



Using less. Doing more.

Energy Efficiency: America's "Fuel" for Doubling U.S. Energy Productivity by 2030

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What is the Alliance to Save Energy?

Structure:

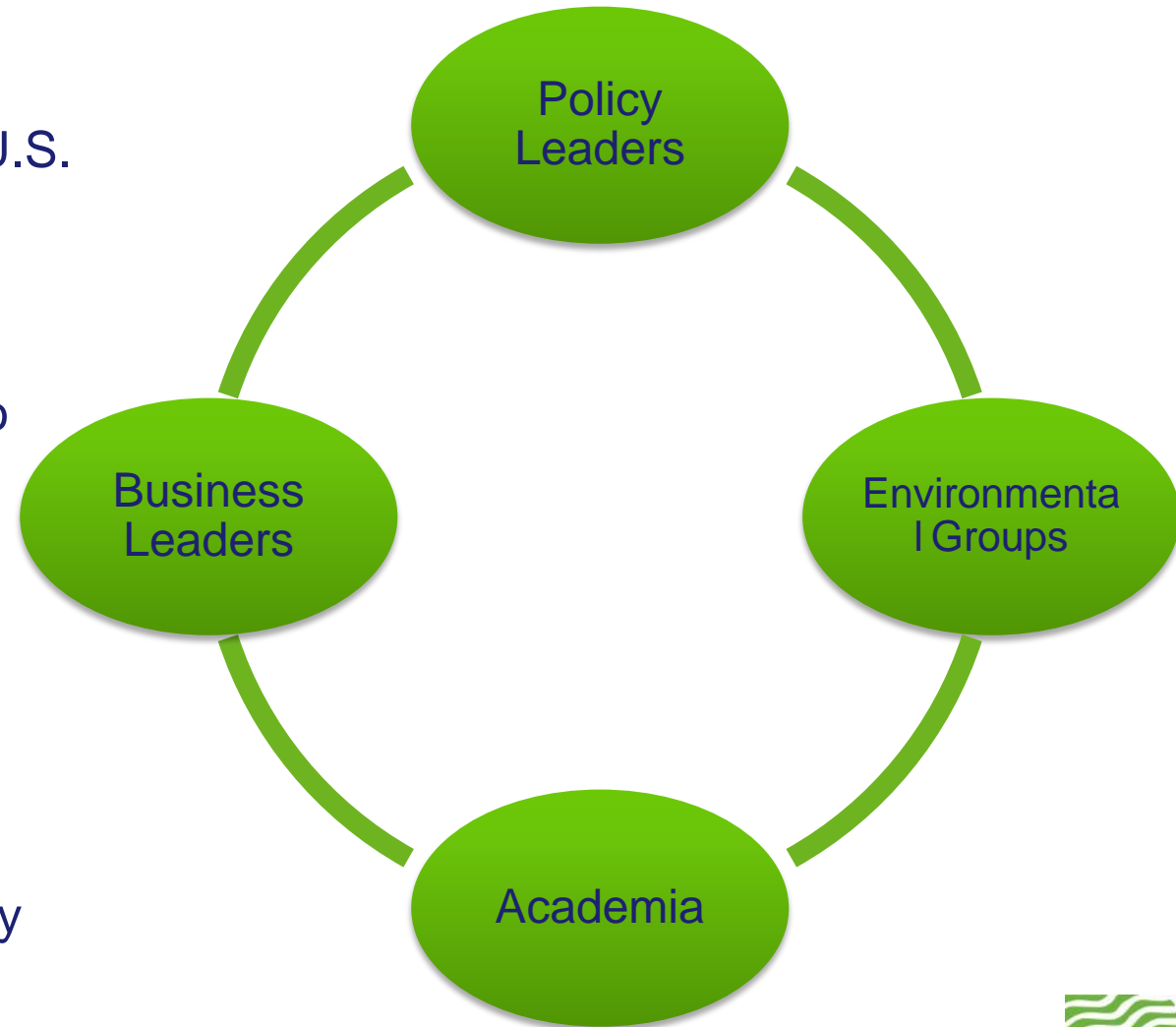
- Nonprofit organization headquartered in U.S.
- International reach

Mission:

- To promote energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security.

Organization:

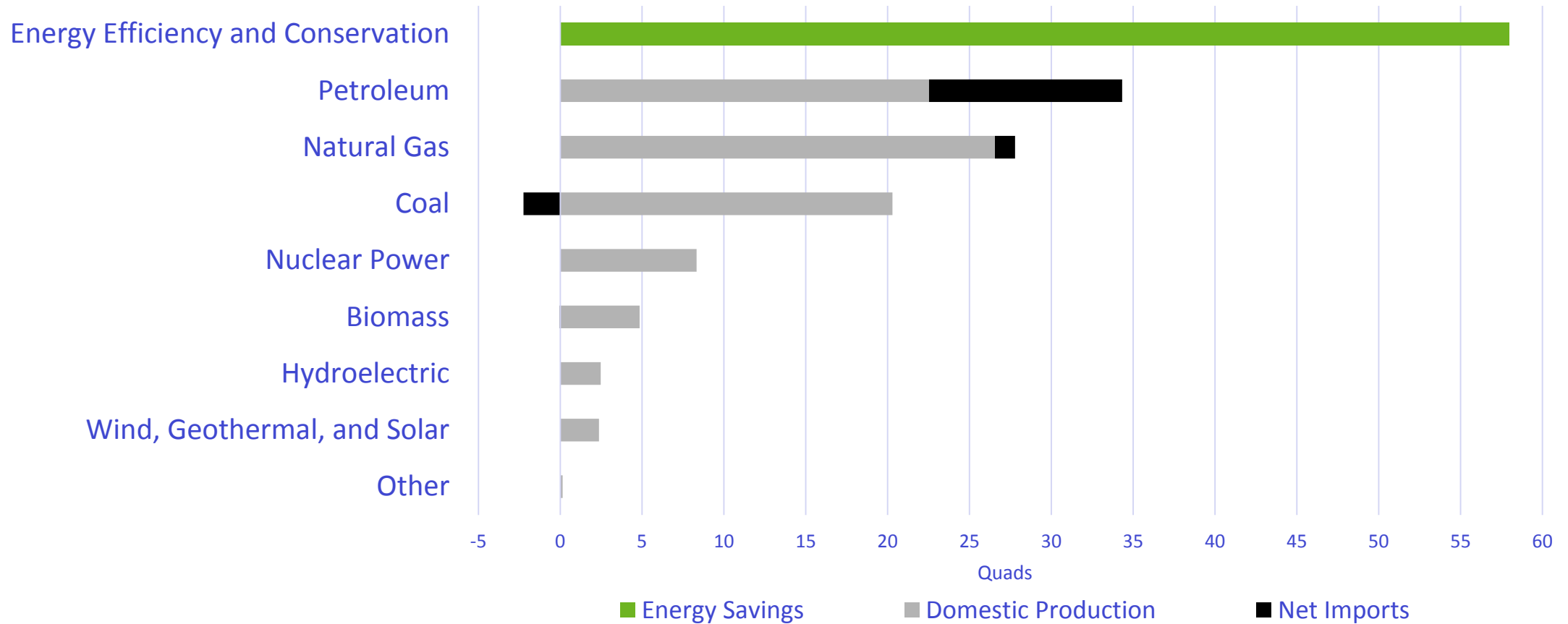
- Staff of 40+ professionals
- 38 years of experience
- \$7 million annual budget
- Recognized as a premier energy efficiency organization



Energy Efficiency: America's Greatest Resource

A Quiet History of Huge Success!

U.S. Energy Resources Used in 2014



Production and Net Imports: EIA 2014 Data
EEC Estimate: ACEEE

Putting Energy Efficiency Gains into “Dollars and Sense”

REDUCING

energy use by
58 Quads
annually

SAVING

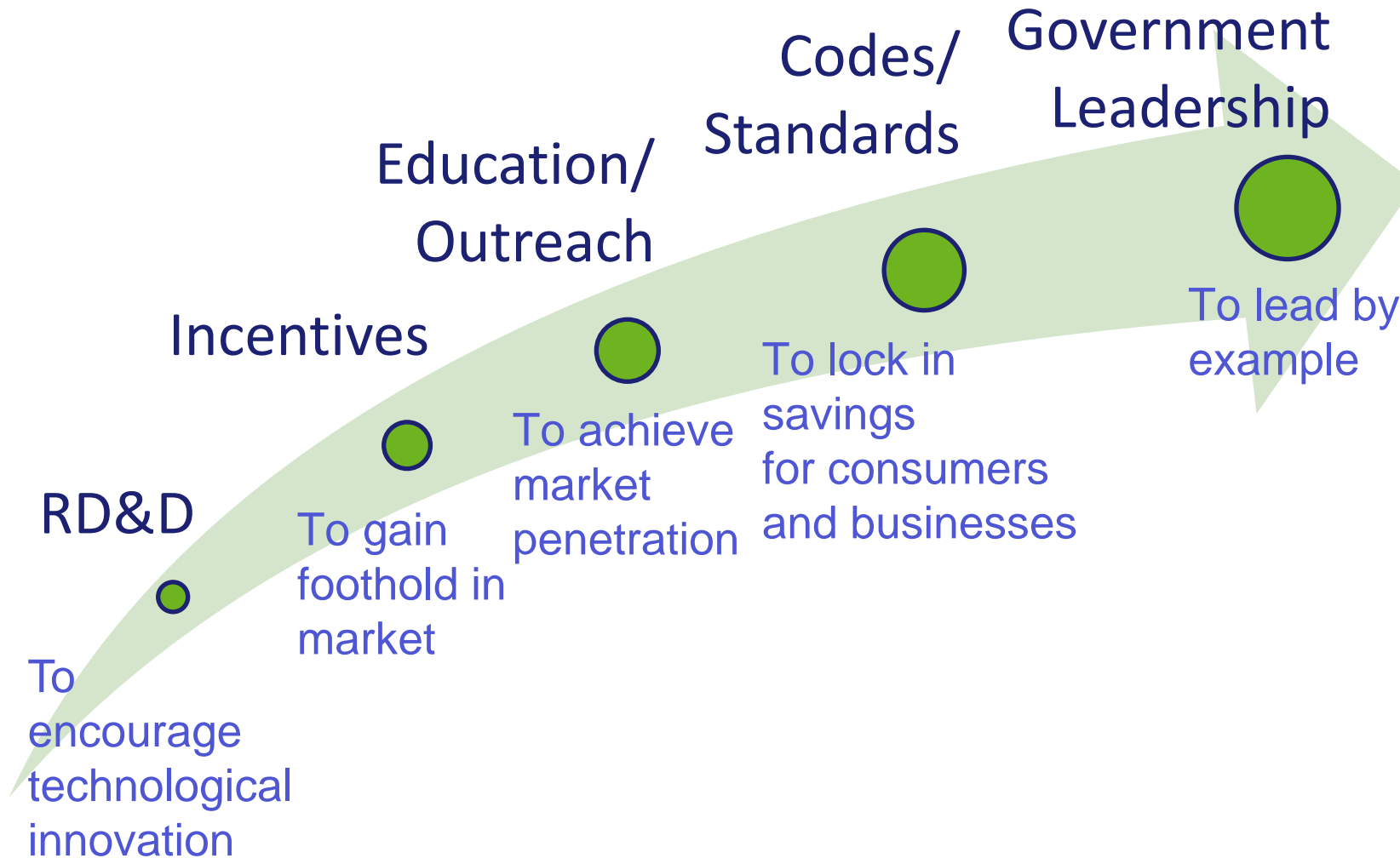
the U.S.
economy
\$800 billion
in avoided
energy costs
each year

AVOIDING

roughly
2.5 billion tons
of CO₂
annually

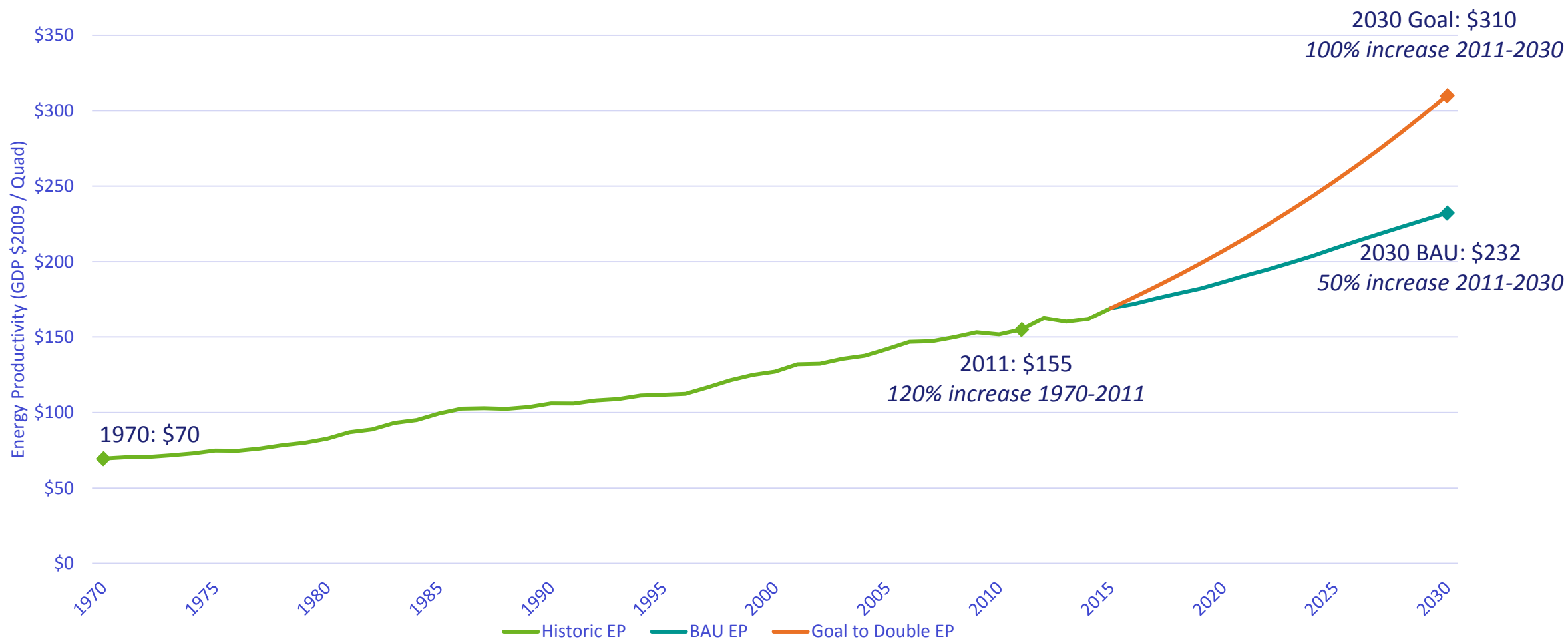
Public Policy

A Cornerstone of the Past Success



History as Prelude:

Mining Energy Efficiency to Improve the Economy



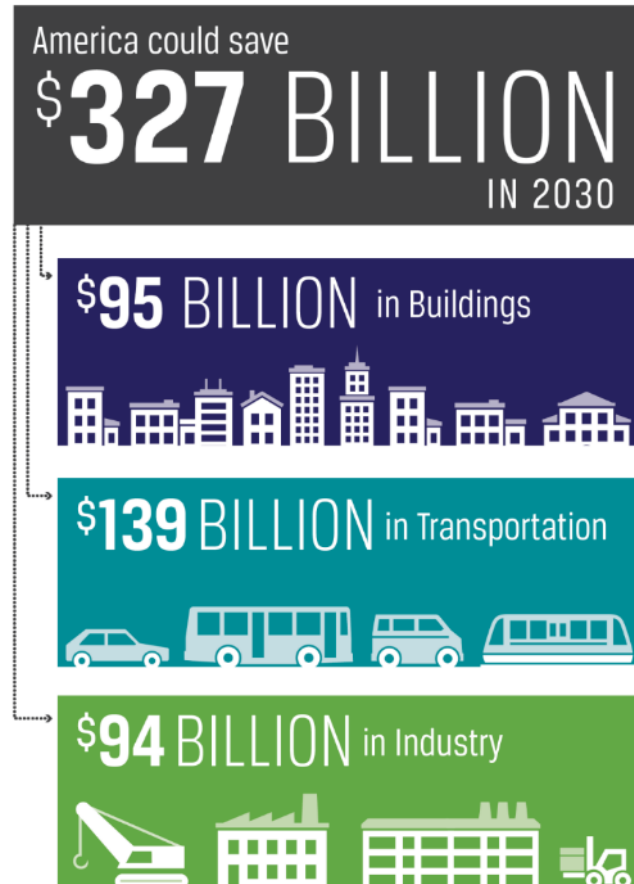
Data from EIA.

BAU EP is AEO2015 Reference case.

2030 Goal assumes constant annual increase starting in 2016

The Drive to Double Energy Productivity

What Would Happen If We Reach the Goal?



TO OUR COUNTRY THIS MEANS



A CLEANER ENVIRONMENT

Decrease U.S. CO₂ emissions to 4 billion metric tons - 33% less than 2005



GREATER SECURITY

Reduce energy imports by over \$100 billion



STRONGER ECONOMY

The U.S. could add 1.3 million jobs and boost GDP by up to 2%



The Drive to Double Energy Productivity

Obama Embraces 2x Challenge for the Nation

- President calls for a **Doubling of U.S. Energy Productivity** by 2030 in 2013 State of the Union
- Federal Budgets for Energy Efficiency have **increased by ~35%** between FY 2009 enacted and FY 2017 requested budgets
- President Orders Federal Agencies to Lead by Example
- President's Climate Action Plan has EE as a Cornerstone
- Private-Public Partnerships Are Advancing Goals



Executive Branch Actions

EE/RE 2016-2020 Strategic Plan

- DOE Department of Energy Efficiency and Renewable Energy (EE/RE) released 2016-2020 Strategic Plan
- Organizing Principles
 - Economic Prosperity
 - Affordability
 - Reduced Environmental Impact
 - Energy Security
 - Consumer Choice
- EE contributes to each Organizing Principle
- EE/RE Strategic Plan emphasizes importance of EE in meeting strategic energy goals
 - Reduce **building energy use by 30%** by 2020
 - Reduce energy for **space conditioning and water heating** in SF homes **by 40%** by 2025
 - Demonstrate at-scale market-based **industrial programs and practices saving 25%** by 2020
 - Realize at least **3 billion MMT CO2 reduction** from appliance standards enacted 2009-2016

Accelerate Energy Productivity 2030

A Partnership with the U.S. Department of Energy & the Council on Competitiveness

- U.S. Energy Secretary Ernest Moniz announced initiative in September 2014
- Primary objectives:
 - **Build awareness and understanding** of doubling EP Goal
 - Secure endorsements of the **goal and action commitments**
 - Develop and promote strategies that can help increase EP across all sectors
- Over the past year, the Partners executed:
 - 5 events, including 3 regional dialogues in Raleigh, Seattle, and St. Paul
 - Collected 11 success stories
 - Increased **endorsements to 132 total**
 - Released work product: Accelerate Energy Productivity 2030: A Strategic Roadmap for American Energy Innovation, Economic Growth, and Competitiveness (Sent 2015)



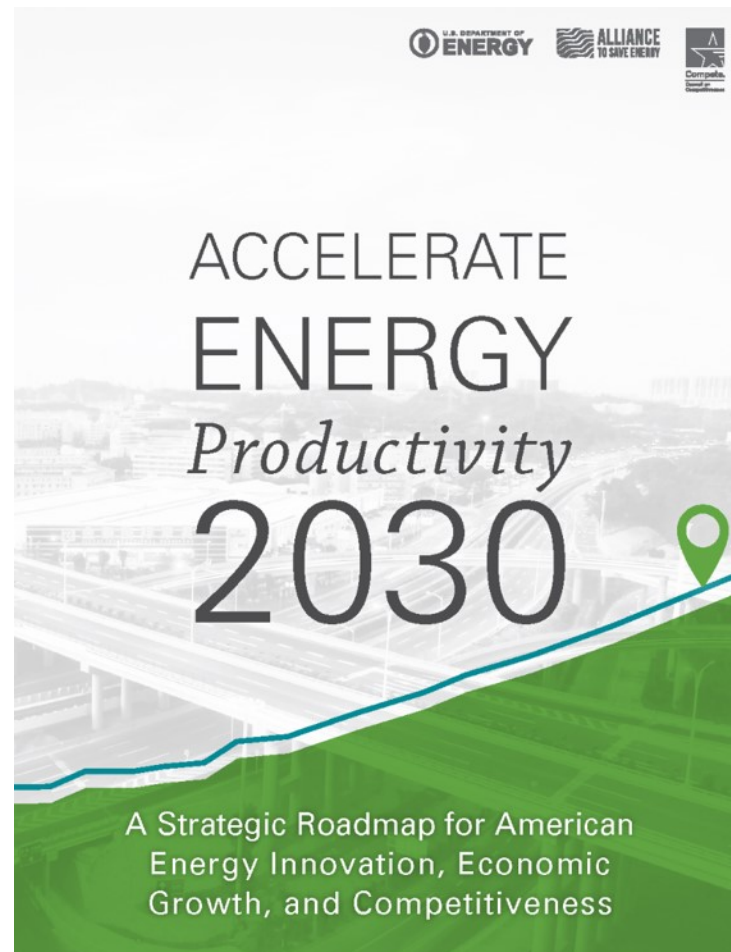
Accelerate Energy Productivity 2030

Endorsers – 132 to date!



Accelerate Energy Productivity 2030

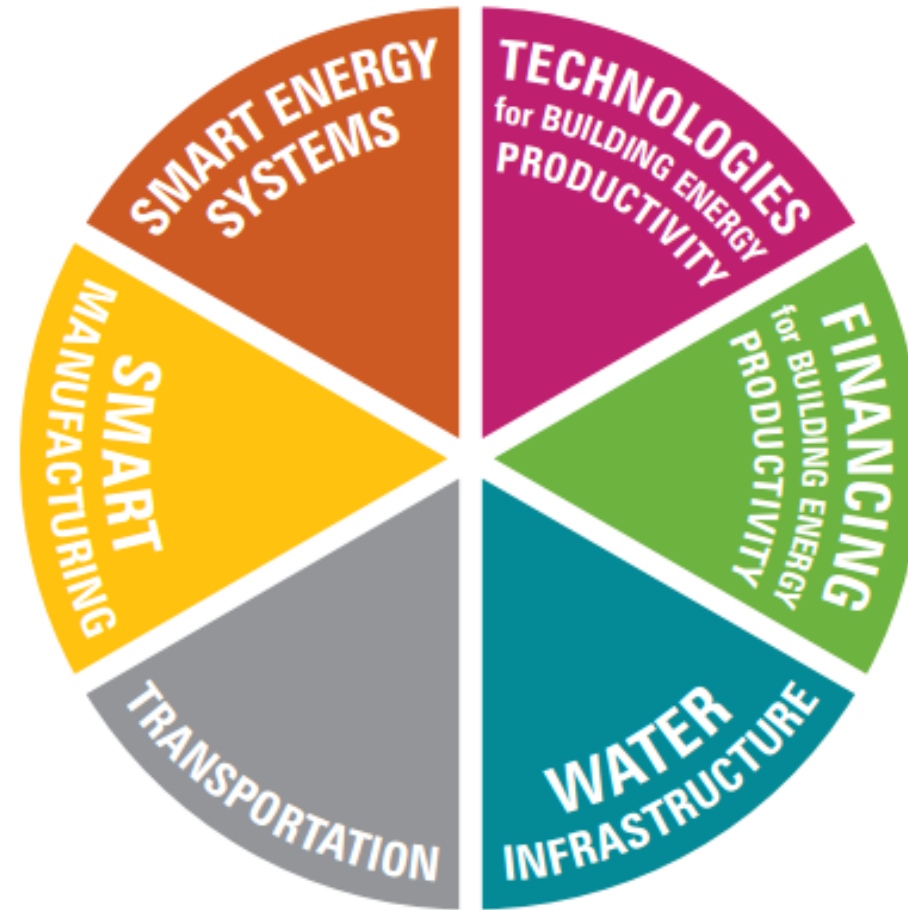
Energy Secretary Moniz Releases Report in September 2015



Accelerate Energy Productivity 2030

Strategies: Productivity “Wedges”

- The Six Wedges
 - Smart Energy Systems
 - Building Technologies
 - Building Finance
 - Smart Manufacturing
 - Transportation
 - Water Infrastructure



Accelerate Energy Productivity 2030

Working Towards the Goal

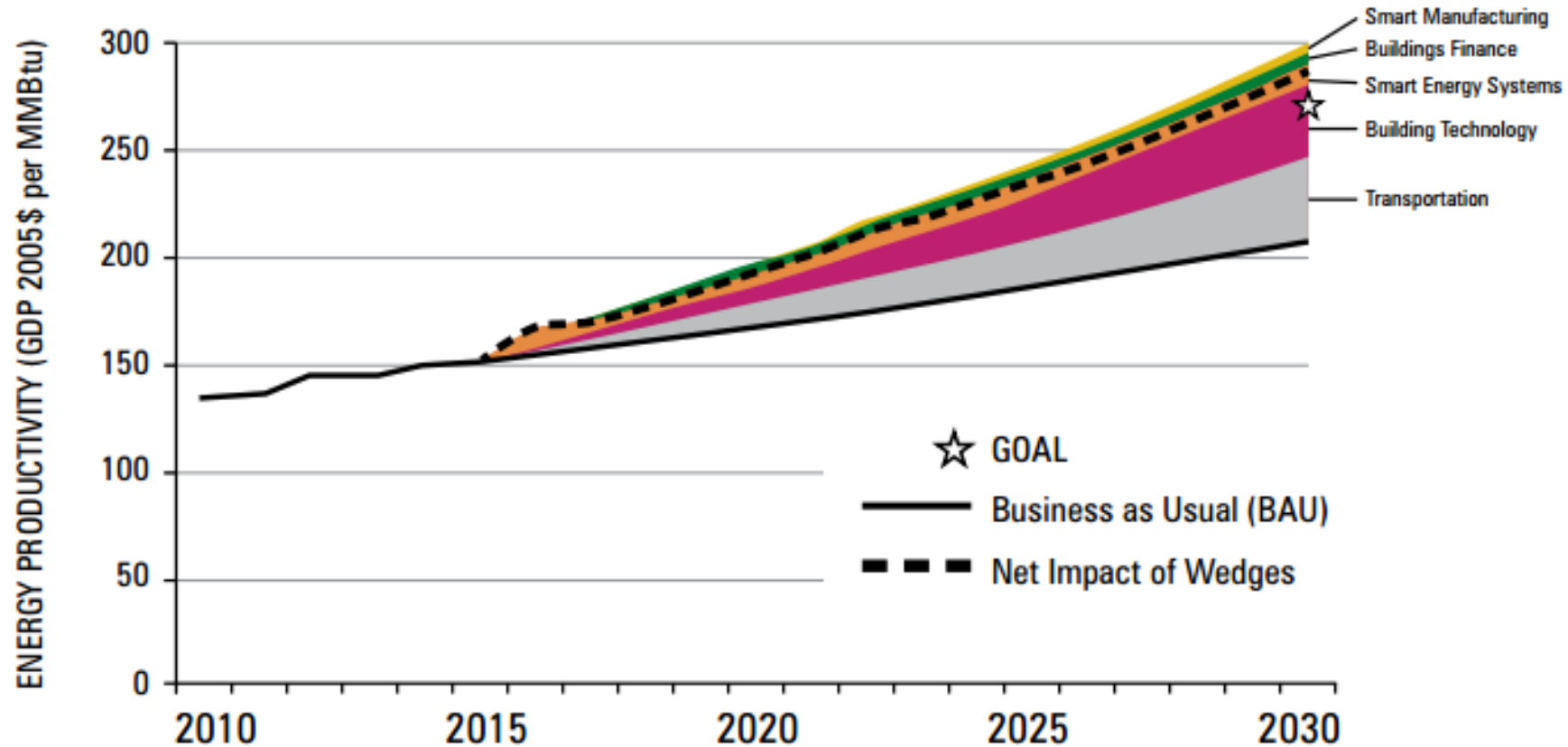


Figure 1. Estimated Energy Productivity Benefits to 2030

Accelerate Energy Productivity 2030

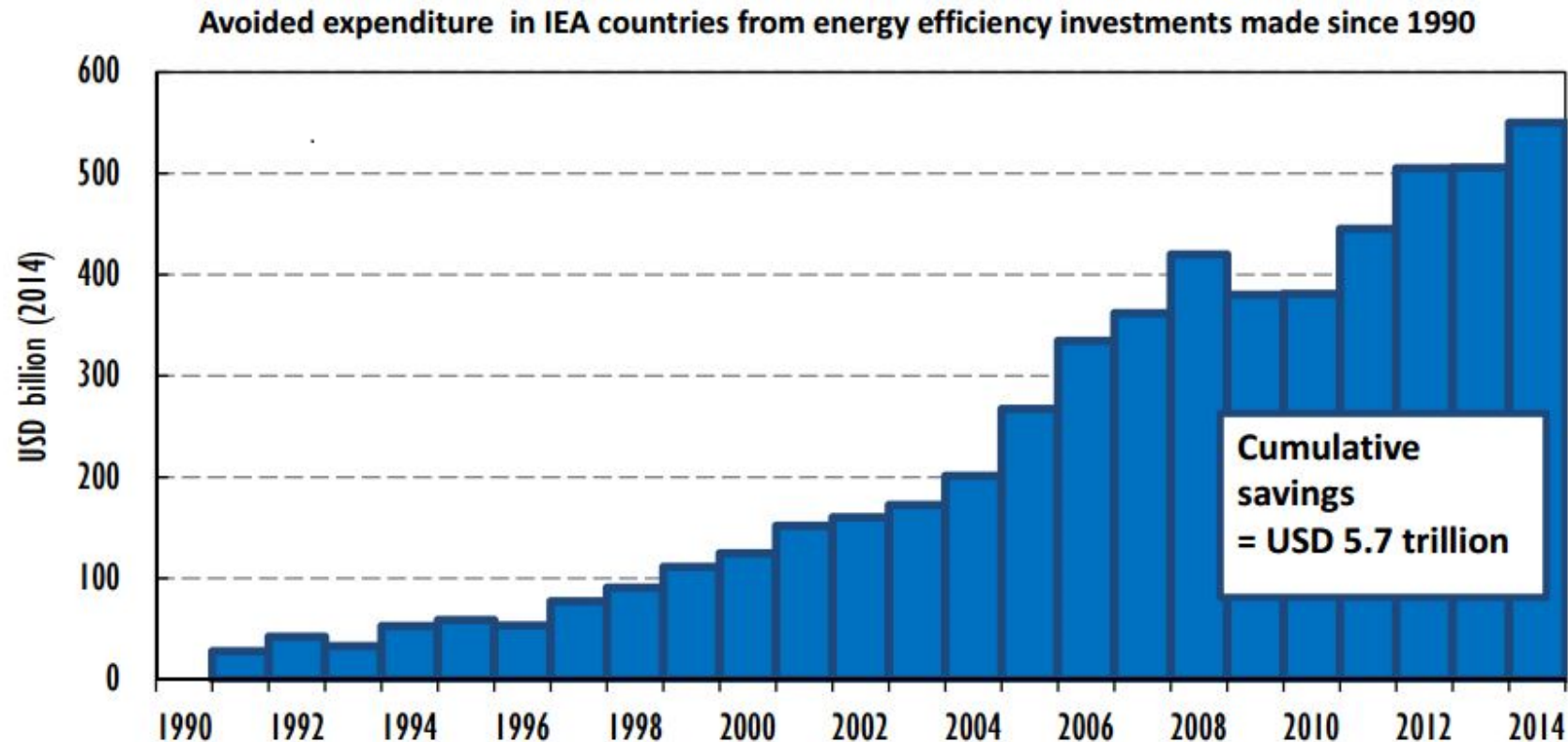
Roadmap Conclusions

- By 2030, the report concludes that doubling energy productivity is **GREAT** for the United States!
 - U.S. GDP increases to \$22.5 trillion (2005\$)
 - Primary energy use falls to 78 quads (**25% lower** than AEO 2015 projection)
 - **4.3% higher** GDP than AEO 2014 projection (improved economic output)

To download complete Roadmap, view endorsements, read success stories, and learn more visit:
www.energy2030.org

IEA Energy Efficiency Market Report 2015

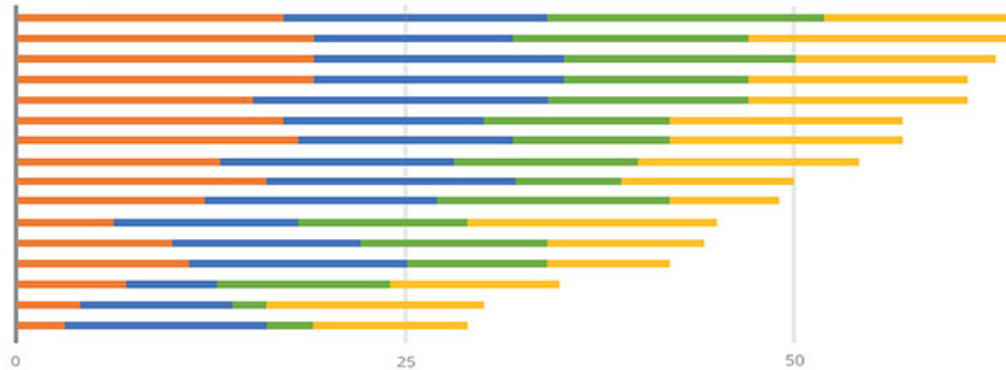
- EE investments over the last 25 years have enabled consumers in IEA countries to spend USD **\$5.7 trillion less on energy**, while enjoying higher levels of energy services.
- OECD energy consumption is now as low as it was in 2000, while GDP has expanded by USD \$8.5 trillion, **an increase of 26%.**





Overall country scores with sector breakdown

- Germany
- Italy
- European Union
- China
- France
- Japan
- United Kingdom
- Spain
- Canada
- Australia
- India
- South Korea
- United States
- Russia
- Brazil
- Mexico



Every country has
untapped energy
efficiency potential

Global Alliance for Energy Productivity

- **The Goal**

- Double global energy productivity by 2030, achieving economic prosperity, a cleaner environment, & greater energy security

- **The Approach**

- Engaging global energy leaders to pave the path for doubling energy productivity
- Recruiting new supporters of energy productivity, all over the world
- Representing energy productivity on the global stage: COP21, B4E, SE4All, Clean Energy Ministerial, Climate Week





Using less. Doing more.

Take Action Today!
Join the Global Alliance for Energy
Productivity to Double Global Energy
Productivity

Sign on as a Global Alliance Endorser

www.GlobalProductivity.org