



Energy Division Staff Report of the 2024-2025 Resource Adequacy Market Price Benchmark

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1. Background

The Power Charge Indifference Amount (PCIA) was originally established in D.06-07-030 to ensure cost indifference between bundled customers that remain with IOU service and customers who depart but remain responsible for the costs of resources the Investor Owned Utilities (IOUs) procured on their behalf. The current PCIA methodology was adopted in D.18-10-019, which tasked Energy Division (ED) with calculating and producing a Resource Adequacy (RA) Market Price Benchmark (MPB).

In the current MPB calculation process, ED sends a data request (DR) to all IOUs, Community Choice Aggregators (CCA), and Electric Service Providers (ESP)/Direct Access (DA) providers three times a year, which collects data on all RA transactions.¹ Pursuant to D.18-10-019, the RA MPBs serve as an input to the annual Energy Resource Recovery Account (ERRA) Forecast proceedings for each IOU. Specifically, ED calculates five MPBs: system MPB, flexible MPB, and three local area MPBs (one for each IOU). ED calculates these local area MPBs based on the transmission access charge (TAC) areas for Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E).

Costs are allocated among bundled and unbundled customers through the PCIA according to the methodology adopted in D.18-10-019. However, rapid increases in prices for certain recent market transactions have revealed issues inherent to the methodology that may be undermining customer cost indifference. This report identifies some problematic issues with the current RA MPB methodology and discusses some potential modifications under consideration in the PCIA Order Instituting Rulemaking (OIR).

1.1. Current Categorization of RA MPB Transactions

The MPBs are calculated prior to the year-ahead RA compliance requirements in order to approximate the cost of the portfolio. The RA procurement is completed to meet the RA compliance requirements listed in Figure 1.

¹ The RA MPB excludes resources with over 300 MW per D.23-06-006.

Figure 1: LSE Procurement Obligations and Timeline

| Showing | Annual (Filed on or around 10/31) | Monthly (Filed 45 days prior to compliance month) |
|----------------|--|---|
| System | LSE must demonstrate procurement of 90% of System RA obligation for the five summer months of the coming compliance year. | LSE must demonstrate procurement of 100% of their monthly System RA obligation. |
| Local | For its three-year forward obligation, each LSE in the SDGE area must demonstrate procurement of 100% of Local RA obligation for each month of compliance years one and two and 50% of Local RA obligation for year three. For LSEs in the SCE and PGE local procurement need only be demonstrated for 2022. | From July to December, LSE must demonstrate procurement of their revised (due to load migration) Local RA obligation. |
| Flexible | LSE must demonstrate procurement of 90% of Flexible RA obligation for each month of the coming compliance year | LSE must demonstrate procurement of 100% of their monthly Flexible RA obligation |

D.18-10-019 established that the RA adder should be calculated for the three separate categories of RA compliance requirements and determined that the transaction data should be categorized according to the following rules for the purpose of calculating the MPB:²

- RA that provides both system and flexible capacity shall be counted as flexible capacity;
- RA that provides both system and local capacity shall be counted as local RA capacity; and
- If the RA provides all three types of RA capacity, it shall be counted as local capacity.

Additionally, the current methodology for calculating the RA MPBs uses data from varying timeframes for the different RA MPB calculations, as follows:

- System and flex RA:
 - Forecast adders include transaction data from a one-year period for delivery in year n.

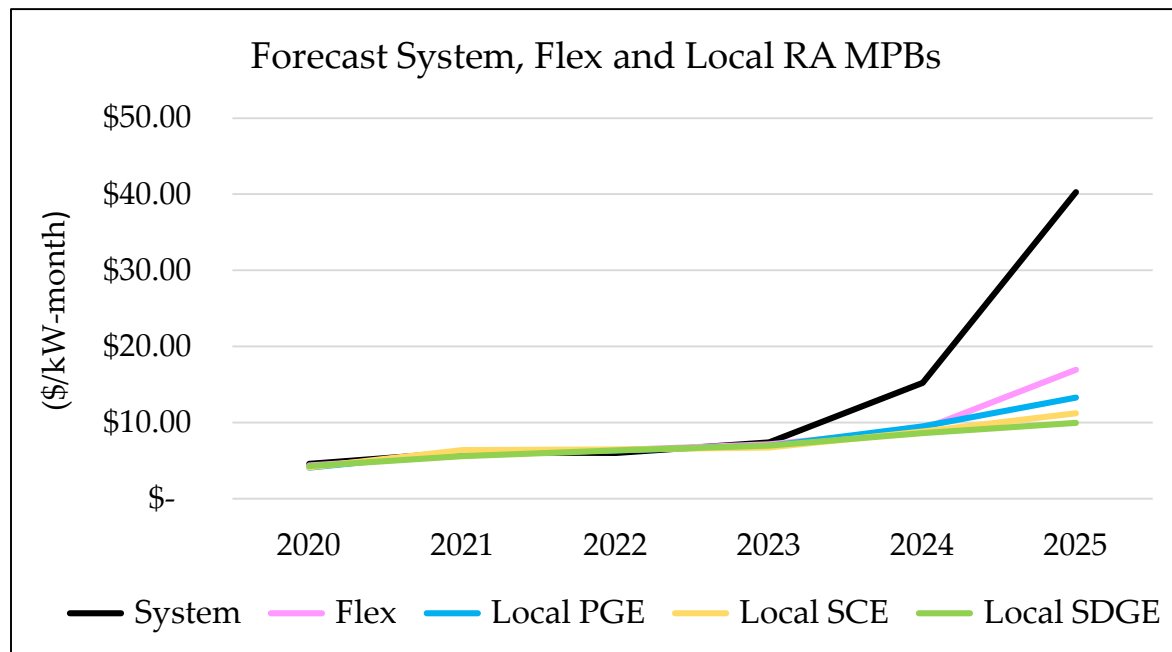
² Pg. 74, D.18-10-019, Decision Modifying the Power Charge Indifference Adjustment Methodology, October 11th, 2018.

- Final adders include two years of executed transaction data for delivery in year n.
- Local RA:
 - Forecast adders include transaction data from a three-year period for delivery in year n.
 - Final local RA adders include executed transaction data from a four-year period of executed transaction for delivery in year n.

2. Trends in RA MPB

The system RA Forecast and Final MPBs have seen the most volatility since the current PCIA MPB methodology was adopted in D.18-10-019.³ The system values were initially below \$5/kW-month but are now forecasted to surpass \$40/kW-month, which produces a value of \$483.72/kW-year when annualized. This RA price is reflective of a recent subset of RA transactions that may be driven by market power, as it does not appear that new RA projects are or would be this expensive.

Figure 2: Forecast System, Flex, and Local RA MPBs based on the adopted methodology in D.18-10-019.



³ There is both a Final and Forecast MPB calculated. The Forecast approximates the cost of RA for the year ahead. The Final MPB, also known as the True-Up, reflects what an entity actually paid. This is because forecasted prices do not always line up with actual observed prices due to various reasons.

System RA MPBs are the main driver of the increases in each IOU's total portfolio market value included in their respective ERRA Forecast filings, which has yielded the PCIA as a credit. Since the PCIA is calculated as the difference between the IOU's portfolio cost and the market value for which the portfolio could be resold, the increases in the RA MPBs (as well as RPS MPBs) have led the total market value to exceed the portfolio cost in 2024, and more substantially in 2025. The final revenue requirement is the sum of the indifference amount and the PABA balance and ERRA balance. The magnitude of the negative revenue requirement has been somewhat offset by overcollections in the PABA balancing account – essentially making the revenue requirement less negative. In general, a PCIA credit to unbundled customers recovered through higher rates for bundled customers is only warranted if the market value being applied to the entire portfolio is accurate.

2.1. Reduced Liquidity in RA Market

The RA Market has historically traded fairly robustly. However, when calculating the 2025 MPB Forecast values, ED found a significant drop in transaction volume for the 2025 Forecast MPBs.

Figure 3: Transaction Volume for Year-Ahead MPB Forecast for 2024 v 2025

| | 2024 MPB Forecast | Number of Transactions | 2025 MPB Forecast | Number of Transactions |
|---------------------------------------|--|--|---|--|
| Flex Transaction Volume (MW) | ~41,000 MW-months (or ~3,400 per month) | 639 transactions (or ~53 per month) | 9,380 MW-months (or ~780 per month) | 258 transactions (or ~22 per month) |
| System Transaction Volume (MW) | ~52,000 MW-months (or ~4,300 per month) | 1,331 transactions (or ~111 per month) | 6,705 MW-months (or ~600 MW per month) | 241 transactions (or ~20 per month) |
| Local Transaction Volume (MW) | ~107,895 MW-months (or ~8,991 per month) | 2,455 transactions (or ~205 per month) | 116,570 MW-months (or ~9,714 per month) | 2,589 transactions (or ~216 per month) |

Figures 3 and 4 show a sharp reduction in overall transaction volumes for system and flex RA resources. LSEs met most, if not all of their RA requirements in 2024, likely due to longer-term contracts that are not reflected in the MPB, as discussed further below.

Figure 4: System, Flex, and Local RA Transaction Volumes 2022-2025

| | 2022 MPB Forecast | 2023 MPB Forecast | 2024 MPB Forecast | 2025 MPB Forecast |
|---|--|---|--|--|
| Flex Transaction Volume (MW) | ~7,606 MW- months (or ~634 per month) | ~10,283 MW- months (or ~857 per month) | ~41,000 MW- months (or ~3,400 per month) | 9,380 MW- months (or ~780 per month) |
| System Transaction Volume (MW) | ~21,438 MW- months (or 1,787 per month) | ~26,594 MW- months (or ~2,216 per month) | ~52,000 MW- months (or ~4,300 per month) | 6,705 MW- months (or ~600 MW per month) |
| Local Transaction Volume (MW) | ~160,876 MW- months (or 13,406 per month) | ~142,000 MW- months (or ~11,833 per month) | ~107,895 MW- months (or ~8,991 per month) | 116,570 MW months (or ~9,714 per month) |

To the extent that LSEs are able to meet their RA requirements, the reduction of transaction volume indicates that a significantly greater amount of the RA capacity was procured prior to the October 2023-September 2024 timeframe than what is included in the RA MPB forecast calculation for 2025. Since LSEs met most, if not all of their total RA requirements, this means that most of the RA was procured prior to the data used for consideration in the 2025 MPB Forecast calculations.

3. Issues with Current MPB Structure

ED has identified an array of issues that could result in RA MPB divergence relative to the entire portfolio value. This section explores these issues and provides possible modifications to address these in the current PCIA calculation methodology.

In reviewing the calculation of the 2024-2025 Market Price Benchmarks, ED has identified two sets of issues with the current RA MPB methodology that should be more closely analyzed: the categorization (or bucketing system) of MPB data and timeframe of transaction data included in the RA MPB; and the presence of non-market transactions. The current methodology fails to capture all transactions for deliverability in year n and fails to exclude non-market or non-arm's length transactions that may not reflect genuine market prices.

3.1. Bucketing System May Not Capture the Full Costs of the Portfolio

D.18-10-019 divided the RA transactions into buckets for the purpose of calculating the RA MPBs that reflect only a subset of RA transaction data and market prices, rather than all transaction data and market prices for deliverability in a specific year. The bucketing system therefore may not accurately capture all costs associated with all contracts for deliverability in a specific year. Moreover, the MPBs as currently calculated rely on different time horizons depending upon which MPB is being calculated. In addition, there are three different MPBs, with the local RA MPB being further broken down for the three Transmission Access Charge (TAC) areas. Since RA is a bundled product, local and flexible RA capacity can be used to meet system RA compliance.

3.1.1. Procurement Window

The MPBs as currently calculated rely upon different time horizons depending upon which MPB is being calculated. In order to issue an RA MPB before the ERRA Forecast Proceedings, ED staff draws data from Q4 of the previous year and Q1, Q2, and Q3 of the current year. In effect this is 9 months of transaction data, because there is very little transaction activity over the winter, when the load forecast is low, resulting in more available RA capacity than demand. Much of this demand is met with local RA. The RA MPB represents the remaining capacity that has not already been procured to meet LSE compliance requirements through long-term contracts, including capacity procured to meet the LSEs' Integrated Resource Planning (IRP) and Renewable Portfolio Standard (RPS) requirements. Based on the trends in the RA MPB, LSEs appear to be paying a premium for these monthly RA-only contracts that are used to meet the summer system RA capacity requirements for the upcoming year.

RA resources are in high demand in Q2 and Q3 to meet upcoming summer system RA requirements. System RA requirements are highest in the summer because California is a summer peaking system, with higher electricity demand and subsequently higher prices than in the winter or the fall and spring shoulder peak seasons. However, the monthly RA-only contracts in the RA MPB represent a marginal amount of the total capacity procured to meet the total RA need, as shown in Figure 5. It is important to note that the local RA transaction volume represents three years of transaction volume, whereas the flex and system RA transaction volume is only from the previous year.

Figure 5. 2025 Forecast System, Local and Flex RA Transaction Volume, by Month v. Year-Ahead CPUC Monthly Peak Resource Adequacy Requirements (YA RAR) MW

| | System MW | YA RAR (MW) | % of YA RAR | Local MW | YA RAR (MW) | % of YA RAR | Flex MW | YA RAR (MW) | % of YA RAR |
|--------------|-----------|-------------|-------------|----------|-------------|-------------|---------|-------------|-------------|
| Jan | 309 | 30,444 | 1% | 9,647 | 30,444 | 32% | 240 | 30,444 | 1% |
| Feb | 310 | 29,770 | 1% | 9,577 | 29,770 | 32% | 280 | 29,770 | 1% |
| Mar | 624 | 30,334 | 2% | 9,138 | 30,334 | 30% | 240 | 30,334 | 1% |
| Apr | 208 | 32,356 | 1% | 9,827 | 32,356 | 30% | 240 | 32,356 | 1% |
| May | 600 | 36,244 | 2% | 9,253 | 36,244 | 26% | 325 | 36,244 | 1% |
| June | 779 | 44,075 | 2% | 10,219 | 44,075 | 23% | 1,125 | 44,075 | 3% |
| July | 828 | 48,463 | 2% | 10,234 | 48,463 | 21% | 1,125 | 48,463 | 2% |
| Aug | 809 | 47,006 | 2% | 10,184 | 47,006 | 22% | 1,125 | 47,006 | 2% |
| Sep | 787 | 48,513 | 2% | 10,122 | 48,513 | 21% | 1,125 | 48,513 | 2% |
| Oct | 784 | 39,071 | 2% | 9,552 | 39,071 | 24% | 1,225 | 39,071 | 3% |
| Nov | 332 | 32,088 | 1% | 9,378 | 32,088 | 29% | 1,165 | 32,088 | 4% |
| Dec | 335 | 30,863 | 1% | 9,436 | 30,863 | 31% | 1,165 | 30,863 | 4% |
| Total | 6,705 | 449,227 | 1% | 116,570 | 449,227 | 26% | 9,380 | 449,227 | 2% |

Uncertainty related to implementation of the Slice of Day (SOD) framework adopted in D.23-04-010 and D.24-06-004 could be driving some of the sharply reduced liquidity described above. For example, between 2024 and 2025, ED identified a 77% drop in procurement for flexible transaction MW volumes, and an 87% drop in procurement for system transaction MW volumes. The reduced liquidity magnifies any issues or non-market prices in the dataset, because the reduced liquidity reduces the size of the denominator. Due to new rules and their implementation, SOD introduced uncertainty into the RA market that may have led entities to withhold RA resources from the RA market until the SOD rules had been clarified.

When RA prices were relatively more stable, the difference between a long-run and short-run weighted-average RA price was less apparent. The recent spikes in RA prices procured in the year-ahead and month-ahead timeframe have magnified this discrepancy. Applying the short-run price to the entirety of the IOU portfolio is inaccurate because it represents only a small fraction of the RA resources procured, as illustrated in Figure 5. It may be necessary to include all long-term and short-term procurement contracts to more accurately capture all procurement costs, rather than only capturing the non-contracted capacity being procured in the year-ahead timeframe under the current framework.

3.1.2. System, Flex and Local RA Assignments

As directed in D.18-10-019, all transactions that meet local capacity requirements are categorized as local RA, even though these resources also provide system RA capacity. The RA categorization is defined by the location of the resource. For example, an entity can use a local resource to meet its system RA requirements, even if the resource is located in a local area, but ED still considers this a local RA resource for the purpose of the PCIA MPB.

D.20-06-002 established the Central Procurement Entity (CPE), which modified the procurement process for local RA resources. The decision adopted an approach that allows LSEs to still procure their own local resources if they so desire rather than defaulting to the CPE to handle all local RA procurement. An LSE may sell or show their local RA resources to the CPE, thus reducing the amount of procurement the CPE needs to engage in. After the CPE accounts for all LSE sales or showings, it determines how much local RA is still needed to be procured, which is then the responsibility of the CPE. Notably, this decision only affects LSEs within SCE's and PG&E's TAC areas, it does not modify the procurement of local RA in SDG&E's TAC area.

ED, in its calculation of the PCIA MPB, defines a transaction as local RA even when it may have been purchased to meet system RA compliance needs. Local RA has a like-for-like replacement requirement that is more stringent than for system RA, so when local RA needs to be replaced or swapped out for an outage, for instance, an LSE may have to replace that same amount of MWs with another local RA resource. Local RA may be more difficult to replace since the resource has to be in a local area. Therefore, there are additional requirements and, historically, there was a premium on local RA, because it is more difficult to replace than system RA which can come from anywhere on the grid. By purchasing local RA and showing the resource to CAISO as system RA, the LSE may be attempting to avoid the replacement requirement tied to showing local RA to CAISO. The IOU data requests do not currently differentiate between IOU procurement that meets the IOUs' bundled requirement and procurement that meets the CPE requirement, and it is not always clear how the resources are shown to the CPUC and the CAISO – that is, local or system. Thus, the default is to classify the RA product based on its location and attributes for purposes of the MPB, not how the resource is used for RA compliance.

3.2. Non-Market Transactions Included in the MPB

ED identified a series of transactions between certain parties in which the prices were not set by supply-demand economics. Data collected in Q4 2023 and Q1-Q3 2024,

included eighty-two contracts clearing at or above \$100/kW-month. Contracts over \$100/kW-month may reflect actual market conditions and should be included in the MPB, but it is possible that they do not reflect market conditions and should be considered for exclusion. For example, transactions between two affiliates may suggest that these are not arms-length transactions, and market conditions did not set the prices.⁴ In addition, ED identified swap transactions, some at exceptionally high prices, where the parties were swapping a system RA resource for a local RA resource, and it was not clear that these swaps represented “market” prices. Finally, ED identified a number of sleeve transactions, which may have resulted in double counting some transactions. Excluding these swap and affiliate transactions could potentially eliminate transactions that do not reflect genuine arms-length market prices and improve the accuracy of the MPB by basing its calculation on only genuine market prices and transactions and, in the case, of sleeves, not double counting some transactions.

3.2.1. Affiliate Transactions

An affiliate transaction is a transaction between two affiliate corporate entities or subsidiaries, in which revenues from a transaction benefit the same parent corporation. An affiliate can be the marketing arm of that entity or a fully or partially owned subsidiary of the original entity.

In the calculation of the 2025 Forecast MPBs and 2024 Final MPBs, ED identified transactions between LSEs and their own affiliates or subsidiaries that were among the highest priced RA transactions. The inclusion of affiliate transactions could be artificially inflating or deflating the MPB. In essence, these affiliate transactions are operating off the same overall internal balance sheet, so a high or low price charged to a subsidiary or affiliate has no impact on the overall balance sheet or parent corporation (or other market participants).

3.2.2. Swap and Sleeve Transactions

A swap transaction is an exchange between two LSEs or an LSE and a marketer or generation owner of a system, local or flex RA (e.g., swapping system for local or system for flex RA) resource. For example, an LSE may exchange their system resources for local resources in their portfolio to enable each counterparty to meet their individual obligations. In contrast, sleeve transactions involve one party transacting on behalf of

⁴ An arm’s length transaction can be defined as: “the condition or fact that parties to a transaction are independent and on an equal footing.” Merriam-Webster, 2025.

another.⁵ For example, Party A would procure capacity at \$25/kW-month but then sell that capacity at the same price (or a small premium) to another party in short order.

In the calculation of the 2025 Forecast and 2024 Final MPBs, ED identified swap transactions with unusually high prices. Energy Division has observed that some of the reported transactions were conducted with non-CPUC jurisdictional entities that continue to have local obligations in the PG&E and SCE TAC areas. In these swap transactions, the overall price is less important than the price spread; for example, an LSE swapping 20 MW of system RA for local RA could report the system price at \$25/kW-month and the local price at \$30/kW-month, resulting in an additional cost of \$5/kW-month for the local capacity. Likewise, this same transaction could be priced at \$125/kW-month for the system and \$130/kW-month for the local RA, with the same effect, a \$5/kW-month premium for the local product. Further, it could result in setting a MPB too high or too low, depending on how the transfer price is set.

ED identified another issue with sleeve transactions, which is that they could overweight the transaction in the MPB calculation, counting it as two transactions when it really represents only one. In a small dataset, this could overweight certain transactions and inflate the weighted average.

4. Proposals to Improve Accuracy of Market Price Benchmarks

The following section provides Energy Division analysis of the options presented in R.25-02-005. The section compares the MPB calculations using the current methodology with the MPB calculations (for the same time periods) using the proposed methodologies as follows: using all available transaction data (Proposal 1), creating a monthly MPB value (Proposal 4), and creating a combined RA MPB (Proposal 5). ED provides these figures so stakeholders can see the impacts of applying the methodological reforms as compared to the current methodology. It should be noted that these values are solely for illustrative purposes and largely correct but would be subject to further data cleaning and verification if these proposals were to be adopted for future years. ED does not currently have the necessary data to exclude swap, sleeve, or affiliate transactions, and therefore the potential impacts from Proposals 2 and 3 are not modeled below. The weighted average RA prices in this table differ from the

⁵ As defined by FERC, "In a sleeve transaction, an entity acts as an intermediary counterparty to conduct a sale between two other counterparties who may not be set up to transact with each other using common enabling agreements." E-9-ER21-2443-000

Annual RA Report issued by Energy Division⁶ due to the parameters of the dataset. The 2022 RA Report, issued in May 2024, presents weighted average RA prices calculated from transactions executed in 2022, for delivery across 2022-2026, thus, the weighted average prices in the RA report will vary from prices presented below.

4.1. Include All Transactions Available for Given Delivery Year

The Commission could consider using all transactions for a given year or all of the transaction data that is currently available (i.e., the data that has been collected to date) to calculate a weighted average MPB that is more representative of a portfolio of resources procured ratably over time. Using all transactions data for deliverability in year n would fully capture the cost of procurement for year n. This methodology would also better capture the costs associated with long-term resource procurement, as the current methodology only looks back at one year of data for some of the MPBs which produces a short-term MPB, rather than the total actual cost of procurement.

Figure 6: Current 2024 Final MPBs v. Proposed 2024 Final MPBs Using Data from 2020-2024 (Proposal 1)

| | Methodology | | | |
|---------------------------------------|-----------------------------------|------------------------------------|----------------------------------|-----------------------------------|
| | Current 2024 Final MPB \$kW/Month | Proposed 2024 Final MPB \$kW/Month | Current 2024 Final MPB MW Volume | Proposed 2024 Final MPB MW Volume |
| Flex | \$12.76 | \$10.35 | 45,245 | 80,440 |
| System | \$26.26 | \$19.39 | 27,667 | 43,775 |
| Local | \$12.34 | \$12.31 | 146,997 | 147,672 |
| PGE | \$11.95 | \$11.90 | 68,011 | 68,611 |
| SCE | \$10.24 | \$10.24 | 47,928 | 47,928 |
| SDGE | \$16.44 | \$16.41 | 31,059 | 31,134 |
| Combined (System, Flex, Local) | \$14.18 ⁷ | \$12.87 | 219,909 ⁸ | 271,888 |

⁶ RA reports can be found here: [Resource Adequacy Homepage](#)

⁷ To produce a weighted average for a combined RA value of system, flex, and local under the current methodology requires the combination of differing contract execution dates, also known as buckets.

⁸ To produce a total volume for a combined RA value of system, flex, and local under the current methodology requires the combination of different execution dates, also known as buckets.

Figure 7: Current 2025 Forecast MPBs v. Proposed 2025 Forecast MPBs Using Data from 2020-2024 (Proposal 1)

| | Methodology | | | |
|---|---|--|--|---|
| | Current 2025 Forecast MPB \$kW/Month | Proposed 2025 Forecast MPB \$kW/Month | Current 2025 Forecast MPB MW Volume | Proposed 2025 Forecast MPB MW Volume |
| Flex | \$16.97 | \$8.57 | 9,380 | 69,021 |
| System | \$40.31 | \$15.51 | 6,705 | 32,286 |
| Local | \$11.92 | \$11.27 | 116,570 | 134,220 |
| PGE | \$13.29 | \$12.29 | 50,656 | 58,947 |
| SCE | \$11.23 | 10.81 | 47,096 | 53,451 |
| SDGE | \$9.99 | \$9.62 | 19,069 | 21,823 |
| Combined (System, Flex, Local) | \$13.71 ⁹ | \$11.05 | 132,655 ¹⁰ | 235,526 |

The impact of these modifications is most noticeable in the calculation of the system and flex RA adders, which were previously calculated with only one year of transaction data but now include five years of transaction data. The lower RA adder prices reflect lower RA price and higher total transaction volumes, and therefore may be a more accurate proxy value for the portfolio cost for deliverability in a given year.

4.2. Use One Value for all MPBs That Includes System, Local and Flexible RA

Given current market conditions, and that the local and flexible are bundled with system RA in any case, the Commission seeks comments on whether to produce a single RA value for all of the attributes using all available data for the year, to attain the most robust dataset for calculating the MPB. The calculation of one single MPB value would simplify the calculation of the RA MPB and produce a more accurate outcome that would better reflect the RA market and RA policies. To test this proposal, ED calculated a single RA value based on all available data for 2024 and 2025 MPBs. The results, as shown in Figures 8 and 9 below, provide a more robust representation of RA portfolio prices.

⁹ To produce a weighted average for a combined RA value of system, flex, and local under the current methodology requires the combination of differing contract execution dates, also known as buckets.

¹⁰ To produce a total volume for a combined RA value of system, flex, and local under the current methodology requires the combination of different execution dates, also known as buckets.

Figure 8: Combined 2024 Final RA MPB Using Combined System, Flex, and Local Data from 12/1/2022-8/31/2024 v. Proposed 2024 Final RA MPB Using Combined System, Flex, and Local RA Data from 2020-2024 (Proposal 2)

| | Methodology | | | |
|------------------------------|--|--|--|---|
| | Current 2024 ¹¹ Final MPB \$kW/Month (as a combined value) | Proposed 2024 Final MPB \$kW/Month | Current 2024 Final MPB MW Volume | Proposed 2024 Final MPB MW Volume |
| Combined RA Value | \$19.01 | \$12.87 | 128,877 | 271,888 |

Figure 9: Combined 2025 Forecast MPBs Using Combined System, Flex, and Local Data from 9/1/2023-8/31/2024 v. Proposed 2025 Forecast MPBs Using Combined System, Flex, Local RA Data from 2020 - 2024 (Proposal 2)

| | Methodology | | | |
|------------------------------|---|--|--|---|
| | Current 2025 ¹² Forecast MPB \$kW/Month (as a combined value) | Proposed 2025 Forecast MPB \$kW/Month | Current 2025 Forecast MPB MW Volume | Proposed 2025 Forecast MPB MW Volume |
| Combined RA Value | \$28.94 | \$11.05 | 32,466 | 235,526 |

4.3. Exclude Affiliate Transactions from the Calculation of the Market Price Benchmark

The Commission could consider whether transactions for resources owned or sold by an affiliate represent true “market-based” transactions and whether the affiliate could have sold the capacity to another entity in an arms-length transaction at the prices reported to ED. The Commission could consider how to exclude these transactions from the MPB calculations. Exclusion of these transactions may improve the accuracy of the

¹¹ Figure 8 uses a standardized execution date of 12/1/2022-8/31/2024 in order to produce a weighted average of all transactions within those execution dates. These execution dates are the current buckets for system and flex Final RA adders but represent two years less of transaction data for local RA, which uses 12/1/2020-8/31/2024.

¹² Figure 9 uses a standardized execution date of 9/1/2023-8/31/2024 in order to produce a weighted average of all transactions within those execution dates. These execution dates are the current buckets for the system and flex forecast RA adders but represent about two years less of transaction data for local RA, which uses 12/1/2021-8/31/2024.

MPB, because these types of transactions may either not be truly available (or deliverable) in the market at these prices or be transacted at prices which do not reflect genuine market prices.

4.4. Exclude Swap and Sleeve transactions from MPB.

The OIR raised the option of considering whether to exclude swap and sleeve transactions from the MPBs. The Commission seeks comments on how to determine whether swap transactions represent “market” prices and on what basis to exclude them, if at all. Finally, the Commission seeks comments on whether to consider a series of sleeve transactions - when they are identified in the dataset - to be a single transaction.

Sleeve transactions could overweight a transaction in the MPB calculation, counting it as two transactions when it really represents only one. Excluding swap and sleeve transactions would avoid duplicate counting of essentially the same transaction. Moreover, including swap and sleeve transactions directly undermines the work ED already performs to exclude duplicate reporting. Under the current methodology these swap and sleeves are counted twice and are increased by an adder often associated with these types of contracts.

4.5. Consider Using Monthly Values for the Market Price Benchmarks

The OIR raised the option of developing monthly or seasonal RA MPB values in order to more accurately estimate the cost of RA and the value of the utility portfolio. This would ultimately be used to estimate the price that bundled service customers should pay departing load customers for the use of retained assets and, likewise, the price that departing load customers should pay to bundled service customers for the uneconomic cost of the capacity that the utility procured on their behalf. The Commission seeks comments on whether to calculate a monthly RA value for each month as shown below.

Figure 10: Current 2024 Final MPBs by Month v. Proposed 2024 Final MPBs by Month Using Data from 2020-2024 (Proposal 1)

| | Methodology | | | | | | | | | |
|---------------------|-------------|----------|---------|----------|---------|----------|---------|----------|---------|----------|
| | Current | Proposed | Current | Proposed | Current | Proposed | Current | Proposed | Current | Proposed |
| | Flex | Flex | System | System | PGE | PGE | SCE | SCE | SDGE | SDGE |
| Jan | \$8.29 | \$7.33 | \$7.86 | \$7.63 | \$9.47 | \$9.44 | \$7.96 | \$7.96 | \$5.92 | \$5.92 |
| Feb | \$8.77 | \$7.68 | \$8.05 | \$7.73 | \$9.00 | \$8.97 | \$7.45 | \$7.45 | \$6.48 | \$6.48 |
| Mar | \$8.59 | \$7.69 | \$8.45 | \$7.93 | \$9.16 | \$9.13 | \$7.39 | \$7.39 | \$6.26 | \$6.26 |
| Apr | \$9.59 | \$8.19 | \$9.20 | \$8.45 | \$9.69 | \$9.66 | \$7.89 | \$7.89 | \$7.52 | \$7.52 |
| May | \$10.95 | \$9.37 | \$15.60 | \$11.93 | \$10.42 | \$10.38 | \$9.89 | \$9.89 | \$10.03 | \$10.03 |
| June | \$15.36 | \$11.10 | \$20.18 | \$15.81 | \$12.64 | \$12.58 | \$9.81 | \$9.81 | \$16.15 | \$16.15 |
| July | \$20.78 | \$14.70 | \$38.43 | \$28.47 | \$16.83 | \$16.74 | \$16.66 | \$16.66 | \$30.33 | \$30.33 |
| Aug | \$21.92 | \$15.97 | \$50.08 | \$37.52 | \$17.16 | \$17.07 | \$14.85 | \$14.85 | \$45.17 | \$45.17 |
| Sep | \$19.86 | \$14.82 | \$55.21 | \$43.92 | \$16.85 | \$16.76 | \$12.78 | \$12.78 | \$32.00 | \$32.00 |
| Oct | \$14.27 | \$10.60 | \$16.16 | \$13.06 | \$12.08 | \$12.03 | \$10.05 | \$10.05 | \$9.43 | \$9.43 |
| Nov | \$10.34 | \$8.10 | \$9.12 | \$8.43 | \$9.02 | \$8.99 | \$7.48 | \$7.48 | \$6.35 | \$6.24 |
| Dec | \$11.75 | \$8.69 | \$8.53 | \$8.08 | \$9.81 | \$9.77 | \$8.12 | \$8.12 | \$6.63 | \$6.63 |
| Combined annual avg | \$12.76 | \$10.35 | \$26.32 | \$19.39 | \$11.95 | \$11.90 | \$10.24 | \$10.24 | \$16.44 | \$16.41 |

5. Analysis of Proposal Combinations

ED conducted several calculations to test various combinations of the MPB proposals.

Figure 11: Proposed 2024 Final MPBs and Proposed 2025 Forecast MPBs and associated MW Volume Using All Combined RA (System, Flex, Local) Data from 2020-2024 (Proposal 5) by Month (Proposal 4)

| Combined RA | 2024 Final MPB \$kW/Month | 2024 Final MPB MW Volume | 2025 Forecast MPB \$kW/Month | 2025 Forecast MPB MW Volume |
|-------------|------------------------------|-----------------------------|------------------------------------|-----------------------------------|
| January | \$7.91 | 20,517 | \$8.96 | 18,965 |
| February | \$7.89 | 20,541 | \$8.82 | 18,950 |
| March | \$7.89 | 21,071 | \$8.68 | 18,777 |
| April | \$8.44 | 22,565 | \$9.04 | 19,189 |
| May | \$10.17 | 20,849 | \$10.73 | 18,947 |
| June | \$12.68 | 24,565 | \$12.26 | 20,452 |
| July | \$19.84 | 24,749 | \$14.89 | 20,566 |
| August | \$23.73 | 24,946 | \$14.90 | 20,510 |
| September | \$23.61 | 24,979 | \$15.07 | 20,449 |
| October | \$11.15 | 22,982 | \$11.00 | 19,984 |
| November | \$8.05 | 22,955 | \$8.61 | 19,340 |
| December | \$8.55 | 21,169 | \$8.74 | 19,397 |
| Annual | \$12.87 | 271,888 | \$11.05 | 235,526 |

Figure 12: Current 2025 Forecast MPBs by Month v. Proposed 2025 Forecast MPBs by Month Using Data from 2020-2024 (Proposal 1)

| | Methodology | | | | | | | | | |
|--------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|
| | Current | Proposed | Current | Proposed | Current | Proposed | Current | Proposed | Current | Proposed |
| | Flex | Flex | System | System | PGE | PGE | SCE | SCE | SDGE | SDGE |
| Jan | \$14.96 | \$7.50 | \$9.38 | \$8.73 | \$11.13 | \$10.43 | \$9.77 | \$9.52 | \$8.47 | \$8.29 |
| Feb | \$13.28 | \$7.47 | \$7.86 | \$8.49 | \$11.23 | \$10.50 | \$9.24 | \$9.05 | \$8.46 | \$8.28 |
| Mar | \$14.96 | \$7.50 | \$5.91 | \$7.92 | \$10.57 | \$9.91 | \$9.37 | \$9.15 | \$9.39 | \$9.10 |
| Apr | \$16.62 | \$7.46 | \$12.93 | \$9.13 | \$10.94 | \$10.29 | \$9.77 | \$9.52 | \$9.52 | \$9.21 |
| May | \$33.91 | \$8.85 | \$37.24 | \$15.02 | \$11.69 | \$10.94 | \$11.32 | \$10.82 | \$9.66 | \$9.34 |
| June | \$18.95 | \$9.00 | \$45.65 | \$18.16 | \$14.87 | \$13.73 | \$12.70 | \$12.13 | \$9.98 | \$9.62 |
| July | \$18.95 | \$9.73 | \$71.15 | \$25.36 | \$18.60 | \$16.96 | \$14.85 | \$14.05 | \$11.47 | \$10.91 |
| Aug | \$18.95 | \$10.17 | \$72.85 | \$25.72 | \$18.45 | \$16.83 | \$14.03 | \$13.31 | \$11.99 | \$11.37 |
| Sep | \$18.95 | \$10.59 | \$74.54 | \$25.68 | \$18.99 | \$17.29 | \$13.67 | \$12.99 | \$12.17 | \$11.53 |
| Oct | \$15.83 | \$8.80 | \$40.19 | \$17.24 | \$12.20 | \$11.29 | \$10.51 | \$10.18 | \$9.95 | \$9.60 |
| Nov | \$11.46 | \$7.70 | \$10.63 | \$9.03 | \$9.39 | \$8.90 | \$9.32 | \$9.12 | \$9.31 | \$9.03 |
| Dec | \$11.46 | \$7.69 | \$10.32 | \$9.00 | \$9.98 | \$9.42 | \$9.34 | \$9.13 | \$9.38 | \$9.09 |
| Total | \$16.97 | \$8.57 | \$40.31 | \$15.51 | \$13.29 | \$12.29 | \$11.23 | \$10.81 | \$9.99 | \$9.62 |

(END APPENDIX A)