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DOCKET NO. 40545

PETITION OF CALPINE  
CORPORATION FOR APPROVAL OF  
VOLUNTARY MITIGATION PLAN §

PUBLIC UTILITY COMMISSION  
OF TEXAS

2012 DEC 10 PM 3:00  
PUBLIC UTILITY COMMISSION  
CLERK

**CALPINE CORPORATION'S SUPPLEMENTAL RESPONSE TO COMMISSION  
STAFF'S FIRST SET OF REQUESTS FOR INFORMATION**

Calpine Corporation, on behalf of itself and its generation subsidiaries operating in the Electric Reliability Council of Texas ("ERCOT") wholesale market (collectively "Calpine"), files this supplemental response to some of the questions in Commission Staff's ("Staff") First Set of Requests for Information ("Staff's RFI"). This supplementation responds to the request of Staff counsel to identify the page and line numbers of Calpine witnesses' prefiled direct testimony referenced in Calpine's response to Staff's RFI. These answers may be treated by all parties as if the answer were filed under oath.

Respectfully submitted,



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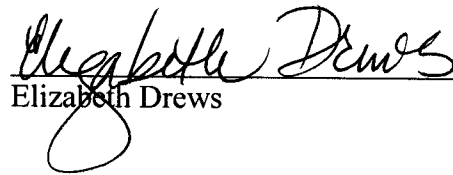
ATTORNEYS FOR CALPINE CORPORATION



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### **CERTIFICATE OF SERVICE**

I certify that a true and correct copy of this pleading has been forwarded by fax, U.S. first class mail, hand-delivery, or courier service to the Commission Oversight and Enforcement Division on the 10th day of December, 2012. By agreement, the Commission Oversight and Enforcement Division will transmit copies to the Independent Market Monitor as needed.

  
Elizabeth Drews

**RESPONSES:**

- Staff RFI 1-1** (a) What characteristics of Calpine or other facts do you consider significant in deciding what voluntary mitigation plan to propose to the Commission?
- (b) For each characteristic or other fact identified in your response to (a) above, please explain why you consider it significant and in what way it would affect the voluntary mitigation plan you would ask the Commission to enter into with Calpine.

**RESPONSE:**

- (a) See the testimony of Calpine witness Jeffrey D. Woodall, which describes Calpine's significant characteristics and facts significant in developing the proposed voluntary mitigation plan. See Mr. Woodall's direct testimony at 0008, lines 4-11; 0010, line 8-12; 0011, line 6 – 0012, line 2; 0013, lines 1 to 7; and footnotes referenced therein. See also the testimony of Calpine witness William H. Hieronymus, which discusses many of these same characteristics and facts and their significance. See Dr. Hieronymus' direct testimony at: 0006, lines 1-3; 0006, line 15 – 0009, line 3; 0014, line 18 – 0016, line 2; 0024, line 11-12; 0025, lines 6-11; 0030, line 14 – 0031, line 2; 0032, line 17 – 0033, line 17; 0034, line 16 – 0035, line 6; 0036 table; 0037 line 11 – 0044 line 17; 0045 line 8 – 0048 line 8; 0048 line 15 – 0051 line 14; and footnotes and exhibits referenced therein.

- (b) See the response to (a) above.

Consistent with Staff RFI 1-1(a) and (b), the portions of the testimony listed above focus on Calpine's characteristics and their specific significance to Calpine's VMP. Calpine's VMP was developed based on other relevant facts as well and should be adopted for reasons discussed in those and other portions of Calpine's direct testimony.

Preparer: Elizabeth Drews

Sponsor: Jeffrey D. Woodall and William H. Hieronymus

**Staff RFI 1-2** For each subpart below requesting that you provide a definition that you use, if your definition also uses a technical term, such as opportunity cost, please also provide your definition of that term. If you are relying on a definition used in a document such as a legal authority or economic treatise, please so state and provide that document, or the title page and pages discussing that definition, or the URL for that document. If the document is not in your possession, custody or control, please identify that document. The following subparts relate to P.U.C. Substantive Rule 25.504(d):

- (a) Do you believe Staff should consider “marginal cost” to mean “short-run marginal cost” or “long-run marginal cost”? Please include in your answer your definitions of “short-run marginal cost” and “long-run marginal cost.”
- (b) What definition of “marginal cost” do you believe Staff should use?
- (c) How do you believe Staff should define “substantially,” *i.e.*, what would you consider to be prices so “substantially above marginal cost” as to constitute withholding of production?
- (d) Please provide all communications and documents that identify, discuss, or explain how Calpine defines “substantially above marginal cost,” including communications and documents specifically related to Calpine’s bidding practices in the ERCOT market and Calpine’s current or former proposals for a voluntary mitigation plan.<sup>1</sup>
- (e) Do you believe that marginal cost pricing conceptually includes a normal profit, *i.e.*, the average profit expected in the industry when conditions of competition prevail? Please explain. What would you consider a normal profit in the ERCOT wholesale electric market?
- (f) Do you believe that marginal costs should include capital costs if the capital costs in question are those that will have to be covered over time in the future if service is to continue to be rendered? Please explain.

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<sup>1</sup> Clarifications the parties agreed on in negotiations include the following. References to “communications” exclude phone calls. Staff is not requesting settlement proposals, public documents, or duplicates, mere references to the existence of Calpine’s proposed voluntary mitigation plan or this case or mere transmittal communications without additional substantive responsive information. Staff is not requesting communications and documents between Calpine’s attorneys, paralegals, legal assistants and legal secretaries, either in-house or outside counsel, that were not shared with persons who do not fit that description. Inclusion of Calpine’s attorneys, advisers etc. within the definition of “Calpine” as used in the request for information means in their capacity as Calpine’s attorneys, advisers, etc. Staff limited the request to communications and documents on or after January 1, 2010. In this subpart, the part of the sentence after the comma is subject to the part of the sentence before the comma. Thus this subpart requests “communications and documents specifically related to Calpine’s bidding practices in the ERCOT market and Calpine’s current or former proposals for a voluntary mitigation plan” only if they “identify, discuss, or explain how Calpine defines ‘substantially above marginal cost.’”

- (g) Do you believe that a generating entity whose offers do not exceed the level allowing the generating entity to recover its long-run marginal cost could still be considered to be pricing so "substantially above marginal cost" as to commit withholding of production? Please explain.
- (h) In deciding whether offers by a generating entity that is not a small fish are so "substantially above marginal cost" as to constitute withholding of production, do you believe Staff should consider whether the offers do not exceed the level allowing the generating entity to recover its long-run marginal cost? Please explain.

**RESPONSE:**

Calpine's response to (d) is subject to Calpine's privilege objections. Any response relating to oral communications is limited to what is recollected. Calpine does not have information on oral communications in the level of detail requested.

- (a) The definitions of "marginal cost," "short run marginal cost" and "long run marginal cost" depend on the context. Calpine has not chosen a specific definition but for present purposes at this time does not challenge the definitions quoted in Staff's response to Calpine RFI 1-6 from Microeconomics, Second Edition; Perloff, Jeffrey M.:

Marginal Cost: the amount by which a firm's cost changes if the firm produces one more unit of output

Short Run: a period of time so brief that at least one factor of production cannot be varied practically

Long Run: a lengthy enough period of time that all inputs can be varied.

Regarding the meaning of "substantially above marginal cost," please see the direct testimony of Calpine witness William H. Hieronymus, discussing the economic concepts that should be applied in evaluation of a proposed VMP, where Texas law is not yet clear. See Dr. Hieronymus' direct testimony at: 0006, line 1 – 0010, line 7; 0016 line 3 – 0031 line 2; 0034 line 14 – 0035, line 6; 0044 line 6-17; 0047 line 14 – 0048 line 8; 0048, line 15 – 0053, line 8; and footnotes and exhibits referenced therein.

The rest of this response discusses Texas law Staff should apply concerning the meaning of "substantially above marginal cost."

P.U.C. Subst. R. 25.504(d) states: "A generation entity with market power that prices its services substantially above its marginal cost may be found

to be withholding production; offering prices that are not substantially above marginal cost does not constitute withholding of production.” In adopting that rule, the Commission declined to define “substantially above its marginal cost,” preferring to address that case by case, but the Commission did state: “The difference between the offered price and marginal cost must be large enough to indicate that an entity was exercising *market power*.”<sup>2</sup> See Calpine’s response to Staff RFI 1-9 regarding how the Commission defines “market power.”

P.U.C. Subst. 25.503(g)(7) states: “Withholding of production, whether economic withholding or physical withholding, by a market participant who has market power, constitutes an abuse of market power.” In upholding that rule on appeal, the Third Court of Appeals stated: “Because this is a direct appeal, [appellants] may only challenge the facial validity of the rule: that the rule constitutes an unconstitutional taking in all of its applications.”<sup>3</sup> The court indicated that requiring a market participant to sell its power at marginal cost would be unconstitutional: “Because we hold that the [Wholesale Market Oversight] Rule does not require market participants to sell power at marginal cost, the rule is not an unconstitutional taking in all of its applications.”<sup>4</sup> Holding that the rule does not require market participants to sell power at marginal cost, the court stated: “Read in context, the preamble merely makes the wholly unremarkable observation that prices that are substantially above the marginal cost of power from the most expensive generating unit, under circumstances where there is no possibility of a competing offer, are harmful to the public.”<sup>5</sup> The court indicated that intent is an element in order to find market power abuse.<sup>6</sup> It stated: “If a diligent inquiry would not reveal the adverse affect of legitimate activity on the market, the activity is excluded from the rule’s definition of market power abuse.”<sup>7</sup>

Public Utility Regulatory Act, Tex. Util. Code § 39.157(a) states that “market power abuses are practices by persons possessing market power that are unreasonably discriminatory or tend to unreasonably restrict, impair, or reduce the level of competition . . .” and “include . . . withholding of production. The possession of a high market share in a market open to competition may not, of itself, be deemed to be an abuse of market power; . . .”

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<sup>2</sup> 31 TEX. REG. 7339 (Sep. 8, 2006) (italics in original).

<sup>3</sup> *TXU v. Public Utility Commission*, 165 S.W.3d 821, 845 (Tex. App. – Austin 2005, pet. denied).

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 836.

<sup>6</sup> *See id.* at 832-834.

<sup>7</sup> *Id.* at 843.

The Commissioners discussed the meaning of the market power abuse of economic withholding under Texas law in a market power abuse enforcement case.<sup>8</sup> In explaining his decision to accept the settlement in that case, then Commission Chairman Barry T. Smitherman stated:

TXU's offers during the study period were designed to cover the "full costs of owning, operating, and maintaining units expected to be needed to satisfy the forecasted load. This amount includes the initial investment costs and other fixed costs such as leasing arrangements for gas turbines." Potomac rejected this approach claiming that in a competitive market, there is no basis for an entity to take into account sunk costs. According to Potomac, TXU's strategy should be the same "regardless of whether TXU won the units in a lottery or TXU paid a large sum to buy the units." In other words, according to Potomac, TXU should have bid its generation units either at or near its short run marginal costs.

I have been and continue to be skeptical of . . . Potomac's above enumerated positions. . .

In a previous memo . . . I took exception to Potomac's previous analysis. In that memo . . . , I said, "It seems perfectly rational to me that a generator would attempt to recover a return on and of capital investment through its offers. I think it a bit theoretical to assert that generators in ERCOT are acting rationally only when they offer at short-run marginal cost. If generators are unable to recover long-run marginal costs, then I fear we run the risk of discouraging additional generation at a time when it appears that we are really beginning to need it." I still believe this to be the case. . . .<sup>9</sup>

Commissioner Anderson stated:

I think the Chairman laid out the concerns a lot better than I could. I'll suffice it to say that I thought the notion that submitting bids in excess of your marginal cost seemed – well, that troubled me because nobody stays in business if they only

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<sup>8</sup> *Notices of Violation by TXU Corp., et al., of PURA § 39.157(a) and P.U.C. SUBST. R. 25.507(g)(7)*, Docket No. 34061, Order (Dec. 22, 2008).

<sup>9</sup> Docket No. 34061, Memorandum from Chairman Barry T. Smitherman to Commissioner Donna L. Nelson and Commissioner Kenneth W. Anderson, Jr. (Dec. 17, 2008) at 1-3.

cover their marginal cost. And you don't make the initial investment if you're just going to cover your marginal cost.<sup>10</sup>

- (b) See the response to (a) above.
- (c) See the response to (a) above.
- (d) See the documents cited in the response to (a) above and Calpine's petition, briefs and testimony filed in this case. The issue is also more briefly discussed in a joint filing in Project No. 37897 by a group that included Calpine Corporation.<sup>11</sup>
- (e) See the testimony of Calpine witness William H. Hieronymus listed in response to (a) above. See also the response to (a) above.
- (f) See the testimony of Calpine witness William H. Hieronymus listed in response to (a) above. See also the response to (a) above.
- (g) See the testimony of Calpine witness William H. Hieronymus listed in response to (a) above. See also the response to (a) above.
- (h) See the testimony of Calpine witness William H. Hieronymus listed in response to (a) above. See also the response to (a) above.

Preparer: Elizabeth Drews

Sponsor: William H. Hieronymus

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<sup>10</sup> Tr. (Dec. 18, 2008) at 90.

<sup>11</sup> *PUC Proceeding Relating to Resource and Reserve Adequacy and Shortage Pricing*, Project No. 37897, Group of Competitive Texas Generators' Response to Public Utility Commission of Texas' Public Notice of Workshop on Proposed Changes to P.U.C. Subst. R. 25.505, Resource Adequacy in the Electric Reliability Council of Texas Power Region and P.U.C. Subst. R. 25.504, Wholesale Market Power in the Electric Reliability Council of Texas (Feb. 10, 2012).

**Staff RFI 1-4** The Brattle Report generally recommends avoiding mechanisms that may inefficiently increase prices to “scarcity” levels even when resources are plentiful.<sup>12</sup> The following sub-questions relate to this statement:

- (a) Do you agree or disagree with Brattle’s observations and recommendations in this subsection? Please provide a detailed explanation of why you agree or disagree.
- (b) Please provide your definition of the term “scarcity conditions” in the context of the ERCOT real-time market.
- (c) Please provide your definition of the term “scarcity prices” in the context of the ERCOT real-time market.
- (d) Please provide your definition of the term “efficient prices” in the context of the ERCOT real-time market.

**RESPONSE:**

- (a) Calpine has not taken a position in this case regarding Brattle’s broad statements in the referenced subsection, and neither of Brattle’s two specific examples in that subsection (the recent 500 MW increase in the RRS requirement and the new RUC mechanism) relate to a VMP. Calpine’s VMP was developed in the context of ERCOT’s current market design and market rules. The direct testimony of Calpine witness William H. Hieronymus discusses the expected consequences of Calpine’s VMP with respect to appropriate wholesale price signals and efficiency. See Dr. Hieronymus’ direct testimony at: 0006, line 1 – 0010, line 7; 0016 line 3 – 0031 line 2; 0032 line 17 – 0033 line 17; 0034 line 14 – 0046, line 5; 0047 line 14 – 0048 line 8; 0048, line 15 – 0053, line 8; and footnotes and exhibits referenced therein.
- (b) The definition depends on the context. Calpine did not use a specific definition in developing Calpine’s VMP.
- (c) The definition depends on the context. Calpine did not use a specific definition in developing Calpine’s VMP.
- (d) The definition depends on the context. Calpine did not use a specific definition in developing Calpine’s VMP. The direct testimony of Calpine witness William H. Hieronymus discusses the expected consequences of Calpine’s VMP in terms of appropriate wholesale price signals and

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<sup>12</sup> See page 75 of the Brattle Report, Subsection C (“Avoiding Mechanisms for ‘Scarcity’ Prices during Non-Scarcity Conditions”).

efficiency. See the testimony of Dr. Hieronymus listed in response to (a) above.

Preparer: Elizabeth Drews

Sponsor: William H. Hieronymus

**Staff RFI 1-6** Page 8 of Calpine's Petition states that "Calpine differs from NRG . . . in important ways."

- (a) Please identify all facts, characteristics, circumstances, or ways in which Calpine differs from NRG that would be pertinent to the determination of the appropriate structure of a VMP.
- (b) For each fact, characteristic, circumstance, or way identified in subsection (a) above, please provide a detailed explanation of why these differences justify a different VMP than the VMP recently approved for NRG.

**RESPONSE:**

- (a) Calpine has not developed a comprehensive list. Many of the key facts are identified in the direct testimony of Calpine witnesses William H. Hieronymus and Jeffrey D. Woodall. See Dr. Hieronymus' direct testimony at: 0046, line 6 – 0051, line 14; and exhibits referenced therein. See also Mr. Woodall's direct testimony at 0007, line 18 – 0008 line 11; p. 0010, line 7 – p. 0013, line 16; and footnotes referenced therein.
- (b) See the direct testimony of Calpine witnesses William H. Hieronymus and Jeffrey D. Woodall listed in response to (a) above.

Consistent with Staff RFI 1-6(a) and (b), the portions of the testimony listed above focus on facts, characteristics, circumstances, or ways in which Calpine differs from NRG. Calpine's VMP was developed based on other relevant facts as well and should be adopted for reasons discussed in those and other portions of Calpine's direct testimony.

Preparer: Elizabeth Drews

Sponsor: William H. Hieronymus and Jeffrey D. Woodall

**Staff RFI 1-8** The behavior afforded the non-enforcement guarantee under Calpine's proposed voluntary mitigation plan constitutes economic withholding. Do you agree with this statement? Please explain fully.

**RESPONSE:** No. See Calpine's responses to Staff RFI 1-9 and Staff RFI 1-2 regarding the definitions of market power and of the market power abuse of economic withholding under Texas law. See also the direct testimony of Calpine witness William H. Hieronymus, discussing why Calpine's proposed voluntary mitigation plan would not allow bidding that would result in an abuse of market power. See Dr. Hieronymus' direct testimony at: 0006, line 1 – 0010, line 7; 0014 line 1 – 0046, line 5; 0047, line 1 – 0053, line 8; and footnotes and exhibits referenced therein.

Preparer: Elizabeth Drews  
Sponsor: William H. Hieronymus

**Staff RFI 1-9** As a generating entity that does not fall within the P.U.C. SUBST. R. 504(c) small fish exemption, Calpine is deemed to have the potential to have market power. Do you agree with this statement? Please explain fully.

**RESPONSE:** No. As discussed in the direct testimony of Calpine witness William H. Hieronymus, an entity with a market share above the small fish threshold but below the 20 percent threshold is neither deemed to have market power nor presumed not to have market power. See Dr. Hieronymus' direct testimony at: 0016 line 3 – 0018, line 10; 0032 line 7 – 0033, line 1; and footnotes and exhibits referenced therein. See also Dr. Hieronymus' direct testimony relating to his conclusion that Calpine lacks market power: 0006, line 1-3; 0006 line 7 – 0009 line 3; 0014, line 17 – 0016, line 2; 0030 line 4 – 0044, line 17; and footnotes and exhibits referenced therein.

The rest of this response addresses Staff's RFI 1-9 from a legal perspective.

The phrasing of Staff's RFI 1-9 ignores that under Texas law, a market participant that does not actually have or possess market power has no potential to commit market power abuse. *See* Public Utility Regulatory Act, Tex. Util. Code § 39.157(a) and P.U.C. Subst. R. 25.503(g)(7). *See also* the response to Staff RFI 1-2(a).

Moreover, P.U.C. Subst. R. 25.504(c) states:

**Exemption based on installed generation capacity.** A single generation entity that *controls less than 5%* of the installed generation capacity in ERCOT, as the term "installed generation capacity" is defined in §25.5 of this title (relating to Definitions), excluding uncontrollable renewable resources, is *deemed not to have* ERCOT-wide market power. Controlling 5% or more of the installed generation capacity in ERCOT *does not, of itself, mean* that a generating entity has market power. (Italics added.)

As that rule language indicates, the Commission determined by rule that a single generation entity that controls less than 5% of the installed generation capacity in ERCOT as defined in that rule ("a small fish") is so small that it is deemed as a matter of law, in that rule, not to have ERCOT-wide market power. Nothing in P.U.C. Subst. R. 25.504(c) supports the assertion that a generating entity that does not qualify for the small fish swim free exemption is affirmatively "deemed" to have the potential to have market power. On the contrary, the rule states that controlling 5% or more of the installed generation capacity in ERCOT does not, of itself, mean that a generating entity has market power. Similarly, in its order adopting the rule, the Commission stated:

"An entity that does not qualify for the ["small fish swim free"] exemption is not presumed to have market power." 31 TEX. REG. 7338. P.U.C. Subst. R. 25.504(c) does not "deem" anything about an entity that does not fall within the small fish exemption. Issues relating to whether a generating entity that is not a small fish has market power are simply open issues that have not been determined in the generic rulemaking but instead are to be determined in a contested case that presents that issue based on the facts in that case.

In addition, there is no basis for "deeming" that every generating entity that is not a small fish has, or potentially has, the ability to control prices or exclude competition. *See* P.U.C. SUBST. R. 25.504(b)(2), defining "market power" as "the ability to control prices or exclude competition in a relevant market." In discussing his decision to approve a settlement in an enforcement case alleging market power abuse,<sup>13</sup> then Commission Chairman Smitherman discussed the definition of "market power":

The Commission subsequently came up with a definition of market power on September 13<sup>th</sup>, 2006, and that definition is the ability to control prices or exclude competition, and that's in our rules right now, which is a very different definition from the one that Potomac used. Their definition is the ability for a market participant to profitably raise prices above competitive levels. And it seems to me in any market players will attempt to raise prices above competitive levels for a period of time, and the response is that other competitors come in and try to bid those prices back down. That's what happens in a market.

So those were my three concerns, skepticisms about some of the original Potomac work.<sup>14</sup>

Preparer: Elizabeth Drews  
Sponsor: William H. Hieronymus

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<sup>13</sup> *Notices of Violation by TXU Corp., et al., of PURA § 39.157(a) and P.U.C. SUBST. R. 25.507(g)(7)*, Docket No. 34061, Order (Dec. 22, 2008).

<sup>14</sup> Tr. (Dec. 18, 2008) at 87.

**Staff RFI 1-10** Please provide a detailed explanation regarding what Calpine believes should be considered "in the public interest" in the context of a voluntary mitigation plan.

**RESPONSE:** "In the public interest" includes the purpose of a voluntary mitigation plan and desirable attributes in a voluntary mitigation plan, which are discussed in the direct testimony of Calpine witnesses William H. Hieronymus and Jeffrey D. Woodall. See Dr. Hieronymus' direct testimony at 0004 line 12-15; 0006 line 1-6; 0009 line 4 – 0010 line 7; 0016 line 3 – 0030, line 3; 0038 line 13- 20; 0045 line 1-7; 0048, line 15 – 0049, line 20; 0051, line 15 – 0053, line 8; and footnotes and exhibits referenced therein. See also Mr. Woodall's direct testimony at 0005 line 4-16; 0006 line 1 – 0007 line 15; 0013 line 8-12; and 0015, lines 5-8; and footnotes referenced therein.

In addition, to be in the public interest, a voluntary mitigation plan must meet applicable legal requirements, discussed in response to Staff RFI 1-2(a) and 1-9.

Preparer: Elizabeth Drews

Sponsor: William H. Hieronymus and Jeffrey D. Woodall

**Staff RFI 1-12**

Page 1 of the Calpine Petition states that “[t]he VMP is merely an avenue to provide regulatory and financial certainty for the Calpine fleet and to mitigate the risk of adding capacity in ERCOT while protecting ERCOT markets.”

- (a) Please provide a detailed explanation of how the proposed VMP provides financial certainty for the Calpine fleet.
- (b) Please provide a detailed explanation of how the proposed VMP mitigates the risk of adding capacity in ERCOT.
- (c) Please provide a detailed explanation of how the proposed VMP protects ERCOT markets.

**RESPONSE:**

- (a) One of the key purposes of a voluntary mitigation plan (“VMP”) is to provide a generating entity with an absolute defense against allegations of market power abuse, provided the generating entity is offering energy, including ancillary services, from its capacity resources in accordance with the VMP. This aspect of the VMP provides an entity with regulatory certainty about what offer behavior is protected, which is inextricably tied to the “financial certainty” referred to in Calpine’s petition in this case. “Financial certainty” simply means the VMP also provides the generating entity an agreed level of certainty around the pricing boundaries included in the VMP. The phrase should not be considered to be and is not a statement by Calpine that any VMP does or should provide guaranteed revenues or a guaranteed financial outcome.
- (b) The VMP proposed by Calpine is intended to cover both existing capacity resources and future capacity resource acquisitions, including new build capacity resources. The risk being mitigated is the same for existing and future generation: regulatory certainty and as discussed above, the financial certainty. The statement merely reflects Calpine’s belief that the VMP should cover energy offers made from any new capacity resources added after a VMP is approved; provided of course, such offers are made in accordance with the terms of a VMP.
- (c) A VMP is an agreement voluntarily entered into by and between the generating entity and the Commission. First, Calpine believes the general framework regarding quantity and pricing limitations for the VMP are not inconsistent with the NRG VMP. In both cases, the plans set up three offer tranches. However, given that

NRG and Calpine are fundamentally different, Calpine's plan accounts for these differences by providing more flexibility due to the characteristics of Calpine's fleet of assets. Second, the proposed VMP provides offer pricing transparency to market participants and regulators. Third, it is important to note that the quantity/price limitations for the three capacity tiers are permissive. The plan does not require, nor is it likely a profitable strategy to consistently make offers up to and including the limitations in the VMP. Fourth, the VMP does not have a term and it has an exceptionally short three-day notice period for termination by the Executive Director. Moreover, Calpine expressly notes its support for and cooperation with the IMM monitoring function. The matters addressed in response to this subpart are further discussed in the direct testimony of Calpine witness William H. Hieronymus. See Dr. Hieronymus' direct testimony at: 0006, line 1 – 0010, line 7; 0014 line 1 – 0046, line 5; 0047, line 1 – 0053, line 8; and footnotes and exhibits referenced therein.

Preparer: Elizabeth Drews

Sponsor: Jeffrey D. Woodall and William H. Hieronymus

**Staff RFI 1-13**

Page 3 of the Calpine Petition states that “[a]pproval of Calpine’s VMP would not affect any specific class of customer or other party.”

- (a) Please provide a detailed explanation of how Calpine’s VMP would not affect any specific class of customer or other party.
- (b) Please provide all communications and documents that support your explanation in subpart (a), including any studies or analyses that Calpine relies on in make such statement.<sup>15</sup>

**RESPONSE:**

- (a) This statement was made by Calpine’s counsel in drafting the Petition of Calpine Corporation for Approval of Voluntary Mitigation Plan, Docket No. 40545 (Jul. 10, 2012). A clearer statement would have been, “Approval of Calpine’s VMP would not affect any specific known class of customer or other party, but Calpine expects approval to benefit Texans as a whole.” Calpine does not know of any specific known class of customer or other party (besides Calpine) that would be affected by Calpine’s voluntary mitigation plan (“VMP”), but believes that approval of its VMP would benefit Texans as a whole. The effects of approving Calpine’s VMP are discussed by Calpine witnesses William H. Hieronymus and Jeffrey D. Woodall. See Dr. Hieronymus’ direct testimony at: 0006 line 1 – 0010 line 7; 0024 line 9-12; 0030 line 13 – 0031 line 2; 0032 line 17 – 0033 line 17; 0034 line 16 – 0046 line 5; 0047 line 1 – 0048, line 8; 0049, line 6 – 0051, line 14; 0053, line 4-8; and footnotes and exhibits referenced therein. See also Mr. Woodall’s direct testimony at 0005 line 4-16; 0006, line 7-10; 0006, line 23 – 0007, line 15; 0011 line 3 – 0012 line 18; 0014 line 22 – 0015 line 8; and footnotes referenced therein.

The context of the statement referenced in Staff RFI 1-13 above is P.U.C. Proc. R. 22.73, which states: “all applications shall contain the following, unless otherwise required by statute or commission rule: . . . a list of all the known parties, classes of customers, . . . if applicable, which would be affected if the requested relief were granted.” This rule was written to apply to petitions generally, not VMP petitions specifically. Calpine’s counsel understands the purpose of this rule provision to be to identify the

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<sup>15</sup> Clarifications the parties agreed on in negotiations include the following. References to “communications” exclude phone calls. Staff is not requesting settlement proposals, public documents, or duplicates, mere references to the existence of Calpine’s proposed voluntary mitigation plan or this case or mere transmittal communications without additional substantive responsive information. Staff is not requesting communications and documents between Calpine’s attorneys, paralegals, legal assistants and legal secretaries, either in-house or outside counsel, that were not shared with persons who do not fit that description. Inclusion of Calpine’s attorneys, advisers etc. within the definition of “Calpine” as used in the request for information means in their capacity as Calpine’s attorneys, advisers, etc.

need, if any, for public notice beyond that provided under P.U.C. Proc. R. 22.54 in order to allow affected persons an opportunity to intervene. Calpine's understanding is that notice was given in this case in a manner consistent with that given in the other two VMP cases processed as contested cases, and as the Commission has held in those cases, intervention is not permitted in a VMP case.<sup>16</sup>

- (b) See the portions of the direct testimony of Calpine witnesses William H. Hieronymus and Jeffrey D. Woodall listed in response to (a) above. See also Calpine's response to Staff RFI 1-5.

Preparer: Elizabeth Drews

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<sup>16</sup> *Request for Approval of a Voluntary Mitigation Plan for NRG Companies Pursuant to PURA § 15.023(f) and P.U.C. Subst. R. 25.504(e)*, Docket No. 40488 Order, (July 13, 2012), *Request for Approval of a Voluntary Mitigation Plan for IPR-GDF Suez Energy Marketing North America, Inc. Pursuant to PURA § 15.023(f) and P.U.C. Subst. R. 25.504(e)*, Docket No. 40503, Order (July 30, 2012).

**Staff RFI 1-14**

Page 5 of the Calpine Petition states that “[b]ecause, unlike in regions with a capacity market, generators in the ERCOT energy-only market are paid only for supplied energy, the ERCOT energy-only market must send appropriate price signals to incent new and sustained generation investment.”

- (a) Please provide your definition of “appropriate price signals.”
- (b) Please provide a detailed explanation of how the Calpine VMP would send “appropriate price signals.”
- (c) Please identify any element of the Calpine VMP that could result in “inappropriate price signals.”

**RESPONSE:**

- (a) “Appropriate price signals” will provide incentives for competitive new entry when it is needed, for maintenance of cost-effective existing resources, and for retirement of resources that are not cost-effective. As discussed in the direct testimony of Calpine witness William H. Hieronymus, in an energy-only market, appropriate price signals will support revenue adequacy for new and existing resources, which typically requires prices to rise above the prices that would result when all offers are limited to short run marginal cost. See Dr. Hieronymus’ direct testimony at: 0006, line 3-6; 0009 line 4 – 0010, line 7; 0020, line 7 – 0030, line 3; 0051 line 15 – 0053, line 8; and footnotes and exhibits referenced therein.
- (b) Calpine’s proposed voluntary mitigation plan (“VMP”) will contribute modestly to, though likely not achieve, revenue adequacy, as shown in the analysis presented in the direct testimony of Calpine witness William H. Hieronymus. See portions of Dr. Hieronymus’ direct testimony listed in response to (a) above; 0038 line 11 - 0046, line 5; and footnotes and exhibits referenced therein. Therefore the VMP will help support appropriate price signals, in conjunction with other market and regulatory mechanisms. By contrast, mitigating the offers of market participants that do not have the ability to raise prices above competitive levels through the abuse of market power may dampen or eliminate appropriate price signals.
- (c) To the extent that Calpine’s VMP inhibits offers above short run marginal cost that would not constitute an abuse of market power, it may inhibit the market from producing appropriate price signals.

Preparer: Elizabeth Drews  
Sponsor: William H. Hieronymus

**Staff RFI 1-15**

Page 7 of the Calpine Petition states that "Calpine based this decision [to add 520 MW of generation capacity] on the Commission's willingness to take or to direct action to correct market inefficiencies that threaten resource adequacy and system reliability and on the relatively more advantaged economics of adding incremental power to Calpine's existing plants."

- (a) Please explain the extent to which Calpine considered its proposed VMP (or a previous VMP proposal/structure) in deciding to add 520 MW of generation capacity.
- (b) Please explain the extent to which Calpine considered the structure of the NRG VMP approved in Docket No. 40488 in deciding to add 520 MW of generation capacity.
- (c) Please provide all documents and communications relating to Calpine's VMP and Calpine's decision to add 520 MW of generation capacity.
- (d) Please provide all documents and communications relating to the NRG VMP approved in Docket No. 40488, including, but not limited to, those relating to Calpine's decision to add 520 MW of generation capacity.
- (e) Do you believe that Calpine's VMP will "correct market inefficiencies?"
  - (i) If so, please provide a detailed explanation regarding which market inefficiencies Calpine's VMP will correct and how the proposed VMP will accomplish such correction.
  - (ii) Please identify the market inefficiencies that Calpine's VMP will fail to correct. Please explain fully.

**RESPONSE:**

- (a) Calpine did not consider its proposed voluntary mitigation plan ("VMP") (or a previous VMP proposal/structure) in deciding to add the 520 MW of generation capacity.
- (b) Calpine did not consider the structure of the NRG VMP approved in Docket No. 40488 in deciding to add the 520 MW of generation capacity. Calpine notes that the NRG VMP, which applies only to NRG, was approved in Docket No. 40488 after Calpine announced its decision to add the 520 MW of generation capacity.

- (c) Pursuant to an agreement reached by Calpine and Commission Staff, given Calpine's answers above, Calpine is not required to answer this subpart.
- (d) Pursuant to an agreement reached by Calpine and Commission Staff, given Calpine's answers above, Calpine is not required to answer this subpart.
- (e)
  - (i) Yes, to the extent that a VMP eliminates the existing ambiguity about what the Commission considers is appropriate bidding behavior for a specific entity, it mitigates inefficiencies in wholesale price formation due to concerns about allegations of market power abuse that may artificially suppress competitive pricing. This is generally discussed in the direct testimony of Calpine witness William H. Hieronymus. See Dr. Hieronymus' direct testimony at: 0006, line 7 – 0010, line 7; 0016 line 3 – 0033 line 17; 0051 line 15 – 0053, line 8; and footnotes and exhibits referenced therein. However, Calpine's VMP is not intended to, and will not, correct every market inefficiency that threatens resource adequacy and system reliability.
  - (ii) Calpine does not know the answer to this question. Calpine's VMP is not designed to correct every market inefficiency that threatens resource adequacy and system reliability, and Calpine does not know or have a list of every such market inefficiency.

Preparer: Elizabeth Drews

Sponsor: Jeffrey D. Woodall and William H. Hieronymus

**Staff RFI 1-17**

Page 9 of the Calpine Petition states that "[t]he Commissioners have directed that a variety of steps should be taken to address ERCOT's resource adequacy problem. One of these steps involves prompt approval of voluntary mitigation plans."

- (a) Please provide a detailed explanation of what you believe to be "ERCOT's resource adequacy problem."
- (b) Please provide a detailed explanation of how you believe that Calpine's VMP addresses "ERCOT's resource adequacy problem."
- (c) Please identify the elements of Calpine's VMP that you believe are superior to the NRG VMP approved in Docket No. 40488 in relation to addressing "ERCOT's resource adequacy problem" and provide a detailed explanation for each identified element.
- (d) Please identify the elements of Calpine's VMP that you believe are inferior to the NRG VMP approved in Docket No. 40488 in relation to addressing "ERCOT's resource adequacy problem" and provide a detailed explanation for each identified element.

**RESPONSE:**

- (a) Calpine would generally characterize ERCOT's resource adequacy problem as two-fold. First, according to the most recent ERCOT Capacity, Demand and Reserves ("CDR") forecast, dated May 2012, ERCOT has a declining planning reserve margin that may be below the 13.75% reserve margin target as early as 2014. Second, as explained in the direct testimony of Calpine witness William H. Hieronymus, the ERCOT market has not produced wholesale prices that are sufficient to support new entry of capacity resources to meet the target planning reserve margin. See Dr. Hieronymus' direct testimony at: 0008, line 4-6; 0009 line 9 – 0010, line 2; 0010 line 12 - 0014, line 16; 0021 line 9 – 0030 line 3; 0052, line 9 – 0053, line 8; and footnotes and exhibits referenced therein.
- (b) See the direct testimony of Calpine witness William H. Hieronymus. See Dr. Hieronymus' direct testimony at: 0006, line 3-6; 0007 line 17 – 0008 line 12; 0009 line 4 – 0010, line 7; 0020, line 7 – 0030, line 3; 0038 line 11 - 0046, line 5; 0051 line 15 – 0053, line 8; and footnotes and exhibits referenced therein. As explained in that testimony, the Calpine voluntary mitigation plan is expected to contribute modestly to revenue adequacy by allowing prices to rise above short run marginal cost by a small amount, in a broader set of hours than occurs currently.
- (c) No such analysis has been conducted.

(d) No such analysis has been conducted.

Preparer: Elizabeth Drews

Sponsor: William H. Hieronymus