

DOCKETED	
Docket Number:	19-IEPR-08
Project Title:	Natural Gas Assessment
TN #:	230392
Document Title:	Proposed Scope of The 2019 Natural Gas Market Trends and Outlook Report
Description:	**This Document supersedes TN 230385**
Filer:	Harrison Reynolds
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	10/28/2019 1:06:54 PM
Docketed Date:	10/28/2019

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

2019 Integrated Policy Report



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October 30, 2019
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 Cost 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 (sets state target of 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 will continue
 - Slight decline in power generation looking ahead
 - Growth of RNG for transportation; expected to continue



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!

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