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CONGRESSIONAL BRIEFING

Congressional Climate Camp #1: Budget, **Appropriations, and Stimulus**

Briefing Series: Congressional Climate Camps

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Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization

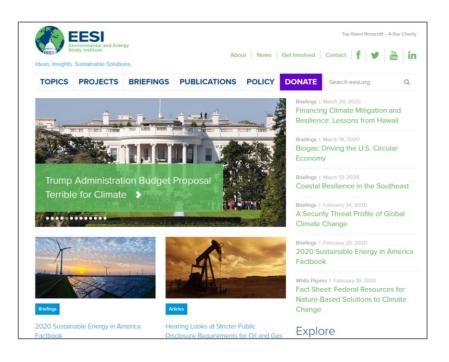
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 Source of non-partisan information on environmental, energy, and climate policies
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 In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop "on-bill financing" programs
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CONGRESSIONAL

CLIMATE CAMP

FRIDAY, JANUARY 29 | 2 PM EST BUDGET, APPROPRIATIONS, AND STIMULUS

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Congressional Climate Camp Series



FEBRUARY 26—Policy to Decarbonize High-emission Sectors

- MARCH 26—Lessons Learned from Past Congresses and Current Public Attitudes on Climate
- **APRIL 30--Policy for Mitigation and Adaptation Win-wins**

Webcasts and written summaries available at www.eesi.org

Audio-only excerpts released via The Climate Conversation podcast

Fact sheets, fact sheets, web articles, and web articles



Appropriations Process for the Department of Energy's Office of Energy Efficiency and Renewable Energy

Corrie Clark, Analyst in Energy Policy

January 29, 2021

Annual Appropriations Cycle

1. President submits budget to Congress.







5. President may sign or veto measure.



4. House and Senate confer to resolve differences.

2. Congress adopts budget resolution.



3. Congress considers appropriations measures.



For more information, see CRS R42388, The Congressional Appropriations Process: An Introduction.



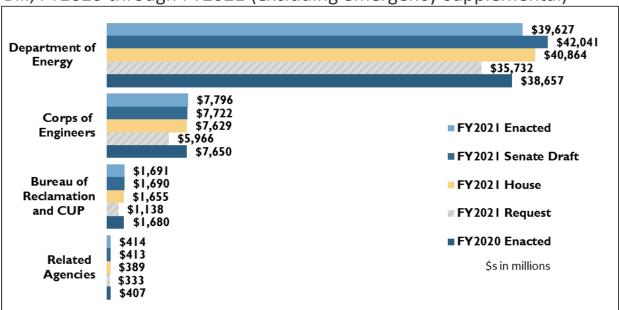
Appropriations Subcommittee Structure

- The current structure includes the following 12 subcommittees:
 - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies;
 - Commerce, Justice, Science, and Related Agencies;
 - Defense;
 - Energy and Water Development, and Related Agencies;
 - Financial Services and General Government;
 - Homeland Security;
 - Interior, Environment, and Related Agencies;
 - Labor, Health and Human Services, Education, and Related Agencies;
 - Legislative Branch;
 - Military Construction, Veterans Affairs, and Related Agencies;
 - State, Foreign Operations, and Related Programs; and
 - Transportation, Housing and Urban Development, and Related Agencies.



Energy and Water Development, and Related Agencies: Appropriations Overview

Funding for Major Components of Energy and Water Development Appropriations Bill, FY2020 through FY2021 (excluding emergency supplemental)

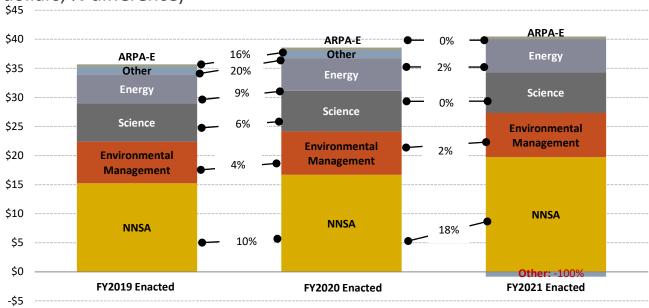


Sources: P.L. 116-260; FY2021 Senate Appropriations Committee majority draft explanatory statement; H.R. 7617; H.Rept. 116-449; P.L. 115-244 Division A Joint Explanatory Statement; FY2021 Budget Appendix; and agency budget justifications. Includes some adjustments.



Department of Energy: Appropriations Overview

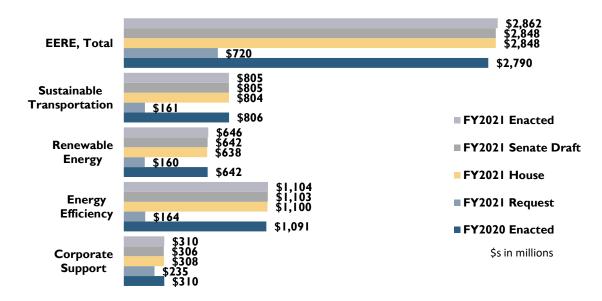
Comparison of DOE appropriations, FY2019 through FY2021 (in billions of current dollars, % difference)



Sources: FY2021 Senate Appropriations Committee majority draft explanatory statement; H.R. 7617; H.Rept. 116-449; P.L. 115-244 Division A Joint Explanatory Statement; FY2021 Budget Appendix; and agency budget justifications. Includes some adjustments.



Energy Efficiency and Renewable Energy (EERE)



Sources: P.L. 115-244 Division A Joint Explanatory Statement; FY2021 Budget Request vol. 3, part 1 (February 2020); P.L. 116-260 Division D Explanatory Statement; H.Rept. 116-449; FY2021 Senate Appropriations Committee majority draft explanatory statement. Includes some adjustments.



Select EERE FY2021 Funding Issues

Termination of energy efficiency grants:

- The FY2021 budget request proposed to terminate both the DOE Weatherization Assistance Program and the State Energy Program (SEP).
- The House-passed bill included funding for energy efficiency grants within Title III (DOE) and Title VI (emergency supplemental funding). Title VI would provide \$3.250 billion for weatherization grants, \$730 million for SEP grants, and \$2.250 billion for Energy Efficiency and Conservation Block Grants (EECBGs).
- The Senate Appropriations Committee majority draft bill and explanatory statement included funding increases for energy efficiency grants.
- The Consolidated Appropriations Act, 2021, Division D Explanatory Statement included funding increases for energy efficiency grants.



Select EERE FY2021 Funding Issues Continued

- Proposed reductions in energy research and development (R&D):
 - The FY2021 budget request proposed reductions to energy R&D programs including some EERE programs.
 - The House voted to maintain nearly level funding for energy R&D, and, in addition, to provide approximately \$2.9 billion in emergency funding (Title VI) for energy research, demonstration, and commercialization projects.
 - The Senate Appropriations Committee majority draft bill would maintain nearly level funding for energy R&D.
 - The Consolidated Appropriations Act, 2021, Division D Explanatory Statement maintained nearly level funding for energy R&D.



Select EERE FY2021 Funding Issues Continued

Renewable energy grid integration and storage initiatives:

- The Senate Appropriations Committee majority draft bill would have established a new funding line of \$40 million for Renewable Energy Grid Integration.
- The Consolidated Appropriations Act, 2021, Division D Explanatory Statement recommended \$40 million to be provided from across renewable energy programs to support renewable energy grid integration and storage initiatives.



QUESTIONS?



EERE Appropriations Overview

EERE FY2020 enacted appropriations and FY2021 appropriations status (in millions of dollars)

				•		
	FY2020 Enacted	FY2021 Request	FY2021 House	FY2021 Senate	FY2021 Enacted	
EERE, Total	2,790.0	719.6	2,848.0	2,848.0	2,861.8	
Sustainable Transportation	805.5	160.9	804.0	804.5	805.0	
Vehicle Technologies	396.0	74.4	396.0	410.0	400.0	
Bioenergy Technologies	259.5	44.5	258.0	244.5	255.0	
Hydrogen and Fuel Cell Technologies	150.0	42.0	150.0	150.0	150.0	
Renewable Energy	642.0	160.1	638.0	641.8	646.0	
Solar Energy	280.0	67.0	280.0	233.8	280.0	
Wind Energy	104.0	22.1	104.0	115.0	110.0	
Water Power	148.0	45.0	145.4	148.0	150.0	
Geothermal Technologies	110.0	26.0	108.5	105.0	106.0	
Renewable Energy Grid Integration	_	_	_	40.0	_	
Energy Efficiency	1,091.0	164.0	1,100.0	1,102.5	1,103.5	
Advanced Manufacturing	395.0	94.6	395.0	395.0	396.0	
Building Technologies	285.0	61.0	285.0	295.0	290.0	
Federal Energy Management Program	40.0	8.4	40.0	40.0	40.0	
Weatherization and	308.5	0	380.0	372.5	377.5	
Intergovernmental Program						
Corporate Support	309.5	234.6	308.2	305.5	309.5	
Use of Prior-Year Balances	_	0	0	-4.1	0	
Rescissions	-58.0	0	-2.2	-2.2	-2.2	

Sources: P.L. 115-244 Division A Joint Explanatory Statement; FY2021 Budget Request vol. 3, part 1 (February 2020); P.L. 116-260 Division D Explanatory Statement; H.Rept. 116-449; FY2021 Senate Appropriations Committee majority draft explanatory statement.



Congressional Climate Camp #1: What You Need to Know about Stimulus Spending

January 29, 2021



Karen G. Wayland, Ph.D. karen@kwenergystrat.com



What is Stimulus Funding?

- Tax or direct spending
- Relief vs. Stimulus



- Coronavirus Preparedness and Response Supplemental Appropriations (2020)
- Families First Coronavirus Response Act (2020)
- Coronavirus Aid, Relief, and Economic Security Act (CARES Act, 2020)
- Paycheck Protection Program and Health Care Enhancement Act (2020)
- American Recovery and Reinvestment Act (2009)

Stimulus Funding for Economic Growth

- Timely
- Targeted
- Temporary







American Recovery and Reinvestment Act

\$831 billion in tax cuts and direct spending

- \$288 billion in tax cuts
- \$224 billion in unemployment benefits, education, healthcare
- \$275 billion in federal contracts, grants and loans
- Requirement for 92% of spending in 3 years

Results

- 2009 Q1 growth: -6.7%, Q3 growth: 1.7%, Q4 growth: 3.8%
- 2010: 2.3 million jobs created
- 2009-2014: 6 million job-years created



ARRA Clean Energy Spending

	A	Through the end	d of 2009:Q4	Through the end of 2010:Q1				
	Appropriations ^a -	Obligations ^b	Outlays ^b	Obligations ^c	Outlays			
	Millions of Dollars							
Energy Efficiency	19,935	11,903	1,152	15,559	2,203			
Renewable Generation	26,598	2,028	1,994	2,970	2,934			
Grid Modernization	10,453	2,666	72	3,283	101			
Advanced Vehicles and Fuels Technologies	6,142	3,149	450	3,608	617			
Traditional Transit and High-Speed Rail	18,113	8,834	1,80 <mark>4</mark>	10,056	2,733			
Carbon Capture and Sequestration	3,400	425	4	963	13			
Green Innovation and Job Training	3,549	2,197	123	3,015	428			
Clean Energy Equipment Manufacturing	1,624	13	13	<mark>61</mark>	61			
Other	408	148	12	239	36			
Total ^d	90,222	31,363	5,624	39,754	9,127			

Sources: Appropriations estimates from the Office of Management and Budget (OMB); agency Financial and Activity Reports to OMB through March

Notes: a. Appropriations include estimated cost of tax provisions through 2019:Q3.

https://obamawhitehouse.archives.gov/blog/2010/04/21/impact-american-recovery-and-reinvestment-act-clean-energy-transformation

^{31, 2010;} simulations from the Department of the Treasury (Office of Tax Analysis) based on the FY2011 budget.

b. holude estimated costs of tax provisions through December 31, 2009.

c. hclude estimated costs of tax provisions through March 31, 2010.

d. Items may not add to total due to rounding.



ARRA Resources for States

- \$3.1 billion for State Energy Program
- \$5 billion Weatherization Assistance Program
- \$3.2 billion to Energy Efficiency and Conservation Block Grants
- \$4 billion for Public Housing Capital Fund
- \$2.25 billion for affordable housing block grants
- \$53.6 billion for State Fiscal Stabilization Fund (DoEd Green Schools)
- \$1.6 billion for Clean Renewable Energy Bonds
- \$54 million for State Energy Revolving Loan Funds (Green Banks)

See https://archive.epa.gov/recovery/web/pdf/local_guide_to_arra.pdf for more state and local programs



Categories of Smart Grid ARRA Funding

Smart Grid Investment Grant Projects Total Value of \$8 Billion

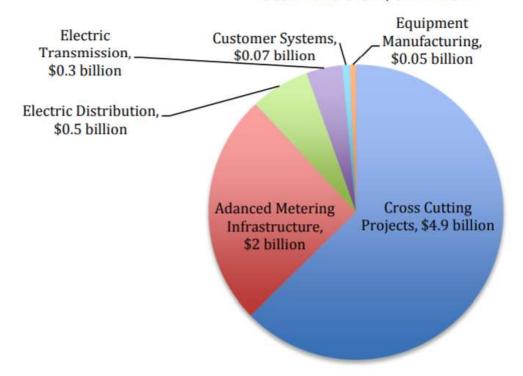


Chart from https://china.lbl.gov/sites/default/files/lbnl1007122.pdf

Five categories:

- Electric transmission and distribution technologies
- Customer systems
- Equipment manufacturing
- AMI
- Integrated systems

Eligible entities: electric utilities, load-serving entities, appliance and equipment manufacturers, and IT vendors. National Laboratories and Federally Funded Research and Development Centers were not eligible.

Project awards:

- \$100,000 to \$20,000,000 for phasor measurement unit (PMU) projects
- \$500,000 to \$200,000,000 for others



Grid Technologies Deployed

- 1,300 Phasor Measurement Units (PMUs)
- Over 16.6 million AMIs
- Smart relays that sense and recover from faults in the substation automatically
- Automated feeder switches that re-route power around problems
- \$185 Million in federal matching funds during 2009 to support energy storage projects valued at \$771 million
- 538 MW of new energy storage







https://www.sandia.gov/ess-ssl/projects/arra-funding/



ARRA Jobs Created

Table 3. Clean Energy Jobs by Category

	CEA Model ^a						
	Jobs Supported by Clean Energy Programs ^b		Clean Energy Jobs ^c		Total Job-Years through 2012 ^d		
	(2009:Q4)	(2010:Q1)	(2009:Q4)	(2010:Q1)			
Energy Efficiency	14,100	25,400	11,700	21,000	179,000		
Renewable Generation	26,700	33,800	22,800	26,600	192,900		
Grid Modernization	1,000	1,200	800	900	80,600		
Advanced Vehicles and Fuels Technologies	5,800	6,600	4,700	5,000	37,000		
Traditional Transit and High-Speed Rail	22,800	30,000	18,900	23,400	158,200		
Carbon Capture and Sequestration	100	200	22 	200	26,500		
Green Innovation and Job Training	1,700	5,700	1,500	5, 100	32,200		
Clean Energy Equipment Manufacturing	200	900	200	800	9,500		
Other	200	500	200	400	3,700		
Total ^e	72,400	104,100	60,800	83,300	719,600		

Sources: CEA analysis of appropriations estimates from the Office of Management and Budget (OMB); agency Financial and Activity Reports to OMB through March 31, 2010; simulations from the Department of the Treasury (Office of Tax Analysis) based on the FY2011 budget.

Notes: a. Job numbers are rounded to the nearest 100. A double dash indicates fewer than 50 jobs.

- b. This column includes induced jobs that might themselves not be considered clean energy jobs.
- c. Clean energy jobs are direct and indirect jobs created by clean energy spending.
- d. Job-years represent all jobs supported by the clean energy provisions in the ARRA through 2012:Q4. A "job-year" is one person employed for one year.
- e. Items may not add to total due to rounding.



Measuring Job Creation

Direct, Indirect and Induced Jobs



In federal stimulus, policy initiatives, and other investments



jobs for at least five years across every region and state (a total of 4.3 million job-years)



\$330 Billion
in economic activity (GDP)
over the next five years

ARRA: \$90 billion = **719,600** job years

New Stimulus: \$99 billion = 4.3 million job years

https://e2.org/reports/build-back-better-faster-how-federal-clean-energy-stimulus-can-restart-americas-economy/



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