

Foundations of Modern U.S. Energy Policy

Testimony of Jay Hakes
Before U.S. House Energy & Water Appropriations Subcommittee
February 7, 2017

"This book and its message are long overdue."
— Former President Jimmy Carter

JAY HAKES

A DECLARATION OF
ENERGY
INDEPENDENCE



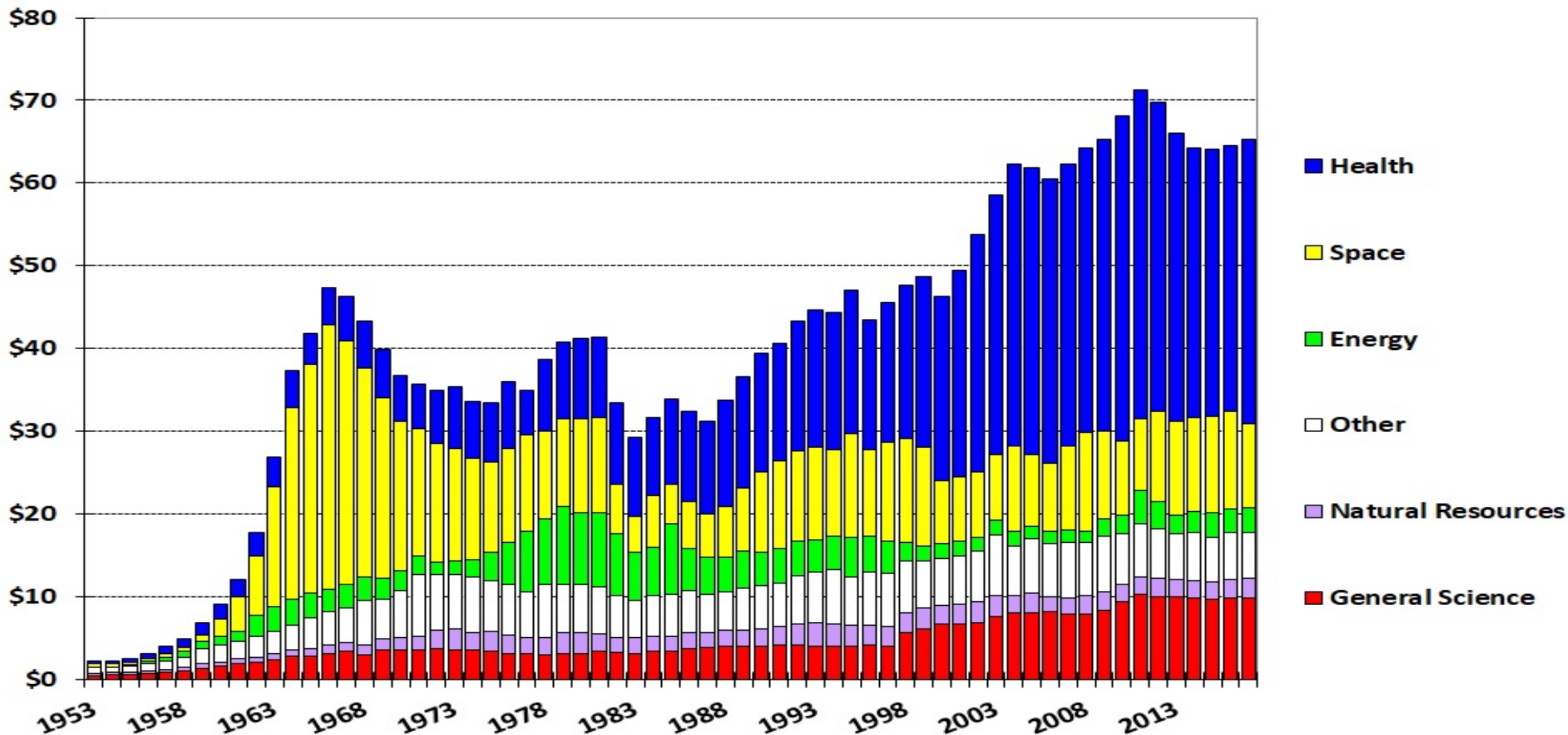
How Freedom from Foreign Oil
Can Improve National Security,
Our Economy, and the Environment

Major Disruptions of 1970s in Middle East:

- Arab Oil Embargo/Gasoline Lines
- Transfer of Ownership of Oil Companies to Host Countries
- Fall of the Shah of Iran
- Russian Invasion of Afghanistan
- Outbreak of Iran-Iraq War (1980)

Trends in Nondefense R&D by Function

outlays for the conduct of R&D, billions of constant FY 2018 dollars



Source: AAAS, based on OMB Historical Tables in *Budget of the United States Government FY 2019*. Some Energy programs shifted to General Science beginning in FY 1998. © 2018 AAAS

Legacies of 1970s:

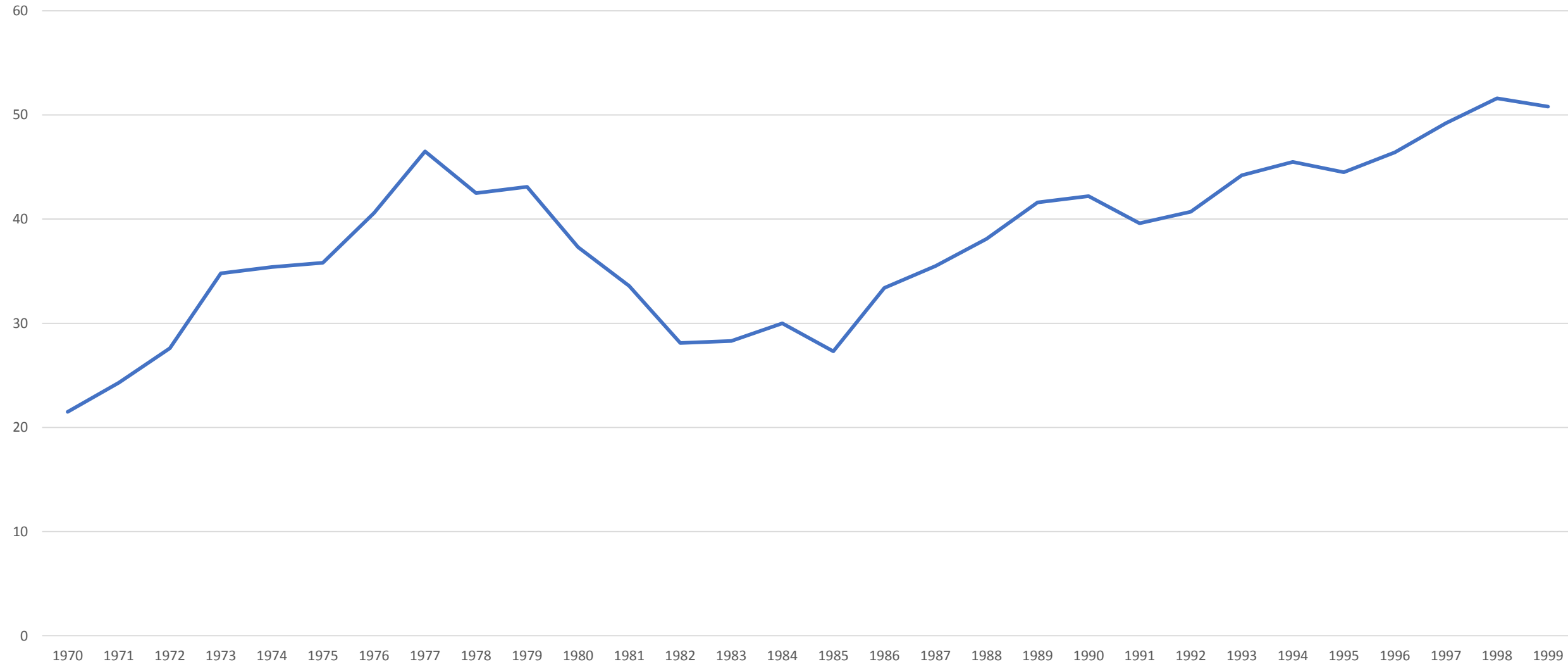
- Expansion of federal spending on energy research & development to record levels (before or since) that advanced many important technologies.
- Strategic Petroleum Reserve available for emergencies (most purchases coming under Reagan).
- New approaches to the insulation of buildings that sharply reduced the waste of energy.

More Energy Legacies from the 1970s

- Automobile efficiency standards (CAFE) that reduced the amount of oil needed for transportation.
- Cooperative arrangements with other industrialized nations to reduce dependence on Middle Eastern oil.
- Backing out oil from most electric generation.
- Allowing motorists to turn right on red lights (traffic permitting) to reduce fuel consumption from idling, a practice taken for granted today.

Net Petroleum Imports, 1970-1999

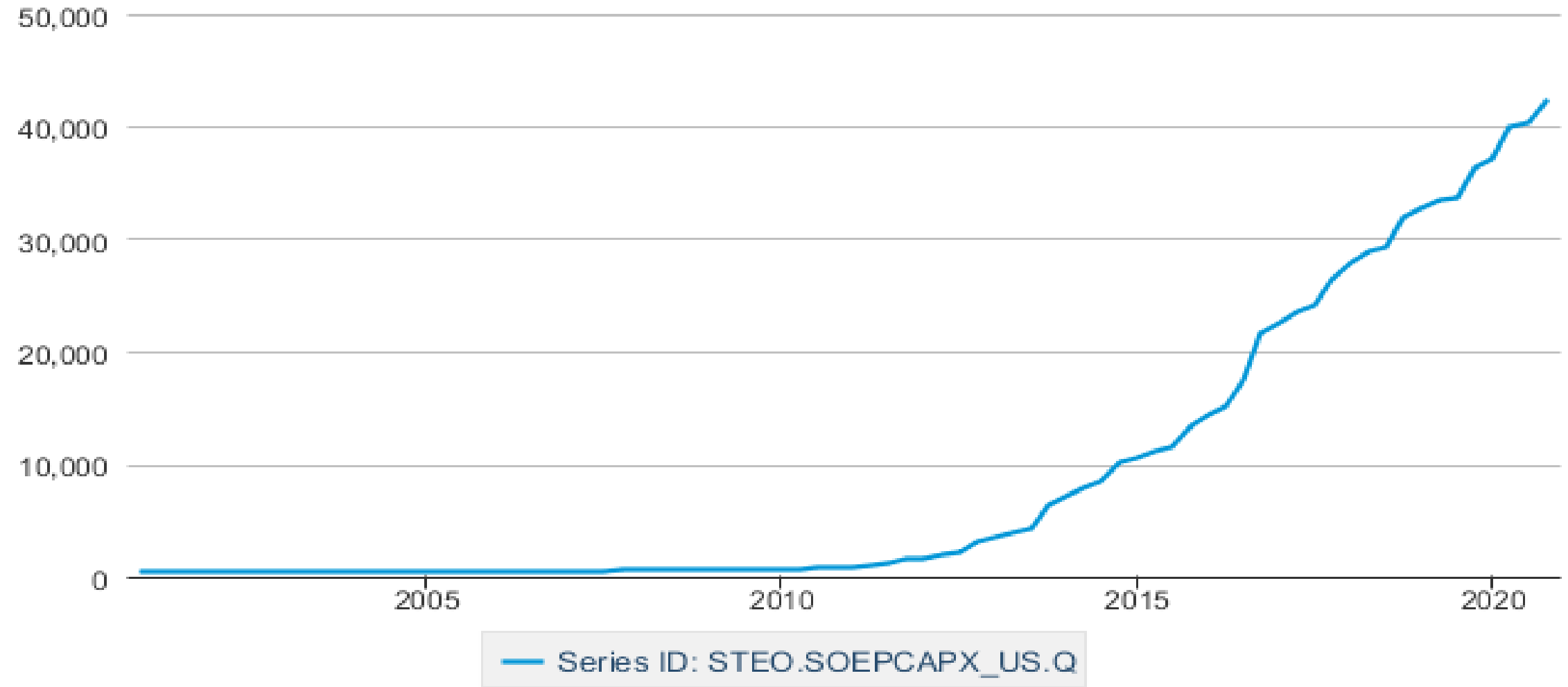
Percent





Electric Power Sector Large-Scale Solar Net Summer Capacity, Quarterly

megawatts



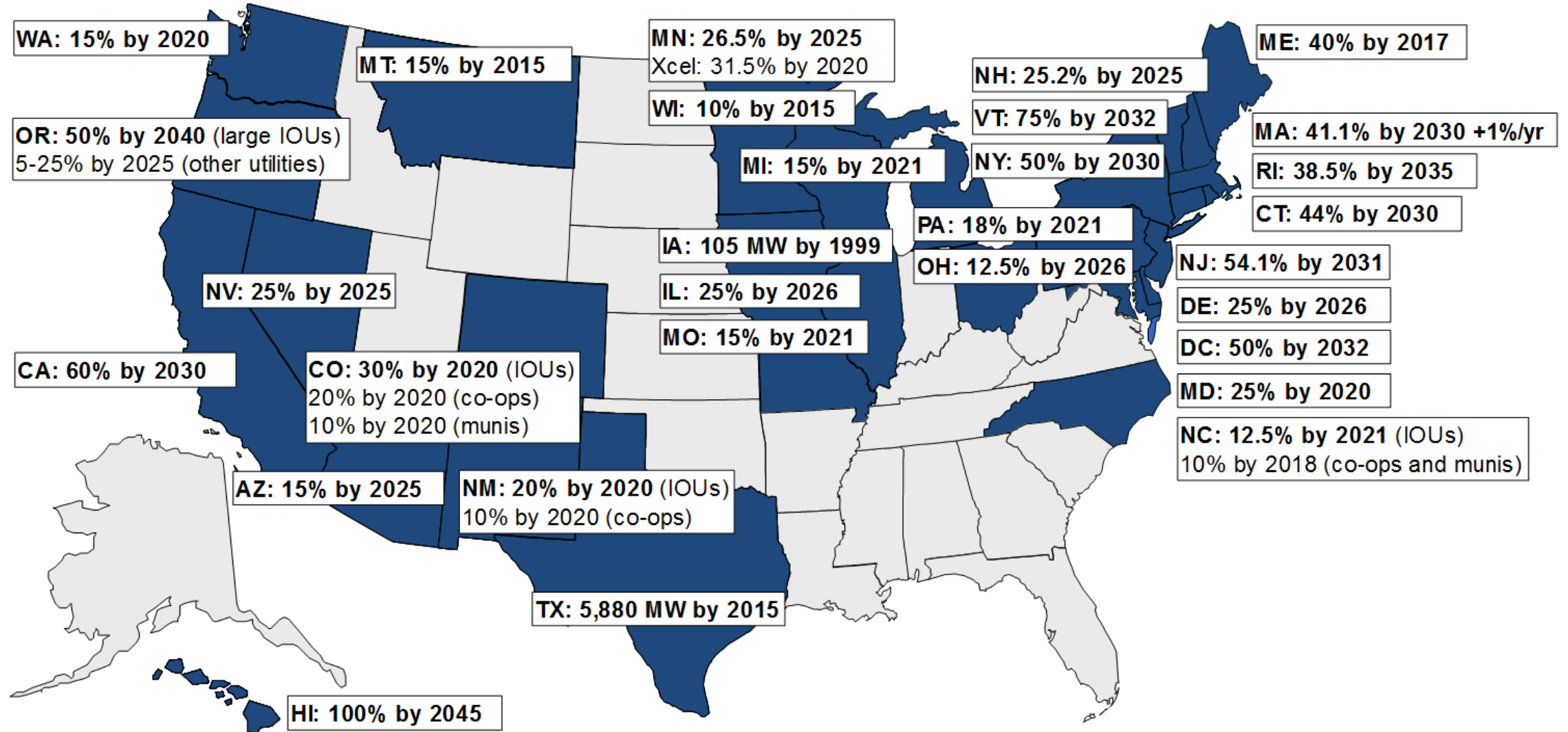
Source: U.S. Energy Information Administration



Select Additions to U.S. Policy, 1987-2007

- Appliance Efficiency Standards.
- U.S. Energy Information Administration Web Site.
- Higher Standards for Clean Air.
- 2005 legislation to encourage greater use of nuclear power and biofuels.
- Energy Independence and Security Act of 2007.

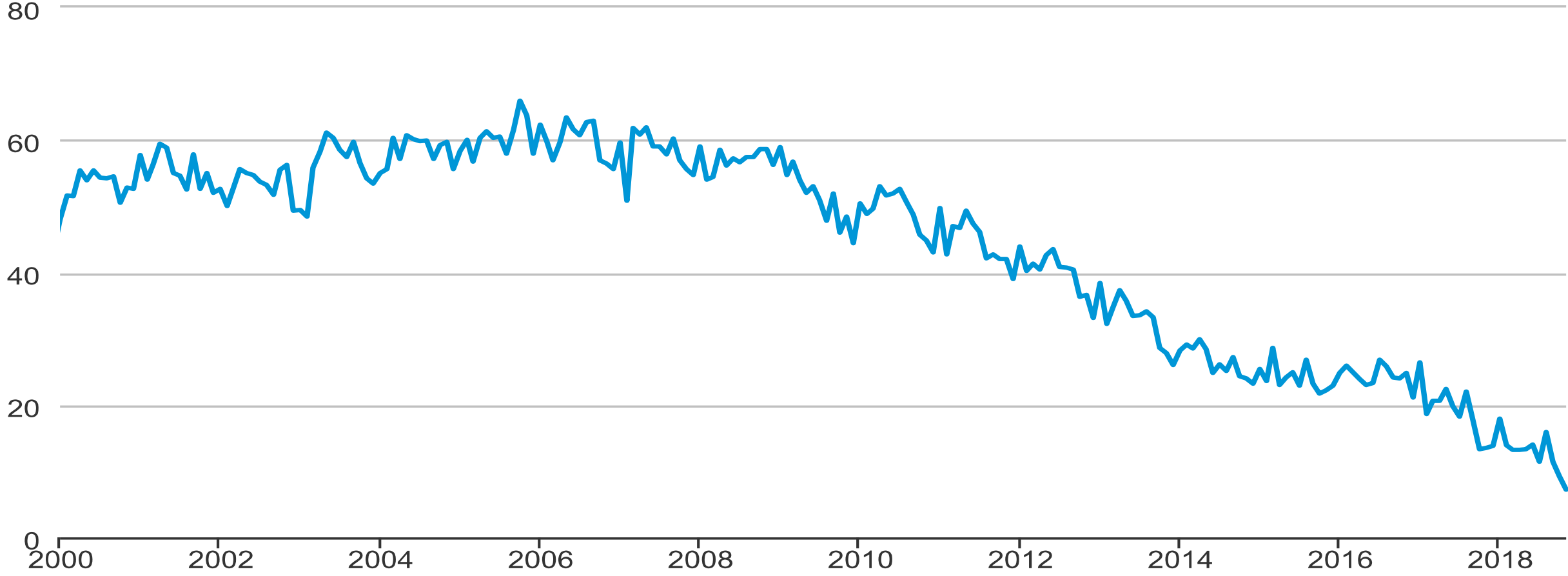
Renewable Portfolio Standards (2018)



Source: Berkeley Lab (November 2018)

Table 3.3a Petroleum Trade: Overview

Percent



— Petroleum Net Imports as Share of Products Supplied (Percent)



Source: U.S. Energy Information Administration