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11/02/22

02:00 PM

R2207005

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

Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates.

Rulemaking 22-07-005

**ASSIGNED COMMISSIONER'S PHASE 1 SCOPING MEMO AND RULING**

This scoping memo and ruling sets forth the issues, need for hearing, schedule, category, and other matters necessary to scope Phase 1 of this proceeding pursuant to Public Utilities (Pub. Util.) Code Section 1701.1 and Article 7 of the Commission's Rules of Practice and Procedure (Rules). This scoping memo and ruling also requests party comments by December 2, 2022 and replies by January 4, 2023.

**1. Procedural Background**

On July 14, 2022, the Commission issued an Order Instituting Rulemaking to establish this proceeding to establish demand flexibility policies and modify electric rates to advance the following objectives: (a) enhance the reliability of California's electric system; (b) make electric bills more affordable and equitable; (c) reduce the curtailment of renewable energy and greenhouse gas emissions associated with meeting the state's future system load; (d) enable widespread electrification of buildings and transportation to meet the state's climate goals; (e) reduce long-term system costs through more efficient pricing of electricity; and (f) enable participation in demand flexibility by both bundled and unbundled customers.

A prehearing conference was held on September 16, 2022 to address the issues of law and fact, determine the need for hearing, set the schedule for resolving the matter, and address other matters as necessary. After considering the comments on the Order Instituting Rulemaking, discussion at the prehearing conference, and the post-prehearing conference statements, I have determined the issues and initial schedule of the proceeding to be set forth in this scoping memo.

## **2. Issues**

The proceeding will be organized into phases. This scoping memo and ruling will establish the issues for Phase 1 of this proceeding. Phase 1 will be organized into two concurrent tracks.

Track A will establish an income-graduated fixed charge for residential rates for all investor-owned electric utilities in accordance with Assembly Bill 205 (Stats. 2022, ch. 61) (AB 205) including small and multi-jurisdictional electric utilities.

Track B will streamline and expedite the adoption of demand flexibility rates for large investor-owned electric utilities. New systems and processes are essential for customers and service providers to access dynamic electricity prices. By updating existing rate design principles for all electric rates, we can require all electric rate design applications to be consistent with current state goals. In addition, by creating new demand flexibility design principles and guidance, this proceeding will establish a shared vision for demand flexibility rates.

Supporting the implementation of the California Energy Commission's amendments to the Load Management Standards will include directions for large investor-owned utilities to file applications by January 2025 to offer demand flexibility rates to each customer class that are consistent with the adopted

principles and guidance. Track B will also consider expansion of existing dynamic rate pilots as a near-term solution for supporting system reliability.

Track B will not apply to the small and multi-jurisdictional electric utilities. We will consider whether and how to apply Track B requirements to small and multi-jurisdictional electric utilities in Phase 2 of this proceeding.

The issues to be considered in Phase 1 of this proceeding are:

Track A

1. How should the Commission establish an income-graduated fixed charge for residential rates for all investor-owned electric utilities in accordance with AB 205 and Pub. Util. Code Section 739.9?
  - a. Should the Commission establish an income-graduated fixed charge for all residential rates or only certain residential rates?
  - b. What costs should be recovered through the fixed charge and what methodology should be used to calculate these costs?
  - c. What income thresholds should the Commission establish for the income-graduated fixed charge?
  - d. How should the fixed charge vary by income threshold?
  - e. How should the fixed charge be designed so that a typical low-income customer would realize a lower average monthly bill without making any changes to usage?
  - f. How should the fixed charge vary between default residential rates and non-default residential rates?
  - g. How should income levels be verified, and how often should verification occur?
  - h. How should customers be informed about the fixed charge and impacts on their bills?
2. How should residential rate components of investor-owned utilities' electric rates, including

volumetric rates and the California Alternate Rates for Energy (CARE) discount methodology, be adjusted to reflect fixed charges in accordance with AB 205?

3. How should the Commission implement the requirements of AB 205 to adjust the average effective discount for CARE so that it does not reflect any charges for which CARE customers are exempted, discounts to fixed charges or other rates paid by non-CARE customers, or bill savings resulting from participation in other programs?

#### Track B

1. How should the Commission update its electric rate design principles to advance current state goals?
2. What principles should the Commission adopt for demand flexibility design?
3. What guidance should the Commission adopt for demand flexibility design?
  - a. How should wholesale market prices be incorporated into demand flexibility price signals?
  - b. What options should be provided to help customers plan and manage their bills (*e.g.* customer load shape subscriptions, forward transactions, bill protections)?
  - c. How should the timing of customer exports be aligned with grid needs to reduce greenhouse gas emissions, reduce curtailment of renewable energy, and enhance system reliability?
  - d. How should demand flexibility design consider the barriers and needs of low-income and disadvantaged communities and advance the Commission's Environmental and Social Justice (ESJ) Action Plan goals?
  - e. How should demand flexibility rates be designed to enable all load serving entities to have the option to participate?

- f. How should demand flexibility rates be designed to comply with the California Energy Commission's amendments to the Load Management Standards?
4. How should the Commission ensure access to dynamic electricity prices by bundled and unbundled customers, devices, distributed energy resources, and third-party service providers? What systems and processes should the Commission authorize for access to prices and responding to price signals?
  - a. What systems and processes should the Commission authorize for computation of dynamic prices for bundled and unbundled customers?
  - b. What systems and processes should the Commission authorize to enable load serving entities to offer unbundled customers the option to take service on dynamic electricity prices?
  - c. What systems and processes should the Commission authorize to enable third-party service providers (*e.g.*, automation service providers, device manufacturers) to offer demand flexibility services to customers?
  - d. What systems and processes should the Commission authorize to enable customers to optimize and pre-schedule their energy use to provide demand flexibility (*e.g.*, forward transactions)?
  - e. What are the costs associated with these systems and processes (for access to prices and responding to price signals), and how should these costs be recovered?
  - f. How should these systems and processes (for access to prices and responding to price signals) be managed and overseen (*e.g.*, utility administration or third-party administration)?
5. How should the Commission support the implementation of the amendments to the California Energy Commission's Load Management Standards?

6. Should the Commission expand any of the existing dynamic rate pilots as a near-term solution that will benefit system reliability?

### **3. Working Groups**

The Commission's Energy Division will form and facilitate two working groups to address Track B issues. Energy Division staff will also introduce relevant ideas from their June 2022 whitepaper<sup>1</sup> on demand flexibility strategies to inform working group discussions.

Working Group 1 will address Issue 3 of Track B (guidance for demand flexibility design). The purpose of this working group is to propose a set of guidelines for all demand flexibility rate design applications to be filed by large investor-owned utilities after adoption of the guidance, including rate design applications necessary to comply with the Load Management Standards. The guidelines will align with the principles adopted in this proceeding.

Working Group 2 will address Issue 4 of Track B (systems and processes for access to prices and responding to price signals). The purpose of this working group is to propose systems and processes needed for access to prices and responding to price signals, such as computation of dynamic electricity prices, billing, and settlement. The systems and processes will be designed to support widespread adoption of demand flexibility rates, comply with the California Energy Commission's Load Management Standards, and align with the Commission's electric rate design principles and demand flexibility design principles.

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<sup>1</sup> Advanced Strategies for Demand Flexibility Management and Customer DER Compensation, available at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/demand-response-workshops/advanced-der-and-demand-flexibility-management-workshop>.

Southern California Edison Company (SCE), with assistance from other large investor-owned electric utility representatives, shall draft and file a working group report on behalf of each working group. As the working group manager, SCE shall also complete or delegate administrative tasks for the working groups, such as meeting notes, participant lists, meeting platforms, and meeting invitations. Each working group report filing shall include the following components:

- a. No more than five sets of joint party proposals;
- b. An accurate description of each set of proposals;
- c. An explanation of which parties support each set of proposals and their rationale for supporting those proposals;
- d. An explanation of which parties oppose each set of proposals, or portions of proposals, and their rationale for their opposition;
- e. A table summarizing the key components of each party proposal and the differences between the party proposals; and
- f. A description of the working group processes, including a list of the working group participants, the process for developing the working group proposals, and the process for ensuring that the filed working group report accurately reflects party positions.

#### **4. Need for Evidentiary Hearing**

Track A of Phase 1 may include contested, material issues of fact. The assigned Administrative Law Judge (ALJ) shall determine whether evidentiary hearings are needed for Track A based on the joint case management statement.

Parties shall meet and confer to clarify and narrow contested facts and issues and explore the possibility of settlement or stipulations in lieu of evidentiary hearings for Track A.

Pacific Gas and Electric Company (PG&E) shall coordinate with parties to serve a joint case management statement for Track A by July 14, 2023 with the following information:

- A list of stipulated facts;
- The status of any settlement negotiations;
- Either (i) a waiver of evidentiary hearings from all parties, or (ii) a list of parties requesting evidentiary hearings; and
- If requesting evidentiary hearings, the joint case management statement should include a list of disputed material facts, estimates of time needed for evidentiary hearings, and an explanation of the time estimates.

**5. Schedule**

The following schedule for Phase 1 of this proceeding is adopted here and may be modified by the ALJ as required to promote the efficient and fair resolution of the rulemaking:

<b>Track A Event</b>	<b>Date</b>
Workshop on income-graduated fixed charge and other Track A issues	November 29, 2022
Ruling with staff guidance for parties' Track A proposals	December 2022
Concurrent opening testimony of parties with income-graduated fixed charge proposals	March 17, 2023
Reply testimony	April 28, 2023
Joint case management statement served by PG&E	July 14, 2023
Evidentiary hearing, if needed	Late August 2023



Opening briefs (if no hearings)	August 25, 2023
Reply briefs (if no hearings)	September 29, 2023
Opening briefs (if hearings)	September 29, 2023
Reply briefs (if hearings)	October 27, 2023
Proposed decision (if no hearings)	January 2024
Proposed decision (if hearings)	February 2024

<b>Track B Event</b>	<b>Date</b>
Workshop on electric rate design principles and demand flexibility rate design principles	November 17, 2022
Energy Division forms Working Groups 1 and 2	November 2022
Comments on scoping memo and ruling	December 2, 2022
Replies to comments on scoping memo and ruling	January 4, 2023
Proposed decision on electric rate design principles and demand flexibility design principles	March 2023
Workshop on expanding existing pilots	Quarter 2 of 2023
Post-workshop ruling requesting comments on expanding pilots	Quarter 2 of 2023
Working Group 1 and 2 proposals and reports filed by SCE	October 2, 2023
Workshop on Working Group proposals, including consideration of the barriers and needs of low-income and disadvantaged communities	October 2023
Comments on Working Group 1 and 2 proposals	October 30, 2023
Reply comments on Working Group 1 and 2 proposals	November 22, 2023
Proposed decision on remaining issues	March 2024

Due to the complexity and number of issues in this proceeding, it is the Commission's intent to complete Phase 1 of this proceeding within 24 months of the date of this ruling. (*See* Pub. Util. Code Section 1701.5(b).)

## **6. Questions for Party Comment**

Parties are invited to comment on the following questions:

1. Should the Commission adopt the staff proposal for modifying the electric rate design principles applicable to all electric rates of the large investor-owned electric utilities (*see* Attachment)? Why or why not?
2. Should the Commission adopt the staff proposal for new demand flexibility design principles applicable to all demand flexibility rates of large investor-owned electric utilities (*see* Attachment)? Why or why not?
3. How should the Commission support the implementation of the amendments to the California Energy Commission's Load Management Standards?
  - a. When and how should the large investor-owned utilities be required to file applications for approval of compliant rates?
  - b. Are there any existing investor-owned utility tariffs or pilot rates that comply with the requirements for a dynamic, marginal cost-based rate?
4. Should the Commission expand any of the existing dynamic rate pilots as a near-term solution to benefit system reliability?
  - a. If so, which pilots should the Commission expand and why?
  - b. How should any of the expanded pilots be modified (*e.g.*, duration, size, eligibility criteria, reporting/evaluation requirements, rate design, cost recovery)?

5. Beyond the six-element California Flexible Unified Signal for Energy (CalFUSE) policy roadmap<sup>2</sup> proposed by Energy Division staff, what alternate proposals for hourly, marginal cost-based rates should the Commission consider to enable widespread adoption of demand flexibility and support the implementation of the amendments to the California Energy Commission's Load Management Standards?

## **7. Alternative Dispute Resolution Program and Settlements**

The Commission's Alternative Dispute Resolution (ADR) program offers mediation, early neutral evaluation, and facilitation services, and uses ALJs who have been trained as neutrals. At the parties' request, the assigned ALJ can refer this proceeding to the Commission's ADR Coordinator. Additional ADR information is available on the Commission's website.<sup>3</sup>

Any settlement between parties, whether regarding all or some of the issues, shall comply with Article 12 of the Rules and shall be served in writing. Such settlements shall include a complete explanation of the settlement and a complete explanation of why it is reasonable in light of the whole record, consistent with the law and in the public interest. The proposing parties bear the burden of proof as to whether the settlement should be adopted by the Commission.

## **8. Category of Proceeding and Ex Parte Restrictions**

This ruling confirms the Commission's preliminary determination in the Order Instituting Rulemaking that this is a ratesetting proceeding. Accordingly,

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<sup>2</sup> See Chapter 4 of Advanced Strategies for Demand Flexibility Management and Customer DER Compensation.

<sup>3</sup> See Decision 07-05-062, Appendix A, § IV.O.

*ex parte* communications are restricted and must be reported pursuant to Article 8 of the Rules.

## **9. Public Outreach**

Pursuant to Pub. Util. Code Section 1711(a), I hereby report that the Commission sought the participation of those likely to be affected by this matter by noticing it in the Commission's monthly newsletter that is served on communities and business that subscribe to it and posted on the Commission's website.

In addition, the Commission served the Order Instituting Rulemaking on all respondents, all community choice aggregators, and the service lists for the following Commission proceedings: Rulemaking (R.) 18-07-006, R.19-01-011, R.20-11-003, R.21-06-017, Application (A.) 21-12-006 *et al.*, A.20-10-011, A.19-11-019, R.13-09-011, A.17-01-012 *et al.*, R.21-10-002, A.20-10-012, A.22-05-002 *et al.*

## **10. Intervenor Compensation**

Pursuant to Pub. Util. Code Section 1804(a)(1), a party who intends to seek an award of compensation must have filed and served a notice of intent to claim compensation within 30 days after the prehearing conference.

## **11. Response to Public Comments**

Parties may, but are not required to, respond to written comments received from the public. Parties may do so by posting such response using the "Add Public Comment" button on the "Public Comment" tab of the online docket card for the proceeding.

## **12. Public Advisor**

Any person interested in participating in this proceeding who is unfamiliar with the Commission's procedures or has questions about the electronic filing procedures is encouraged to obtain more information

at <http://consumers.cpuc.ca.gov/pao/> or contact the Commission's Public Advisor at 1-866-849-8390 or 1-866-836-7825 (TTY), or send an e-mail to [public.advisor@cpuc.ca.gov](mailto:public.advisor@cpuc.ca.gov).

### **13. Filing, Service, and Service List**

The official service list has been created and is on the Commission's website. Parties should confirm that their information on the service list is correct and serve notice of any errors on the Commission's Process Office, the service list, and the ALJ. Persons may become a party pursuant to Rule 1.4.<sup>4</sup>

When serving any document, each party must ensure that it is using the current official service list on the Commission's website.

This proceeding will follow the electronic service protocol set forth in Rule 1.10. All parties to this proceeding shall serve documents and pleadings using electronic mail, whenever possible, transmitted no later than 5:00 p.m., on the date scheduled for service to occur.

Parties shall only provide electronic service to the assigned ALJ, Commissioners, and Commissioners' advisors, unless the assigned ALJ specifies otherwise for certain filings.

Persons who are not parties but wish to receive electronic service of documents filed in the proceeding may contact the Process Office at [process\\_office@cpuc.ca.gov](mailto:process_office@cpuc.ca.gov) to request addition to the "Information Only" category of the official service list pursuant to Rule 1.9(f).

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<sup>4</sup> The form to request additions and changes to the Service list may be found at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/administrative-law-judge-division/documents/additiontoservicelisttranscriptordercompliant.pdf>

The Commission encourages those who seek information-only status on the service list to consider the Commission's subscription service as an alternative. The subscription service sends individual notifications to each subscriber of formal e-filings tendered and accepted by the Commission. Notices sent through subscription service are less likely to be flagged by spam or other filters. Notifications can be for a specific proceeding, a range of documents and daily or weekly digests.

**14. Receiving Electronic Service from the Commission**

Parties and other persons on the service list are advised that it is the responsibility of each person or entity on the service list for Commission proceedings to ensure their ability to receive e-mails from the Commission. Please add "@cpuc.ca.gov" to your e-mail safe sender list and update your e-mail screening practices, settings and filters to ensure receipt of e-mails from the Commission.

**15. Assignment of Proceeding**

President Alice Reynolds is the assigned Commissioner and Stephanie Wang is the assigned ALJ and Presiding Officer for the proceeding.

**IT IS RULED** that:

1. The scope of this proceeding is described above and is adopted.
2. The schedule of this proceeding is set forth above and is adopted.
3. Evidentiary hearing may be needed.
4. The Presiding Officer is Administrative Law Judge Stephanie Wang.
5. The category of the proceeding is ratesetting.

6. Parties may file opening comments by December 2, 2022 and replies by January 4, 2023.

This order is effective today.

Dated November 2, 2022, at San Francisco, California.

/s/ ALICE REYNOLDS

Alice Reynolds  
Assigned Commissioner

**CPUC RATE DESIGN &  
DEMAND FLEXIBILITY PRINCIPLES  
STAFF PROPOSAL  
ATTACHMENT**



# CPUC Rate Design & Demand Flexibility Principles Staff Proposal

This Energy Division staff proposal is intended to propose updates to the Commission's Electric Rate Design Principles and propose new Demand Flexibility Design Principles to guide the development of demand flexibility rates, systems, processes, as well as the customer experience of demand flexibility. These principles are designed for the customers located in the service territories of 3 large electric investor-owned utilities.<sup>1</sup>

## Background on Electric Rate Design Principles

In Decision (D.) 08-07-045<sup>2</sup>, the CPUC adopted rate design guidelines for Pacific Gas and Electric Company (PG&E) for informing the development of future dynamic pricing proposals. These guidelines started with three essential objectives of rate design: (1) to reflect the marginal cost of providing electric service so that consumers make economically efficient decisions, (2) to flatten the load curve to reduce capital costs over time, and (3) to reduce load in the face of short-term electricity supply shortfalls.

In an appendix to this decision, the CPUC also adopted nine guidelines for rate design adding several other important policy and rate design considerations including energy efficiency, greenhouse gas emissions reduction, rate stability, rate simplicity, cost causation, and utility cost recovery.<sup>3</sup>

In June 2012, the CPUC opened Rulemaking (R.) 12.06.013 to consider reforms to residential rates. In D.14-06-029<sup>4</sup>, the CPUC revised and expanded this rate design guidance to ten key principles. These updated principles emphasized conservation, equity, and marginal cost ratemaking as essential objectives while reaffirming the CPUC's commitment to the "Bonbright Principles".<sup>5</sup> Since their adoption, these ten principles have been benchmarks by which to measure the success of California's ratemaking proceedings and policies, frequently referenced and reinforced by the CPUC and parties.

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<sup>1</sup> Pacific Gas and Electric (PG&E), Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E).

<sup>2</sup> [D.08-07-045](#): Decision Adopting Dynamic Pricing Timetable and Rate Design Guidelines for Pacific Gas and Electric Company.

<sup>3</sup> See D.08-07-045, Attachment A.

<sup>4</sup> See [D.14-06-029](#).

<sup>5</sup> Bonbright, James C, "Principles of Public Utility Rates," Columbia University Press, 1961.

## Updating the Electric Rate Design Principles

As the CPUC starts its new Demand Flexibility Rulemaking R. 22-07-005 and seeks policies to modify electric rates, it is essential to revisit the current electric rate design principles (RDPs) and update them with a new set of guidelines that better fits today's fast-changing electrical grid. While the core of the CPUC's RDPs stays the same, the modifications presented below are surgical yet substantive, intended to align with the current state goals.

In this section we go through each of the ten RDPs, reevaluate their validity and applicability, assess their relevance, and determine whether they need to be kept unchanged, modified, or deleted.

**Note: the current principles are in black text below; while the revised principles are in blue-boldface text, followed by the justification for proposed changes in blue text.**

- 1) Low-income and medical baseline customers should have access to enough electricity to ensure basic needs (such as health and comfort) are met at an affordable cost.

**All residential customers (including low-income and medical baseline) should have access to enough electricity to ensure their essential needs (health, safety, and full participation in society) are met at an affordable cost.<sup>6</sup>**

Reason for the modification: The Commission stays committed to ensuring all customers have access to enough electricity to meet their essential needs at an affordable cost. This principle has been modified slightly to rely on the definitions, metrics and findings adopted in the Affordability proceeding (R.18-07-006).

- 2) Rates should be based on marginal cost.

**Rates should be based on marginal cost and should not have a negative Contribution to Margin.<sup>7</sup>**

Reason for the modification: Designing rates based on marginal cost links the economic fundamentals of the grid to CPUC rate design as we establish more time-differentiated and dynamic rates. We also propose requiring rates to have a non-negative Contribution to Margin (CTM), which is one of the fundamental keys to minimizing revenue shortfall. Rates that create revenue shortfall can exacerbate distortions and inflationary trends in rates.

- 3) Rates should be based on cost-causation principles.

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<sup>6</sup> See [D.20-07-032](#), Affordability is defined as the degree to which a representative household is able to pay for an essential utility service charge, given its socioeconomic status.

<sup>7</sup> The Contribution to Margin (CTM) is calculated as the difference between the average price (\$/kWh) paid by the customer and the marginal cost price floor. A negative CTM occurs if the price paid by a customer is lower than the marginal cost price floor, and thus results in an upward pressure on future rates.

**Rates should be based on cost-causation principles and avoid cost shifts.**

This principle is simplified and clarified.

- 4) Rates should encourage conservation and energy efficiency.

**Rates should encourage greenhouse gas emissions reduction, beneficial electrification and cost-effective energy efficiency.**

Reason for the modification: For California to achieve its greenhouse gas (GHG) emissions reduction goals, rates should discourage consumption during high-cost periods when grid GHG emissions are the highest and encourage consumption when the grid is supplied predominantly by renewable resources. Also, as the Commission moves forward with its electrification policy goals (Transportation Electrification, and building de-carbonization), electric rates should encourage customers to transition away from fossil fuels and adopt electrified end-use technologies.

- 5) Rates should incentivize reduction of both coincident and non-coincident peak demand.

**Rates should optimize use of existing grid infrastructure and limit long-term infrastructure costs.**

Reason for the modification: Reducing coincident and non-coincident peak demand is a means for reducing long term infrastructure costs. By modifying this principle to make sure rate designs promote cost containment, we are expanding it to be inclusive of other customer usage behavior and load management strategies that can limit the overall cost of utility infrastructure.

- 6) Rates should be stable and understandable and provide customer choice.

**Customers should have options to manage their bills.**

Reason for the modification: This principle has been updated to emphasize customer needs to manage their bills rather than having a menu of static rates to choose from.

- 7) Rates should avoid cross-subsidies, unless the cross-subsidies appropriately support explicit state policy goals.

**Rates should be technology-neutral and avoid cross-subsidies, unless the cross-subsidies appropriately support explicit state policy goals.**

Reason for the modification: This principle fundamentally stays the same in terms of avoiding cross-subsidies. The CPUC keeps the option to approve certain rates to promote its policy goals such as those described in the Environmental and Social Justice Action Plan 2.0 or the Distributed Energy Resources (DER) 2.0 plan. However, the Commission discourages technology-specific rates, which shift

costs to non-users while providing a competitive advantage to specific technologies.

- 8) Rate incentives should be explicit and transparent.

**Rate incentives should be explicit and transparent.**

This principle is unchanged.

- 9) Rates should encourage economically efficient decision making.

**Rates should encourage customer behavior that improves system reliability.**

Reason for the modification: Volumetric rates that are based on marginal cost and avoid cross subsidies send correct price signals to customers and promote economically efficient decisions. To the extent that the original principle is already covered by some of the other guiding rubrics herein, the CPUC shifts its focus to encourage behavior that improves system reliability.

- 10) Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates and minimizes and appropriately considers the bill impacts associated with such transitions.

**Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates and minimizes the bill impacts associated with such transitions.**

This principle is substantively unchanged.

## Demand Flexibility Design Principles

In this section we propose Demand Flexibility Design Principles that the Commission should adopt to enable widespread adoption of demand flexibility solutions. The Rate Design Principles provide guidance that is applicable to all rates, including future demand flexibility tariffs. These additional Demand Flexibility Design Principles will guide the design of demand flexibility tariffs, as well as the systems & processes needed to support the calculation of and providing customer access to demand flexibility price signals. These principles are intended to streamline and standardize demand flexibility tariffs and price signals to ensure that third-parties (e.g., automation service providers, device manufacturers, etc.) are able to develop standardized solutions to manage customer demand. The Demand Flexibility Design Principles are adapted from the “Guiding Objectives” developed by Staff in the Energy Division White Paper and Staff Proposal titled “Advanced Strategies for Demand Flexibility Management and Customer DER Compensation”.<sup>8</sup>

**Note: the proposed principles are in black text below, followed by the justification for proposed principles in blue text.**

### The proposed Demand Flexibility Design Principles are:

1. Demand flexibility tariffs should provide a dynamic price signal that can be easily integrated into standardized third-party DER and demand management solutions.

One of the challenges impeding third-parties (e.g., demand management service providers, DER manufacturers, etc.) from creating widespread demand flexibility solutions is the proliferation of boutique rate structures. The status quo does not streamline the development of standardized solutions that can easily integrate customer specific prices/rates, and be scaled to different customers segments. This principle ensures that a dynamic price signal is designed to enable third parties to easily create standardized solutions (e.g., algorithms, demand management services) for demand flexibility.

2. Dynamic prices should accurately integrate the value of energy, generation capacity, distribution capacity, and transmission capacity (to the extent feasible) based on real-time grid conditions.

As California continues its transition to a predominantly renewable grid, it is important to ensure that the growing number of DERs and flexible loads are incentivized to operate in a manner that can reduce GHG emissions while improving system reliability and the efficiency of grid infrastructure use. This principle

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<sup>8</sup> See Energy Division White Paper and Staff Proposal, “Advanced Strategies for Demand Flexibility Management and Customer DER Compensation” at 3. Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-response/demand-response-workshops/advanced-der---demand-flexibility-management/ed-white-paper---advanced-strategies-for-demand-flexibility-management.pdf>.

ensures that the dynamic price signal accurately incorporates the real-time costs and constraints of the grid.

3. The systems & processes needed to calculate the dynamic price signal should be able to integrate bundled and unbundled rate components so that all Load Serving Entities can elect to participate.

Unbundled customers represent a growing share of California ratepayers. In order for demand flexibility to be widespread, the systems and process that calculate the dynamic price should be able, if necessary, integrate CCA- and DA-specific generation rates into the dynamic price signal for unbundled customers.

4. Demand flexibility tariffs should be designed in accordance with all CPUC electric rate design principles.

This principle reiterates that all the adopted rate design principles apply to demand flexibility tariffs as well.

5. Customers should have access to tools and mechanisms (such as load shape subscriptions, forward transactions, bill protection, etc.) that enable them to plan and schedule their energy use while managing the monthly variability of their bills.

Even under static rates customers bill can vary significantly from month-to-month. Dynamic prices can, in some cases, increase the monthly variance in customer bills. This principle ensures that customers have access to a suite of bill management tools that allow them to plan and schedule their energy use and reduce their monthly bill variance (e.g., customer load shape subscriptions, forward transactions, monthly bill protections, etc.), while still responding to a dynamic price signal.

6. Demand flexibility tariffs should provide accurate cost-based compensation for exports that supports customer investments in electrification technologies and DERs.

This principle ensures that customer exports are compensated commensurate to the real-time value that those exports provide the grid. This will create a stable pathway for customers to adopt export-capable DERs and electrification technologies (e.g., bidirectional EV chargers).

**(END OF ATTACHMENT)**