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U.S. DEPENDENCE ON FOREIGN OIL WORSENS UNDER ADMINISTRATION'S ENERGY POLICIES

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EXECUTIVE SUMMARY

Each day the United States consumes over 19 million barrels of petroleum, over twice the volume of petroleum it produces. U.S. dependence on foreign sources of oil poses serious economic, environmental, and national security issues. As the recent and dramatic spikes in fuel prices illustrate, the nation's oil dependence has a direct impact on the daily lives of Americans.

At the request of Rep. Henry A. Waxman, this report examines the nation's dependence on oil and whether our national energy policy will diminish this dependence. The report is based upon government data and analysis and other publicly available information.

The report finds:

- U.S. dependence on foreign oil is increasing. U.S. demand for oil is expected to grow 44% from 2002 levels by 2025. Imports of petroleum are projected to grow 86% from 2002 levels by 2025. Domestic production of crude oil is projected to decrease 18% from 2002 levels by 2025.
- Projections of the need for crude oil imports have reached an all-time high. In January 2004, experts at the U.S. Department of Energy's Energy Information Administration (EIA) projected net crude oil imports to the United States of 15.74 million barrels per day in 2025, a 20.5% increase over the 2003 projection of 13.06 million barrels per day in 2025.
- The Administration's proposals for future action will be ineffective in addressing U.S. dependence on foreign oil. The Administration's main proposal for addressing the nation's dependence on foreign oil is energy legislation under consideration by Congress, H.R. 6. Under this proposal, dependence on foreign oil will still grow dramatically over the coming decades. According to the Administration's own energy experts, this measure will have only "negligible" impact on expected production, consumption, and imports of oil.

I. METHODOLOGY

This report relies on data and analysis published by the Energy Information Administration (EIA) and other publicly available information. EIA is an independent agency of the U.S. Department of Energy. EIA was created by Congress in 1977, and provides “policy-independent data, forecasts, and analyses to promote sound policy making, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment.”¹

Each year, EIA publishes the *Annual Energy Outlook*, which makes a series of forecasts about the nation’s energy supply, demand, and prices for the coming decades. Since 1992, EIA has employed an elaborate model called the National Energy Modeling System to simulate the nation’s economy on a macro level. Every year EIA uses this model to make business-as-usual projections based on current laws and regulations, known and emerging technology, demographic trends, and other information.

EIA acknowledges that these projections are subject to much uncertainty. Significant changes can occur in energy markets due to unforeseeable events, such as political disruptions, revisions to laws or regulations, weather events, and technological breakthroughs. Accordingly, projections for out-years vary as EIA updates its annual projections each year based on the latest information.

This report examines EIA’s latest projections to determine the nation’s outlook on oil dependence. This report also examines how EIA’s projections have varied over time. Comparing these projections is a quantitative method for determining how the outlook for the nation’s dependence on oil has changed over the years. Finally, this report examines how proposed energy policies affect the nation’s dependence on oil.

II. U.S. DEPENDENCE ON OIL IS INCREASING

The United States consumes over 19 million barrels of petroleum per day (bpd), and depends on other nations for over 50% of its petroleum supply.² In January

¹ EIA website (updated Jan. 6, 2004) (online at <http://www.eia.doe.gov/neic/aboutEIA/aboutus.htm>).

² EIA, *Annual Energy Outlook 2004 with Projections to 2025*, Table A11 (Jan. 2004) (online at <http://www.eia.doe.gov/oiaf/aeo/pdf/appa.pdf>).

2004, EIA projected significant increases in U.S. dependence on oil in the coming decades.

According to EIA, the United States consumed 19.61 million barrels of petroleum per day in 2002. This is projected to grow to 22.71 million barrels per day by 2010 and to 28.3 million barrels per day by 2025.³ This represents a 44% increase in petroleum consumption from 2002 to 2025. EIA does not predict consumption beyond 2025. However, the Department of Energy has extrapolated petroleum demand to project that the United States will consume 35.4 million barrels per day of oil in 2040.⁴

While U.S. demand for oil is projected to increase substantially, domestic production will decline. The United States produced about 46% of the petroleum it consumed in 2002. EIA projects that, in 2025, the United States will produce only about 30% of the petroleum projected to be consumed.⁵ In fact, dependence on imported crude oil and petroleum products is projected to increase throughout EIA's projections (Figure 1).

The nation's petroleum supply is made up of crude oil, liquids from natural gas plants, and other inputs, such as alcohols and chemical blending components. Crude oil makes up approximately three-quarters of the volume of petroleum supply. The U.S. imports both crude oil and, to a lesser degree, petroleum products like gasoline.

The U.S. produced 5.62 million barrels per day of crude oil in 2002. EIA projects that after peaking in 2008, domestic crude oil production will decrease to 5.93 million barrels per day in 2010. In 2025, the U.S. will produce only 4.61 million

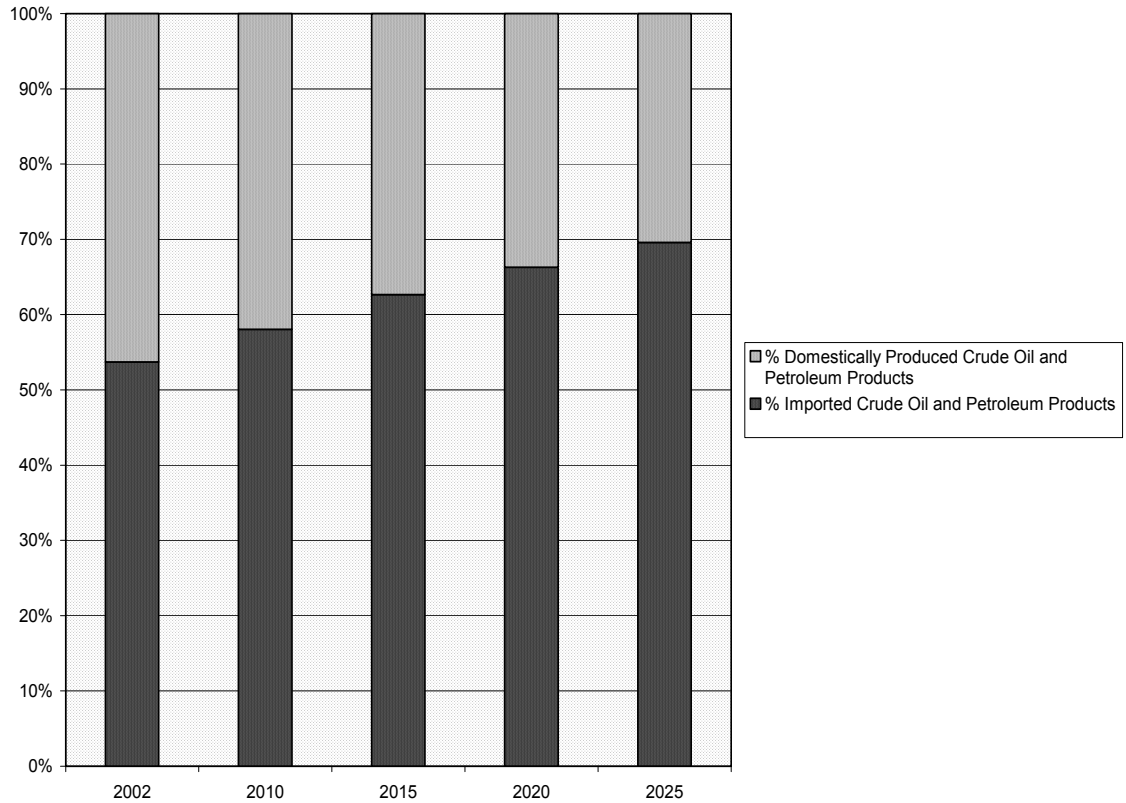
³ *Id.* at Table A21.

⁴ Letter from Shannon Henderson, Acting Assistant Secretary, Congressional and Intergovernmental Affairs, Department of Energy, to Rep. Joe Barton (Sept. 22, 2003). DOE's extrapolation does not appear to be based on any modeling, and therefore should be considered cautiously.

⁵ EIA, *Annual Energy Outlook 2001*, Table A11 (Dec. 2000) (online at [http://www.eia.doe.gov/oiaf/archive/aeo01/pdf/0383\(2001\).pdf](http://www.eia.doe.gov/oiaf/archive/aeo01/pdf/0383(2001).pdf)). These percentages are the domestic portion (sum of domestic crude oil production, natural gas plant liquids, other inputs, and the refinery processing gain) of the total U.S. petroleum supply.

barrels per day.⁶ This represents an 18% decrease in crude oil production from 2002 levels.

Figure 1. Percentage of Petroleum Imported and Domestically Produced According to EIA's 2004 Projections

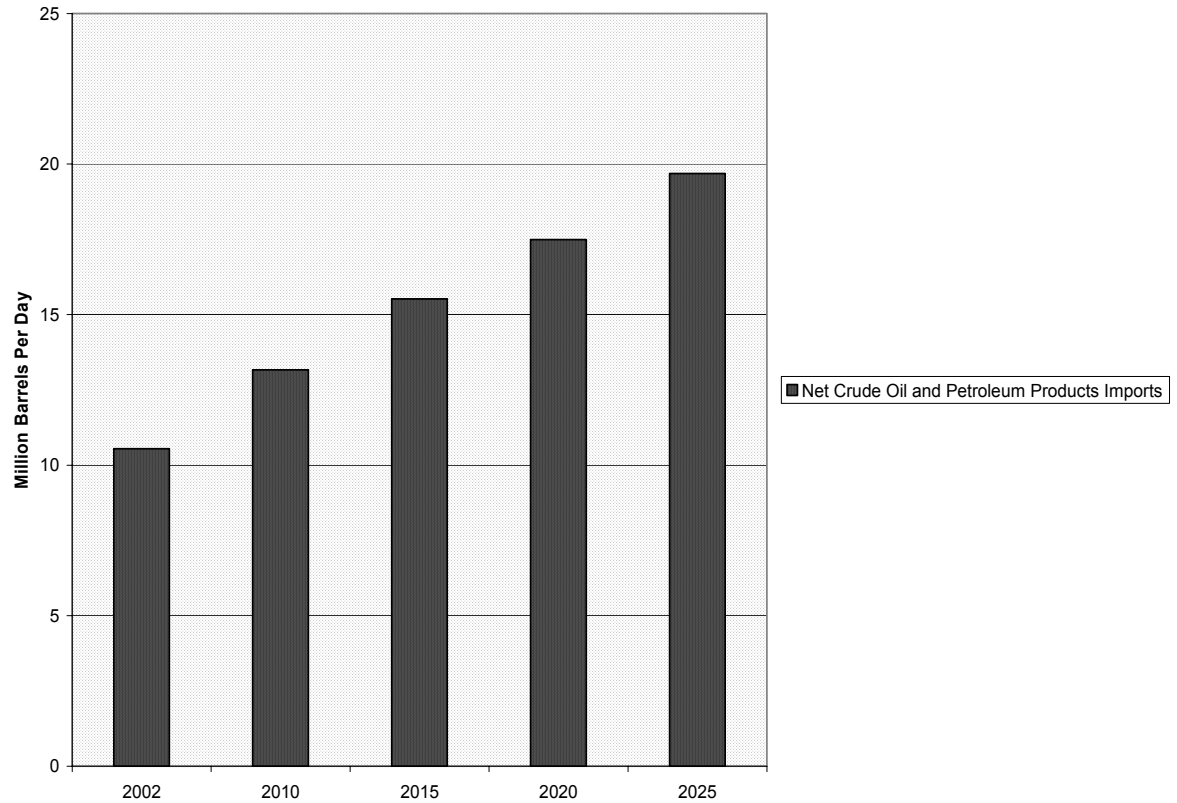


The result of increasing demand and decreasing domestic production is that the U.S. will rely on imported petroleum to a greater extent than ever before. In 2002, the United States on a net basis imported 10.5 million bpd of crude oil and

⁶ EIA, *supra* note 2. In developing these projections, EIA assumed that any oil resources would be available for production off of the coast of Alaska and within the existing California and Florida leases — even where drilling is not currently occurring. EIA also assumed that oil and gas would be produced in the Rocky Mountain West in all areas where it is financially viable to do so except in areas closed to drilling such as National Parks and wilderness areas. Telephone conversation between EIA analyst and Government Reform Committee minority staff (May 20, 2004); *see also* EIA, *Annual Energy Outlook 2004, Issues in Focus* (Jan. 2004) (online at http://www.eia.doe.gov/oiaf/aeo/issues_2.html).

petroleum products. In 2025, the U.S. is expected to import 19.6 million bpd. This amounts to a more than 86% increase in imports from 2002 to 2025⁷ (Figure 2).

Figure 2. Imports of Crude Oil and Petroleum Products According to EIA's 2004 Projections



EIA projections for imported crude oil are significantly higher than just one year ago. Last year, EIA projected that the U.S. would need to import approximately 13 million barrels of crude oil per day in 2025.⁸ In 2004, EIA projected that almost 15.74 million barrels of crude oil would need to be imported per day in

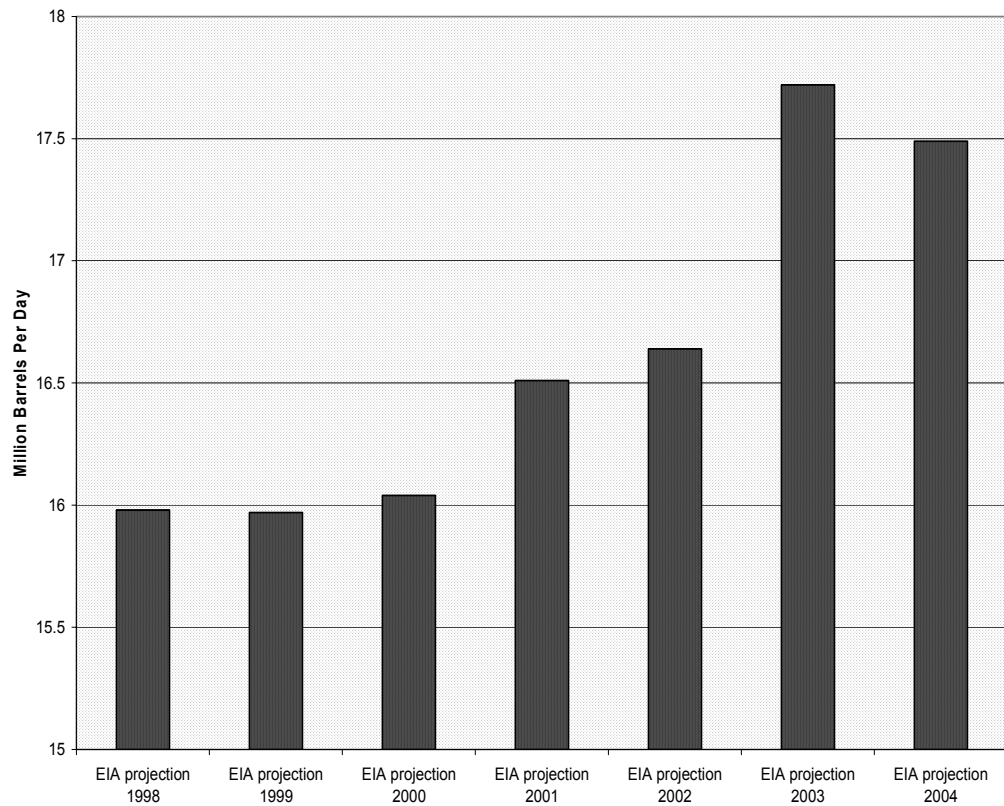
⁷ EIA, *supra* note 2.

⁸ *Id.*

2025.⁹ This is an increase in projected crude oil imports of over 20% from 2003 to 2004. This is an all-time high projection of the need for crude oil imports.

In fact, for the last seven years EIA has made projections of needed crude oil and petroleum product imports in 2020. Projection of petroleum imports and therefore oil dependence has grown markedly in the last two years (Figure 3).

Figure 3. Seven Years of EIA Projections of Crude Oil and Petroleum Product Imports in 2020



⁹ *Id.*

III. THE ADMINISTRATION'S PROPOSED ENERGY POLICIES WILL NOT DIMINISH OIL DEPENDENCE

The Administration has made several proposals that it claims will address the nation's dependence on oil. Based on EIA analysis and other information, these proposals do not provide a solution to the nation's oil dependence.

A. The Administration's Energy Legislation

On May 16, 2001, Vice President Cheney submitted to the President the energy policy developed by his energy task force.¹⁰ The President subsequently announced this policy as his national energy policy.

Major components of the President's energy policy have been introduced and considered as H.R. 6 in the 108th Congress, but the bill has not been enacted due to its controversial provisions.¹¹

The President has asserted that this legislation will address the nation's dependence on oil.¹² The Administration's own analysis, however, does not support these assertions. The Energy Information Administration projects that H.R. 6 would have only "negligible" impact on production, consumption, and imports of oil.¹³

The President has emphasized that his legislation proposes tax incentives for fuel-efficient hybrid vehicles.¹⁴ However, EIA has concluded that the legislation will result in "no significant impacts on future sales of hybrid or fuel cell vehicles."¹⁵

¹⁰ National Energy Policy Development Group, *National Energy Policy* (May 2001).

¹¹ H.R. 6, The Comprehensive Energy Bill, 108th Cong. (2003).

¹² President George W. Bush, *State of the Union Address* (Jan. 20, 2004) (online at <http://www.whitehouse.gov/news/releases/2004/01/20040120-7.html>); White House, *President's Radio Address* (May 22, 2004) (online at <http://www.whitehouse.gov/news/releases/2004/05/20040522.html>).

¹³ EIA, *Summary Impacts of Modeled Provisions of the 2003 Conference Energy Bill* (Feb. 2004) (online at [http://www.eia.doe.gov/oiaf/servicecpt/ceeb/pdf/sroiaf\(2004\)02.pdf](http://www.eia.doe.gov/oiaf/servicecpt/ceeb/pdf/sroiaf(2004)02.pdf)).

¹⁴ White House, *President's Radio Address* (May 22, 2004) (online at <http://www.whitehouse.gov/news/releases/2004/05/20040522.html>).

Additionally, while the President has touted the provisions in his energy policy to boost domestic production, EIA analysis reveals that it is ineffective as a solution for oil dependence. The President's domestic production policies will greatly subsidize the oil industry, resulting in expenditures of roughly \$20 billion over the next 10 years and absolving the oil industry from having to remediate costly groundwater contamination.¹⁶ However, domestic oil production will continue to decline, and petroleum imports will continue to increase.

Interior Secretary Gale Norton has stated that the energy bill would do little to enhance overall domestic oil and gas production.¹⁷ In fact, domestic crude oil production will decline 18% from 2002 levels by 2025 even if the energy bill is enacted. This level of production is virtually identical to EIA's projection under current policies (Figure 4).

Further, according to EIA analysis, the level of petroleum imports is not substantially affected by the President's energy bill:

Net petroleum imports are reduced by 0.3 percent in 2015 and by 1.2 percent in 2025 through a combination of increased domestic production from the ultra-deep offshore and from slightly reduced gasoline demand which results from higher gasoline prices.¹⁸

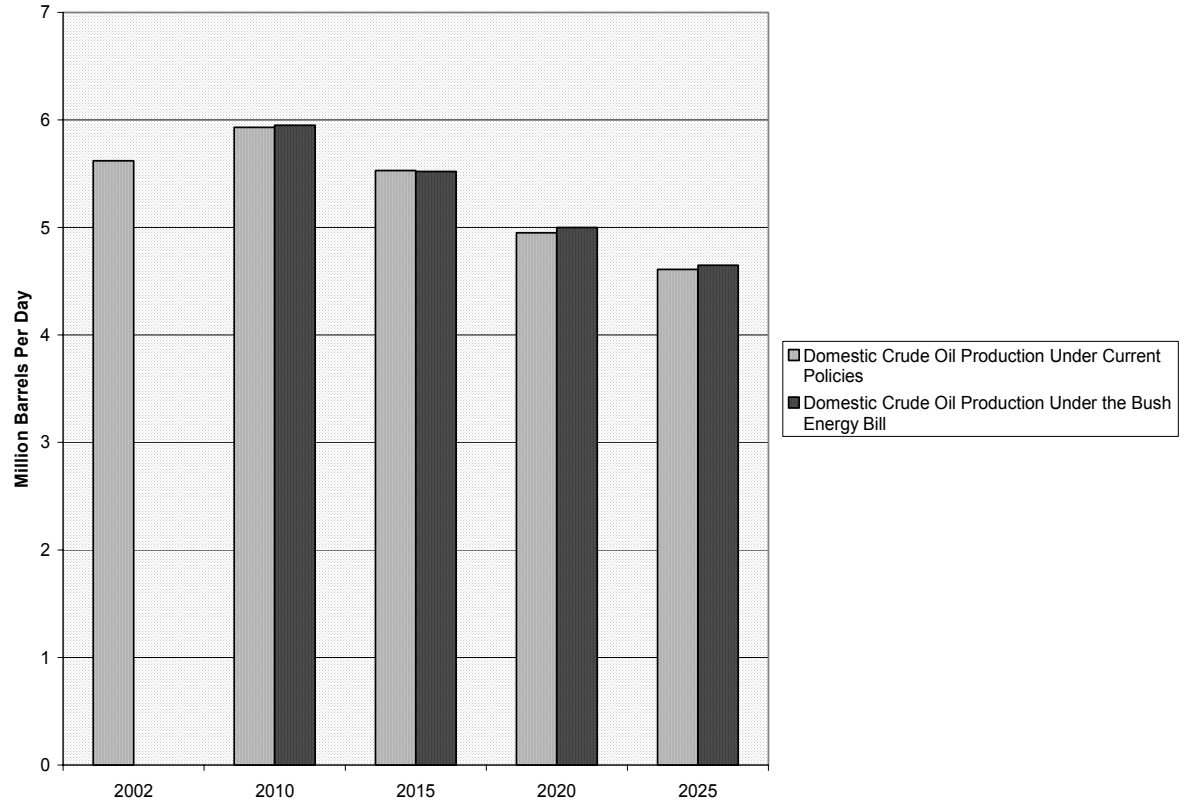
¹⁵ EIA, *supra* note 13.

¹⁶ See CBO, *Cost Estimate H.R. 6* (Apr. 8, 2003); CBO, *Cost Estimate: H.R. 1644 Energy Policy Act of 2003* (May 1, 2003); CBO, *Cost Estimate: S. 14 Energy Policy Act of 2003* (May 7, 2003); CBO, *Cost Estimate: S. 791 Reliable Fuels Act* (May 6, 2003); CBO, *Estimated Impact of H.R. 6 on Direct Spending and Revenues* (Nov. 17, 2003); Joint Committee on Taxation, *Estimated Budget Effects of the Conference Agreement for the "Energy Tax Policy Act of 2003"* (Nov. 18, 2003); *MTBE Cleanup Cost \$29 Billion, Study Says*, Los Angeles Times (Oct. 14, 2001).

¹⁷ *Energy Bill Would Do Little for Short-Term Production, Norton Says*, Land Letter (Feb. 26, 2004).

¹⁸ EIA, *supra* note 13.

Figure 4. Domestic Oil Production Declines Even if the Administration's Energy Bill Is Enacted

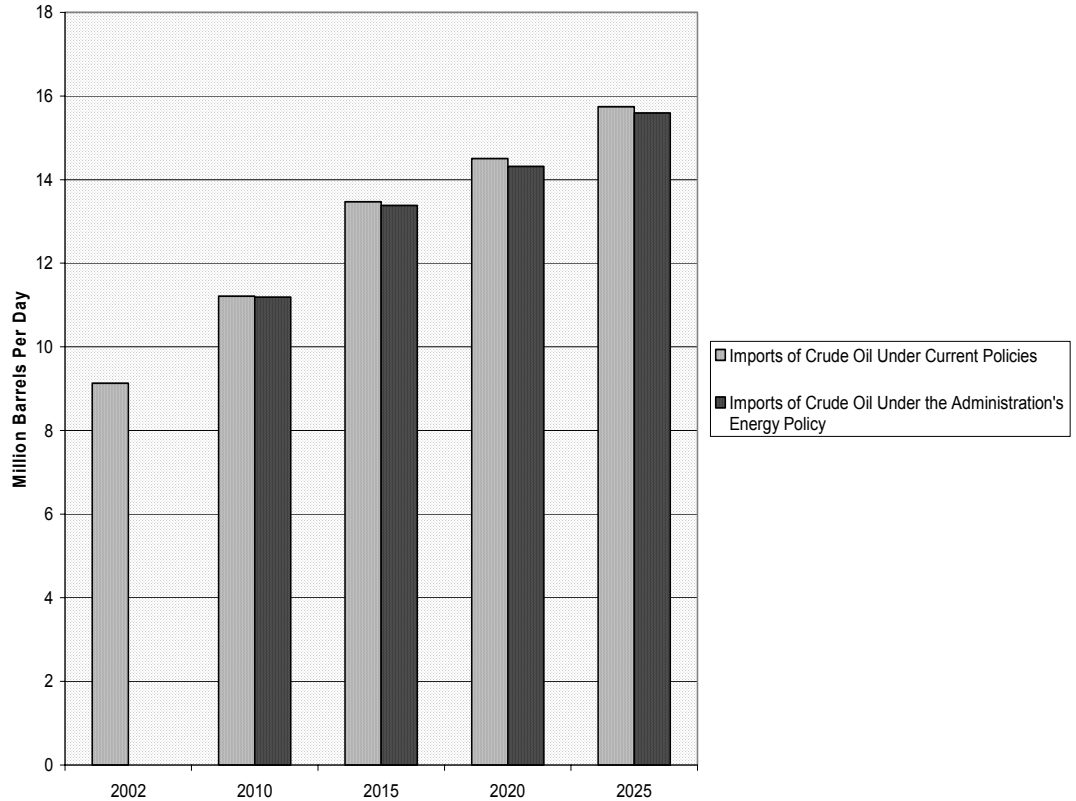


This means that instead of imports of crude oil increasing from 9.13 million barrels per day in 2002 to 13.47 million bpd in 2015 under current policies, imports would increase to 13.38 million bpd under the President's energy policy.¹⁹ Under the President's plan, the United States would import 15.59 million bpd in 2025 instead of 15.74 million bpd.²⁰ Under the President's plan, imports of foreign oil would increase by over 70% from 2002 to 2025 (Figure 5).

¹⁹ *Id.*

²⁰ *Id.*

Figure 5. The Need for Imported Crude Oil Increases Dramatically Even If the Administration's Energy Bill Is Enacted



B. Opening the Arctic to Oil and Gas Drilling

The President has consistently advocated oil and gas drilling in the Arctic National Wildlife Refuge (ANWR). Drilling in the Arctic was a part of the Administration's National Energy Policy but was not included in the comprehensive energy bill.²¹

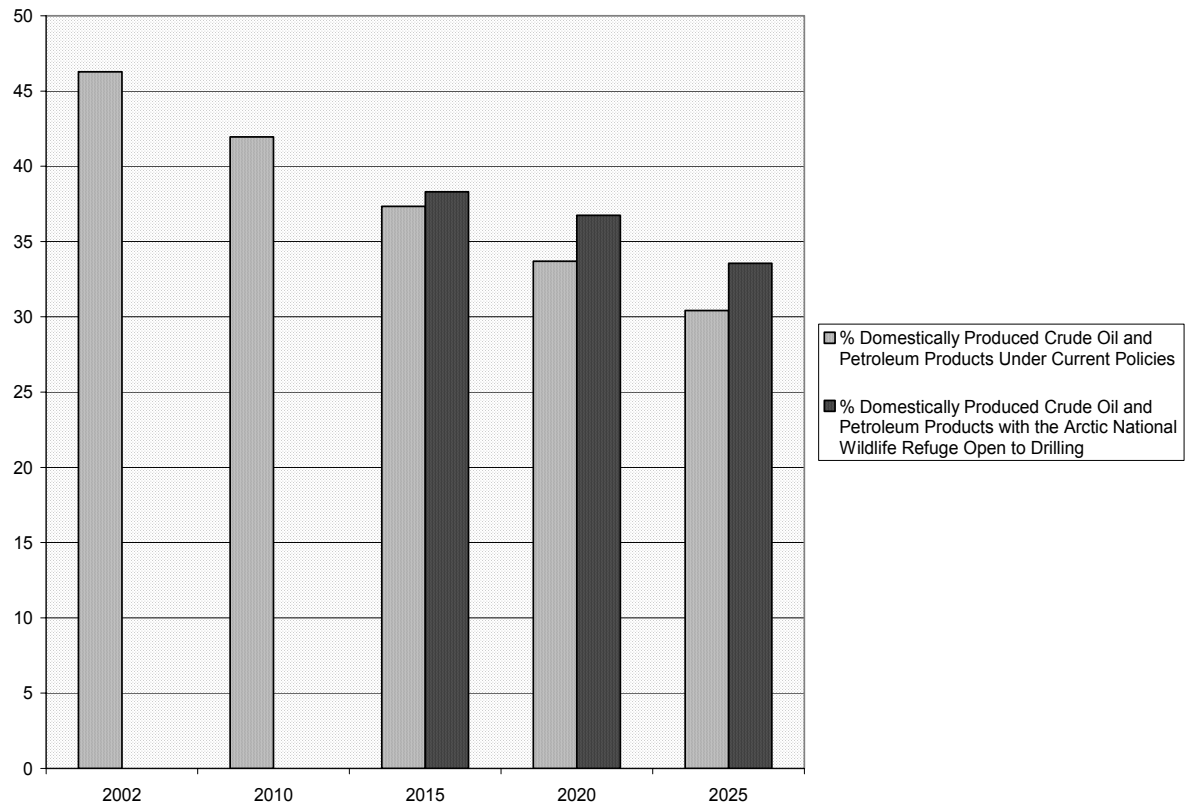
EIA examined the potential oil production from ANWR pursuant to the Administration proposal.²² EIA stated that if ANWR were opened to oil exploration, production could begin within 7 to 12 years. EIA found that oil

²¹ National Energy Policy Development Group, *supra* note 10 at 5–9.

²² EIA, *Analysis of Oil and Gas Production in the Arctic National Wildlife Refuge* (Mar. 2004).

production in ANWR could reduce needed oil imports in 2025 from 70% of oil consumed to 66% (Figure 6).

Figure 6. Reliance on Imports of Foreign Oil Continues to Increase Even If the Arctic National Wildlife Refuge is Opened to Oil Exploration



To reach this result, EIA assumed that oil could be profitably produced in ANWR. This is an important assumption, as BP Exploration recently shut down the Badami oil field, located midway between Prudhoe Bay and ANWR, when it turned out to be uneconomical to produce oil there.²³

²³ *BP Plans to Shut Alaska North Slope Oil Field*, Reuters (July 9, 2003).

IV. CONCLUSION

Dependence on foreign oil will continue to increase markedly into the foreseeable future. If the Administration's proposed energy policies were adopted, they would not effectively address U.S. dependence on foreign oil.