



Control Number: 54741



Item Number: 3

DOCKET NO. 54741

RECEIVED

REQUEST FOR APPROVAL OF AN  
AMENDED VOLUNTARY  
MITIGATION PLAN FOR CALPINE  
CORPORATION PURSUANT TO  
PURA § 15.023(f) AND 16 TAC §  
25.504(e)

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PUBLIC UTILITY COMMISSION

2023 MAR 28  
PUBLIC UTILITY COMMISSION  
OF TEXAS  
FILING CLERK

ORDER

This Order addresses the agreement between Commission Staff of the Public Utility Commission of Texas (Commission Staff) and Calpine Corporation, which recommends approval of an amended Voluntary Mitigation Plan (amended VMP) for Calpine. The Commission approves the agreement and approves the amended VMP for Calpine, filed by Commission Staff on March 15, 2023. A copy of the amended VMP is attached to this Order.

**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) in Docket No. 40545.
5. On March 28, 2013, the Commission issued an order approving the original VMP.<sup>1</sup>

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<sup>1</sup> *Petition of Calpine Corporation for Approval of Voluntary Mitigation Plan*, 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>2</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>2</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, filed by Commission Staff on March 15, 2023. A copy of the amended VMP is attached to this Order.
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 23<sup>rd</sup> day of March 2021.

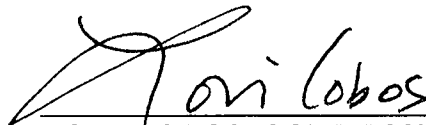
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## 1 Voluntary Mitigation Plan Definitions and Acronyms

- 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 NOx Emissions Cost (\$/MWh): [The combined cycle generator train's Incremental Heat Rate (MMBtu/MWh)] \* [The unit's emission rate for NOx (lb/MMBtu) approved via the ERCOT verifiable cost process] \* [1 NOx allowance/ton] \* [NOx 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 SO2 Emissions Cost (\$/MWh): [The combined cycle generator train's Incremental Heat Rate (MMBtu/MWh)] \* [The unit's emission rate for SO2 (lb/MMBtu) approved via the ERCOT verifiable cost process] \* [2 SO2 allowances/ton] \* [SO2 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.