

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

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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

	Appropriations ^a	Through the end of 2009:Q4		Through the end of 2010:Q1	
		Obligations ^b	Outlays ^b	Obligations ^c	Outlays ^c
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	1,804	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	61	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 31, 2010; simulations from the Department of the Treasury (Office of Tax Analysis) based on the FY2011 budget.

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

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

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

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

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



ARRA Resources for States



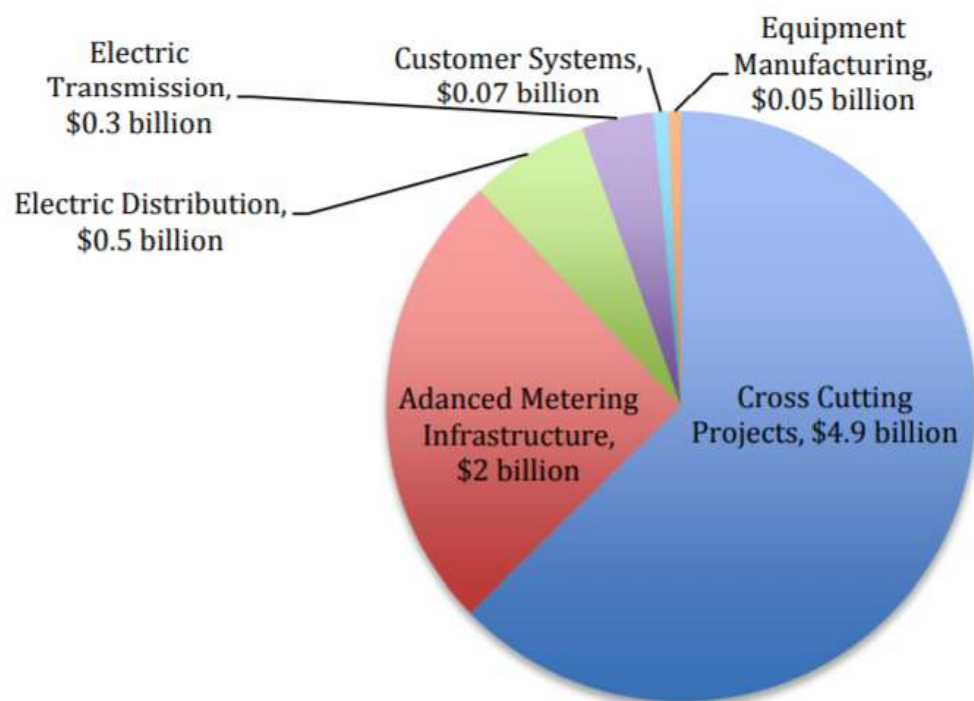
- \$3.1 billion for State Energy Program
- \$5 billion Weatherization Assistance Program
- \$3.2 billion to Energy Efficiency and Conservation Block Grants
- \$4 billion for Public Housing Capital Fund
- \$2.25 billion for affordable housing block grants
- \$53.6 billion for State Fiscal Stabilization 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



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				Total Job-Years through 2012 ^d
	Jobs Supported by Clean Energy Programs ^b		Clean Energy Jobs ^c		
	(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	—	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



If Congress Directs

\$99.2 BILLION

In federal stimulus, policy initiatives,
and other investments



U.S. Workers Get

860,300

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



America's Economy
Generates

\$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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DISCUSSION