

A New Energy Economy – The Path Forward

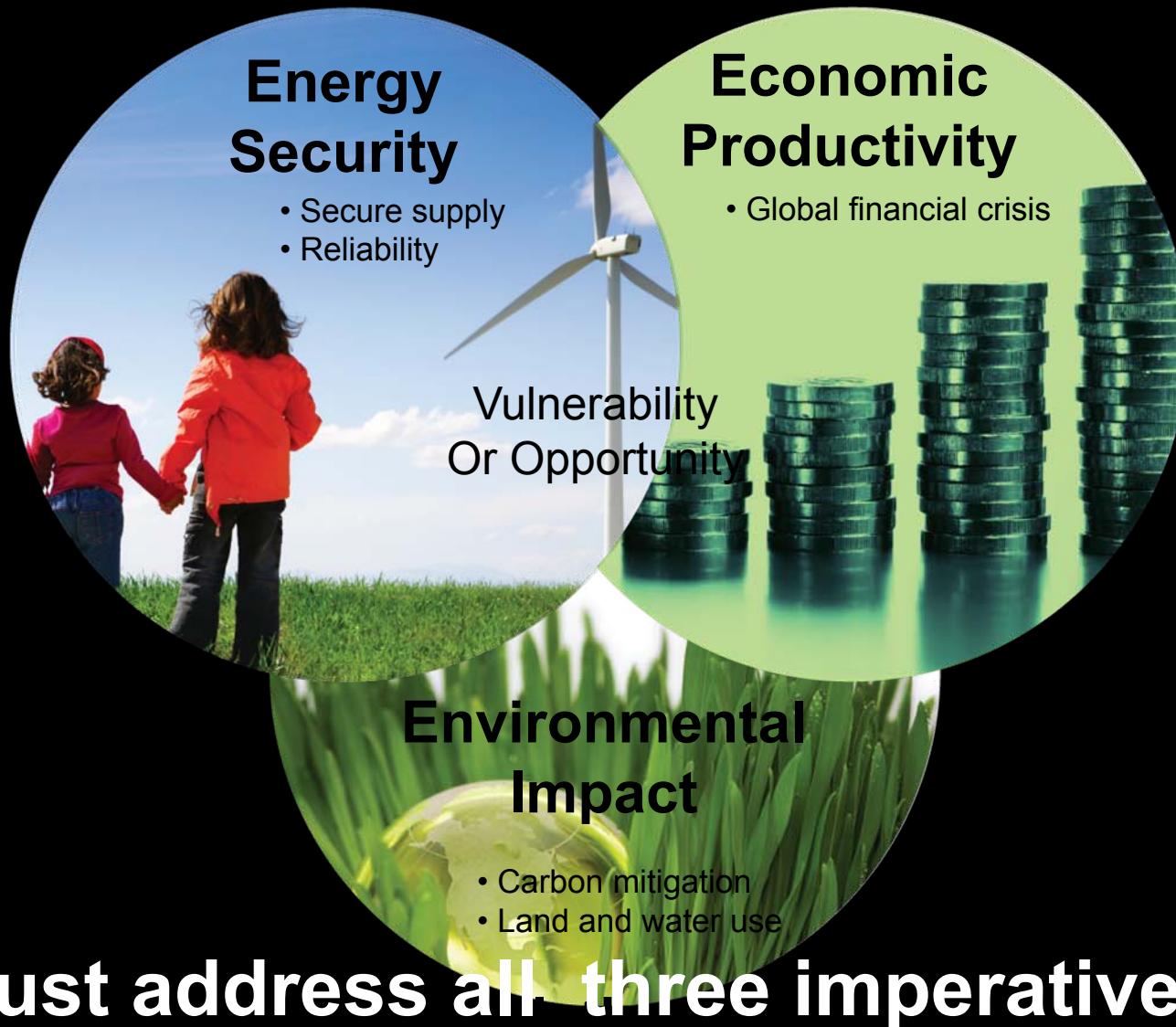


**World Future
Energy Summit**

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Laboratory Director**

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Energy Solutions are Enormously Challenging



Transforming to a Sustainable Energy Economy

Requires: A National Energy Grand Challenge*



Forge Essential
Policies



Investment in
RD3E



Support Education and
Workforce Development



Inform Decision-making



Lead Globally



Encourage Consumer
Decision-making



Use Federal
Market Power

* Preliminary Recommendations of the National Science Board Task Force on Sustainable Energy

President Obama on Renewable Energy and Energy Efficiency



- Invest \$150B in alternative energy over 10 years
- Double production of alternative energy in three years
- Upgrade the efficiency of more than 75% of federal buildings and two million private homes
- Create Jobs with Clean, Efficient, American Energy = \$54B*
- Transforming Our Economy with Science and Technology = \$16B*
- Specifically for RE and EE = \$23B*

*House 2009 Economic Stimulus Bill

The New “Green Team*”

John Holdren
President’s Science Advisor

Dept of Defense
Robert Gates

Commerce Dept
TBD

Homeland Security
Janet Napolitano

Carol Browner
Assistant to the President for
Energy and Climate Change

Dept of Energy
Steven Chu

Environmental Protection
Agency
Lisa Jackson

National Science Foundation
TBD

Dept of Transportation
Ray LaHood

Nancy Sutley
Council for Environmental
Quality

Dept of Interior
Ken Salazar

Dept of Agriculture
Tom Vilsack

Treasury Dept
Timothy Geithner

* President’s Nomination

Achieving the Global Green Economy

**ENERGY
INNOVATION**

SPEED

**GLOBAL
STRATEGIC
PARTNERING**

SCALE

**GLOBAL
GREEN
ECONOMY**



Getting to “Speed and Scale” – Key Challenges

Implementing Renewable Gigawatts at Scale



BARRIERS



- Cost
- Reliability
- Infrastructure
- Dispatchability

Displacement of Petroleum-Based Fuels



BARRIERS



- Cost
- Life cycle sustainability
- Fuels infrastructure
- Demand and utilization

Reducing Energy Demand of Buildings, Vehicles, and Industry



BARRIERS



- Coordinated implementation
- Valuing efficiency
- Cost
- Performance and reliability

Making Transformational Change



The opportunity for making renewable energy transformational change is now before us as a solution to a global crisis.

We must seize the moment.



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