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Document Title:	Presentation--Hydraulic Modeling of the Natural Gas Distribution System
Description:	November 16, 2016 Staff Workshop presentation by Leon D. Brathwaite on proposed changes to the California Code of Regulations Title 20 Section 1308 to include data collection for hydraulic modeling of the natural gas distribution system
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California Energy Commission

STAFF WORKSHOP
TITLE 20 DATA COLLECTION REGULATIONS TO SUPPORT INCREASED ANALYTIC NEEDS

Hydraulic Modeling of the Natural Gas Distribution System

California Energy Commission

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November 16, 2016

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FACILITATING DATA COLLECTION IN HYDRAULIC MODELING
Background

- **SB 826 (the Budget Act of 2016) codified the Budget Change Proposal known as *Aliso Canyon: Natural Gas-Electricity System Interaction and Gas Reliability***
  - **BCP requires Energy Commission to improve its technical ability**
  - **BCP also requires Energy Commission to"monitor, model, and analyze the interaction of California's electricity and natural gas systems for grid reliability."**
- **SB 839 also tasks Commission with related activities**
- **Hydraulic modeling allows Staff to monitor the natural gas distribution system**
  - **Working with other agencies, ensure reliability in both the electricity and natural gas sectors.**

FACILITATING DATA COLLECTION IN HYDRAULIC MODELING

Importance of Data Needs

- **Energy Commission acquiring a hydraulic model**
  - **Simulate the natural gas distribution system in each utility service territory**
  - **Monitor the interaction between electricity and natural gas**
  - **Allow the Energy Commission to independently replicate and verify the results of any work we must review**
  - **Ensure reliability**
- **To complete hydraulic modeling assignments, Staff requires the following:**
  - **Pipeline characteristics of the natural gas distribution system**
  - **Flow characteristics of the fluid (natural gas) flowing through system**
  - **Need data to support modeling activity**
- **Changes/additions in the Code of Regulations provide avenue to acquire necessary data**

FACILITATING DATA COLLECTION IN HYDRAULIC MODELING
Proposal

- **Development of these regulations furthers the goals of both SB 826 and SB 839**
  - **Collection of data**
  - **Hydraulic modeling of natural gas distribution system**
- **Current reporting requirements**
  - **No regulations in place to facilitate the collection of data**
- **Staff proposes the changes/additions to Section 1308 (e) of the California Code of Regulations**

FACILITATING DATA COLLECTION IN HYDRAULIC MODELING

Proposal (cont'd)

- **Monthly Pipeline Delivery Information**
  - **Each gas utility with annual natural gas deliveries of 200 million therms or more in both of the two calendar years preceding the required data filing shall, beginning March 18, 2018 report for each month during the previous quarter the following for all natural gas volumes delivered by such company to locations in California or at the California border on each distribution pipeline segment:**

FACILITATING DATA COLLECTION IN HYDRAULIC MODELING
Proposal (cont'd)

- **Monthly Pipeline Delivery Information**
  - **Each gas utility …**
    - ✓ **(1) Natural gas characteristics**
      - ➢ **(A) chemical composition**
      - ➢ **(B) specific gravity**
      - ➢ **(C) maximum mass/molar flow rate**
    - ✓ **(2) Pipeline segment characteristics**
      - ➢ **(A) monthly average and maximum inlet pressure**
      - ➢ **(B) monthly average and maximum outlet pressure**
      - ➢ **(C) monthly average and maximum flow volumes**
- **Any data collected under these changes/additions to Section 1308 (e) will receive automatic confidential designation**
  - **Provided for in Section 2505 (a)(5)(B)**

FACILITATING DATA COLLECTION IN HYDRAULIC MODELING

Comments and Questions

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