



## Filing Receipt

**Received - 2023-03-15 10:53:41 AM**  
**Control Number - 54741**  
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**DOCKET NO. 54741**

<b>REQUEST FOR APPROVAL OF AN</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>AMENDED VOLUNTARY MITIGATION</b>	<b>§</b>	
<b>PLAN FOR CALPINE CORPORATION</b>	<b>§</b>	<b>OF TEXAS</b>
<b>PURSUANT TO PURA § 15.023(f) AND 16</b>	<b>§</b>	
<b>TAC § 25.504(e)</b>	<b>§</b>	

**APPLICATION FOR APPROVAL OF A SETTLEMENT AGREEMENT AND  
AMENDED VOLUNTARY MITIGATION PLAN**

The Staff of the Public Utility Commission of Texas (Commission) and Calpine Corporation (Calpine) (collectively, parties) file this application for approval of a settlement agreement and amended voluntary mitigation plan (VMP). The parties enter into the attached settlement agreement, which includes as attachments to the agreement, the amended VMP, an affidavit of the Independent Market Monitor for the Electric Reliability Council of Texas (ERCOT) in support of the amended VMP, and a proposed order. The settlement agreement recommends approval of the amended VMP for Calpine pursuant to PURA<sup>1</sup> § 15.023(f) and 16 Texas Administrative Code § 25.504(e). The amended VMP specifies offering practices for On-Line and Off-Line Non-Spin Reserve Service that Calpine can use when offering its generation resources into the ERCOT day-ahead ancillary services market during the term of the agreement, and adherence to such offering practices will be considered an absolute defense against an allegation of market power abuse.

Commission Staff, on behalf of the parties, respectfully requests that this application for approval of the settlement agreement be granted.

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<sup>1</sup> Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-66.016 (PURA).

Dated: March 15, 2023

Respectfully submitted,

**PUBLIC UTILITY COMMISSION OF TEXAS**

**DIVISION OF COMPLIANCE &  
ENFORCEMENT**

Barksdale English  
Division Director

/s/ Jenna Keller  
Jenna Keller  
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**CERTIFICATE OF SERVICE**

I certify that, unless otherwise ordered by the presiding officer, notice of the filing of this document was provided to all parties of record via electronic mail on March 15, 2023, in accordance with the Order Suspending Rules issued in Project No. 50664.

/s/ Jenna Keller  
Jenna Keller

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<b>REQUEST FOR APPROVAL OF AN</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>AMENDED VOLUNTARY MITIGATION</b>	<b>§</b>	
<b>PLAN FOR CALPINE CORPORATION</b>	<b>§</b>	<b>OF TEXAS</b>
<b>PURSUANT TO PURA § 15.023(f) AND 16</b>	<b>§</b>	
<b>TAC § 25.504(e)</b>	<b>§</b>	

**SETTLEMENT AGREEMENT, AMENDED VOLUNTARY MITIGATION PLAN, AND  
PROPOSED ORDER**

The Staff of the Public Utility Commission of Texas (Commission) and Calpine Corporation (Calpine) (collectively, parties) enter into this settlement agreement (agreement), and request approval of the agreement and the attached amended voluntary mitigation plan (VMP), which was developed pursuant to PURA<sup>1</sup> § 15.023(f) and 16 Texas Administrative Code (TAC) § 25.504(e). The amended VMP imposes clear guidelines regarding Calpine's offering of On-Line and Off-Line Non-Spin Reserve Service (NSRS) in the Electric Reliability Council of Texas' (ERCOT's) day-ahead market from Calpine's generation units.

**The parties agree as follows:**

1. The parties stipulate to the facts contained in the attached proposed order<sup>2</sup> and request entry of the proposed order by the Commission.
2. The Commission has jurisdiction over this matter under PURA §§ 14.001, 14.051, 15.023, and 39.157.
3. Because this matter is filed under PURA Chapter 15, Subchapter B, the parties to this proceeding are limited by statute to Calpine and the Commission, including the Independent Market Monitor (IMM).<sup>3</sup>
4. Calpine's VMP was approved by the Commission on March 28, 2013, in Docket No. 40545.

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<sup>1</sup> Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-66.016 (PURA).

<sup>2</sup> Attachment 3.

<sup>3</sup> PURA § 15.024(f) states, in part, "The parties to a proceeding under [PURA Chapter 15, Subchapter B] shall be limited to the person and the commission, including the independent market monitor."

5. The parties agreed to amend the VMP after extensive and detailed discussions between Commission Staff, including the IMM, and Calpine to address Commission Staff's concerns related to uneconomic outcomes in the ERCOT day-ahead market for NSRS.
6. The amended VMP addresses Calpine's offer strategy for On-Line and Off-Line NSRS in the ERCOT day-ahead market and is supported by the IMM, as detailed in the attached affidavit.<sup>4</sup>
7. The amended VMP is attached to this agreement<sup>5</sup> and incorporated herein.
8. The parties agree that the amended VMP establishes a reasonable method to ensure compliance with PURA § 39.157(a) and 16 TAC § 25.503(g)(7) and provides regulatory and financial certainty for Calpine while ensuring protection against market power abuse.
9. The parties agree that adherence to the amended VMP, while it remains effective, provides Calpine an absolute defense against an allegation brought under PURA § 39.157(a) and 16 TAC § 25.503(g)(7) of market power abuse with respect to the specific behaviors addressed by the amended VMP.
10. Should Calpine not adhere to the amended VMP, it will have no absolute defense against any allegations of market power abuse.
11. Failure to adhere to a VMP approved by the Commission does not, of itself, constitute a violation of 16 TAC § 25.503(g)(7), but maybe treated in the same manner as any other violation of a Commission order.
12. The act of proposing the amended VMP is not an admission that Calpine has had or currently has market power, that Calpine is engaging in or has ever engaged in market power abuse, or that the amended VMP is a response to any allegation by Commission Staff that Calpine is engaging in or has ever engaged in market power abuse.
13. The parties agree that the amended VMP is in the public interest and should be approved by the Commission as part of its approval of this agreement.

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
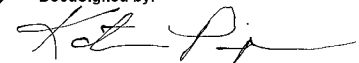
<sup>4</sup> Attachment 2.

<sup>5</sup> Attachment 1.

10. The amended VMP will remain in effect from the date it is approved by the Commission until terminated by the executive director of the Commission or Calpine.
11. The amended VMP may be modified by mutual agreement of the executive director or the executive director's designee and Calpine. The modification will become effective when approved by the Commission.
12. If at any time the executive director or the executive director's designee determines that continuation of the amended VMP or part of the amended VMP may no longer be in the public interest, the executive director or the executive director's designee may terminate the amended VMP, in whole or in part, by providing Calpine with written notice of termination at least three business days prior to the effective date of termination, subject to ratification of the termination or reinstatement of the amended VMP by the Commission. If the amended VMP is terminated in part under this Section, the remaining part of the amended VMP may be modified pursuant to the terms of Section 11 above. The executive director or the executive director's designee may withdraw the notice of termination at any point prior to the termination date.
13. Calpine may terminate the amended VMP by providing the executive director with written notice of termination at least three business days prior to the effective date of termination. Calpine may withdraw the notice of termination at any point prior to the termination date.
14. The parties agree, pursuant to Texas Rule of Evidence 408, that confidential information exchanged between the parties and the negotiated terms of the amended VMP will remain confidential and will not be admissible as evidence.
15. All information supporting the amended VMP that is classified as Protected Information by the ERCOT Nodal Protocols will remain confidential and subject to the restrictions of ERCOT Nodal Protocols § 1.3, or its successor. The parties agree that the information supporting the amended VMP does not lose its confidential status as a result of the filing of the amended VMP with the Commission and that the information should be treated as confidential information under the Commission's procedural rules.
16. The parties agree that all required notices have been provided or are hereby waived.

17. Except as provided herein, nothing in this agreement shall limit Commission Staff's ability to perform its enforcement functions as set forth in PURA and the Commission's rules for violations not covered by the amended VMP.
18. A party's support of the resolution of this docket in accordance with this agreement may differ from its position or testimony regarding contested issues of law, policy, or fact in other proceedings before the Commission or other forums. Because this is a settlement agreement, a party is under no obligation to take the same position as set out in this agreement in other proceedings not referenced in this agreement, whether those dockets present the same or a different set of circumstances. The parties' agreement to entry of a final order of the Commission consistent with this agreement should not be regarded as an agreement as to the appropriateness or correctness of any assumptions, methodology, or legal or regulatory principle that may have been employed in reaching this agreement.
19. In the event the Commission materially changes the terms of this agreement, the parties agree that any party adversely affected by that material alteration has the right to withdraw from this agreement, thereby becoming released from its obligations arising hereunder, and to proceed as otherwise permitted by law to exercise all rights available under law. The right to withdraw must be exercised by providing the other party written notice within 20 calendar days of the date the Commission files the final order acting on this agreement. Failure to provide such notice within the specified time period shall constitute a waiver of the right to withdraw and acceptance of the material changes to this agreement made by the Commission.
20. This agreement is the final and entire agreement between the parties regarding its terms and supersedes all other communications among the parties or their representatives regarding its terms.
21. Each person executing this agreement represents that he or she has been authorized to sign on behalf of the party represented. Copies of signatures are valid to show execution. If this agreement is executed in multiple counterparts, each is deemed an original, but all counterparts constitute the same agreement.
22. Each party executing this agreement warrants that it has read this agreement carefully, knows the contents thereof, and signs the same as its free act.

**EXECUTED** by the Parties by their authorized representatives designated below.

 DocuSigned by:  


B18F44EEEE864AC...  
Katherine Piper

Senior Vice President, General Counsel and Corporate Secretary  
Calpine Corporation

Date: 3/14/2023

/s/ Jenna Keller

Jenna Keller  
Attorney – Division of Compliance & Enforcement  
Public Utility Commission of Texas

Date: 3/15/2023



**ATTACHMENT 1: CALPINE AMENDED VOLUNTARY MITIGATION PLAN**

1 **Voluntary Mitigation Plan Definitions and Acronyms**

- 1.1 Current Operating Plan (COP): A plan by a Qualified Scheduling Entity reflecting anticipated operating conditions for each of the Resources that it represents for each hour in the next seven Operating Days, including Resource operational data, Resource Status, and Ancillary Service Schedule.
- 1.2 ERCOT Contingency Reserve Service (ECRS): An Ancillary Service that provides operating reserves that is intended to: (a) Restore Responsive Reserve (RRS) within ten minutes of a frequency deviation that results in significant depletion of RRS by restoring frequency to its scheduled value to return the system to normal; (b) Provide energy or continued Load interruption to avoid or during the implementation of an Energy Emergency Alert (EEA); (c) Provide backup regulation; and (d) Be sustained at a specified level for two consecutive hours.
- 1.3 Energy Offer Curve (EOC): A proposal to sell energy at a Settlement Point at a monotonically increasing price with increasing quantity.
- 1.4 Executive Director: the Executive Director of the Commission or his designee.
- 1.5 Fuel Index Price: the midpoint price, expressed in \$/MMBtu, published in *Gas Daily*, in the Daily Price Survey, under the heading “East-Houston-Katy, Houston Ship Channel.” For Saturdays, Sundays, holidays, and other days for which *Gas Daily* does not publish an effective price, the effective price shall be the price for the Operating Day preceding the holiday or day without a published price.
- 1.6 HCAP: the current high system wide offer cap, as defined in P.U.C. SUBST. R. 25.505(g)(6) or its successor.
- 1.7 HSL: high sustainable limit.
- 1.8 Hourly Dispatchable Capacity: The sum in each hour of [Summer Rating HSL minus Summer Rating LSL] of all Calpine combined cycle generator trains shown as on-line in each hour of the operating day in the final Current Operating Plan submitted prior to the operating day.
- 1.9 IMM: the Independent Market Monitor.

- 1.10 Incremental Heat Rate (MMBtu/MWh) and Variable O&M (\$/MWh): the values approved via the ERCOT verifiable cost process.
- 1.11 LSL: low sustainable limit.
- 1.12 Fees: any charges or changes to administrative fees charged to generators, or changes resulting from federal, state or local laws that impose new or modified fees or costs on Calpine's generation that are beyond Calpine's control. No charges are currently applicable.
- 1.13 NO<sub>x</sub> Emissions Cost (\$/MWh): [The combined cycle generator train's Incremental Heat Rate (MMBtu/MWh)] \* [The unit's emission rate for NO<sub>x</sub> (lb/MMBtu) approved via the ERCOT verifiable cost process] \* [1 NO<sub>x</sub> allowance/ton] \* [NO<sub>x</sub> allowance price (\$/allowance) published in ERCOT's Public Reference Data Extract as PPANO] \* [ton/2,000 lb].
- 1.14 NSRS: Non-Spin Reserve Service. An Ancillary Service that is provided through use of the part of Off-Line Generation Resources that can be synchronized and ramped to a specified output level within 30 minutes and that can operate at a specified output level for at least one hour. NSRS may also be provided from unloaded On-Line capacity that meets the 30-minute response requirements and that is reserved exclusively for use for this service.
- 1.15 SO<sub>2</sub> Emissions Cost (\$/MWh): [The combined cycle generator train's Incremental Heat Rate (MMBtu/MWh)] \* [The unit's emission rate for SO<sub>2</sub> (lb/MMBtu) approved via the ERCOT verifiable cost process] \* [2 SO<sub>2</sub> allowances/ton] \* [SO<sub>2</sub> allowance price (\$/allowance) published in ERCOT's Public Reference Data Extract as PPASO] \* [ton/2,000 lb].
- 1.16 Summer Rating HSL: as submitted in the most current filing of Calpine's Resource Asset Registration Forms, an individual combined cycle generator train's "Seasonal Net Maximum Sustainable rating – Summer" in its largest configuration.
- 1.17 Summer Rating LSL: as submitted in the most current filing of Calpine's Resource Asset Registration Forms, an individual combined cycle generator train's "Seasonal Net Minimum Sustainable rating – Summer" in its largest configuration.

## 2 Voluntary Mitigation Plan Energy Offer Curve Procedures

2.1 Gas Unit Offer Procedures: EOCs from each of Calpine's combined cycle generator trains, except for energy offered as Responsive Reserve Service, Up-Regulation Service, NSRS, energy from units dispatched by the RUC process, or energy offered as per sections 2.1.2 and 2.1.3 below, shall be no higher than the value calculated in sections 2.1.1:

2.1.1  $[(\text{Incremental Heat Rate} * (\text{Fuel Index Price} + \$0.51/\text{MMBtu})) + \text{Variable O\&M} + \text{SO}_2 \text{ Emissions Cost} + \text{NO}_x \text{ Emissions Cost} + \text{Fees}] + \$50/\text{MWh}$

2.1.2 Up to 10% of the Hourly Dispatchable Capacity may be offered at prices no higher than \$500/MWh.

2.1.3 Up to 5% of the Hourly Dispatchable Capacity may be offered at prices up to and including the then-existing HCAP.

2.1.4 The fraction of Hourly Dispatchable Capacity that is offered at prices up to and including \$500 per MWh or up to and including the then-existing HCAP, pursuant to sections 2.1.2 and 2.1.3, and the prices at which it is offered must remain constant for all hours of the operating day. If MWh offered pursuant to section 2.1.2 and/or 2.1.3 are offered on combined cycle generator trains that become unavailable during the operating period for reasons including, but not limited to, trips and/or forced outages, Calpine will as soon as reasonably practicable adjust the EOC of other trains in order to maintain the correct fraction of Hourly Dispatchable Capacity.

2.1.5 Any NSRS carried on non-quick start qualified gas units shall be offered at no greater than 150% of the then current NSRS offer floor.

## 2.2 Day Ahead Market:

2.2.1 Offers and/or bids for energy and ancillary services, other than offers for NSRS, can be made at prices up to and including the then-existing HCAP.

### 2.2.2 NSRS Offers Prior to Implementation of ECRS

#### 2.2.2.1 On-Line NSRS Cap:

2.2.2.1.1 An offer for On-Line NSRS may not be higher than the lowest price Calpine offers for Responsive Reserve Service or Up-

Regulation Service for any resource in Calpine's resource portfolio for the same hour the On-Line NSRS offer is made.

2.2.2.1.2 If Calpine makes no offers for either Responsive Reserve Service or Up-Regulation Service for the same hour the On-Line NSRS offer is made, then an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for Responsive Reserve Service or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 24 hours.

2.2.2.1.3 If Calpine made no offers for either Responsive Reserve Service or Up-Regulation Service during the previous 24 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for either Responsive Reserve Service or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 168 hours.

2.2.2.1.4 If Calpine made no offers for either Responsive Reserve Service or Up-Regulation Service during the previous 168 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for either Responsive Reserve Service or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 720 hours.

2.2.2.1.5 If Calpine made no offers for either Responsive Reserve Service or Up-Regulation Service during the previous 720 hours, an offer for On-Line NSRS may not be higher than \$20 per MWh.

#### 2.2.2.2 Off-Line NSRS Cap:

2.2.2.2.1 If the COP for the resource for which Calpine makes an Off-Line NSRS offer reflects an LSL of less than or equal to the total MWs of Off-Line NSRS offered from that resource during the hour for which the Off-Line NSRS offer is made, then an offer for Off-Line NSRS may not exceed the value calculated by the following formula:

$$[(\text{On-Line NSRS cap} + (10 * \text{Fuel Index Price} * \text{LSL}))] / [\text{the total MWs of Off-Line NSRS offered for the resource}].$$

2.2.2.2.2 In all other scenarios, the Off-Line NSRS cap will be determined in the same manner as in section 2.2.2.1, On-Line NSRS Cap.

## 2.2.3 NSRS Offers After ECRS Implementation:

### 2.2.3.1 On-Line NSRS Cap:

2.2.3.1.1 An offer for On-Line NSRS offer cap may not be higher than the lowest price Calpine offers for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's portfolio for the same hour the On-Line NSRS offer is made.

2.2.3.1.2 If Calpine makes no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service for the same hour the On-Line NSRS offer is made, then an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 24 hours.

2.2.3.1.3 If Calpine made no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service during the previous 24 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 168 hours.

2.2.3.1.4 If Calpine made no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service during the previous 168 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 720 hours.

2.2.3.1.5 If Calpine made no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service during the previous 720 hours, an offer for On-Line NSRS may not be higher than \$20 per MWh.

#### 2.2.3.2 Off-Line NSRS Cap:

2.2.3.2.1 If the COP for the resource for which Calpine makes an Off-Line NSRS offer reflects an LSL of less than or equal to the total MWs of Off-Line NSRS offered from that resource during the hour for which the Off-Line NSRS is made, then an offer for Off-Line NSRS may not exceed the value calculated by the following formula:

$$[(\text{On-Line NSRS cap} + (10 * \text{Fuel Index Price} * \text{LSL}))] / [\text{the total MWs of Off-Line NSRS offered for the resource}]$$

2.2.3.2.1 In all other scenarios, the Off-Line NSRS cap will be determined in the same manner as in section 2.2.3.1, On-Line NSRS Cap.

### 2.3 Ancillary Services Energy Offers

- 2.3.1 Notwithstanding any other provisions of this Plan, for any units providing Responsive Reserve Service or Up-Regulation Service, the prices for the quantities offered for those services shall be consistent with the ERCOT Protocols.

**ATTACHMENT 2: AFFIDAVIT OF CARRIE BIVENS, IMM DIRECTOR**



**DOCKET NO. 54741**

<b>REQUEST FOR APPROVAL OF AN</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>AMENDED VOLUNTARY</b>	<b>§</b>	<b>OF TEXAS</b>
<b>MITIGATION PLAN FOR CALPINE</b>	<b>§</b>	
<b>CORPORATION PURSUANT TO PURA</b>	<b>§</b>	
<b>§ 15.023(f) AND 16 TAC § 25.504(e)</b>	<b>§</b>	

**AFFIDAVIT OF CARRIE BIVENS**

STATE OF TEXAS           §

COUNTY OF TRAVIS       §

BEFORE ME, the undersigned authority, personally appeared Carrie Bivens, known to me to be the person whose name is subscribed below, upon oath deposed and stated as follows:

**I. Qualifications and Purpose**

1. My name is Carrie Bivens. My business address is 8000 Metropolis Drive (Building E), Suite 100, Austin, Texas, 78744. I am over eighteen (18) years of age. The facts set forth herein are true to the best of my knowledge, information, and belief.
2. I am employed by Potomac Economics and currently serve as the Director of the Independent Market Monitor ("IMM") for the Electric Reliability Council of Texas ("ERCOT") wholesale markets. Potomac Economics specializes in providing expert economic analysis and monitoring of wholesale electricity markets. In our role as the IMM for the ERCOT wholesale markets, we are charged with the responsibilities to monitor wholesale market activities so as to: (1) detect and prevent market manipulation strategies and market power abuses; and (2) evaluate the operations of the wholesale market with the current market rules and proposed changes to the market rules, and recommend measures to enhance market efficiency.
3. I have served as the Director of the ERCOT IMM since 2020 and have twenty years of experience in the industry. Immediately prior to joining Potomac Economics, I was employed by ERCOT for nearly fourteen years in various roles, most recently as Director, Wholesale Operations. Immediately prior to joining ERCOT I was employed by the

Federal Energy Regulatory Commission ("FERC") in Washington, D.C. as an Energy Industry Analyst. I have a Bachelor of Business Administration in Operations Management from the University of Houston.

4. On March 28, 2013, the Commission approved the Application, Settlement Agreement and Voluntary Mitigation Plan ("Original VMP") of Calpine Corporation ("Calpine") by Final Order in PUC Docket No. 40545.
5. On March 15, 2023, Commission Staff and Calpine filed an Application for Approval of Settlement Agreement and Amended Voluntary Mitigation Plan ("Amended VMP") relating to amendments to Calpine's Original VMP.
6. The purpose of this affidavit is to support the request for approval of Calpine's Amended VMP by explaining how it provides protections against a potential abuse of market power in violation of PURA § 39.157(a), while affording increased regulatory certainty to Calpine regarding certain ancillary service offers in the ERCOT day-ahead market.

## **II. Key Elements of the Calpine Amended VMP**

7. In approving Calpine's Original VMP on March 28, 2013, the Commission found that the Original VMP "establishes a reasonable method for compliance with PURA § 39.157(a) and P.U.C. SUBST. R. 25.503(g)(7) and is consistent with PURA § 15.023(e) and the Commission's goals in P.U.C. SUBST. R. 25.504(e) of providing for regulatory and financial certainty for market participants, while ensuring protection for the market."<sup>1</sup>
8. In approving Calpine's Original VMP, the Commission stated that, "the VMP may be modified by mutual agreement of the Executive Director and Calpine. The modification shall become effective when approved by the Commission."<sup>2</sup>
9. Because a Commission-approved VMP provides a generation entity an absolute defense against an allegation pursuant to PURA §39.157(a) and P.U.C. Subst. R. §25.503(g)(7) of an abuse of market power with respect to behaviors addressed by the VMP, it is

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<sup>1</sup> See *Petition of Calpine Corporation for Approval of Voluntary Mitigation Plan*, Docket No. 40545, Order, Conclusion of Law No. 5 (Mar. 28, 2013).

<sup>2</sup> *Id.* at Ordering Paragraph No. 5.

important that the VMP provides sufficient protection against the abuse of market power in all the market products it covers. If it becomes apparent that such protection is no longer being provided by a VMP, an adjustment must be made.

10. As part of its conservative operations posture instituted in the latter part of 2021, ERCOT increased its procurement of Non-Spinning Reserve Service (“NSRS” or “non-spin”) from an hourly range of 1,175 MW to 1,838 MW in 2020 to an hourly range of 3,654 MW to 4,303 MW in 2022. Given that the total available submitted offers of non-spin over the past 12 months, averaging roughly 7,000 MW,<sup>3</sup> has been relatively consistent with total available submitted offers from recent previous years, ERCOT’s increase in procurement affected the amount of excess supply that exists. Decreasing the excess supply of a product increases the likelihood that the largest suppliers of that product become pivotal to meeting the procurement requirement. In this way, the increase in non-spin procurements in the day-ahead market has fundamentally changed the competitiveness of the market from the time that the Original VMP was approved.
11. Given that there is currently no planned end date to ERCOT’s increased non-spin procurement, the Original VMP is not effectively mitigating anti-competitive conduct in the non-spin market as it exists today. Given the change in competitive conditions caused by ERCOT’s sizable increase in non-spin procurements and the non-competitive costs that have already accrued as a result of the conservative operational approach, a modification of the Original VMP is necessary to ensure continued protection against market power abuses.
12. The Original VMP provided that offers in the day-ahead market for non-spin could be made up to and including the high system-wide offer cap.
13. The Amended VMP provides that for non-spin offers prior to the implementation of the ERCOT Contingency Reserve Service (“ECRS”), an offer for On-Line NSRS may not be higher than the lowest price Calpine offers for Responsive Reserve Service or Up-Regulation Service for any resource in Calpine’s resource portfolio for the same hour the

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<sup>3</sup> This value does not take into account whether the submitted offers were able to be awarded based on day-ahead market resource constraints.

On-Line NSRS offer is made. If Calpine makes no offers for either Responsive Reserve Service or Up-Regulation Service for the same hour the On-Line NSRS offer is made, then an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for Responsive Reserve Service or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 24 hours. If Calpine made no offers for either Responsive Reserve Service or Up-Regulation Service during the previous 24 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for either Responsive Reserve Service or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 168 hours. If Calpine made no offers for either Responsive Reserve Service or Up-Regulation Service during the previous 168 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for either Responsive Reserve Service or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 720 hours. If Calpine made no offers for either Responsive Reserve Service or Up-Regulation Service during the previous 720 hours, an offer for On-Line NSRS may not be higher than \$20 per MWh.

14. The Amended VMP further provides that for non-spin offers prior to the implementation of ECRS, if the Current Operating Plan ("COP") for the resource for which Calpine makes an Off-Line NSRS offer reflects an LSL of less than or equal to the total MWs of Off-Line NSRS offered from that resource during the hour for which the Off-Line NSRS offer is made, then an offer for Off-Line NSRS may not exceed the value calculated by the following formula:

$$[(\text{On-Line NSRS cap} + (10 * \text{Fuel Index Price} * \text{LSL}))] / [\text{the total MWs of Off-Line NSRS offered for the resource}].$$

In all other scenarios, the Off-Line NSRS cap will be determined in the same manner as Paragraph 13 above.

15. The Amended VMP provides that for non-spin offers after the implementation of ECRS, an offer for On-Line NSRS offer cap may not be higher than the lowest price Calpine offers for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's portfolio for the same hour the On-Line NSRS offer is made. If Calpine

makes no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service for the same hour the On-Line NSRS offer is made, then an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 24 hours. If Calpine made no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service during the previous 24 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 168 hours. If Calpine made no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service during the previous 168 hours, an offer for On-Line NSRS may not be higher than the lowest price Calpine offered for ECRS, Responsive Reserve Service, or Up-Regulation Service for any resource in Calpine's resource portfolio during the previous 720 hours. If Calpine made no offers for ECRS, Responsive Reserve Service, or Up-Regulation Service during the previous 720 hours, an offer for On-Line NSRS may not be higher than \$20 per MWh.

16. If the COP for the resource for which Calpine makes an Off-Line NSRS offer reflects an LSL of less than or equal to the total MWs of Off-Line NSRS offered from that resource during the hour for which the Off-Line NSRS is made, then an offer for Off-Line NSRS may not exceed the value calculated by the following formula:

$$[(\text{On-Line NSRS cap} + (10 * \text{Fuel Index Price} * \text{LSL}))] / [\text{the total MWs of Off-Line NSRS offered for the resource}].$$

In other scenarios, the Off-Line NSRS cap will be determined in the same manner as Paragraph 15 above.

17. This dynamic formula for non-spin offers in the day-ahead market significantly narrows the range of Calpine's existing offer discretion, providing thresholds for offers on a "typical" day while still allowing offers to reach higher levels when there is a high certainty of shortage conditions in real-time. It leverages Calpine's offers for products for which there are stronger competitive forces to discipline offers for non-spin. In absence of a demand curve for ancillary services in the day-ahead market, it recognizes

that the non-spin product is of lower value to the system than responsive reserve service or regulation up. The Amended VMP effectively addresses the potential for market power abuse in the non-spin market.

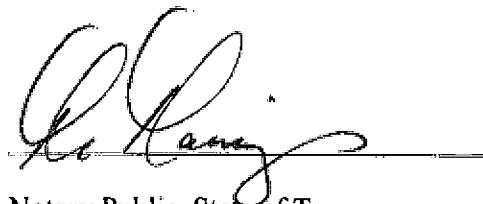
18. In conclusion, it is my opinion that the Amended VMP will continue to provide regulatory certainty to Calpine and that behavior consistent with the terms of the Amended VMP will provide reasonable safeguards against the potential exercise of market power in the ERCOT markets that may constitute an abuse of market power.

19. This concludes my affidavit.



Carrie Bivens

SUBSCRIBED and SWORN TO before me, a Notary Public, in and for the State of Texas, this 14 day of March 2023.



Notary Public, State of Texas

My commission expires:



**ATTACHMENT 3: PROPOSED ORDER**

**DOCKET NO. 54741**

<b>REQUEST FOR APPROVAL OF AN</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>AMENDED VOLUNTARY</b>	<b>§</b>	
<b>MITIGATION PLAN FOR CALPINE</b>	<b>§</b>	<b>OF TEXAS</b>
<b>CORPORATION PURSUANT TO</b>	<b>§</b>	
<b>PURA § 15.023(f) AND 16 TAC §</b>	<b>§</b>	
<b>25.504(e)</b>	<b>§</b>	

**PROPOSED ORDER**

This Order addresses the settlement agreement (agreement) between the Staff of the Public Utility Commission of Texas (Commission) and Calpine Corporation, which recommends approval of an amended Voluntary Mitigation Plan (VMP). The Commission approves the agreement and approves the amended VMP for Calpine.

**I. Findings of Fact**

Commission Staff and Calpine stipulated to the following findings of fact.

**Applicant**

1. Calpine is registered with the Commission as a power generation company under registration numbers 20008 and 20122.
2. Calpine controls one or more generation resources in the Electric Reliability Council of Texas (ERCOT) region.
3. Calpine is registered with ERCOT as a qualified scheduling entity and is responsible for submitting offers from its generation resources into the ERCOT market.

**Original VMP**

4. On July 10, 2012, Calpine filed a petition for approval of a VMP (Original VMP).<sup>1</sup>
5. On March 28, 2013, the Commission issued an order approving the Original VMP.<sup>2</sup>

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<sup>1</sup> *Petition of Calpine Corporation for Approval of Voluntary Mitigation Plan*, Docket No. 40545, Petition of Calpine Corporation for Approval of Voluntary Mitigation Plan (Jul. 10, 2012).

<sup>2</sup> Docket No. 40545, Order (Mar. 28, 2023).



6. The Original VMP can be modified by mutual agreement of the Commission's executive director and Calpine, and the modification will become effective when approved by the Commission.<sup>3</sup>

**Amended VMP**

7. In the latter part of 2021, ERCOT instituted its current operational posture, which includes the increased procurement of Non-Spinning Reserve Service (NSRS) in the day-ahead market.
8. The largest suppliers of NSRS to the ERCOT market, including Calpine, are the generation entities and affiliates that own the largest percentage of generation capacity providing NSRS in the ERCOT power region. Therefore, the largest suppliers of NSRS have the ability to control prices or exclude competition in the NSRS market.
9. The increased procurement of NSRS in the day-ahead market has resulted in the largest suppliers of NSRS to the ERCOT market, including Calpine, setting prices of NSRS that exceed average NSRS clearing prices.
10. There is currently no planned end date to ERCOT's increased procurement of NSRS.
11. The Original VMP, which provides Calpine with an absolute defense against allegations of market abuse pertaining to the submission of offers for ancillary services at prices up to the HCAP, is no longer effectively mitigating potential abuse of market power related to offers of NSRS.
12. The amended VMP addresses Calpine's offer strategy for On-Line and Off-Line NSRS in the ERCOT day-ahead market.
13. The amended VMP establishes a reasonable method for compliance with PURA and Commission rules and provides regulatory and financial certainty for Calpine, while ensuring protection against market power abuse.

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<sup>3</sup> *Id.*, Ordering Paragraph No. 5.

**Settlement Agreement**

14. On March 15, 2023, the parties entered into a settlement agreement, which recommends approval of the amended VMP, attached as Attachment 1 to the agreement.
15. The amended VMP was developed after detailed discussions between Commission Staff, ERCOT's Independent Market Monitor (IMM), and Calpine.
16. The amended VMP is supported by the IMM, as detailed in the affidavit of Carrie Bivens, director of the IMM, attached as Attachment 2 to the agreement.
17. Under the agreement, the amended VMP will remain in effect from the date it is approved by the Commission until terminated by the executive director of the Commission or Calpine.
18. Under the agreement, the amended VMP may be modified by mutual agreement of the executive director and Calpine. The modification will become effective when approved by the Commission.
19. Under the agreement, if at any time the executive director or the executive director's designee determines that continuation of the amended VMP or part of the amended VMP may no longer be in the public interest, the executive director or the executive director's designee may terminate the amended VMP, in whole or in part, by providing Calpine with written notice of termination at least three business days prior to the effective date of termination, subject to ratification of the termination or reinstatement of the amended VMP by the Commission. If the amended VMP is terminated in part, the remaining part of the amended VMP may still be modified. The executive director may withdraw the notice of termination at any point prior to the termination date.
20. Under the agreement, Calpine may terminate the amended VMP by providing the executive director with written notice of termination at least three business days prior to the effective date of termination. Calpine may withdraw the notice of termination at any point prior to the termination date.

**Notice**

21. Notice of the agreement was provided to the parties.

The Commission makes the following findings of fact.

**Informal Disposition**

22. At least 15 days have passed since the completion of all notice requirements.
23. Commission Staff, including the IMM, and Calpine are the only parties to this proceeding.
24. No party requested a hearing, and no hearing is needed.
25. Commission Staff recommended approval of the agreement.
26. This decision is not adverse to any party.

**II. Conclusions of Law**

The Commission makes the following conclusions of law.

1. The Commission has jurisdiction over this matter under PURA §§ 14.001, 14.051, 15.023, and 39.157.
2. Calpine is a power generation company under PURA § 31.002(10) and 16 Texas Administrative Code (TAC) § 25.5(82).
3. Calpine is a generation entity as that term is defined in 16 TAC § 25.504(b)(1).
4. Within the ERCOT NSRS day-ahead market, Calpine possesses market power as that term is defined in 16 TAC § 25.504(b)(2).
5. Under PURA § 39.157(a), a market power abuse is a practice by a person possessing market power that is unreasonably discriminatory or tends to unreasonably restrict, impair, or reduce the level of competition.
6. PURA § 39.157(a) and 16 TAC § 25.503(g)(7) prohibit market power abuses.
7. Under PURA § 15.023(f) and 16 TAC § 25.504(e), the Commission may approve a generation entity's VMP to ensure compliance with PURA § 39.157(a) and 16 TAC § 25.503(g)(7).
8. Under PURA § 15.024(f), the only parties allowed in the proceeding are Commission Staff, including the IMM, and Calpine.
9. Calpine's amended VMP establishes a reasonable method for compliance with PURA § 39.157(a) and 16 TAC § 25.503(g)(7).

10. Under PURA § 15.023(f), adherence to the amended VMP, if approved by the Commission, provides Calpine with an absolute defense against an allegation under PURA § 39.157(a) and 16 TAC § 25.503(g)(7) of an abuse of market power with respect to activities covered by the amended VMP.
11. Failure to adhere to a VMP approved by the Commission does not, standing alone, constitute a violation of 16 TAC § 25.503(g)(7), but may be treated in the same manner as any other violation of a Commission Order.
12. The Commission processed this docket in accordance with the requirements of applicable statutes and Commission rules.
13. The requirements for informal disposition under 16 TAC § 22.35 have been met in this proceeding.

### **III. Ordering Paragraphs**

In accordance with these findings of fact and conclusions of law, the Commission issues the following orders.

1. The Commission approves the agreement and the amended VMP attached to the agreement.
2. Nothing prohibits the Commission from imposing penalties for violations that do not pertain to the specific behaviors covered by the amended VMP.
3. The amended VMP approved by this Order must remain in effect from the date it is approved by the Commission until terminated in accordance with the termination provisions in the agreement.
4. The amended VMP may be modified by mutual agreement of the Commission's executive director and Calpine. The modification will become effective if approved by the Commission.
5. The Commission denies all other motions and any other requests for general or specific relief, if not expressly granted.

Signed at Austin, Texas the \_\_\_\_ day of \_\_\_\_\_, 2023.

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**PETER M. LAKE, CHAIRMAN**

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**WILL MCADAMS, COMMISSIONER**

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**LORI COBOS, COMMISSIONER**

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**JIMMY GLOTFELTY, COMMISSIONER**

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**KATHLEEN JACKSON, COMMISSIONER**