## EIA / 1994 - 2014: Net Natural Gas Imports; Projected vs. Actual

### Projected vs. Actual (percent difference)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AEO 1994</td>
<td>-3.6</td>
<td>-2.5</td>
<td>-1.0</td>
<td>-1.6</td>
<td>-1.0</td>
<td>-4.8</td>
<td>-15.5</td>
<td>-17.2</td>
<td>-18.1</td>
<td>-15.1</td>
<td>-8.1</td>
<td>-7.2</td>
<td>-3.4</td>
<td>1.1</td>
<td>-5.7</td>
<td>20.2</td>
<td>39.6</td>
<td>47.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 1995</td>
<td>-9.1</td>
<td>-5.5</td>
<td>0.6</td>
<td>12.0</td>
<td>-0.2</td>
<td>-4.1</td>
<td>-15.5</td>
<td>-18.0</td>
<td>-19.5</td>
<td>-16.6</td>
<td>-9.6</td>
<td>-12.8</td>
<td>-17.0</td>
<td>-12.5</td>
<td>-15.7</td>
<td>10.9</td>
<td>31.0</td>
<td>38.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 1996</td>
<td>-4.7</td>
<td>-1.2</td>
<td>-0.5</td>
<td>-3.8</td>
<td>-14.4</td>
<td>-15.8</td>
<td>-16.2</td>
<td>-12.6</td>
<td>-5.9</td>
<td>-9.2</td>
<td>-13.6</td>
<td>-3.4</td>
<td>-14.7</td>
<td>8.9</td>
<td>25.8</td>
<td>32.9</td>
<td>81.4</td>
<td>142.3</td>
<td>186.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 1997</td>
<td>1.3</td>
<td>4.3</td>
<td>5.6</td>
<td>0.2</td>
<td>-2.2</td>
<td>-2.9</td>
<td>0.9</td>
<td>9.7</td>
<td>8.9</td>
<td>2.1</td>
<td>8.0</td>
<td>-0.1</td>
<td>26.8</td>
<td>44.5</td>
<td>50.2</td>
<td>102.2</td>
<td>166.0</td>
<td>213.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 1998</td>
<td>4.0</td>
<td>6.6</td>
<td>3.2</td>
<td>8.6</td>
<td>7.4</td>
<td>13.1</td>
<td>10.6</td>
<td>11.3</td>
<td>17.3</td>
<td>8.5</td>
<td>37.9</td>
<td>57.6</td>
<td>64.3</td>
<td>121.1</td>
<td>190.9</td>
<td>243.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 1999</td>
<td>-2.4</td>
<td>-7.5</td>
<td>-6.9</td>
<td>-5.3</td>
<td>-1.7</td>
<td>6.4</td>
<td>5.4</td>
<td>1.9</td>
<td>11.1</td>
<td>5.7</td>
<td>36.3</td>
<td>57.0</td>
<td>67.2</td>
<td>128.7</td>
<td>197.7</td>
<td>251.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2000</td>
<td>-0.1</td>
<td>3.0</td>
<td>6.7</td>
<td>14.4</td>
<td>25.5</td>
<td>21.6</td>
<td>15.0</td>
<td>22.6</td>
<td>14.0</td>
<td>45.1</td>
<td>68.0</td>
<td>73.4</td>
<td>132.9</td>
<td>205.3</td>
<td>258.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2001</td>
<td>-0.6</td>
<td>4.4</td>
<td>10.8</td>
<td>24.6</td>
<td>27.3</td>
<td>23.9</td>
<td>34.3</td>
<td>25.2</td>
<td>60.8</td>
<td>85.4</td>
<td>94.3</td>
<td>143.9</td>
<td>248.4</td>
<td>308.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2002</td>
<td>2.2</td>
<td>7.0</td>
<td>23.7</td>
<td>26.7</td>
<td>24.6</td>
<td>32.3</td>
<td>23.6</td>
<td>58.2</td>
<td>79.3</td>
<td>87.1</td>
<td>153.3</td>
<td>333.3</td>
<td>291.4</td>
<td>390.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2003</td>
<td>-9.3</td>
<td>1.6</td>
<td>7.9</td>
<td>8.8</td>
<td>15.1</td>
<td>10.3</td>
<td>40.0</td>
<td>72.4</td>
<td>83.6</td>
<td>148.7</td>
<td>225.6</td>
<td>297.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2004</td>
<td>7.5</td>
<td>5.8</td>
<td>7.1</td>
<td>23.5</td>
<td>17.0</td>
<td>58.3</td>
<td>88.1</td>
<td>111.1</td>
<td>193.2</td>
<td>238.3</td>
<td>381.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2005</td>
<td>-3.7</td>
<td>-8.7</td>
<td>5.2</td>
<td>-1.0</td>
<td>38.7</td>
<td>58.8</td>
<td>89.7</td>
<td>163.0</td>
<td>261.9</td>
<td>381.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2006</td>
<td>-8.0</td>
<td>5.3</td>
<td>5.6</td>
<td>35.4</td>
<td>55.3</td>
<td>66.9</td>
<td>128.7</td>
<td>219.8</td>
<td>273.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2007</td>
<td>-5.0</td>
<td>-9.4</td>
<td>28.3</td>
<td>58.2</td>
<td>74.7</td>
<td>145.4</td>
<td>229.3</td>
<td>310.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2008</td>
<td>0.5</td>
<td>27.3</td>
<td>47.3</td>
<td>47.7</td>
<td>104.0</td>
<td>164.9</td>
<td>192.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2009</td>
<td>0.3</td>
<td>2.1</td>
<td>-10.2</td>
<td>1.5</td>
<td>15.0</td>
<td>38.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2010</td>
<td>3.0</td>
<td>8.3</td>
<td>41.4</td>
<td>72.6</td>
<td>79.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2011</td>
<td>5.3</td>
<td>40.2</td>
<td>74.0</td>
<td>107.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2012</td>
<td>-3.3</td>
<td>7.6</td>
<td>21.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2013</td>
<td>13.1</td>
<td>28.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEO 2014</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Average Absolute Percent Difference

| Year | 8.6 | 13.0 | 3.7 | 12.9 | 2.2 | 4.5 | 8.1 | 9.0 | 3.0 | 12.6 | 11.2 | 14.4 | 10.5 | 5.3 | 33.5 | 51.1 | 58.6 | 108.9 | 164.4 | 201.0 |


DEEPWATER DEVELOPMENT CAPABILITY

Water Depth in meters


0 500 1,000 1,500 2,000 2,500


0 500 1,000 1,500 2,000 2,500

Fixed Platform
TLP / CT / Spar
FPSO / SS
DW Production (IHS)

Deepwater facilities; U.S. GOM

\[ y = 3 \times 10^{-7} e^{0.087x} \]

\[ R^2 = 0.97 \]

~ 1000 m

> 2500 m

(Chuchla, 2009)
The Outlook for Energy includes Exxon Mobil Corporation's internal estimates and forecasts of energy demand, supply, and trends through 2040 based upon internal data and analyses as well as publicly available information from external sources, including the International Energy Agency. Work on the report was conducted throughout 2016. This presentation includes forward looking statements. Actual future conditions and results (including energy demand, energy supply, the relative mix of energy sources, economic sectors and geographic regions, imports and exports of energy) could differ materially due to changes in economic conditions, technology, the development of new supply sources, political events, demographic changes, and other factors discussed herein and under the heading “Factors Affecting Future Results” in the Investors section of our website at www.exxonmobil.com. This material is not to be used or reproduced without the permission of Exxon Mobil Corporation. All rights reserved.
Global Trends Continue to Evolve

- 2x GDP
- +25% demand
- +1.8 billion people
- +10% CO₂ emissions
- -45% CO₂ intensity

Growth from 2015 Level

<table>
<thead>
<tr>
<th>Percent</th>
<th>2015</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ExxonMobil 2017 Outlook for Energy
Demand Growth From Developing Nations

Energy Demand
Quadrillion BTUs

Demand without Efficiency

Energy Savings

Growth 2015-2040
Quadrillion BTUs

OECD
Non-OECD

Americas
Mid East
Africa
Other AP
India
China

ExxonMobil 2017 Outlook for Energy
Electricity Generation Leads Growth

Primary Energy Demand by Sector
Quadrillion BTUs

- Electricity Generation
- Industrial
- Transportation
- Res/Comm

Non OECD
OECD

ExxonMobil 2017 Outlook for Energy
Electricity Sources Shift Regionally

Change in Net Delivered Electricity 2015-2040
Thousand TWh

- Gas
- Wind/Solar
- Nuclear
- Other Renewables
- Coal
- Oil

Countries and Regions:
- OECD
- China
- India
- Other AP
- Africa
- Middle East
- Rest of World
All Scenarios Require Ongoing Development

Liquids Supply/Demand
MBDOE

*Based on IEA sources; excludes biofuels
Technology Contributes to the Fuel Mix

Global Mix of Fuels

Source: Smil, Energy Transitions (1800-1960)
For more information, visit exxonmobil.com/energyoutlook or download the ExxonMobil app.
The U.S. Unconventional Oil & Gas Renaissance

Marianne Kah, Chief Economist
University of Texas Energy Week
February 7, 2016
Cautionary Statement

The following presentation includes forward-looking statements. All statements included in this presentation other than statements of historical fact, including, without limitation, statements regarding production forecasts, anticipated production mix, estimates of operating costs, assumptions regarding future commodity prices, planned drilling activity, potential changes in leverage, estimates of future capital expenditures, estimates of recoverable resources, projected rates of return and efficiency gains, estimates of future cost of supply, as well as projected cash flow, inventory levels and capital efficiency, business strategy and other plans and objectives for future operations, are forward-looking statements.

Forward-looking statements relating to ConocoPhillips’ operations are based on management’s current expectations, estimates, forecasts and projections about ConocoPhillips and the industries in which it operates in general. These statements are not guarantees of future performance as they involve assumptions that, while made in good faith, may prove to be incorrect, and involve risks and uncertainties that are difficult to predict. Further, many of these forward-looking statements are based upon assumptions about future events that may prove to be inaccurate. Accordingly, actual outcomes and results may differ materially from what is expressed or forecast in such forward-looking statements. Any differences could result from a variety of factors, including, but not limited to, the following: oil and gas prices; operational hazards and drilling risks; potential failure to achieve, and potential delays in achieving expected reserves or production levels from existing and future oil and gas development projects; unsuccessful exploratory activities; unexpected cost increases or technical difficulties in constructing, maintaining or modifying company facilities; international monetary conditions and exchange controls; potential liability for remedial actions under existing or future environmental regulations or from pending or future litigation; limited access to capital or significantly higher cost of capital related to illiquidity or uncertainty in the domestic or international financial markets; general domestic and international economic and political conditions, as well as changes in tax, environmental and other laws applicable to ConocoPhillips’ business; and the factors generally described in Item 1A—Risk Factors in our 2014 Annual Report on Form 10-K. We caution you not to place undue reliance on our forward-looking statements, which are only as of the date of this presentation, and we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Use of non-GAAP financial information — This presentation may include non-GAAP financial measures, which help facilitate comparison of company operating performance across periods and with peer companies. Any non-GAAP measures included herein will be accompanied by a reconciliation to the nearest corresponding GAAP measure on our website at www.conocophillips.com/nongaap.

Cautionary Note to U.S. Investors—The SEC permits oil and gas companies, in their filings with the SEC, to disclose only proved, probable and possible reserves. We use the term "resource" in this presentation that the SEC’s guidelines prohibit us from including in filings with the SEC. U.S. investors are urged to consider closely the oil and gas disclosures in our Form 10-K and other reports and filings with the SEC. Copies are available from the SEC and from the ConocoPhillips website.
The Unconventional Revolution Vastly Improved America’s Energy Future

U.S. Oil Production (millions of barrels per day)

Liquefied Natural Gas Imports (bcf per day)

U.S. Net Energy Imports (millions of BOE per day)

Source: U.S. Energy Information Administration (EIA); LNG and Net Energy Imports predictions from EIA AEO 2005 Report
U.S. Crude Oil Production Expected to Grow

EIA 2017 Annual Energy Outlook (MMBD)

Key Issues in Projecting Future Tight Oil Supply:

- Pace and magnitude of additional technology & efficiency improvements
- Industry re-investment rates
- Cost escalation as activity accelerates
- Infrastructure needs
- Environmental compliance

EIA projects significant upside to U.S. oil production with efficiency and technological improvements

Continued Technology Advancements in Unconventional Reservoirs

Factors Enabling Rapid Technology Advances:
- Understanding of reservoirs and technologies still immature
- Low-cost, rapid experimentation
- Many E&P and Service companies pursuing unconventionals

Going-Forward Industry Technology Focus Areas:
- Creating "perfect" fracture systems
- Reducing completion costs (per boe)
- Reduced drilling and facilities cost (per boe)
- Use of data analytics to achieve productivity improvements
- Water management; methane emission reductions
Large portions of U.S. tight oil are in the middle to lower end of the global oil supply curve
Investment-Based Oil Price Cycles

<table>
<thead>
<tr>
<th></th>
<th>Price Collapse</th>
<th>Rigs Lag</th>
<th>Production Lag</th>
<th>Price Recovery</th>
<th>Peak to Trough</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Cycle</td>
<td>5 months</td>
<td>5 months</td>
<td>8 months</td>
<td>18 months</td>
<td></td>
</tr>
<tr>
<td>Non-OPEC Cycle</td>
<td>8 months</td>
<td>25 months</td>
<td>9 months</td>
<td>40 months</td>
<td></td>
</tr>
</tbody>
</table>

- Shorter response time for U.S. tight oil than other non-OPEC supplies
- Not fast enough to be “swing” supplier

Source: ConocoPhillips, based on historical observation.
Key to Success with Low and Uncertain Price Environment

- Re-emphasis on financial returns vs. production growth

- Diverse, flexible portfolio with opportunities that have low supply costs and short cycle times

- Maintain good legacy assets with low decline and low risk for base of production and cash flow

- Maintain a strong balance sheet

- Improve efficiency and lower costs
The oil and gas markets have changed in ways we couldn’t have expected a decade ago.

U.S. tight oil supply helps balance the market because it can be brought on quickly and offers relatively attractive economics.

U.S. tight oil can’t be the “swing” supply because it takes too long to respond.

Implies higher future oil price volatility, as price signals will be needed to ramp tight oil drilling up or down.

Company strategies are having to adapt.
Lower 48 breakeven map for Key Plays
Liquids breakevens have fallen through the downturn, with the average 2016 breakeven $15/bbl lower than in 2014.
Cost inflation limits short-term economic resource

2017 new drill production at risk

Inflation impact on low-cost oil reserves

Source: Wood Mackenzie
Disclaimer

Strictly Private & Confidential

- This presentation has been prepared for the UT roundtable in February, 2017, by Wood Mackenzie Limited. The presentation is intended solely for the benefit of attendees and its contents and conclusions are confidential and may not be disclosed to any other persons or companies without Wood Mackenzie’s prior written permission.

- The information upon which this presentation comes from are based on our own experience, knowledge and databases. The opinions expressed in this presentation are those of Wood Mackenzie. They have been arrived at following careful consideration and enquiry but we do not guarantee their fairness, completeness or accuracy. The opinions, as of this date, are subject to change. We do not accept any liability for your reliance upon them.
Sabine Pass Liquefaction Construction

Train 1
Train 2
Train 3
Train 4
Train 5
Train 6 Under Development
Corpus Christi Liquefaction Construction

- Train 1
- Tank A
- Tank B
- Train 2
- Train 3
- Under Development
- Tank C
Sabine Pass Vessel Loading
Abundant Shale Gas Reserves Cap Sustainable Price Increases

800 Tcf producible below $3.00 Henry Hub (30 years)
1,400 Tcf producible below $4.00 Henry Hub (51 years)

Source: IHS Shale Gas Reloaded, Break-even price required to earn a 10% unlevered return
1. Assuming 2015 U.S. Consumption of 27.3 Tcf
Supply/Demand Gap: Why the US Needs LNG

Source: EIA AEO 2017
Global demand growth will be driven by power/industrial sectors
Expected to drive 70% of total growth

Gas consumption by sector (BP Energy Outlook 2017)

Source: BP Energy Outlook 2017
U.S. coal-to-gas switching
a blueprint for the rest of the industrialized world

Fuel substitution – primarily coal to gas – helped balance the natural gas market as the price declined relative to coal. More recently, policy driven substitution increased gas consumption as coal plants retire.

Sources: EIA, EPA, Cheniere Gas Supply
Thank you
U.S. Natural Gas Outlooks

UT Energy Week
February 7, 2017
A Strong “Demand Stack” Scenario v EIA AEO 2017

- Two largest uncertainties: Power generation and LNG exports
- Potential drivers:
  - Price of natural gas
  - Renewables generation
    - Declining costs
    - Support programs
  - Coal retirements
    - Env’l regulations
  - Nuclear retirements
    - Aging fleet, rising costs
  - CO2 prices
  - Load growth
    - EE, DER, DR
CEE Electric Power Research Forum - Scenarios

• We model* numerous scenarios based on different combinations of the following key assumptions

  (1) Renewable resource capacities
  (2) Natural gas price
  (3) Load growth rate
  (4) Premature nuclear capacity retirement
  (5) CO₂ prices

* We use AURORAxp for economic dispatch and long-term resource expansion modeling

http://www.beg.utexas.edu/energyecon/epr/
NG burn for power generation should continue to grow, but there is a 8.5-TCF (23-BCFD) range among scenarios within

8.8 – 11.8 TCF (AEO 2017 range), excluding 6 TCF under low OGR

For details, see Tsai & Gülen, Natural Gas Use in Electricity Generation in the United States: Outlooks to 2030, Electricity Journal, forthcoming in March.
Challenges Facing U.S. LNG Exports

- “Low” demand growth (China, India, and others):
  - Coal, nuclear, renewables have priority - energy security
  - Not enough gas infrastructure (especially storage)
  - Low gas market readiness
  - Economic slow-down

- “Surging” global LNG supply ➔ excess supply until the early 2020s
  - Unsubscribed U.S. liquefaction capacity
  - Parts of contracted volumes not tied to specific destinations
CEE Industrial Projects Database - About 100 Projects; Incremental NG demand of ~3 BCFD