

**DOCKETED**

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

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2019 Integrated Policy Report



Jennifer Campagna  
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California Energy Commission



# Background

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## 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





# Infrastructure and Reliability

- 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



# Questions or Comments

Thank you!

Jennifer Campagna

(916) 654-4710

[Jennifer.campagna@energy.ca.gov](mailto:Jennifer.campagna@energy.ca.gov)

Natural Gas Unit, Energy Assessments Division