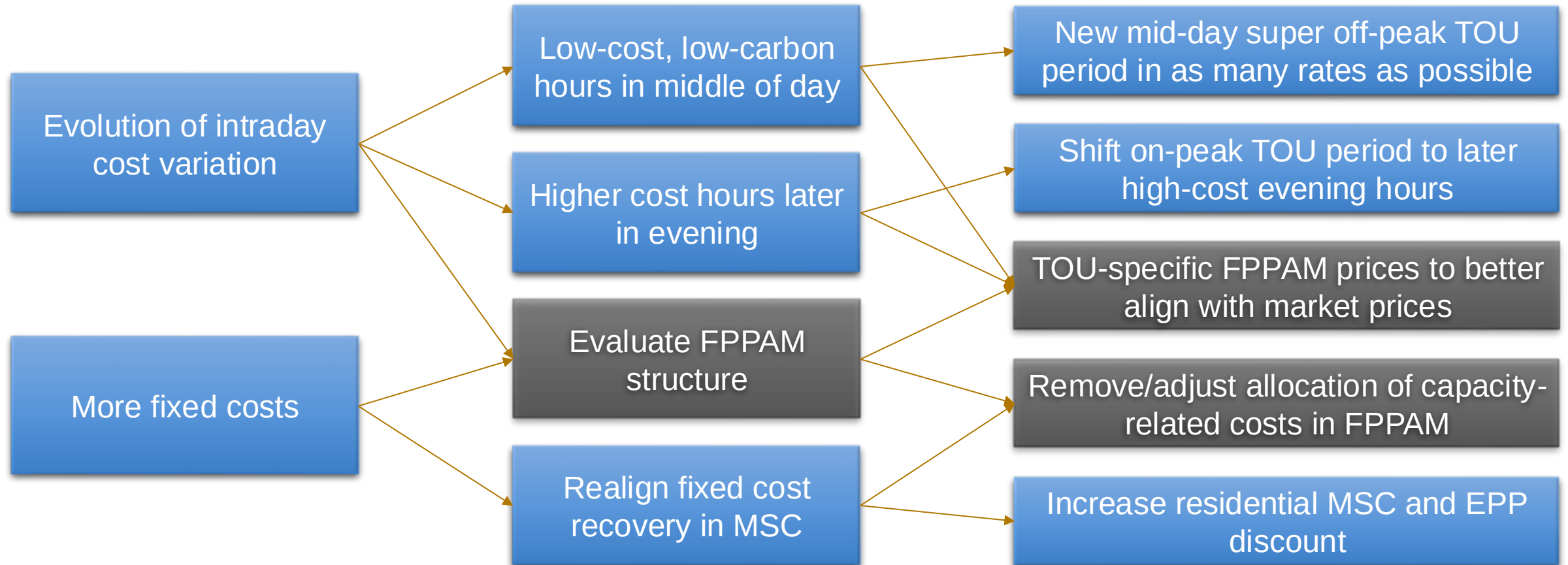
More fixed costs

Significant
infrastructure
investments

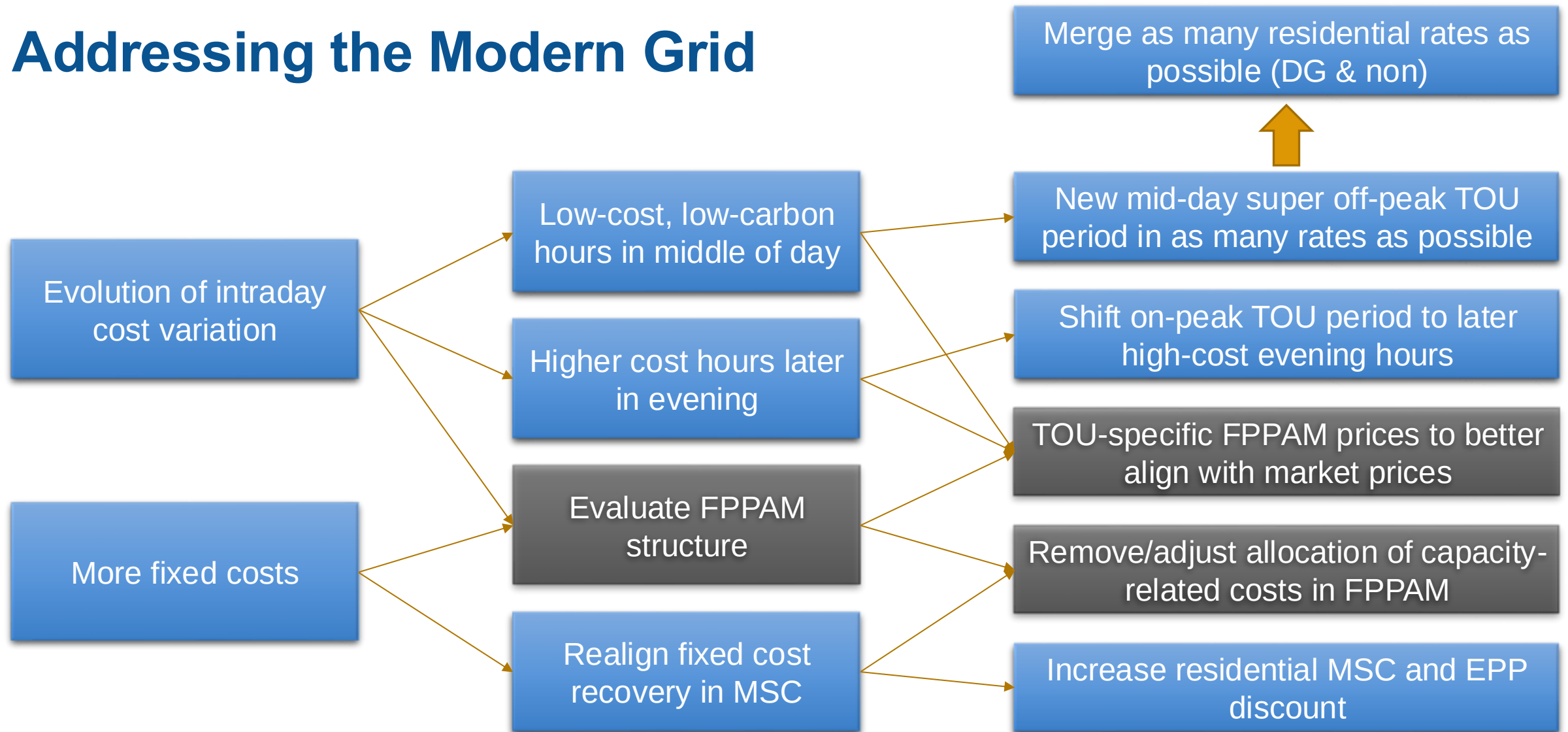
Addressing the Modern Grid



Addressing the Modern Grid



Addressing the Modern Grid



Pricing Research

Methodology: Who was interviewed and what was tested?

Customers from 4 price plans interviewed: Basic, TOU, EZ-3 and EV

Elements of four price plans ideas evaluated:

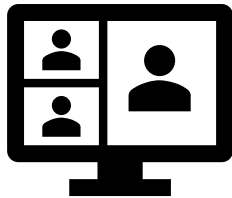
1. Current: Basic Rate plan
2. New: Basic Rate with Super Off-Peak Hours (9am-3pm daily)
3. New: TOU 6pm-9pm On-Peak (Weekdays) with Super Off-Peak Hours daily
4. New: TOU 5pm-10pm On-Peak (Weekdays & Weekends) with Super Off-Peak Hours daily

Methodology: Multi-Phased Approach

A three-phased research approach was applied.

Online Focus Groups

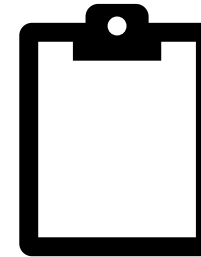
Six
90-minute
groups
36 customers



July 2023

Online Survey

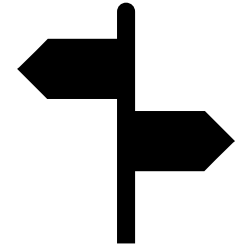
1,443
respondents



September 2023

Conjoint Exercise Survey

1,375
respondents



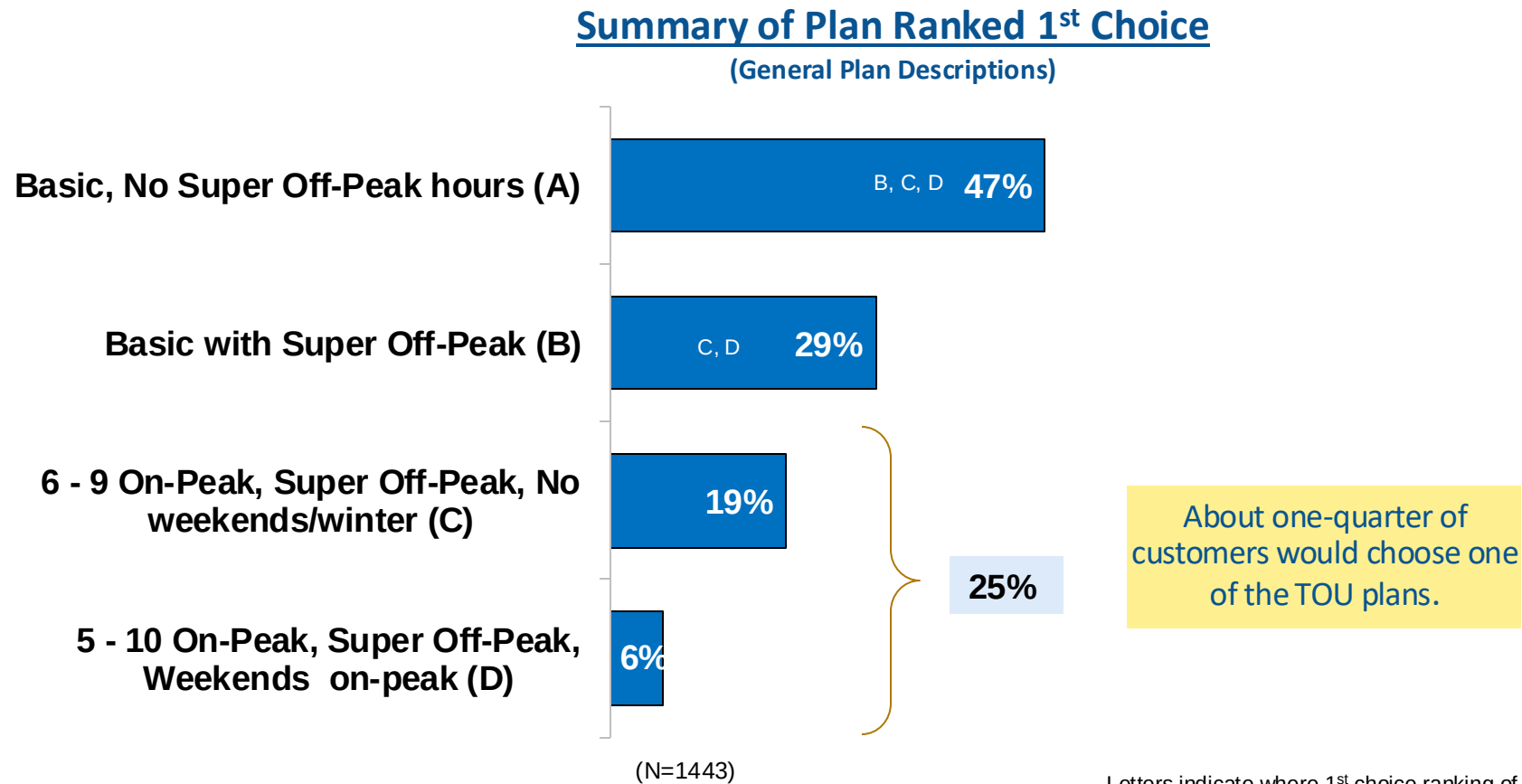
September 2023

Key Highlights

- With **minimal** information a **Basic Rate plan** is **top preferred plan**.
- When **educated on personalized savings opportunities** and **required behaviors**, interest in Basic with Super Off-Peak plan and TOU plans increases.
- **Annual savings of ~\$200** needed to consider switching plans.
- **Basic Rate Guarantee** generates strong interest and drives preference.
- **Consistency of rates** may be preferred over rate changes by season, weekends, or holidays.
- Customers lack an understanding of the **monthly service charge**.

Detailed Findings

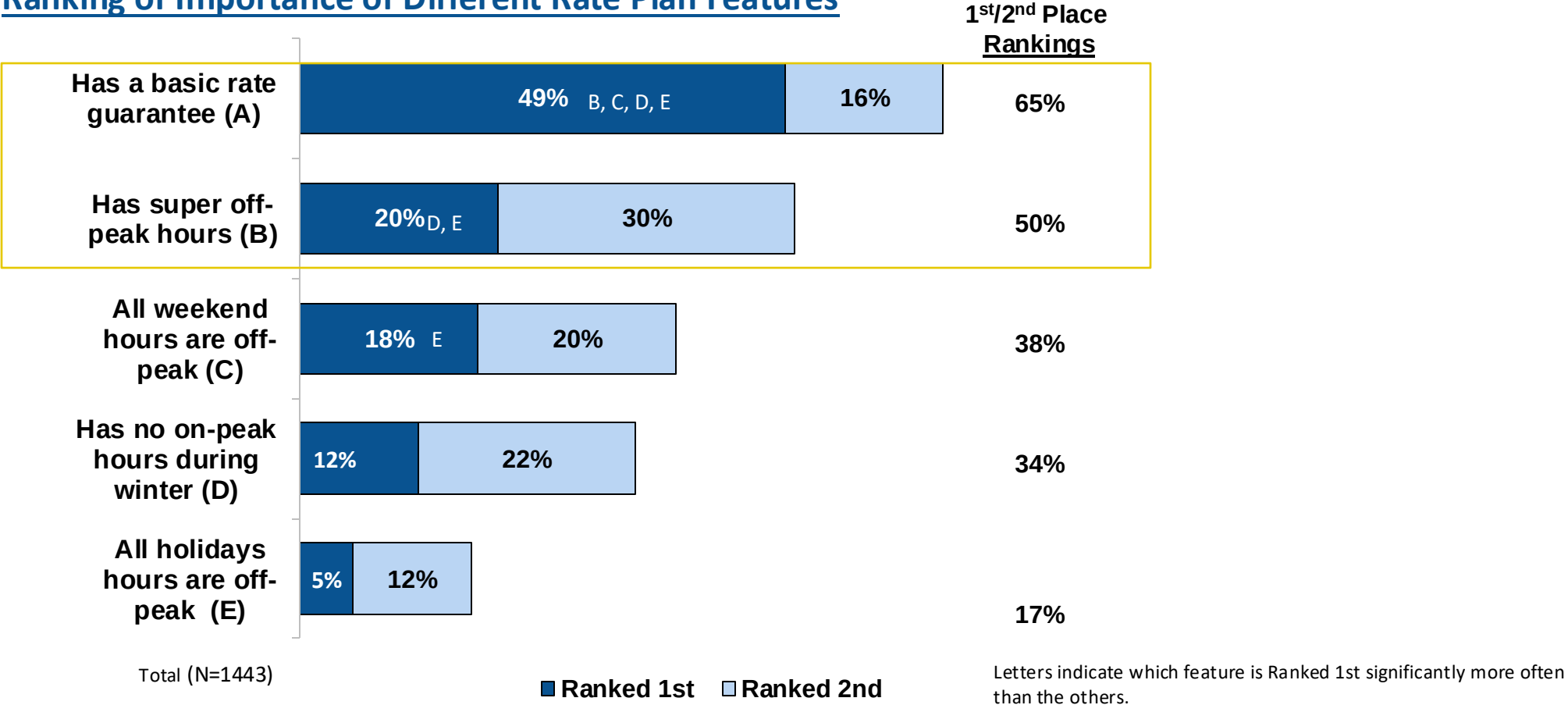
Based on general plan descriptions (similar to those on SRP website), the Basic plan options were the most often preferred plans.



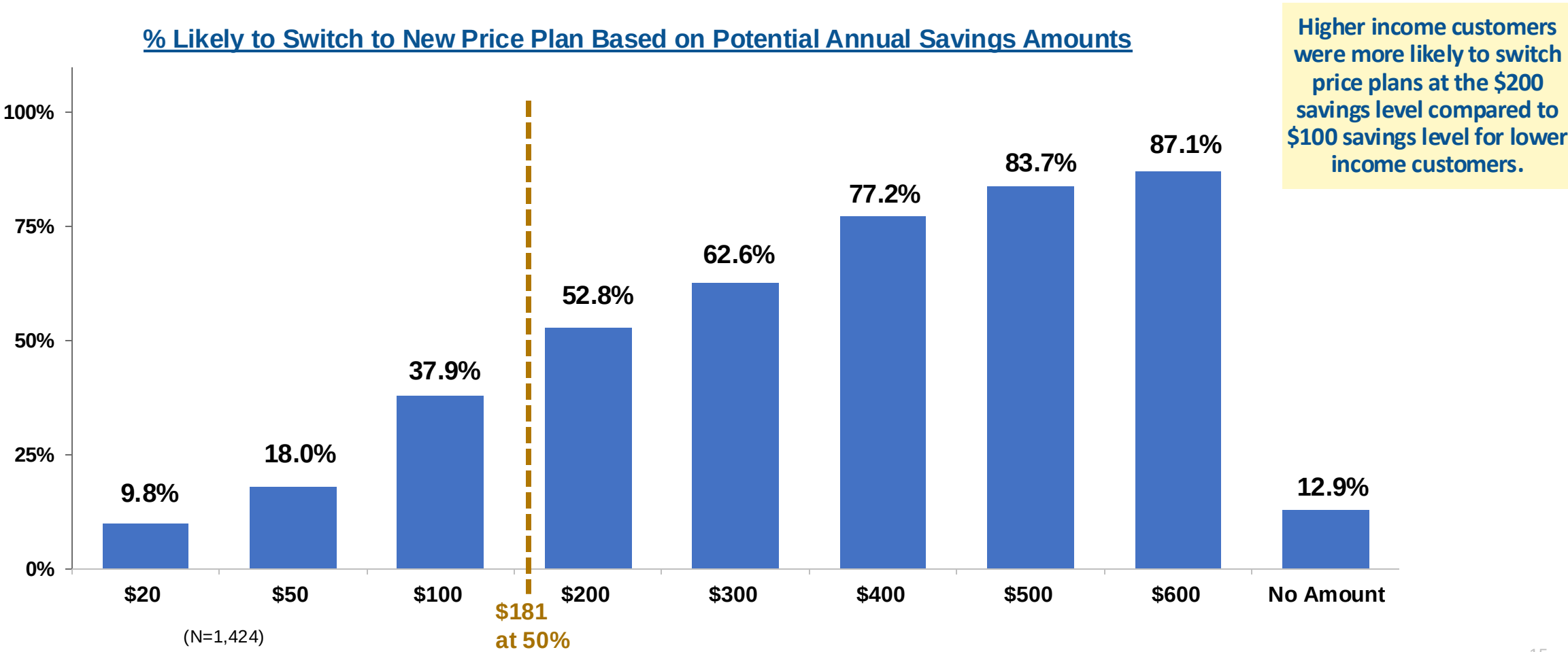
Letters indicate where 1st choice ranking of plan is significantly higher than the others.

“Basic Rate Guarantee” ranked highest in importance followed by “Super Off-Peak hours”.

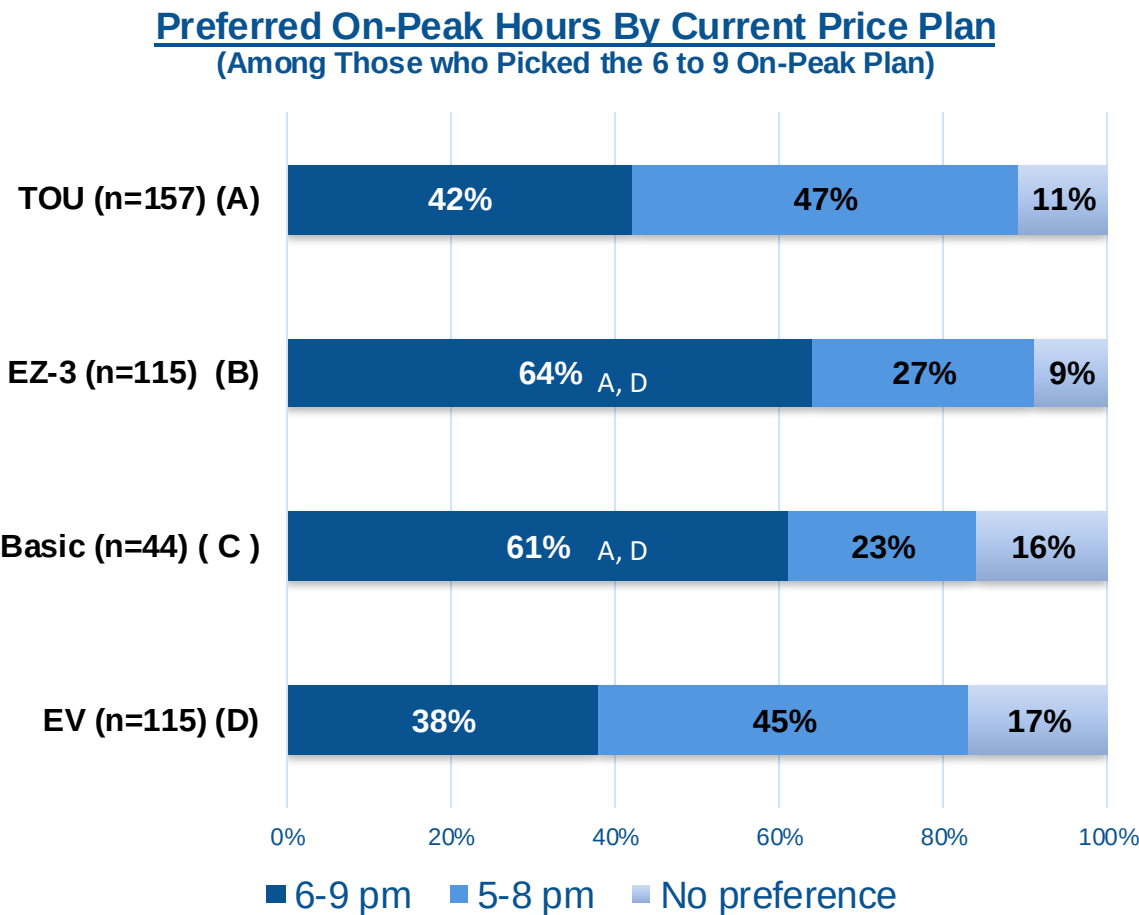
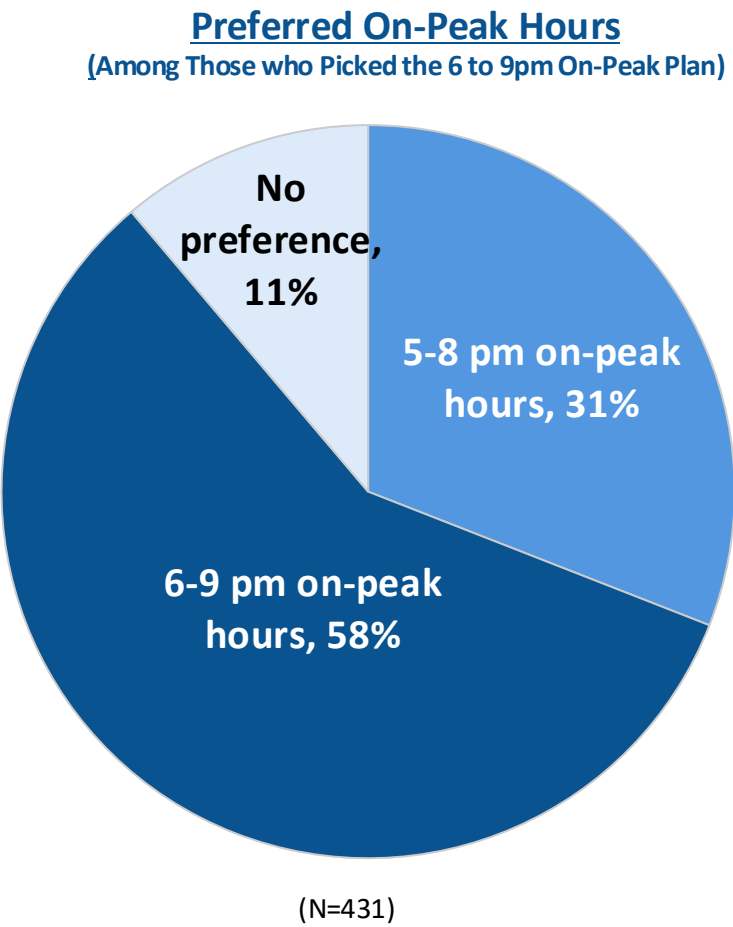
Ranking of Importance of Different Rate Plan Features



Approximately \$200 annual savings needed to consider switching plans.

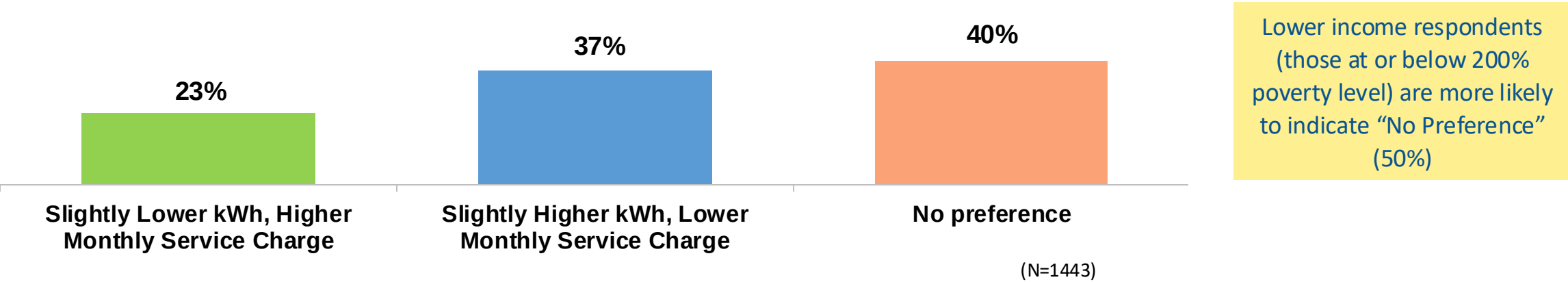


Among those interested in the new TOU plan, 6-9pm On-Peak hours were more often preferred over 5-8pm hours.



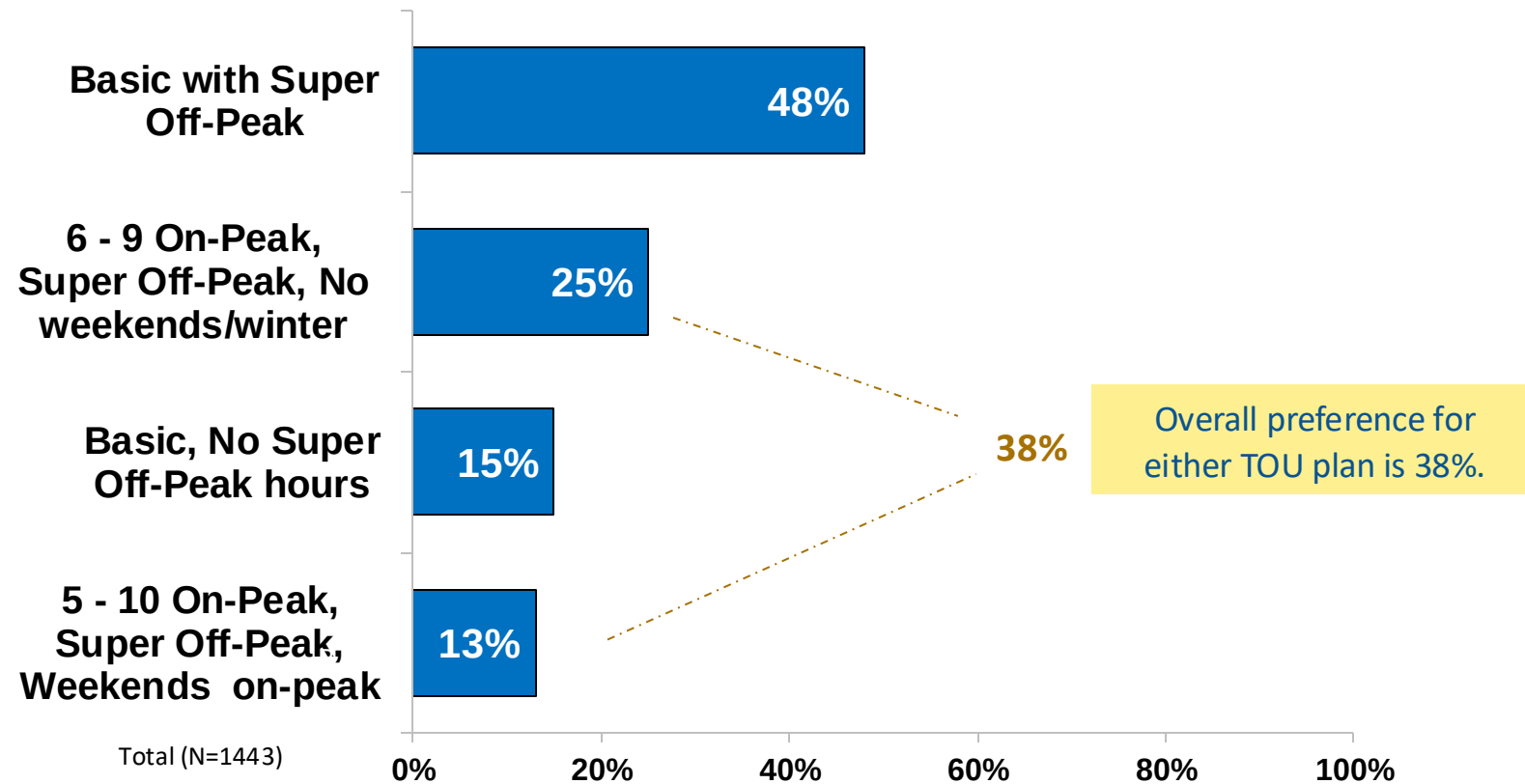
Letters indicate where 6-9pm on-peak hours is significantly higher than the others.

There is not a strong understanding of or preference for a monthly service charge.



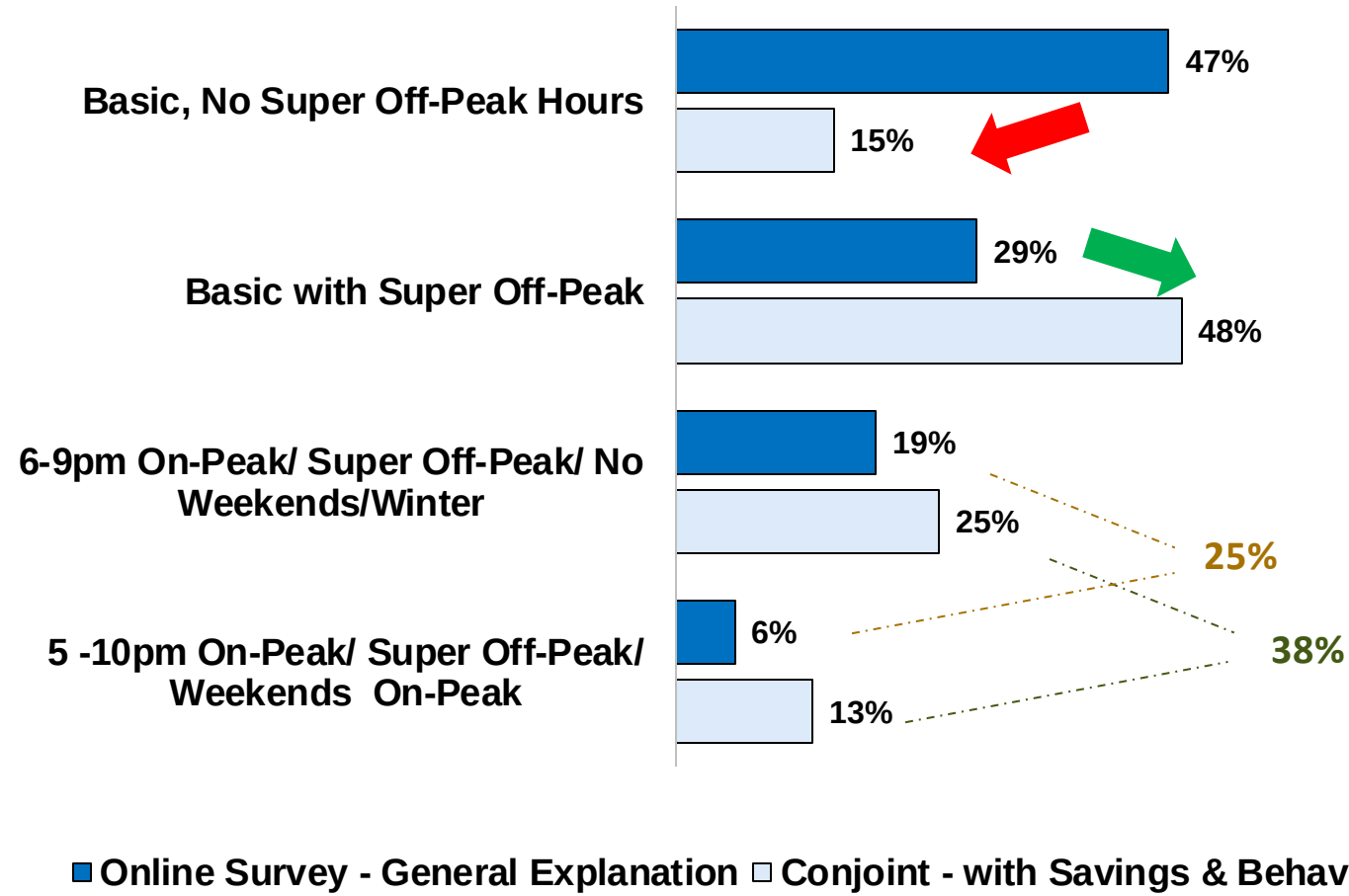
When customized savings & behaviors required are provided, overall preference was highest for Basic with Super Off-Peak followed by the TOU 6-9pm On Peak plan.

Overall Preference for Price Plans
(Conjoint Exercise with Customized Savings & Behavior Changes Required)

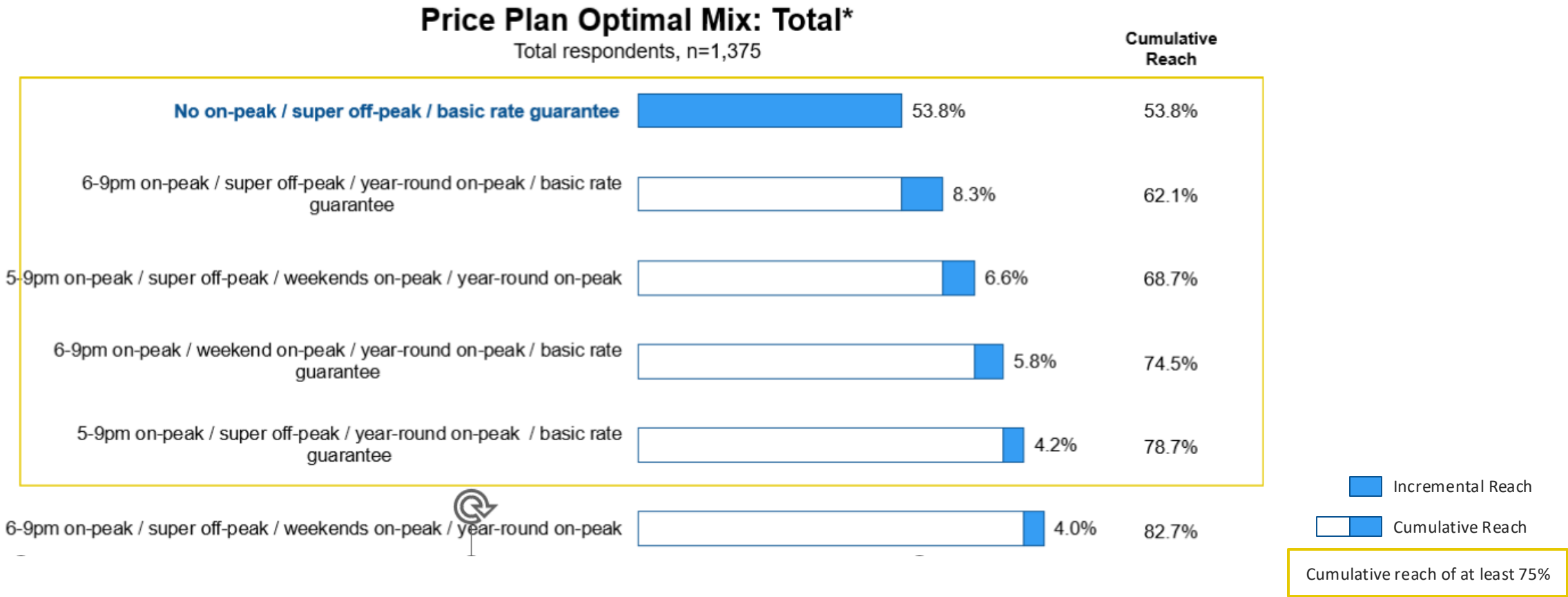


Preference for plans shift when education on behavior modifications & savings potential is provided.

Comparison of Plan Preferences By Information Provided



Given the choice, the components of "No On-Peak hours", "Super Off-Peak hours", "Basic Rate Guarantee" and a few versions of year-round "On-Peak hours", drive the greatest share of preference and reach.



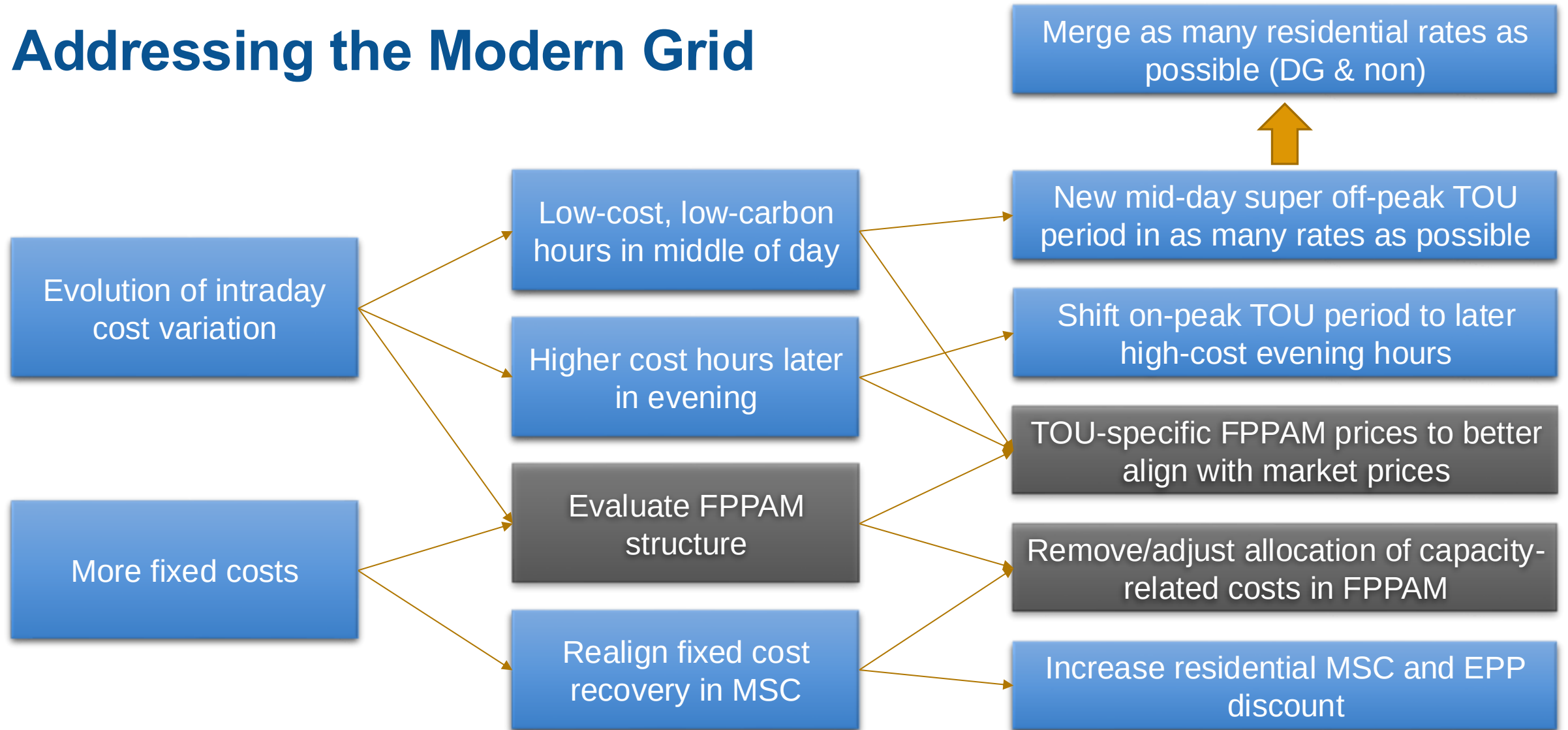
*Reach numbers based on plans with moderate behavior change and 1x annual savings multiplier

Overall Findings & Recommendations for Price Process

- **Education is critically important** and needs to start to ASAP.
- **Understanding savings potential by shifting usage** from on-peak to off-peak hours will be required
- A **Basic rate plan with “Super Off-Peak hours”** achieves highest preference and is recommended.
- A **TOU 6-9pm On-Peak with Super Off-Peak** hours plan is a viable option once customers understand potential savings from behavior changes.
- **Basic Rate Guarantee** provides a “risk free” option to try a TOU plan.
- Lower importance of different on/off-peak hours and rates by day-of-week or season suggests **customers may prefer simplicity & consistency of rates.**
- An increased **monthly service charge** may be feasible, but customer will need to understand the benefits.

Summary & Next Steps

Addressing the Modern Grid



Next Steps

- Detailed scope proposal discussion
- Scope decisions critical
- Near-term stakeholder engagement
- Start on changes to customer systems before approval

thank you!

Appendix

Educating the customer could be evaluated

Effort required to have impact on electricity bill

Minimal effort:

Keeps a steady temperature in the household throughout the day. Performs daily chores such as laundry, running dishwasher and pool pump during super-off peak or off-peak.

Moderate effort:

Precools home for a few hours before on-peak and then increases AC temperature a few degrees to limit amount of time AC turns on. Performs daily chores such as laundry, running dishwasher and pool pump during super-off peak or off-peak.

Significant effort:

More savings/less comfort and convenience.

Performs daily chores such as laundry, running dishwasher and pool pump during super-off peak.

Precools home during super-off peak and then for a few hours during off-peak and then eliminates AC turning on during on-peak. Avoids using any major appliances such as the electric oven/stove during on-peak.

Price plans

Why SRP is developing new price plans

SRP is in the process of developing new price plans for customers. Here's why:

Availability of solar energy - SRP is more than doubling the amount of our electricity generated by solar by 2025, and by 2035, solar will account for nearly half of the total electric power SRP generates annually.

Shift in peak demand - With this abundant daytime solar generation, as well as changing customer usage patterns, the peak demand times (meaning, the time when energy usage and demand is the highest) have been gradually shifting into later in the evening

Opportunity to save - The new price plan options that SRP is considering will continue to enable savings for customers while contributing to a cleaner grid

Defining On-Peak, Off-Peak and Super Off-Peak Hours

With the shift in peak demand to later in the day, the new price plans offer price breaks for customers who can commit to shifting their energy use outside of **high-demand**, or “**on-peak**” hours.

With an abundance of energy coming from solar, the lowest cost hours are now in the morning and early afternoon hours (called **super off-peak hours**) and the high-cost hours are later in the day (when the sun is setting and there is less solar energy available), referred to as on-peak hours.

All other hours (nights/early morning) when overall demand/usage is lower are generally referred to as **off-peak hours**.

The more you can use energy during super off-peak hours and shift energy use away from on-peak hours, the more you can save.

Include super off-peak which will become a big (or even bigger) emphasis than on-peak, the idea to shift energy into super off-peak and shift out of on-peak.

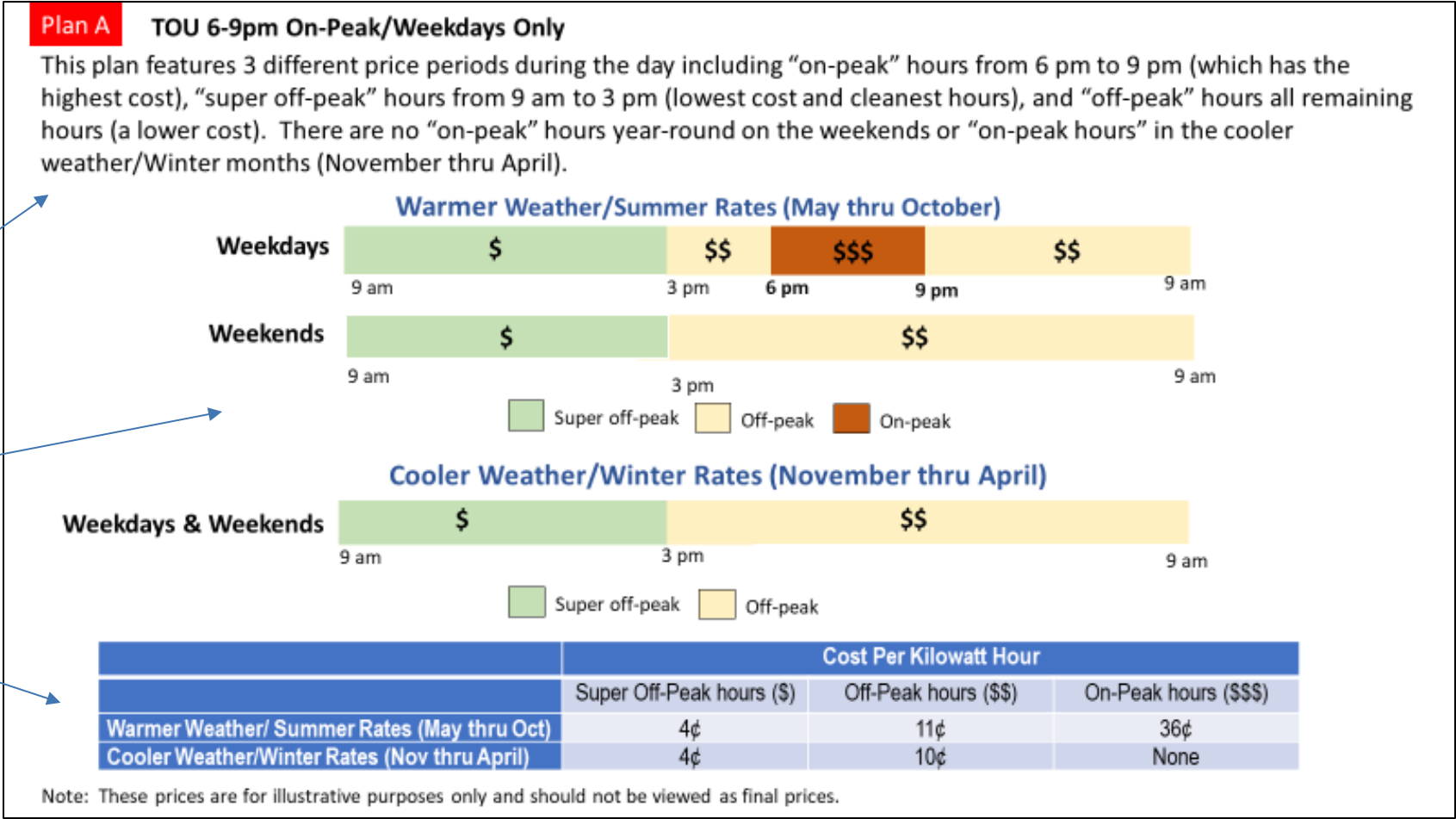
Methodology: Concept example from online survey

Example price plan concept

Sequential monadic evaluation of 4 price plans.

Concepts included:

- Brief Description
- Graphic highlighting different rates
- Actual cost per kWh



Methodology: Conjoint

(Choice Exercise Example)

Customers evaluated 6 screens, each showing 2 price plans. An example is shown on the right.

Enlarged choices shown below

A price plan with on-peak hours, <u>all year-round</u>, where on-peak hours apply on <u>weekdays AND weekends</u> from <u>6pm to 9pm</u> You make <u>no change</u> to your electricity usage <u>between 6pm and 9pm</u> <u>Estimated INCREASE in Annual Cost:</u> Based on the above, there will be an estimated increase of \$21 <u>Basic Rate Guarantee</u> A basic rate guarantee <u>is not included</u>. Select	A price plan with on-peak hours, <u>during summer only</u> (May-October), where on-peak hours apply on <u>weekdays only</u> from <u>5pm to 8pm</u> To receive the estimated savings, you will need to do <u>two</u> of the following <u>between 5pm and 8pm</u>: • Raise the thermostat 2-3 degrees <u>AND/OR</u> • Avoid running an electric dishwasher <u>AND/OR</u> • Avoid running an electric washer/dryer <u>AND/OR</u> • Turn off unnecessary lights, computers, and TV's not in use <u>Estimated Annual Savings:</u> Based on the above, there will be an estimated savings of \$71 <u>Basic Rate Guarantee</u> A basic rate guarantee <u>is included</u>. ✓
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Methodology: Conjoint Design Details

A choice-based conjoint methodology was utilized

6 attributes were included.

An overview of levels for each attribute are as follows:

On-Peak Season	Weekend	On-Peak Hours	Super Off-Peak Hours (9am to 3pm)	Energy Usage Behaviors	Annual Savings Multiplier	Basic Rate Guarantee
1.) Year-Round on-peak hours	1.) On-peak hours	1.) 5pm to 8pm	1.) Included	1.) None	1.) 1x	1.) Included
2.) No winter on-peak hours	2.) No on-peak hours	2.) 5pm to 9pm	2.) Not included	2.) Minimal	2.) 1.5x	2.) Not included
		3.) 5pm to 10pm		3.) Moderate	3.) 2x	
		4.) 6pm to 9pm		4.) Significant		
		5.) 6pm to 10pm				
		6.) No peak hours				

Choice options include combinations of the attributes above plus:

- Behavior changes required to shift usage
- Calculated behavior change impact in terms of potential annual bill increase/decrease

SRP Public Price Process Responses from: 2/8/2025

Name: Autumn Johnson

Record Number: MI6951224

Delivery Method: Email to Corporate Secretary

Received Date: 1/23/2025

Attachments: AriSEIA-SEIA 2nd DR to SRP 1.23.2025.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI6951224*

Comment:

John,

Please see the AriSEIA 2nd data request. Please respond within 10 days. Thank you.

Autumn T. Johnson

CEO | Tierra Strategy

See attachment

ARIZONA SOLAR ENERGY INDUSTRIES ASSOCIATION (ARISEIA) SECOND SET OF DATA REQUESTS TO SALT RIVER PROJECT (SRP) JANUARY 23, 2025 PROPOSED ADJUSTMENTS TO SRP'S STANDARD ELECTRIC PRICE PLANS EFFECTIVE WITH THE NOVEMBER 2025 BILLING CYCLE (AMENDED AND RESTATED)

GENERAL INSTRUCTIONS

1. All information is to be divulged that is in your possession, custody or control, or the possession, custody, or control of your attorneys, investigators, agents, employees, or other representatives, or which you may discover through reasonable inquiry.
2. If you cannot answer a Data Request in full and have exercised thorough

diligence in an attempt to secure the information requested, then you must so state. You must also explain to the fullest extent possible the specific facts concerning your inability to answer the Data Request and supply whatever information or knowledge you have concerning any unanswered portion of the Data Request.

3. If your answer to any Data Request is “unknown,” “not applicable,” or any other similar phrase or answer, state the following:

- a. Why the answer to that Data Request is “unknown” or “not applicable”;
- b. The efforts made to obtain answers to the particular Data Request; and
- c. The name and address of any person who may know the answer.

4. Where a Data Request requires you to state facts you believe support a particular allegation, contention, conclusion, or statement, set forth with particularity:

- a. All facts relied upon;
- b. The identity of all lay and expert witnesses who will or may be called to testify with respect to those facts.

5. If you contend that the answer to any Data Request is privileged, in whole or in part, or if you object to any Data Request, in whole or in part, state the reasons for such objection and identify each person having knowledge of the factual basis, if any, on which the privilege is asserted.

6. Where an individual Data Request calls for an answer that involves more than one part, each part of the answer should be clearly set out so that it is understandable.

7. These Data Requests are intended as continuing Data Requests which require that you supplement your answers setting forth any information within the scope of the Data Requests as may be acquired by you, your agents, attorneys, or other representatives following the service of your original answer.

DEFINITIONS

As used in these Data Requests the following terms have the meanings set forth below:

1. “You” or “your” refer to and are meant to include, International Brotherhood of Electrical Workers (“SRP”) and all of its agents, attorneys, investigators, employees, representatives, officers, directors, managers, members, subsidiaries, and parent companies, and separate answers should be given for each.
2. “Document” refers to any physical or electronic thing containing information or from which information can be discerned including, without limitation, any affidavit, agreement, appraisal, audio tape, bank trust, book, bid, book of account, cd-rom, check, computer disk, contract, correspondence (sent or received), declaration of trust, deed, deposition, diagram, diary, drawing, e-mail, instrument, invoice, lease, ledger, memorandum, memorandum of lease, note, notes of conversation (typed or written), outline, paper pamphlet, partnership agreement, photograph, receipt,

recording (whether or not transcribed), report, statement, study, text message, transcript, trust instrument, visual depiction, voicemail, voucher, and any other such physical objects and things and any data compilation(s) from which information can be obtained, translated through dictation devices into reasonably usable form when translation is practicably necessary. "Document" or "Documents" further include any and all "original" or "duplicate" "writings," "recordings" or "photographs" (as those italicized terms are defined in Rule 1001 of the Arizona Rules of Evidence¹), whether stored electronically or in traditional paper files and including (but not limited to) all "writings" and "recordings" memorializing or constituting any communications, data, files or information stored on any computer, computer software, computer programs, computer system, or electronic media, of every kind and description, however produced or reproduced, WHETHER DRAFT OR FINAL, including (but not limited to) all communications, documentation, letters, correspondence, e-mail, Internet Web Pages, memoranda, notes, films, transcripts, contracts, agreements, licenses, memoranda or notes of telephone conversations or personal conversations, telephone messages, microfilm, telegrams, books, newspaper articles, magazines, advertisements, marketing materials, periodicals, bulletins, circulars, pamphlets, statements, notices, reports, rules, regulations, directives, teletype messages, minutes of meetings, lists of persons in attendance, interoffice communications, reports, summaries, financial statements, ledgers, books of account, proposals, prospectuses, schedules, organization charts, offers, orders, receipts, working papers, calendars, appointment books, diaries, time sheets, logs, movies, tapes for visual or audio reproduction, recordings, or materials similar to any of the foregoing, however denominated, and including writings, drawings, graphs, charts, photographs, data processing results, printouts and computations (both in existence and stored in memory components), and other compilations from which information can be obtained or translated, if necessary, through detection devices into reasonably usable form. THE TERM "DOCUMENT" INCLUDES ALL DUPLICATES OF A DOCUMENT WHICH CONTAIN ANY ADDITIONAL HANDWRITING, UNDERLINING, NOTES, DELETIONS, OR ANY OTHER MARKINGS, MARGINALIA OR NOTATIONS, OR ARE OTHERWISE NOT IDENTICAL COPIES OF THE ORIGINAL.

3. "Possession" and "custody" include the joint or several possession, custody, or control of the above named or its agents, attorneys, employees, officers, directors, managers, members, subsidiaries, parent companies, and representatives.

4. "And" and "Or" and any other conjunctions or disjunctions used herein shall be read both conjunctively and disjunctively so as to require the provision of all information responsive to all or any part of each particular Data Request in which any conjunction or disjunction appears.

5. "Any," "Each" and "All" shall be read to be all inclusive.

6. "Relating to" or "Related to" means referring to, relating to, responding to,

concerning, connected with, commenting on, in respect of, about, regarding, discussing, showing, demonstrating, memorializing, describing, mentioning, reflecting, analyzing, comprising, supporting, sustaining, constituting, evidencing, and pertaining to, whether in whole or in part.

DATA REQUEST

1.1 Please provide all data requests, responses, and attachments provided to others within this proceeding.

2.1 Has SRP analyzed the impact to customer bills from its proposed sunseting of E-27 and E-15?

2.1.1. What is the average bill impact for a customer moving from E-27 to E-16, a customer moving from E-15 to E-16, a customer moving from E-27 to E-28, and a customer moving from E-16 to E-28?

3.1 Please define net metering.

4.1 Please explain what will happen to net metering customers that are not "legacy" customers in 2029.

4.1.1. Will they continue to have net metering on the new rate plans?

4.1.2. If yes, which plans?

4.1.3. If no, why?

4.1.4. Has SRP provided specific notice to non-legacy solar customers that net metering will end in 2029 as a result of this price proceeding?

5.1 Please explain what will happen to "legacy" net metering customers in 2029.

5.1.1. How can they keep net metering?

6.1 Is the increased revenue from solar customers reflected in SRP's proposed revenue increase in this rate proceeding?

6.1.1. If yes, please explain.

*1 Rule 1001 provides, in pertinent part:

"Rule 1001. Definitions. For purposes of this article the following definitions are applicable:

(1) Writings and recordings. "Writings" and "recordings" consist of letters, words, or numbers, or their equivalent, set down by handwriting, typewriting, printing, photostating, photographing, magnetic impulse, mechanical or electronic recording, or other form of data compilation."

(2) Photographs. "Photographs" include still photographs, x-ray films, video tapes, and motion pictures.

(3) Original. An "original" of a writing or recording is the writing or recording itself or any counterpart intended to have the same effect by a person executing or issuing it. An "original" of a photograph includes the negative or any print therefrom. If data are stored in a computer or similar device, any printout or other output readable by sight, shown to reflect the data accurately, is an "original".

(4) Duplicate. A "duplicate" is a counterpart produced by the same impression as the original, or from the same matrix, or by means of photography, including enlargements and miniatures, or by mechanical or electronic re-recording, or by chemical reproduction, or by other equivalent technique which accurately

reproduces the original.”

Response Subject: SRP Corporate Pricing Response to Public Comment
#MI6951224

Response Attachments: SRP Management Response to AriSEIA Second Request
for Information_SEIA02.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI6951224*

Response Sent by CSO Saturday, February 8,
2025 9:36 AM

Response:

Hi Autumn,

Please see SRP Management's Response to AriSEIA Second Request for
Information_SEIA02.pdf for response details.

**SRP Management Response to
AriSEIA Second Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

1. Please provide all data requests, responses, and attachments provided to others within this proceeding.

SRP Response:

All responses from SRP management are posted at [Pricing process documents and materials | SRP](#). If any response references a separate data file or attachment, those materials are available for inspection at SRP's main administrative offices. To receive a copy of a particular record, please submit a specific written request.

2. Has SRP analyzed the impact to customer bills from its proposed sunseting of E-27 and E-15?
 - a. What is the average bill impact for a customer moving from E-27 to E-16, a customer moving from E-15 to E-16, a customer moving from E-27 to E-28, and a customer moving from E-16 to E-28?

SRP Response:

SRP management did not do this as part of price proposal materials, but an analysis is produced below. This is with no load modification; TOU price signals on the proposed price plans encourage behavior that is not reflected in these estimated bills.

Current Rate	Proposed Bill on Current Rate	Proposed Bill on E-16	Proposed Bill on E-28
E-27	\$136	\$158	\$173
E-15	\$148	\$167	\$186

3. Please define net metering.

SRP Response:

Net metering for SRP is defined in the Renewable Net Metering Rider, under Net Metering Method, reproduced below:

“The kilowatt-hours (kWh) delivered to SRP shall be subtracted from the kWh delivered from SRP for each billing cycle. If the kWh calculation is net positive for the billing cycle, SRP will bill the net kWh to the customer under the applicable price plan under which they take service. If the kWh calculation is net negative for the billing cycle, SRP will

carry forward and credit the kWh (excess generation) against customer kWh usage on the next monthly bill; for the purpose of this calculation, excess generation will be tracked by time-of-use period, where appropriate. However, if the kWh is net negative at the end of the April billing cycle, SRP will credit the net kWh from the customer at an average annual market price. No credits will be carried forward to the May billing cycle.”

For customers in a net-metering price plan such as E-27 or E-15, the following is used:

“The kWh delivered to SRP shall be subtracted from the kWh delivered from SRP for each billing cycle. If the kWh calculation is net positive for the billing cycle, SRP will bill the net kWh to the customer under this price plan. If the kWh calculation is net negative for the billing cycle, SRP will credit customer for the net kWh at the retail per-kWh price under this price plan. For the purposes of this calculation, excess generation will be tracked by time-of-use period.”

4. Please explain what will happen to net metering customers that are not “legacy” customers in 2029.
 - a. Will they continue to have net metering on the new rate plans?
 - b. If yes, which plans?
 - c. If no, why?
 - d. Has SRP provided specific notice to non-legacy solar customers that net metering will end in 2029 a result of this price proceeding?

SRP Response:

- a. It is unclear what is meant by “legacy” customers. This response addresses net metering generally. The new proposed price plans do not offer net metering. Under the proposal, when the existing net metering price plans are sunset (no later than the November 2029 billing cycle), there will no longer be net metering offered to any customers, other than those residential solar customers who are permitted to take service under the proposed E-23 Price Plan (commonly referred to as “grandfathered” customers) and other existing customers to which the frozen Renewable Net Metering Rider is applicable.
- b. See above
- c. See above
- d. SRP’s Board of Directors has not yet approved any changes to SRP’s price plans, and the Price Process has not yet concluded. All residential and residential solar customers have received the same notices from SRP concerning the proposed changes, some of which are reproduced here:
 - i. In the initial email and mailer to customers announcing the Price Process, the following sentence: “SRP’s Board of Directors will evaluate SRP management’s proposed updates to plans, including price plan changes, freezes and additions, as well as adjustments to monthly service charges and base rates.”
 - ii. Various pages on the Price Process website, listed below:
 1. Proposed changes to residential price plans | SRP:

“Under this proposal, to simplify our pricing, current TOU price plans will stop being offered to new customers and will be eliminated by November 2029. If you are on one of those plans, you

can stay on that plan until it's eliminated, or you can switch to one of our two new options starting in November 2025."

2. Public pricing process frequently asked questions | SRP (under the first question "What are the proposed changes for residential customers?"):

"Under this proposal, to simplify our pricing, current TOU price plans will stop being offered to new customers and will be eliminated by November 2029. If you are on one of those plans, you can stay on that plan until it's eliminated, or you can switch to one of our two new options starting in November 2025."

3. Public pricing process frequently asked questions | SRP (under the first question "If I am on a frozen plan, what will change?"):

"With the proposed introduction of new Time-of-Use (TOU) hours, SRP management is proposing to freeze certain price plans from new participation effective with the November 2025 billing cycle. Those frozen price plans will sunset, and remaining customers will be moved to a price plan indicated in the frozen price plan, or a plan of their choice no later than November 2029 billing cycle."

5. Please explain what will happen to "legacy" net metering customers in 2029.
- a. How can they keep net metering?

SRP Response:

It is unclear what is meant by "legacy" customers. This response addresses current net metering customers generally.

Under the proposal, when the net metering price plans are eliminated, a residential solar customer who is not "grandfathered," as described above, cannot be on net metering. A grandfathered customer can take service under E-23 and remain on net metering under the Renewable Net Metering Rider (until their grandfathered exemption expires).

Non-residential customers on the frozen Renewable Net Metering Rider may stay on that rider.

6. Is the increased revenue from solar customers reflected in SRP's proposed revenue increase in this rate proceeding?
- a. If yes, please explain.

SRP Response:

If the proposal is approved, all expected additional revenue, net of additional credits and discounts, from solar customers on the Solar Price Plans (E-13, E-14, E-15, and E-27) is included in the 5.5% projected revenue change shown in Figure 6 & Table 1 of Management's Complete Proposal. If we have misunderstood your question, please provide a supplement request to clarify.

Name: Steve Neil

Record Number: MI7001377
Delivery Method: Email to Corporate Secretary
Received Date: 2/3/2025
Attachments: 20250131_Comment_Neil.pdf

**To receive a copy of Attachments please
contact the Corporate Secretary's Office and Reference
Record #MI7001377*

Comment:

John,

I really appreciate the answers I've received from SRP. It may be unusual for the company to answer so many questions, but truthfully, it is a drop in the bucket as to what goes on in a regulated utility rate case.

Before my presentation on the 6th, and before I can finalize my presentation, I have to have good answers to these requests. I was really hoping they would come in today, but they have not.

1. all the inputs into the pricing of Management's Complete Proposal. submission id a87b3f6e, submitted 1/22, partially responded to 1/28, resubmitted via email to John 1/28 and 1/30.

2. price plan cost comparison. submission MI6435429 of 12/5, partially responded to 12/31, resubmitted 1/10 as submission id b5c8cc5f, partially responded to 1/27 (no emails received), resubmitted via email to Ashleigh and John 1/30.

If there are any questions about what my words describe, let's get everybody on a phone call and talk through it.

I really don't want to stand before the board on Thursday and tell them that I wanted to do some serious validation of some aspects of management's proposal, but was denied the information to do so. So I need the above by Tuesday, 5pm (give or take an hour or two) at the latest. If that timeframe just can't be met, I'll be in town the 11th, so I could present that week instead. The trouble with the 11th is that there would likely need to be a meeting between then and the 27th meeting which is contemplated to be the final vote in order for management to respond to requests from the board, and I do expect there to be requests related to what I propose. Last price process was 5 meetings and this one is 4. I think 2015 was at least 5 meetings.

Give me a call Monday once you or a team member has researched, talked it over with management.

--Steve

Response Subject: SRP Corporate Pricing Response to Public Comment #MI7001377

Response Attachments: SRP Management Response to Steve Neil's Twelfth Request for Information_SN12.pdf;

**To receive a copy of Attachments please contact the Corporate Secretary's Office and Reference Record #MI7001377*

Response:

Hi Steve,

Please see SRP Management Response to Steve Neil's Twelfth Request for Information_SN12 for response details.

**SRP Management Response to
Steve Neil Twelfth Request for Information Regarding
SRP's Proposed Changes to its Electric Rate Schedules**

1. all the inputs into the pricing of Management's Complete Proposal. submission id a87b3f6e, submitted 1/22, partially responded to 1/28, resubmitted via email to John 1/28 and 1/30.

SRP Response:

Please see response to a87b3f6e.

2. price plan cost comparison. submission MI6435429 of 12/5, partially responded to 12/31, resubmitted 1/10 as submission id b5c8cc5f, partially responded to 1/27 (no emails received), resubmitted via email to Ashleigh and John 1/30.

SRP Response:

Please see responses to MI6435429 and b5c8cc5f, including supplementary materials provided by email.