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Docket Number:	15-PMAC-01
Project Title:	Petroleum Market Advisory Committee
TN #:	212819
Document Title:	Presentation - Discussion of Allowing Non-CARB Gasoline Use as a Price Pressure Relief Valve to Reduce Price Spikes in CA
Description:	Presentation by the Air Resources Board at the August 16, 2016 Petroleum Market Advisory Committee Meeting.
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Organization:	Air Resources Board
Submitter Role:	Public Agency
Submission Date:	8/17/2016 8:53:23 AM
Docketed Date:	8/17/2016

Discussion of Allowing Non-CARB Gasoline Use as a Price Pressure Relief Valve to Reduce Price Spikes in the CA Gasoline Market

ARB Staff Comments to the California Energy Commission and Petroleum Market Advisory Committee

August 16, 2016

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Summary of ARB's Position

- ARB does not believe the California Reformulated Gasoline (CaRFG) rule was a significant factor in the recent gasoline price spike:
  - CaRFG regulations have remained unchanged since 2012
  - Prior supply disruptions and associated price increases (under the same CaRFG rules) have been much shorter in duration
  - There is significant global refining capacity that can make California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB)
  - California refiners routinely assert that the State's refineries have excess gasoline production capacity and that the industry is highly exposed to import competition if compliance costs under AB 32 become too great.
- Like the PMAC we are concerned with the length and magnitude of the California vs. national gasoline price differentials that have occurred since early 2015, but we have yet to see convincing evidence that the proposed mechanism is an appropriate way to address price differentials

Price Pressure Relief Valve (PPRV) Concept

- Outline of PPRV Concept (as understood by ARB Staff)
  - Parties could, on an ongoing basis, use non-CARB gasoline provided:
    - Noncompliance penalty of **~25** cents per gallon is paid, and (perhaps)
    - Alternative Specs (max RVP, Federal RFG equivalence) still in place
  - Proceeds would be used to provide alternative reductions (for example car scrappage).

- Background
  - Originally proposed in late 1990's but never implemented
  - Recently discussed by the CEC Petroleum Marketing Advisory Committee (PMAC) as one of several potential mechanisms to address prolonged periods of excessive differentials between CA and national gasoline prices
  - In April several PMAC members requested more in-depth discussion

What is Already In Place to Allow Limited Use of Non-Complying Gasoline?

- Currently the ARB can allow the use of non-conforming gasoline via a variance process

- SB 709, Maddy (Health and Safety Code 43013.2 adopted in 1995) and subsequent ARB regulations (Title 13, California Code of Regulations § 2271) set requirements for granting a variance:
  - Distinguishes between emergency and non-emergency variances. (Emergency variance may not have a duration of more than 45 days.)
  - For a non-emergency variance to gain approval the applicant must demonstrate a compelling need and the ARB must assess the impact of the variance on all parties, the public and air quality.
  - In most cases the ARB would establish alternative specifications for the variance fuel to minimize emissions.
  - Except in the case of emergency variances, ARB must provide at least 10 days of public notice
  - **A fee of 15 cents per gallon** must be applied to variance fuel

To Date, Only One Variance Application Has Been Made – Chevron In July 1999

- An Emergency Variance was granted within 3 days of Chevron's application, and within a week of the incident that prompted the variance request
- For several reasons Chevron never utilized the variance:
  - Chevron's damaged facility was not able to produce even non-complying gasoline (the most likely circumstance that would have made the variance useful)
  - Chevron indicated that it viewed the variance as a contingency option – to be used if other supply options proved unworkable
  - There was public opposition and Chevron would take a PR hit if it used the variance
  - It was more economic to secure complying fuel than use variance fuel with a 15 cpg fee

ARB Staff Questions About the PPRV Concept

- Would it be effective in bringing sufficient additional supply to California to reduce prices?
- Could it compromise the air quality benefits of Cleaner Burning Gasoline?
- Could it be constructed in a way that gains approval from U.S. EPA and protects against citizen suits allowed by the Federal Clean Air Act?

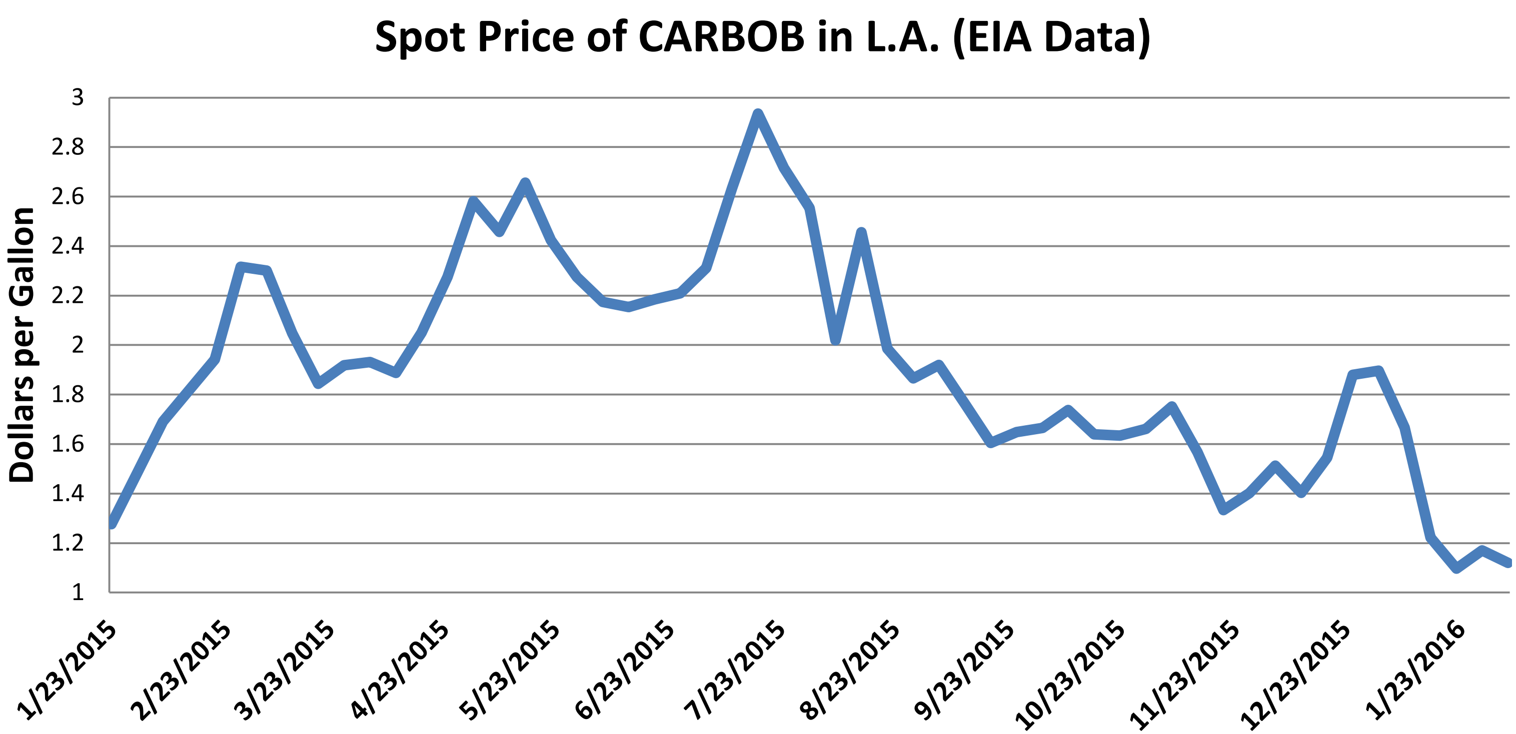
Concern #1– Effectiveness in bringing additional supplies to California

- Are there "RBOB" supplies that can come quickly to California?
  - West Coast markets have little uncommitted inventories
  - Nearest potential significant supplies would be U.S. Gulf Coast
  - Shipments from Gulf Coast are both expensive and logistically challenging

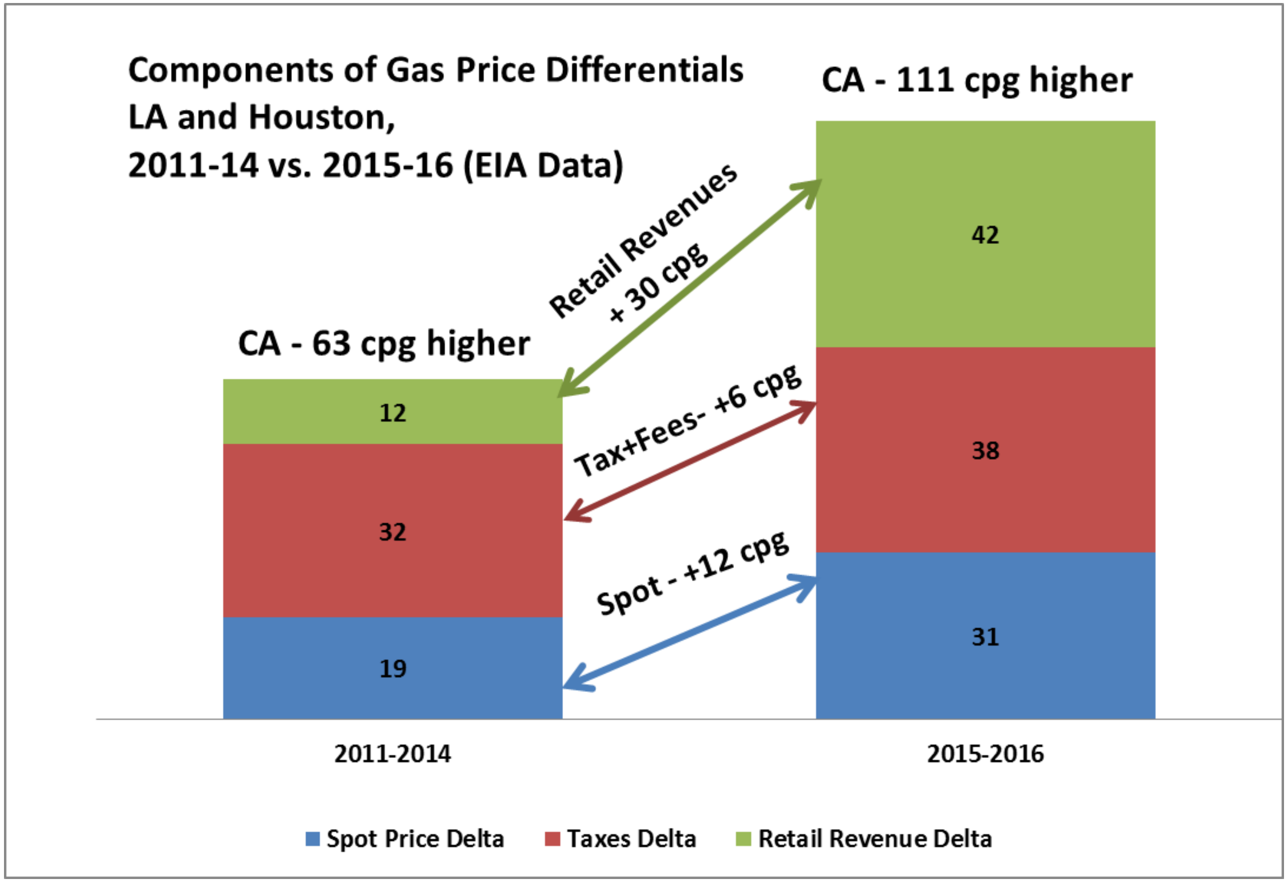
- What parties would be willing to take the financial risks involved in importing fuels using a PPRV mechanism?
  - CA Refiners unlikely users – historically they maximize their CARBOB production and/or import blend stocks or CARBOB rather than apply for a variance under which they would pay a 15 cpg fee.
  - Traders will be reluctant to use a mechanism that involves a non-compliance fee due to high risk
    - Traders have a relatively small presence in the CA gasoline market and have limited ability to import gasoline **(none it 2014, less than 1% in 2015, none in Q1 2016)**
    - **RBOB procurement, shipping, and PPRV fees likely to require 40+ CPG spot market differential <u>several weeks after the time</u> they decide to ship**
      - Spot Prices are already very volatile, movements greater than 20 – 40 cpg are common over 2-3 week period **(See Slide 8)**.
      - Additional declines in spot prices could occur if a PPRV resulted in significant new cargos coming to California; further increasing risk to an individual shipper.

- Spot Prices are not the primary factor causing higher retail price differentials **(See Slide 9)**.

Recent Volatility of Spot Prices



Increases in CA Spot Prices <u>not</u> the Primary Factor Increasing the Differential between California and other Markets



Concern #2 – Impact on the Air Quality Benefits of Cleaner Burning Gasoline

- If the PPRV were to be used (and was actually effective in providing significant additional supplies of non-CARBOB fuel) the emission reductions of CaRFG would be compromised

- Emissions increases and their impacts would be hard to define accurately ex-ante:
  - Dependent on how replacement fuel is formulated and the amount used
  - Largest concern about increased emissions would be during the peak smog season, which roughly corresponds to the time of peak gasoline demand
  - Adverse impact on air quality and health greatest during these timeframes
  - Could cause lasting emissions increases due to catalyst damage if higher sulfur levels occur in non-complying fuels

- Concept about using PPRV proceeds to mitigate emissions requires more thought:
  - Mitigation would likely occur well after adverse effects occur and possibly in a different location
  - Even if emissions were fully offset over time the air quality and health impacts might not be
  - Public unlikely to believe that air quality is fully protected with the PPRV in place

Concern #3 – Difficult to Gain Approval from the Legislature and U.S. EPA

- Cleaner Burning Gasoline is an essential measure in the State's plan (the State Implementation Plan or SIP) to attain the federal ozone and particulate matter standards
- The California Legislature has already set stringent limits on when non-complying gasoline would be allowed
- SIP measures cannot be weakened without securing approval from U.S. EPA. ARB would need to demonstrate:
  - No loss in benefits or the concurrent adoption of other measures that provide equivalent emission reductions
  - That the CARFG program with a PPRV is at least equivalent to the federal formula for reformulated gasoline
- Any changes to the CaRFG regulations included in the SIP risk a citizens' suit
  - Suits are likely given the animosity between refiners, environmentalists and citizen groups
  - A successful defense necessitates a showing that any changes do not result in weakening the SIP

ARB Staff Concluding Thoughts

- Like the PMAC we are concerned with the length and magnitude of the California vs. national gasoline price differentials that have occurred since early 2015

- However—given our current understanding of the California fuels market—we can not conclude that the questionable benefits of the PPRV concept merit compromising the critically important air quality benefits derived from California's Cleaner Burning Gasoline

- We'd need significant new information from the PMAC and the CEC to be convinced that a PPRV concept could provide meaningful price relief and might be worth further consideration