AEO2015 Preliminary Oil & Natural Gas Production & Price Results

DRAFT – DO NOT CITE

for
Second Working Group
September 16, 2014

by
Office of Petroleum, Natural Gas and Biofuels Analysis
Overview

• Production
• Liquids imports
• Natural gas supply and delivered prices
• Natural gas consumption
• Pipeline imports/exports
• LNG exports
Dry natural gas

Oil and Gas: Natural Gas Dry Production: United States Total (tril cu ft)
U.S. tight oil production leads a growth in domestic production to a plateau of over 11 mmbd through 2030

U.S. crude oil production
million barrels per day

Source: Preliminary AEO2015 runs, dated as of 09/12/14

Office of Petroleum, Gas, and Biofuels Analysis
Washington, DC, September 16, 2014

2nd Working Group Presentation for Discussion Purposes
DO NOT QUOTE OR CITE as results are subject to change
Projected crude oil production from tight oil plays in AEO 2015

Crude oil production
million barrels per day


2012

Other
Wolfcamp
Monterey
Avalon/Bone Springs
Niobrara
Spraberry
Austin Chalk
Woodford
Eagle Ford
Bakken

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Crude oil production by selected tight oil plays

Crude oil production
million barrels per day

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Natural gas production by selected shale play

Natural gas production
trillion cubic feet

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Shale gas production by play

Natural gas production
trillion cubic feet

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Shale gas production leads growth in production through 2040

U.S. dry natural gas production
trillion cubic feet

Source: Preliminary AEO2015 runs, dated as of 09/12/14
NGPL production is significantly higher than last year’s AEO

Natural gas plant liquids production
million barrels per day

Source: Preliminary AEO2015 runs, dated as of 09/12/14
U.S. import share of liquid fuels declines due to increased production of tight oil and gas liquids, and greater fuel efficiency.

U.S. liquid fuels supply
million barrels per day

Source: EIA, Annual Energy Outlook 2013 Early Release
U.S. import share of liquid fuels declines due to increased production of tight oil and gas liquids, and greater fuel efficiency

U.S. liquid fuels supply
million barrels per day

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Natural Gas Markets
Henry Hub Natural Gas Spot Prices, 1995-2040

2013 dollars per million Btu

History

Projections

--- AEO2015P
--- AEO2014

STEO - 9/2014

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Natural Gas End-User Prices, 1990-2040

2013 dollars per thousand cubic feet

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Natural gas consumption, production, and trade, 1990-2040

![Graph showing natural gas consumption, production, and trade from 1990 to 2040. The graph includes historical data and projections for consumption, production, net imports, and net exports. The data is sourced from Preliminary AEO2015 runs, dated as of 09/12/14.]

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Natural gas consumption by sector, 1990-2040

trillion cubic feet

History

Projections

- AEO2015P
- - - AEO2014

Industrial*
Electric Power
Residential
Commercial
Transportation**

* Includes lease and plant fuel, and natural gas-to-liquids heat, power, and production
** Includes pipeline fuel

Source: Preliminary AEO2015 runs, dated as of 09/12/14
Net U.S. imports by source, 1990-2040

Source: Preliminary AEO2015 runs, dated as of 09/12/14
U.S. natural gas gross exports exceed 6 tcf in 2025

Source: AEO2014 compared with the preliminary AEO2015 runs, dated as of 09/12/14
Additional Slides
As of July 9, FE has received applications to export LNG to non-FTA countries that total 36.02 Bcfd

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Red font denotes SPAs in place