SoCalGas/SDG&E Proposal to Revise the CARB Motor Vehicle Fuel Regulations

May 19, 2010

Background

- The California Air Resources Board (CARB) adopted a statewide compressed natural gas (CNG) motor vehicle fuel specification in 1992 that set 12 separate prescriptive specifications ("CARB Motor Vehicle Fuel Regulations").
  - Minimum and/or maximum levels of methane, ethane, propane, C3+, C6+, hydrogen, CO, inerts (CO2 and N2), water, particulate matter, odorant, and sulfur.
  - No changes have been made to the CARB Motor Vehicle Fuel Regulations since 1992.

- Pursuant to the California Constitution, the California Public Utilities Commission (CPUC) has exclusive jurisdiction to sets gas quality standards for the gas utilities in the state ("CPUC Standards"). SoCalGas and SDG&E must accept gas nominated into our system that meets CPUC Standards.

- Since the CARB Motor Vehicle Fuel Regulations and CPUC Standards are not the same, it is possible for gas utilities to transport and distribute natural gas that does not meet the CARB Motor Vehicle Fuel Regulations when dispensed as CNG.
  - Only ~5% of natural gas production in California is consistent with CARB Motor Vehicle Fuel Regulations when dispensed as CNG.
  - Some interstate and LNG sourced natural gas supplies are below the minimum inerts limit of the CARB Motor Vehicle Fuel Regulations when dispensed as CNG.

Background (cont'd)

- Compliance with the CARB Motor Vehicle Fuel Regulations falls upon the producer, distributor, and retailer of CNG.
  - SoCalGas and SDG&E distribute natural gas that meets CPUC Standards; it is not CNG.
  - Natural gas utilities must supply gas for many different uses and not just to be made into CNG for motor vehicle fuel.
- Natural gas delivered to CNG vehicle refueling stations represent less than 1% of all natural gas distributed in Southern California.
- Since 1992, CNG engine manufacturer fuel specifications have moved from prescriptive specifications to performance specifications, such as the Methane Number (MN)
  - The Methane Number is equivalent to an octane rating.
- Limited exemptions to the CARB Motor Vehicle Fuel Regulations can be granted by CARB in order to conduct testing or research.
  - CARB has granted and denied exemptions to various CNG station operators, including consumers with home refueling appliances.

Issues to Address

- CNG engine technology has advanced considerably since 1992 and fuel that is acceptable to CNG engine manufacturers and CNG vehicle operators is currently prohibited by the CARB Motor Vehicle Fuel Regulations.
- Current and future gas supplies from California production, interstate supplies, and imported LNG will all be accepted into the utility pipeline system consistent with CPUC Standards but will not consistently (if ever) meet the current CARB Motor Vehicle Fuel Regulations when dispensed as CNG.
- Test program exemptions are not uniformly granted to all CNG station operators, require significant paperwork to initiate, have a short duration, and require onerous on-going reporting.
- Some stakeholders believe CARB Motor Vehicle Fuel Regulations changes may result in mobile and/or stationary source emission increases.

SoCalGas/SDG&E Proposal

SoCalGas/SDG&E proposal recommends the following revisions:

- Replace existing prescriptive specification of the CARB Motor Vehicle Fuel Regulations with a performance based, statewide minimum Methane Number 75 standard.
- Exempt home refueling appliances from the CARB Motor Vehicle Fuel Regulations.
- Provide a streamlined exemption process for any CNG refueling station that desires to provide gas that complies with CPUC Standards (pipeline quality gas) but may not comply with CARB Motor Vehicle Fuel Regulations.

SoCalGas/SDG&E Proposal (cont'd)

- Replace existing prescriptive specification of the CARB Motor Vehicle Fuel Regulations with a performance based, statewide minimum Methane Number 75 standard through a series of "transition steps".
  - Immediate implementation of an interim, statewide minimum MN 80 standard.
  - Future implementation of a permanent, statewide minimum MN 75 standard by January 1, 2023.
    - January 1, 2023 is the projected date all legacy fleet vehicles requiring MN 80 minimum CNG will no longer be in operation.
    - Individual stations can transition earlier upon declaration to CARB that only vehicles capable of fueling with MN 75 minimum CNG will refuel at the station in question.
  - Replacement of the existing prescriptive specifications is recommended since it is possible to provide CNG as low as MN 73.4 under the current, prescriptive specification. However, SoCalGas and SDG&E would accept an alternative specification in lieu of replacement.

SoCalGas/SDG&E Proposal (cont'd)

- Exempt home refueling appliances from the CARB Motor Vehicle Fuel Regulations.
  - Home refueling appliances are only used to fuel CNG light-duty vehicles overnight.
  - CNG light-duty vehicles can operate safely, reliably, and with no increase in emissions using any gas allowed under CPUC Standards.
  - Consequently, there is no need to regulate the fuel quality for home refueling appliances.

SoCalGas/SDG&E Proposal (cont'd)

- Provide a streamlined exemption process for any CNG refueling station that desires to provide gas that complies with CPUC Standards (pipeline quality gas) but may not comply with CARB Motor Vehicle Fuel Regulations.
  - Current regulations only allow for limited exemptions.
  - Since there can be a difference between the gas quality allowed under CPUC Standards and the CARB Motor Vehicle Fuel Regulations, there must be a formal exemption process available, if needed.
  - Exemptions should be granted automatically to any applicant
    - Applicant must be willing to post a notice of minimum gas quality on the applicable dispenser.
  - Exemptions should have a term of one year
    - Automatically renewed each year unless the exemption applicant no longer owns or operates the facility in question.
  - Exemption applicants should only be required to provide minimal information initially
    - Applicant name, contact information, declaration of ownership/operation, fueling station location, and minimum MN to be dispensed.

Rule Change Emission Impact

- Some stakeholders believe CARB Motor Vehicle Fuel Regulations changes may result in mobile and/or stationary source emission increases. This is not the case.

- Regulation of natural gas quality within the State of California is exclusively the jurisdiction of the CPUC. SoCalGas and SDG&E must follow the CPUC Standards established for our system operation.

- Changes to the CARB Motor Vehicle Fuel Regulations will not affect CPUC Standards and therefore not cause SoCalGas and SDG&E to accept or reject gas supplies differently. Regardless of whether the CARB Motor Vehicle Fuel Regulations are updated or not, SoCalGas and SDG&E must continue to accept any gas supplies that meet CPUC Standards.
  - There will be no impact on stationary sources as a result of this rule change.
  - There will ONLY be an impact on mobile sources to the degree that gas quality dispensed to vehicles actually changes as a result of this rule change. Due to existing exemptions and the fact that SoCalGas and SDG&E will continue to accept any gas supplies that meet CPUC Standards, there will be no impact on mobile sources as a result of this rule change.

Rule Change Emission Impact (cont'd)

- The proposed changes may bring the CARB Motor Vehicle Fuel Regulations closer to CPUC Standards and engine manufacturer fuel specifications but will not result in the acceptance and delivery of different supplies of natural gas in the SoCalGas and SDG&E system.

Next Steps

- SoCalGas and SDG&E will submit to CARB detailed regulatory language changes, consistent with our proposed revisions, after the May 19th workshop.
- SoCalGas/SDG&E request that stakeholders impacted by the CARB Motor Vehicle Fuel Regulations support our proposal or elements of our proposal.
- SoCalGas/SDG&E will continue to work with CARB staff to ensure revisions to the CARB Motor Vehicle Fuel Regulations allow the continued use and growth of CNG vehicles in the state.