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Proposed Scope of the 2019 Natural Gas Market Trends and Outlook Report

2019 Integrated Policy Report

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California Energy Commission
Background

Natural Gas Outlook Report:

- Produced every two years as part of the California Energy Commission’s (CEC) IEPR
- CEC statutory requirements:
  - Section 25302 of the California Public Resources Code requires that the IEPR contains an overview of major energy trends and issues facing the state.
  - Section 25303 of the California Public Resources Code requires the CEC to conduct natural gas (and electricity) forecasting and assessment activities in support of the IEPR.
Report Structure

• Chapter 1 – Introduction
• Chapter 2 – Natural Gas Price Outlook
• Chapter 3 – Supply and Production
• Chapter 4 – Demand
• Chapter 5 – Infrastructure and Reliability
• Appendix A – Production Modeling Methodologies
Natural Gas Price Outlook

- NAMGas (North American Market Gas - trade model)
- 2019 IEPR common cases
  - High demand/low price case
  - Mid demand case
  - Low demand/high price case
    - Cases assume Senate Bill 100 (zero carbon electricity sources for power generation by 2045)
Natural Gas Supply and Production

• United States
  – Production increasing largely due to shale production
  – Largest producer of natural gas in the world since 2009
  – Became net exporter in 2017

• California
  – Reliance on out-of-state sources (approx. 90%)
  – Starting 1/1/2020, CARB will annually publish GHG emissions from natural gas produced, processed, etc. imported to CA from out-of-state sources (AB 2195).
Natural Gas Supply and Production (cont’d)

• Canada
  – Production is growing at rate of 2.5% per year
  – Natural gas serves 1/3 of country’s energy requirements

• Mexico
  – Natural gas development lags behind U.S. and Canada
  – Rising consumption and need for imports
  – Pipeline projects from U.S. moving forward
Natural Gas Demand

- **United States**
  - Since 2005, most growth in power generation, industrial and LNG export / growth flat for residential and commercial
  - Transportation is growing but still a very small part of consumption
  - Increased demand outside CA - shift away from coal generation and low natural gas prices

- **California**
  - Declining consumption in residential sector
  - Flat in power generation, industrial, and commercial sectors
  - Growth of RNG for transportation
• United States
  – Production from Permian Basin expected to double by 2025
  – Three new pipelines on-line 2020 and 2023 will transport this
gas to Texas Gulf Coast for LNG export

• California
  – No new pipelines or storage facilities expected to be built
  – Aging infrastructure
    • Costs to maintain
    • RNG and hydrogen may need this infrastructure
Infrastructure and Reliability (cont’d)

- Sempra/Southern California Gas Company
  - Pipeline maintenance issues
  - Future of Aliso Canyon

- PG&E
  - Storage strategy
    - Possibly ceasing operations of two storage facilities by 2021
    - CPUC approved plan to sell Pleasant Creek and Los Medanos facilities
      - Sales plan and reliability study (Los Medanos)
Conclusion

- Natural Gas chapter in 2019 IEPR summarizes issues/makes policy recommendations
- Appendix A of NG Outlook describes production cost methodologies
- Appendix A of 2019 IEPR covers AB 1257 requirements
Thank you!

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