The Department of Market Monitoring (DMM) submits these comments on the revised draft tariff language and other information provided on the ISO’s March 19, 2020 web conference.¹

1. Commitment Cost Bid Multiplier

As explained in DMM’s comments during the CCDEBE stakeholder process, DMM has questioned the need for applying the current 25% headroom scalar to reference level bids based on gas costs submitted by generators.² DMM’s comments to FERC on the ISO’s August 2019 CCDEBE tariff filing noted that the ISO had not provided justification for why reference bids should include the 25% headroom scalar when these reference bids are based on a supplier’s own estimate of actual or expected gas costs.³ The Commission concurred with DMM noting that “CAISO has not demonstrated that its proposal to apply the 125 percent multiplier to supplier submitted costs is just and reasonable.”⁴

As noted in FERC’s January 21, 2020 order on the ISO’s initial CCDEBE filing:

CAISO notes that it could provide support for a 110 percent multiplier to supplier submitted costs based on the potential variability in costs between when a supplier submits its estimated gas costs in its reference level change request and when it actually purchases gas. This support [would speak] to the context of reference level change requests in which the multipliers would be used under CAISO’s proposal because it deals with the variance

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between supplier submitted costs and actual costs rather than the difference between an index and actual costs.5 [emphasis added]

Gas price data

The statistical pricing data provided in conjunction with the ISO’s March 19 stakeholder briefing shows the difference between the day-ahead market gas index and actual next day gas purchase prices and the difference between the real-time market index and same day gas trade prices. As explained in FERC’s January 21 order, the Commission does not view this type of comparison as providing support for including a 110% multiplier in reference level change requests submitted by suppliers based on their actual or expected costs.

The statistical pricing data for the same day gas market provided by the ISO includes a comparison of same day trade prices to the next day gas index currently used by the ISO to set default energy bids and commitment cost bid caps used in the real-time market.6 This comparison highlights the benefits of using a gas price index based on same day trades in the real-time market, as proposed under the CCDEBE filing, rather than using the next day price index currently used by the ISO for the real time market. However, this backward looking analysis of the next day gas index currently used by the ISO does not provide any support for including a 110% multiplier in reference level change requests submitted by suppliers based on their actual or expected costs. In the next section of these comments, DMM provides additional discussion and analysis of same day gas price data that includes a forward looking analysis of the next gas price index proposed by the ISO for the real time market.

The ISO’s March 19 stakeholder briefing also includes charts for 5 days over the last three years when same day prices have risen substantially after 8:30 am.7 However, DMM’s review of same day gas trade data indicates that the days selected by the ISO are rare outliers in terms of same day gas price volatility after 8:30 am. DMM does not believe that a more detailed and complete analysis of same day gas price volatility after 8:30 am would support inclusion of a 110% multiplier based on the criteria identified in FERC’s January 2020 order: i.e. “the potential variability in costs between when a supplier submits its estimated gas costs in its reference level change request and when it actually purchases gas.”8

Since analysis of gas price data does not support inclusion of a 10% adder in suppliers’ calculations of their actual or expected costs, DMM has suggested that the ISO will need to justify including the 110% multiplier in reference level change requests primarily as an adder

5 Order on Tariff Revisions, ER19-2727-000, ¶41, p. 14.
7 Commitment Cost and Default Energy Bid Enhancements Stakeholder Briefing, March 19, 2020 pp.15-16
that ensures a profit above a supplier’s marginal energy and commitment costs, while still providing a reasonable level of protection against market power and distortion of overall market clearing prices.\textsuperscript{9}

**Other potential cost justifications**

The ISO’s March 19 presentation provided two other potential cost justifications for the 110% multiplier.\textsuperscript{10}

- Hard to define costs.
- Pre-defined administrative formulas cannot always accurately reflect actual costs.

DMM recommends that the ISO provide some examples of the type and magnitude of such costs if the ISO intends to include these in its CCDEBE filing.

**Administrative issues**

The ISO’s March 19 presentation also indicates that allowing inclusion of the 110% multiplier in reference level adjustment requests will “eases administrative burden by decreasing the need for reference level adjustment requests.”\textsuperscript{11}

As discussed in the following section, including a 110% multiplier in default energy bids and commitment cost bids caps calculated by the ISO greatly reduces the frequency of cases in which a supplier’s actual costs (excluding the multiplier) may exceed default energy bids and commitment cost bids caps calculated by the ISO. In practice, a 110% bid cost multiplier virtually eliminates cases in which this may occur in the day ahead market and reduces the potential frequency of this scenario to a small portion of cases in the real time market.

However, if suppliers also include a 110% bid multiplier in reference level change requests, this offsets the potential administrative benefits of including this 10% headroom in energy and commitment cost reference levels calculated by the ISO. For example, assume a supplier can demonstrate actual or expected gas costs equal to 105% of the gas index used by the ISO to calculate reference levels. In this example, the 110% multiplier more than covers the supplier’s actual energy or commitment costs (i.e. given a gas cost equal to 105% of the gas index used by the ISO). However, if the 110% multiplier is also included in the supplier’s calculation of its actual or expected costs, then the supplier can still submit a reference level change request to reflect the 5% deviation between is gas cost and the ISO’s gas price index.

Thus, DMM continues to recommend that the ISO carefully consider how the 110% multiplier is applied to reference level bids calculated by the ISO and those calculated by suppliers.

\textsuperscript{9} Comments on Commitment Cost and Default Energy Bid Enhancements: Revised Draft Tariff Language, Department of Market Monitoring, February 20, 2020, p 4.  

\textsuperscript{10} Commitment Cost and Default Energy Bid Enhancements Stakeholder Briefing, March 19, 2020, p. 11.

\textsuperscript{11} Commitment Cost and Default Energy Bid Enhancements Stakeholder Briefing, March 19, 2020, p. 11.
2. Pricing Data

The statistical pricing data provided in the March 19 stakeholder briefing consists of analysis of the difference between the day-ahead and real-time gas price indices currently used by the ISO and actual trade prices in the next day and same day gas markets, respectively. As explained in the passage from FERC’s January 21, 2020 order previously provided in these comments, the Commission has indicated that in order to support the 110% multiplier in the context of reference level change requests under CAISO’s proposal, the ISO would need to provide support “based on the potential variability in costs between when a supplier submits its estimated gas costs in its reference level change request and when it actually purchases gas.” 12 (emphasis added) Thus, the statistical pricing data provided in the March 19 briefing does not describe the type of gas price volatility the Commission has indicated would be needed to support the 110% multiplier in the context of reference level change requests under the ISO’s proposal.

ISO gas price data

Figure 1 shows the histogram on page 12 of the ISO’s presentation during the March 19 web meeting. The histogram shows the deviation of the prices for different gas transactions at the SoCal Citygate hub from the weighted average price of all next-day gas market transactions for that gas flow day.

The data shown in Figure 1 represent the same gas price deviations, which DMM has included in numerous reports and stakeholder comments for the last 4 years. 13 While the histograms provide by the ISO are based on the number (or frequency) of trades in different price categories, analysis in DMM reports is based on volume weighted trade data (i.e. each trade price is weighted by the volume of the trade).

The blue bars in Figure 1 show the ISO’s calculation of the difference in trade prices of gas in the next day gas market at SoCal Citygate compared to the weighted average gas price index for SoCal Citygate used by the ISO to set default energy bids and commitment cost bid caps in the day ahead energy market. 14


14 As of October 22, 2016, the ISO calculates the weighted average price of all next-day trades at each hub at about 8:30 am and uses this price to set default energy bids and commitment cost bid caps in the day ahead energy market.
The red bars in Figure 1 show the ISO’s calculation of the percentage of trade prices of gas in the same day gas market at SoCal Citygate compared to the next day gas price index used by the ISO to set default energy bids and commitment cost bid caps in the real-time energy market.

Figure 1 includes a line added by DMM to highlight the percentage of all transactions at prices less than 110% of the daily weighted average price and the percentage of transaction prices greater than 110% of the daily weighted average price.

Figure 2 shows the cumulative frequency curves from page 13 of the ISO’s presentation during the March 19 web meeting. The red and blue bars in Figure 2 shows the total percentage of gas transaction prices (left vertical axis) which are within different ranges of the daily weighted average price (bottom horizontal axis) for the SoCal Citygate hub.

Figure 2 includes blue and red lines added by DMM to highlight the percentage of all next day gas market transactions and same day gas market transactions within 110% of the weighted average next day price for that flow day.

Results for the PG&E Citygate gas hub on page 14 of the ISO’s presentation shows that the deviation of next day and same day gas prices from the weighted average next day price is much lower at the PG&E Citygate hub than at the SoCal Citygate hub.

**Day ahead market**

As shown by the blue bars and lines in Figure 1 and Figure 2, almost all (~98%) of gas transactions at SoCal Citygate in the next day market are within 110% of the weighted average next day gas price used to set cost-based bids in the ISO’s day-ahead market. These data show that even if suppliers do not request reference level adjustments in the day ahead market, the 10% adder currently allowed in default energy bids is sufficient to cover virtually all of the deviations between next day gas trade prices and the weighted average next day price index.

In addition, the blue bars in Figure 1 show that almost 90% of next day gas transactions at SoCal Citygate are at prices within ±5% the weighted average price. Thus, even if suppliers do not request reference level adjustments, the 110% multiplier would usually allow suppliers in this gas area to incorporate a profit margin of up to 5 to 15% above actual costs into day-ahead market default energy bids and commitment cost bids.

**Real time market**

As shown by the red bars and lines in Figure 1 and Figure 2, the deviation between same day gas market transaction prices and the next day price index currently used by the ISO for the real time market is much greater that the deviation in the next day transaction prices. The ISO’s analysis shows that about 28% of transaction prices in the same day market are greater than

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15 ~46% at -5% to 0% and ~42% at 0% to +5% = ~88%.
110% of the next day price index currently used by the ISO. This highlights the benefits of the provisions in the CCDEBE proposal to (1) allow suppliers to request reference level adjustments in the real-time market and (2) raise reasonableness thresholds used to automatically approve reference level change requests when same day prices are significantly higher than the next day gas price index.

Meanwhile, the ISO’s analysis also shows that about 72% of transaction prices in the same day market are within 110% of the next day price index currently used by the ISO. These data show that even if suppliers do not request reference level adjustments in the real-time market, the 10% adder currently allowed in default energy bids is sufficient to cover most of the deviations between next day gas trade prices and the weighted average next day price index. In addition, even if suppliers do not request reference level adjustments, a 110% multiplier would usually allow suppliers in the SoCal Citygate gas area to incorporate a profit margin above actual costs into real time market default energy bids and commitment cost bids.

As shown by the red bars in Figure 3, the deviation between same day gas market transaction prices and the next day price index currently used by the ISO for the real time market is much lower in the PG&E Citygate gas area than the SoCal Citygate gas area. In the PG&E area, the ISO data shows that only about 10% of transaction prices in the same day market are greater than 110% of the next day price index currently used by the ISO, while about 90% are within 110% of the next day price index. Thus, a 110% multiplier would usually allow suppliers in the PG&E gas area to incorporate a profit margin above actual costs into real time market default energy bids and commitment cost bids even if they do not request reference level adjustments.

As previously noted, the same day gas pricing data provided by the ISO is backward looking in that the analysis reflects the ISO’s current procedures, rather than the procedures being proposed in the CCDEBE filing. The next section of these comments includes analysis of same day gas prices by DMM which reflects the new procedures being proposed to allow default energy bids and commitment cost bids to be raised when same day gas prices are higher than the next day index currently used for the real-time market. Under the procedures proposed in the CCDEBE filing, the ISO will update reasonableness thresholds using the same-day average at 8:30 am. Suppliers would then be able to request a reference level adjustment and that adjustment would be evaluated against the updated reasonableness threshold.

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16 As shown by the blue line in Figure 2, about 72% of same day transaction prices within 110% of the next day gas index, while about 28% of same day prices are greater than 110% of the next day gas index.
Figure 1. Deviation between Gas Transaction Prices and Next Day Weighted Average Price-SoCal Citygate (Jan 2017-Dec 2019)

Figure 2. Deviation between Gas Transaction Prices and Next Day Weighted Average Price-SoCal-Citygate Hub (Jan 2017-Dec 2019)
Figure 3. Deviation between Gas Transaction Prices and Next Day Weighted Average Price
PG&E Citygate (Jan 2017-Dec 2019)
**Analysis of proposal for new real time market gas index**

Under the ISO’s proposal, default energy bids and commitment cost bid caps in the real-time market will continue to be based on the weighted average of trades in the next day gas market (which occurs the day before each operating day). However, generators will be able to submit reference level change requests for higher default energy bids and commitment cost bids in the real time market throughout the operating day based on their actual or expected gas costs.

These higher real time reference level bids will be automatically approved for use in the real time market if they are within the reasonableness threshold set by the ISO. The default gas price adder values for the reasonableness thresholds will be set at 10% most days or 25% on the first gas trading day of each week (usually Monday). If the ISO observes that weighted average price of gas trades in the same day market at 8:30 am is greater than 10% of the next day price index, then the ISO will increase the reasonableness thresholds to reflect this increase in gas prices.

The ISO’s current proposal would allow suppliers to include 110% bid multipliers (or 10% adder) in requests for higher default energy bids and commitment cost bids which are calculated by suppliers based on their actual or expected gas costs. This 110% multiplier is applied to all cost components of default energy bids and commitment cost bids (gas and non-gas). Thus, under the proposal, reasonableness thresholds used to approve reference level change requests will include headroom of at least 20% above the gas index used by the ISO (i.e. the 10% adder applied to the gas index used by the ISO to calculate reasonableness thresholds, plus the 110% bid multiplier that is applied to all gas and non-gas components of each units’ cost based bids).

Figure 4 and Figure 5 show the deviation between same day gas transaction prices at SoCal Citygate and the new real-time gas price index that the ISO will use to set reasonableness thresholds used to approve reference level change requests.\(^{17}\) As shown in these charts, about 96% of same day gas is purchased at a price that is within 110% of the new gas index that will be used to determine reasonableness thresholds.

The histogram in Figure 4 also includes a dotted line showing same day gas transactions within 120% of the new gas index that will be used to determine reasonableness thresholds. This line reflects the > 20% headroom above the gas index that is included in reasonableness thresholds\(^{18}\).

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\(^{17}\) The new price index equals (1) the volume weighted average price of same day trades at 8:30 am (if this price is least 10% greater than the next day index), (2) otherwise, the next day market gas price index.

\(^{18}\) I.e. the 10% adder applied to the gas index used by the ISO to calculate reasonableness thresholds, plus the 110% bid multiplier that is applied to all gas and non-gas components of each units’ cost based bids.
Figure 4. Deviation between Same Day Gas Transaction Prices and New Real-time Gas Index
SoCal Citygate (Jan 2017-Dec 2019)

Figure 5. Deviation between Same Day Gas Transaction Prices and New Real-time Gas Index
SoCal Citygate (Jan 2017-Dec 2019)
3. Additional Comments

Reference Level Change Requests

The ISO has made numerous changes to proposed section 30.11.3.1 in response to questions from FERC and DMM about this key tariff section. In response to FERC’s November 2019 deficiency letter, the ISO provided the following example of how proposed tariff section 30.11.3.1 is meant to be interpreted:

For example, assume the gas price index price the CAISO uses to calculate a supplier’s default energy bid is $50.00/MWh and the other cost components of its bid are $4.00/MWh. Consequently, the resource would have a $59.40/MWh default energy bid and a $64.90/MWh reasonableness threshold (i.e., the default energy bid calculated with a 10 percent multiplier). The supplier would only be permitted to request a reference level change if it had actual or expected fuel costs greater than the $50.00/MWh the CAISO used to calculate its default energy bid. Assume the supplier has a gas quote showing that its expected gas cost would be $52.00/MWh. In that case the supplier would be permitted to request a reference level change to $61.60/MWh (i.e., the sum of $52.00/MWh and $4.00/MWh multiplied by 110 percent.). 19

The ISO is now proposing that section 30.11.3.1 would include the following sentence as a means of reflecting the explanation provided above:

The Scheduling Coordinator shall not submit a Reference Level Change Request for the purpose of inflating its Default Energy Bids or Default Commitment Cost Bids beyond what these values would be if calculated based on its actual or expected costs.

DMM still finds this portion of proposed section 30.11.3.1 unclear and suggests that the ISO develop tariff language that is more descriptive and less ambiguous. DMM continues to recommend that the ISO redraft this key tariff section to more directly include and reflect the specifics of the clarifying example provided in the ISO’s response to the deficiency letter (and provided above).

Specifically, since the ISO clarified that it intends to allow suppliers to apply a 10% adder (or 110% multiplier) to reference level change requests based on the suppliers “actual or expected costs” this should be explicitly stated in section 30.11.3.1. On the February 27th web conference, DMM recommended that at a minimum, this key sentence from section 30.11.3.1 be modified in the following manner:

The Scheduling Coordinator shall not submit a Reference Level Change Request for the purpose of inflating its Default Energy Bids or Default Commitment Cost Bids beyond what these values would be if calculated based on its actual or expected costs, including the 10%

adder allowed in Default Energy Bids under 39.7.1.1 and the 110% multiplier allowed in commitment cost bids under 30.4.4.1

Gas imbalance penalties

Throughout the long CCDEBE stakeholder process, DMM has recommended that the ISO provide clear rules concerning how potential or actual gas imbalance penalties should be treated in the context of default energy bids and commitment cost bid requests submitted by generators.

In response to FERC’s November 2019 deficiency letter, the ISO stated that “If the Commission determines, on compliance, that the CAISO tariff should state that market participants cannot include gas imbalance penalties in reference level change requests, the CAISO proposes to do so by adding the following underlined language at the end of proposed new tariff section 30.11.2.1:

30.11.2.1 Applicability
A Scheduling Coordinator may submit a Reference Level Change Request for Default Start-Up Bids, Default Minimum Load Bids, and Default Energy Bids, as applicable .... Scheduling Coordinators may not submit Reference Level Change Requests to recover costs associated with gas company imbalance penalties...” 20 [emphasis in original]

The ISO did not include this additional underlined language in its revised draft tariff language posted in February 2020. DMM’s comments on the ISO February 2020 revised draft tariff language recommended that:

Given that the ISO now has the opportunity to resubmit modified tariff language to the Commission, DMM suggests that the ISO include the underlined language above directly in its revised CCDEBE tariff filing.

The ISO has included the underlined language above directly in its March 2020 revised CCDEBE tariff language. DMM supports including this clarification directly in the revised tariff language and continues to recommend that the ISO’s CCDEBE transmittal letter and the ISO’s Business Practice Manuals provide clear rules and guidelines for how potential or actual gas imbalance penalties should be treated in the context of default energy bids and commitment cost bids.

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