## **Integrating Federal Energy Policy**

Holmes Hummel Senior Policy Advisor Office of Policy & International Affairs U.S. Department of Energy

March 25, 2013

Senate Committee on Agriculture, Nutrition, and Forestry Senate Committee on Appropriations – Energy and Water Senate Committee on Armed Services Senate Committee on Banking, Housing, and Urban Affairs Senate Committee on Commerce, Science, and Transportation Senate Committee on Energy and Natural Resources Senate Committee on Environment and Public Works **Senate Committee on Finance Senate Committee on Foreign Relations** House Committee on Agriculture House Committee on Appropriations – Energy and Water **House Committee on Armed Services** House Committee on Energy and Commerce

## COMMITTEE

S.C. on Agriculture & Forestry S.C. on Appropriations – Energy and Water S.C. on Armed Services S.C. on Banking, Housing, and Urban Affairs S.C. on Commerce, Science, &Transportation S.C. on Energy and Natural Resources S.C. on Environment and Public Works S.C. on Finance S.C. on Foreign Relations **H.C. on Agriculture** H.C. on Appropriations – Energy and Water

AGENCY Agriculture Energy Defense HUD Commerce **Transportation Energy, Interior EPA** Treasury State Agriculture Energy

#### **COMMITTEE**

S.C. on Agriculture & Forestry S.C. on Appropriations – Energy and Water S.C. on Armed Services S.C. on Banking, Housing, and Urban Affairs S.C. on Commerce, Science, &Transportation S.C. on Energy **&Natural Resources** S.C. on Environment and Public Works S.C. on Finance S.C. on Foreign Relations **H.C. on Agriculture** 

#### **ENERGY FOCUS**

**Bioenergy, Utilities R&D**, Hydropower Deployment Efficiency **Exports** Roads, Rail, Ports... RDD&D **Extraction** Pollution Tax credits Diplomacy **Bioenergy**, Utilities

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#### NOTED LEGISLATION

Farm Bill (2007) DOE Budget (2010) NDAA (2010) Frank-Dodd (2010) **America COMPETES** SAFETEA-LU (2005) EISA (2007) **EPAct (2005)** Clean Air Act (1992) **EPAct (2005)** Atomic Energy (1954 Farm Bill (2007)

Congressional organization is reflected in the distribution of Executive Branch authorities.

#### **Congressional Committees with Energy Jurisdiction**

HOUSE	SENATE
Agriculture	Agriculture, Nutrition, and Forestry
Appropriations	Appropriations
Armed Services	Armed Services
Budget	Banking, Housing and Urban Affairs
Energy and Commerce	Budget
Financial Services	Commerce, Science and Transportation
Foreign Affairs	Energy and Natural Resources
Homeland Security	Environment and Public Works
Judiciary	Finance
Natural Resources	Foreign Relations
Oversight and Government Reform	Health, Education, Labor and Pensions
Science, Space and Technology	Homeland Security and Government Affairs
Small Business	Indian Affairs (Special Committee)
Transportation and Infrastructure	Judiciary
Veterans' Affairs	Small Business and Entrepreneurship
Ways and Means	Veterans' Affairs

Source: Bipartisan Policy Center, "The Executive Branch and National Energy Policy," 2012

## Policy Objectives Supported by Obama Administration

Responsibly develop domestic energy resources

Double energy productivity by 2030

Double renewable energy (again) between 2012 and 2016

Develop 40,000 MW of additional Combined Heat & Power by 2020

Reduce U.S. GHG emissions 17% below 2005 by 2020 [Also supported climate bill with 83% below 2005 by 2050 target]

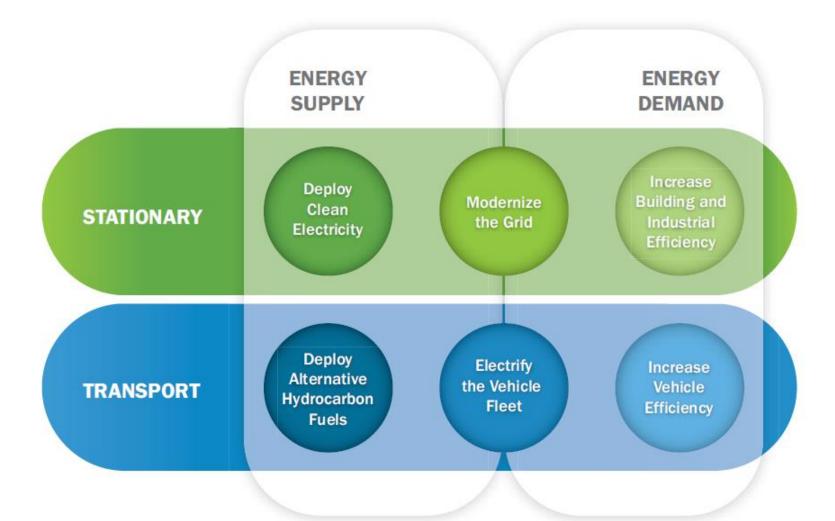
Reduce global GHG emissions 50% by 2050

Modernize the electric power grid

End fossil fuel subsidies

Also see: Blueprint for a Secure Energy Future: One Year Progress Update

# **Dept of Energy: Six Strategies**



www.energy.gov/QTR

Department of Energy

## Many Federal Agencies Support Clean Energy Development

Basic Feasibility Technology Technology Small Scale Large Scale Science Research Development Demonstration Deployment Deployment



## Many Federal Agencies Support **Clean Energy Development**

Department of Energy

FERC

HUD

Homeland

Commerce

EPA

Defense

Transportation

Agriculture

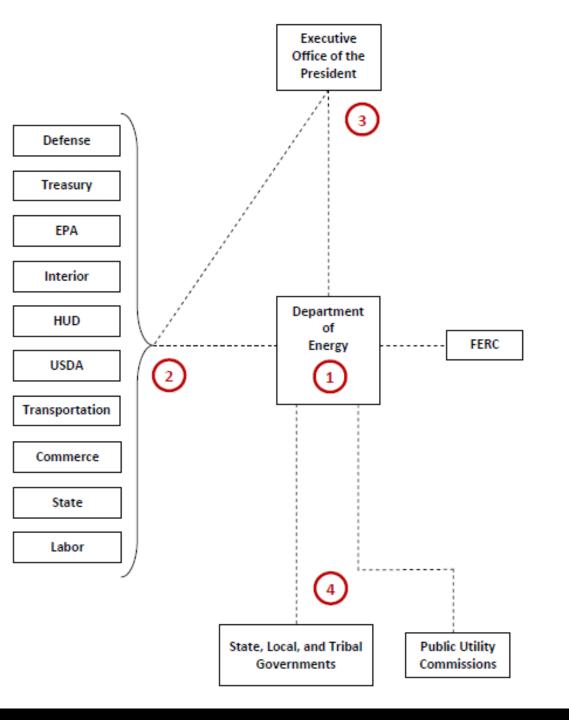
Interior

Education & Labor

Basic Large Scale Technology Technology Small Scale Feasibility Science Development Demonstration Deployment Deployment Research

Treasury

	Energy for Stationary Services			Energy for Transportation		
Department / Agency	Power & Heat	Grid	End Use	Produce Fuels	Distribute Fuels	Vehicles
Agriculture						
Commerce						
Defense						
Energy						
EPA						
Homeland Security						
HUD						
Interior						
Labor						
State						
Transportation						
Treasury						
FERC						



Paths for Using Existing Authorities to Pursue Administration Policy Objectives



## **Energy Innovation Hubs**



## DOE Applied Offices: EERE, OE, NE, FE

Loan Guarantee Program, Tax Credits, etc

BasicFeasibilityTechnologyTechnologySmall ScaleLarge ScaleScienceResearchDevelopmentDemonstrationDeploymentDeployment

## Private Sector Participation in Public Investments in Innovation

Using federal funds to leverage substantial private investment

Cost share	Cost share	Cost share
~ 20%	~ 20-50%	~ 50 -90%
Energy R&D	Innovation, Demonstration	Deployment
National Labs ARPA-E Hubs	Prototypes, pilot projects, pre-commercial demo projects	Fully commercial technologies deployed through tax credits and loan guarantees
FFRCs		16

LENUS



## **ENERGY INNOVATION PORTAL**

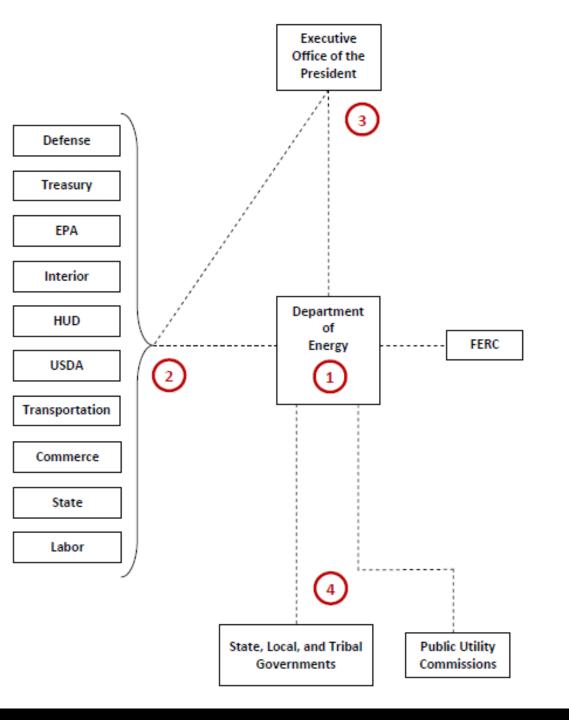
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EERE » Energy Innova	tion Portal				Printable Version 🕒 SHARE
	energy efficiency and renev gy laboratories and participa		<u> </u>	veloped by U.S.	FEATURES
	orking with DOE laboratorie	C			New! Interested in the latest breakthroughs? ► Explore cutting edge technology.
/	Lalaustif.		VINNOVATION PORTAL	es 323	Subscribe to Email Updates > Get the latest on our technology licensing opportunities.
	Identify. Leading-edge energy technologies	Patents Patent Ap	pplications	11,721 3,555	Get Our Widget ► Spread the word about the Portal on your
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		technologi	r energy efficiency and rene ies available for licensing, e ies, patents, and patent ap	emerging	U.S. Department of Energy's Argonne National Laboratory Win Deals of Dist Award ► Success story from ANL
► ■ oo:oo Show text versio		Advanced S	earch 🕨 Search Help 🕨	SEARCH	The Quest for Inexpensive Silicon Solar Cells ► Success story from NREL
FEATURED TE	CHNOLOGIES Sandia National Labora Hedgehog™ Water Conta	atories	IOLOGIES PARTNER		Thin-film coating technology covers e ground– and products ► Success story from PNNL
-14	Removal System	Advanced	<u>d Materials</u> <u>Hydro</u> and Biofuels <u>and 1</u>	<u>opower, Wave</u> <u>Tidal</u>	EVENTS

Building Energy Efficiency

Industrial

Technologies

2011 National SBIR/STTR Conference Apr 10th - 13th, Madison, WI



Paths for Using Existing Authorities to Pursue Administration Policy Objectives



## Office of Management & Budget





### Council on Environmental Quality



## Office of Science & Technology Policy





#### **Domestic Policy Council**

#### **National Security Council**

**National Economic Council** 

## **BLUEPRINT FOR A SECURE ENERGY FUTURE**



March 30, 2011

Sequel documents:

Progress Update: March 2012

Blueprint for a Clean and Secure Energy Future Memo: March 2013

# **Blueprint for a Secure Energy Future**



March 30, 2011

### **Develop and Secure America's Energy Supplies**

- Expand safe and responsible domestic oil & gas production
- International engagement on clean energy

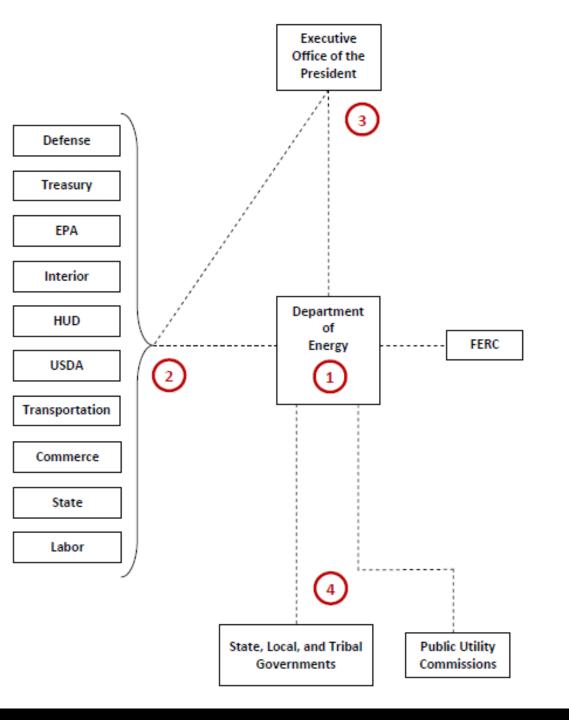
### Provide Consumers with Choices to Reduce Costs, Save Energy

More efficient cars & trucks as well as homes & buildings

#### **Innovate Our Way to a Clean Energy Future**

- Invest in research & development
- Lead by example: Federal government energy strategies

http://www.whitehouse.gov/sites/default/files/blueprint\_secure\_energy\_future.pdf



Paths for Using Existing Authorities to Pursue Administration Policy Objectives

# **DOD** leadership on energy security



## QUADRENNIAL DEFENSE REVIEW REPORT



# ARMY ENERGY SECURITY



#### A NAVY ENERGY VISION FOR THE 21ST CENTURY

Top 10 Things To Do by 2010

# Energy for the Warfighter: OPERATIONAL ENERGY STRATEGY

# **U.S. Dept of Agriculture**

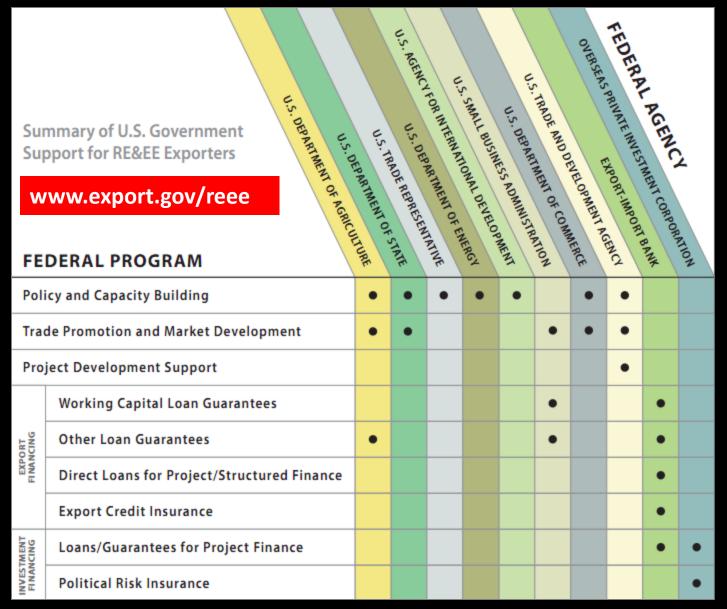
#### www.usda.gov/energy

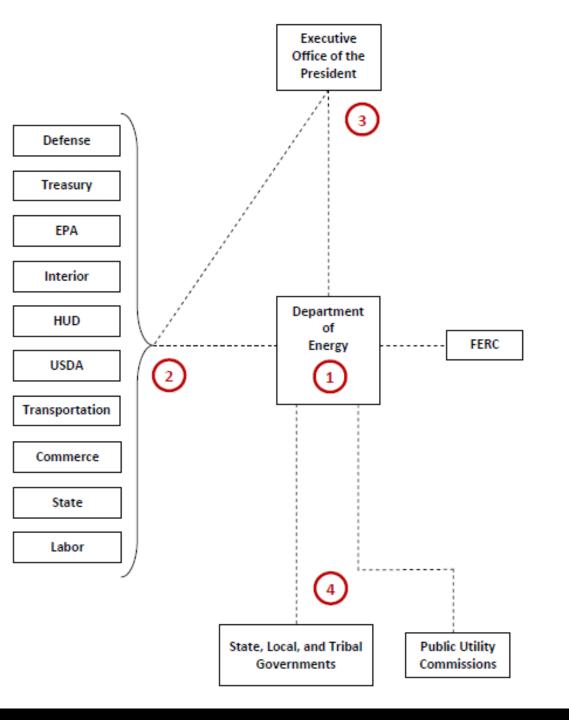
You are here: Home	/ Energy / Energy Matrix		
Energy			
Agency	All		<ul> <li>Related Topics</li> </ul>
Program Group	All		<ul> <li>Glossary of Terms</li> </ul>
Energy Type	Bioenergy		<ul> <li>Federal Assistance Award</li> </ul>
Assistance Type	All		Data System (FAADS)
Sort by	Energy Initiative		• USAspending.gov
	Search		<ul> <li>Office of Energy Policy and New Uses</li> </ul>
The following prog Energy: Bioenerg	grams match your search cri v	teria:	<ul> <li>Office of the Chief Economist</li> </ul>
Energy Initiative		Funding Opportuni	
Energy Factsheet	s	Yes	
Factsheets - Rene	awable Energy	Yes	
Funds - RD Notice of Funding Availability Listing		Yes	ReNewaals
Rural Energy for America Program - Guaranteed Loan (REAP)		Yes	
Repowering Assistance Program		Yes	
REAP/Feasibility Grant Program		Yes	
Bioenergy Program for Advanced Biofuels		Yes	a a la forma
Rural Energy For America Program Grants - REAP Grants		Yes	
Energy Coordinat	en Cantanta		

New brochure covers all USDA RE programs

Energy Coordinator Contacts

## Renewable Energy & Energy Efficiency Export Initiative





Paths for Using Existing Authorities to Pursue Administration Policy Objectives

## Federal

## State



EPA

Dept of Energy

FERC

# Air Quality

Energy

NACAA national association of clean air agencies



of State Energy Officials



Grid









## WISCONSIN

Incentives/Policies for Renewables & Efficiency

See Federal Incentives

See All Summaries

See Residential Incentives Only

#### **Financial Incentives**

#### Corporate Tax Credit

Woody Biomass Harvesting and Processing Tax Credit (Corporate)

#### Industry Recruitment/Support

Clean Energy Business Loan Program

#### Local Loan Program

- Green Madison Revolving Loan Program
- Milwaukee Energy Efficiency (Me2) Revolving Loan Program

#### PACE Financing

- Local Option Energy-Efficiency Improvement Loans
- River Falls Municipal Utilities Renewable Energy Finance Program

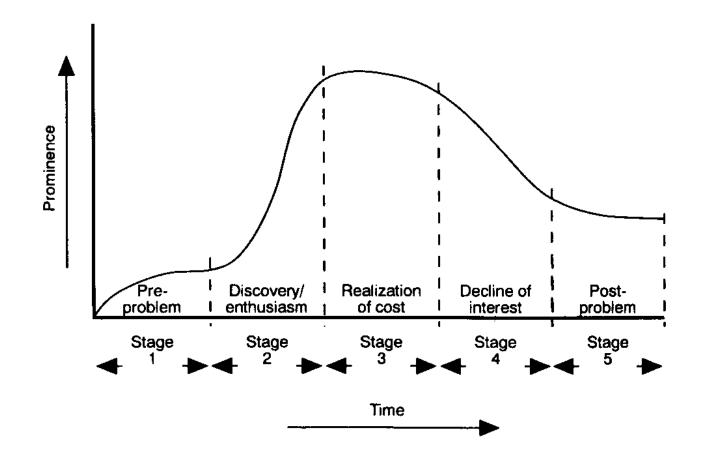
#### Performance-Based Incentive

Madison Gas & Electric - Clean Power Partner Solar Buyback Program

# Web Resources to Look Up for Interest

- DOE Quadrennial Technology Review
- Blueprint for a Secure Energy Future
- Sunshot Initiative
- DOE ARPA-E
- Energy Innovation Portal
- DSIRE Database
- Clean Energy Exports: Export.gov/REEE
- DOD Operational Energy Strategy
- USDA Energy Matrix
- DOE Strategic Plan

## Issue-Attention Cycle – Anthony Downs (1972)



"Up and Down with Ecology – Issue-Attention Cycle", by Anthony Downs, 1972.