

# HR 1 AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 ENERGY-RELATED FUNDING SUMMARY

UPDATED SEPTEMBER 14, 2009

CALIFORNIA ENERGY COMMISSION • WWW.ENERGY.CA.GOV/RECOVERY

## ENERGY AND CLIMATE PROGRAMS

National Total  
(Direct Allocations and Competitive)

**\$52,477,000,000**

California Share (AS OF SEPTEMBER 10, 2009) **\$1,794,525,294**

### Energy Efficiency & Conservation Block Grant Program

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

National Total

**\$3,200,000,000**

(Includes \$454 million to be awarded on a competitive basis)

California Share

**\$351,658,900**

(Total California award)

**\$49,600,000**

(Energy Commission allocation)

#### PROGRAM COMMENTS

These Block Grants go to states, local government and tribal government to support the development of energy efficiency and conservation strategies and programs, including energy audit programs and projects to install renewable energy projects at government buildings.

#### AWARDS

*September 14, 2009:* DOE awards California \$49.6 million for its EECBG Program. DOE also announces the \$454 million competitive funding portion of the Block Grants for the "Retrofit Ramp Up" Program targeted at community-scale building retrofits. DOE released its Request for Information for feedback on the EECBG program. Comments due September 28, 2009. More information: <http://doe-iips.pr.doe.gov/iips/faopor.nsf/1be0f2271893ba198525644b006bcobe/daf445e535572106852576310046fae5?OpenDocument>

*August 16, 2009:* DOE awards more than \$4 million in direct ARRA EECBG Grant funds to 108 California Indian tribes. For a listing of tribes and award amounts go to [<http://apps1.eere.energy.gov/tribalenergy/eeecbg.cfm>].

*July 24, 2009:* Los Angeles and San Diego were the first large California cities to receive a portion of their EECBG al-

location directly from DOE. Both received \$250,000. LA has been allocated more than \$37 million and San Diego more than \$12.5 million in total EECBG funds.

#### STATUS/ANNOUNCEMENTS

*August 16, 2009:* Committee Draft EECBG Guidelines posted and available for review and comment. Proposed adoption at the September 16, 2009 Commission business meeting. [<http://energy.ca.gov/recovery/blockgrant.html>]

*July 8, 2009:* Preliminary EECBG Guidelines available for public discussion and review. Available at [<http://energy.ca.gov/recovery/blockgrant.html>]

*June 25, 2009:* California Energy Commission filed application to DOE. [<http://energy.ca.gov/recovery/blockgrant.html>] Public statewide workshops to discuss preliminary guidelines scheduled for July 14 - 16, 2009. State application process *not* available yet. Sign up on List Serve for announcements. [[www.energy.ca.gov/recovery/blockgrant.html](http://www.energy.ca.gov/recovery/blockgrant.html)]

*March 26, 2009:* California's local governments were authorized for \$351.5 million to use for projects and programs to reduce total energy use. About \$302 million will go directly to large cities and counties. **Interested parties are encouraged to contact their local city or county for ways to partner for the Block Grant funding.** The Energy Commission has been authorized \$49.6 million and will make at least 60 percent of these funds (\$29.7 million) available to small cities and counties through a grant program. The remaining 40 percent can be expended at the Energy Commission's discretion for Energy Independence Security Act-related (EISA) activities. The DOE criteria for individual cities and counties block grants and the program guidelines for large cities and counties are available at: [[www.energy.ca.gov/recovery/blockgrant.html](http://www.energy.ca.gov/recovery/blockgrant.html)]

## State Energy Program

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$3,100,000,000</b>
California Share	<b>\$226,093,000</b> (Energy Commission allocation)

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### PROGRAM COMMENTS

The California Energy Commission was authorized for \$226 million on March 12, 2009, to support various programs in residential, commercial, transportation, industrial, institutional, and agricultural energy efficiency in renewable energy research and deployment and in transmission planning.

### STATUS/ANNOUNCEMENTS

*July 16, 2009:* Preliminary SEP Guidelines available for public discussion and review. Public workshops held on July 28, 29 and 31, 2009. Information and Preliminary Guidelines available at [<http://energy.ca.gov/recovery/blockgrant.html>]

*June 25, 2009:* DOE awards California 40 percent (\$90.4 million) of the allocation for a statewide effort to leverage funds for an energy efficiency retrofit program and cost effective clean energy systems for residential, commercial and industrial buildings and facilities. The program will also invest in green workforce training, creating more jobs focused on energy efficiency and clean energy sources including solar and wind. California initially was allocated (but has not yet received) 10% of the \$226 million to support SEP planning activities. After demonstrating successful implementation of its plan, the state will receive the remaining funding, for a total of \$226 million for the entire program. The California Energy Commission is developing the SEP guidelines and presented the draft guidelines in July public workshops. State application process *not* available yet

*May 5, 2009:* California Energy Commission filed application to DOE. [[www.energy.ca.gov/recovery/sep.html](http://www.energy.ca.gov/recovery/sep.html)] State application process *not* available yet.

*March 12, 2009:* State Energy Program monies allocated by the Department of Energy (DOE) to the states. Federal guidelines available at [[www.energy.ca.gov/recovery/sep.html](http://www.energy.ca.gov/recovery/sep.html)]. Application from California to the DOE due May 12, 2009.

## Energy Efficient Appliance Rebate Program & Energy Star® Recovery Funding

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$300,000,000</b>
California Share	<b>\$35,200,000</b>

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### PROGRAM COMMENTS

States may receive funding if they have a rebate program for Energy Star® products and submit an application to DOE. Program requires a 50% match share for administrative costs.

### AWARDS

*July 16, 2009:* DOE allocated \$35.2 million to California for a rebate for consumer purchases of new ENERGY STAR qualified home appliances. The Energy Commission will administer this program and must submit the state's final program design plan to DOE by October 15, 2009. For more information go to [[http://apps1.eere.energy.gov/news/daily.cfm/hp\\_news\\_id=178](http://apps1.eere.energy.gov/news/daily.cfm/hp_news_id=178)]

## Smart Grid

DOE OFFICE OF ELECTRICITY DELIVERY AND RELIABILITY

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National Total	<b>\$4,500,000,000</b>
California Share	<b>\$13,252,526</b>

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### COMPETITIVE & DIRECT ALLOCATIONS

### PROGRAM COMMENTS

The Smart Grid Investment Program will provide grants up to \$200 million to support research and development of smart grids and regional, utility-scale energy storage and synchrophaser demonstrations. Proposed 50% cost match for private smart grid demonstration projects. Eligible applicants include electric utilities, companies that distribute or sell electricity and appliance and equipment manufacturers.

### AWARDS

*August 12, 2009:* DOE awards nearly \$38 million to improve energy emergency preparedness. California is awarded \$3.57 million.

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July 28, 2009: Energy Commission submitted application to DOE.

July 20, 2009: DOE allocated \$57 million for 8 projects to demonstrate advanced smart grid projects. California company, *Zenergy Power Inc*, San Francisco, received more than \$8.1 million to design, test and demonstrate high temperature superconducting fault current limiters.

June 15, 2009: DOE allocated the California Public Utilities Commission over \$1.68 million to oversee new electricity projects. The California Energy Commission was allocated \$3.57 million. Applications due July 30.

#### STATUS/ANNOUNCEMENTS

June 25, 2009: DOE issued the final Funding Opportunity Notices for \$3.9 billion to invest in Smart Grid and transmission technologies: Smart Grid Investment (DE-FOA-0000058) and Smart Grid Demonstrations (DE-FOA-0000036). [[www.energy.gov/recovery/funding.htm](http://www.energy.gov/recovery/funding.htm)]

June 15, 2009: DOE issued several ARRA-related funding announcements including \$60 million for six cooperative agreement awards for regional and interconnection transmission analysis and planning (DE-FOA-0000068). Applications due August 14; \$20 million direct award for transmission and demand analysis by DOE's national laboratories and the North American Electric Reliability Corporation; \$46 million direct allocation to states for grants to support state public utility commissions to oversee new electricity projects (DE-FOA-0000100). The California Public Utilities Commission was allocated over \$1.68 million. Applications due August 31; \$39.5 million direct allocation to states to support energy assurance capabilities for states improving emergency preparedness plans and ensuring resiliency of electrical grid (DE-FOA-0000091). The California Energy Commission was allocated \$3.57 million. Applications due July 30. [[www.energy.gov/recovery/funding.htm](http://www.energy.gov/recovery/funding.htm)]

May 6, 2009. Final solicitation notice expected summer.

April 16, 2009: Notice of Intention (NOI) was re-issued with a draft Funding Opportunity Announcement for Smart Grid Demonstrations.

## Advanced Battery Manufacturing Research

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$2,000,000,000</b>
California Share	NO DIRECT AWARDS

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#### PROGRAM COMMENTS

Competitive grants for advanced battery research, development, demonstration and deployment to support next-generation plug-in hybrid electric vehicles (PHEV) and their advanced battery components. Of the \$2 billion, \$1.5 billion will go to U.S. manufacturers to produce high-efficiency batteries and their components; \$500 million for U.S. manufacturers to produce other components for electric vehicles, such as electric motors. Purchasers of plug-in hybrids will be able to claim a tax credit of up to \$7,500.

#### AWARDS

August 5, 2009: DOE awards \$2 billion to 30 new advanced battery and electric drive projects. List of awards at: [[http://www1.eere.energy.gov/recovery/pdfs/battery\\_awardee\\_list.pdf](http://www1.eere.energy.gov/recovery/pdfs/battery_awardee_list.pdf)]

#### STATUS/ANNOUNCEMENTS

March 19, 2009: DOE solicitation (DE-FOA-0000026) for Electric Drive Vehicle Battery and Component Manufacturing Initiative released. Due May 19, 2009.

## Transportation Electrification

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$400,000,000</b>
California Share	<b>\$45,900,000</b>

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#### PROGRAM COMMENTS

Funds could be used by ports for portside electric power for ships and electrification of drayage trucks, truck-stop electrification, and airport support equipment electrification. Includes plug-in electric drive program as authorized in Section 131 of the EISA. Recipients will likely be states, local governments, port authorities, and metropolitan transportation authorities.

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**AWARDS**

August 5, 2009. DOE awards \$400 million for 18 projects to purchase plug-in hybrid and all-electric vehicles for test demonstrations and provide education and workforce training. Two California organizations receive funding:

*South Coast Air Quality Management District - Diamond Bar* (\$45.4 million) and *City College of San Francisco* (\$500,000)

**STATUS/ANNOUNCEMENTS**

March 19, 2009: DOE solicitation for Transportation Electrification released (DE-FOA-000028). Applications to DOE due May 13, 2009. [www.energy.gov/recovery/funding.htm]

## Diesel Emissions Reduction Act

U.S. ENVIRONMENTAL PROTECTION AGENCY

National Total	<b>\$300,000,000</b>
California Share	<b>\$27,133,971</b>

COMPETITIVE & DIRECT ALLOCATIONS

**PROGRAM COMMENTS**

Diesel truck and equipment owners can retrofit or replace equipment, and replace school buses, marine engines and locomotives. arra increases funding for an existing program through the U.S.EPA's National Clean Diesel Funding Assistance Program. Funding split 70% (National) and 30% (State). National program (\$206 million) is allocated among three national programs areas. State program funding is \$88 million. Information on any solicitations are available at: [www.energy.gov/recovery/funding.htm]

**AWARDS**

July 22, 2009: US EPA awards the *California Air Resources Board* \$1.73 million to clean up 80 school buses in California.

July 8, 2009: US EPA awards seven California entities \$25.4 million for replace, repower and retrofit engines in buses, heavy-duty trucks and other heavy-duty vehicles.

- California Department of Transportation* (\$951,431)
- California Air Resources Board (South Coast)* (\$8,888,888)
- Port of Los Angeles* (\$1,991,750)
- Port of Long Beach* (\$4,008,250)
- San Diego Air Pollution Control District* (\$1,563,652)
- San Joaquin Valley Unified APCD* (\$6,000,000)
- Bay Area Air Quality Management District* (\$2,000,000)

**STATUS/ANNOUNCEMENTS**

*Solicitations Released* (EPA-ARRA-OAR-OTAQ-09-06, EPA-ARRA-OAR-OTAQ-09-05 and EPA-ARRA-OAR-OTAQ-09-04): Applications requesting U.S.EPA funding between \$500,000 to \$10 million will be accepted for Region 9 (includes California). Application deadlines vary between April 28 – May 5, depending on program.

## Energy Weatherization Assistance Program

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

National Total	<b>\$5,000,000,000</b>
California Share	<b>\$185,811,061</b>
(Department of Community Services & Development allocation)	

**PROGRAM COMMENTS**

Funds are distributed to states through the existing DOE Weatherization Assistance Program formula to provide additional free installation of weatherization measures that increase the energy efficiency of dwellings occupied by low-income persons. Administered by the California Department of Community Services & Development (CSD). [www.csd.ca.gov/recovery/recovery.aspx]

Client eligibility is increased to 200 percent of the federal poverty level and the dwelling assistance cap would be increased from \$2,500 to \$6,500 and allows new weatherization assistance for homes that were weatherized as recently as 1994. A list of energy service providers that perform weatherization assistance services is available at: [www.csd.ca.gov/programs/energy%20service%20providers.aspx]

Information on any solicitations are available at: [ www.energy.gov/recovery/funding.htm ]

**STATUS/ANNOUNCEMENTS**

June 18, 2009: DOE awarded California \$74.3 million to leverage a network of over 50 non-profits, local governments and community action groups to perform weatherization services to over 50,000 homes. After demonstrating successful implementation of this program, California will receive the remaining \$92 million in funding.

May 12, 2009: CSD submitted the state's plan to DOE. Anticipated that DOE will approve plan and issue 40% of

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the funds by July 12, 2009. CSD to issue local assistance contracts by July 12, 2009.

March 12, 2009: DOE authorized weatherization assistance monies to states.

## Alternative Fueled Vehicles Program (CLEAN CITIES)

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$300,000,000</b>
California Share	<b>\$31,867,908</b>

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### PROGRAM COMMENTS

Competitive grant program for state and local governments to purchase alternative fuel vehicles and infrastructure. Authorized under Section 721 of the EAct of 2005. Anticipated award size is \$5 million minimum to \$15 million maximum for Alternative Fuel & Advanced Technology Vehicles Pilot Program (Program Funding Area of Interest – 4).

### AWARDS

August 26, 2009: DOE awarded three California entities almost \$32 million for projects to deploy alternative-fueled heavy duty vehicles and build infrastructure.

*Southern California Assoc. of Gov't* (\$6,917,200)

*San Bernardino Associated Gov'ts* (\$9,950,708)

*South Coast Air Quality Management District* (\$15 million)

### STATUS/ANNOUNCEMENTS

March 10, 2009: Alternative Fuel and Advanced Technology Vehicles Pilot Program solicitation released (DE-PS26-09NT01236-00). Applications to DOE due May 29, 2009 (Round 1) and Sept 30, 2009 (Round 2). DOE anticipates notifying Round 1 applicants by August 2009 with awards by September 2009. Round 2 applicants will be notified by December 2009 with awards by 2010.

## General Services Administration (GSA) Federal Buildings & Vehicle Fleet

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National Total	<b>\$5,000,000,000</b>
California Share	<b>\$29,774,545</b>

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### PROGRAM COMMENTS

Program includes energy efficiency upgrades for ready-to-go federal building projects and fleet upgrades. No determination which federal buildings might be eligible for funding. Allocations of \$300 million for replacing federal fleet with more efficient vehicles and \$4.5 billion to convert

General Services Administration facilities to high-performance green buildings.

### AWARDS

July 30, 2009: GSA allocated a \$1 billion to 120 federal buildings for energy, green upgrades. Three buildings in California received funding totalling more than \$29.7 million:

*Bakersfield Courthouse* (\$80,441), *Los Angeles Federal Building* (\$13,689,206), *Otay Mesa, US Land Port of Entry* (\$16,004,898)

### STATUS/ANNOUNCEMENTS

GSA announced plans to buy and deliver \$300 million worth of energy-efficient and alternative fuel vehicles using ARRA funds.

## Renewable Energy Loan Guarantees

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$6,000,000,000</b>
California Share	COMPETITIVE

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### PROGRAM COMMENTS

Competitive loans for renewable power generation (including wind, solar, biomass, geothermal, and methane gas) and advanced transmission projects that avoid and lower air pollutants and green house gas emissions.

### STATUS/ANNOUNCEMENTS

July 24, 2009: DOE announced it would provide up to \$2 billion in subsidy costs to support loans for renewable

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energy and electric power transmission projects (DE-FOA-0000140). Initial applications due September 14 and November 13, 2009. Up to \$750 million in subsidy costs available for large transmission infrastructure projects (DE-FOA-0000132). Initial applications due September 14 and October 26, 2009.

## Employment and Training Administration

US DEPARTMENT OF LABOR

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National Total	<b>\$500,000,000</b>
California Share	DIRECT ALLOCATIONS

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### PROGRAM COMMENTS

The Department of Labor received \$3.9 billion in ARRA funds to be directed towards Workforce Investment Act (WIA) programs with \$500 million allocated as competitive grants for research, labor exchange, and job training projects that prepare workers for careers in energy efficiency and renewable industry industries.

### STATUS/ANNOUNCEMENTS

*June 24, 2009:* Department of Labor announced five Funding Opportunity Notices: \$50 million for State Labor Market Information Improvement; \$100 million for Energy Training Partnerships; \$150 million for Pathways Out of Poverty; \$190 million for State Energy Sector Partnerships and Training and \$5 million for Green Capacity Building. Applications are due for the various FOAs between August 5 - October 20, 2009. [<http://www.dol.gov/opa/media/press/eta/eta20090725.htm>]

*March 18, 2009:* Department of Labor issued policy guidance and direction regarding the ARRA funding for activities authorized under the Workforce Investment Act of 1998 (WIA) and the Wagner-Peyser Act. The letter also provided specific instructions regarding the requirement for states to modify their WIA and Wagner-Peyser Strategic State Plans.

## Bonneville and Western Power Administration

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National Total	<b>\$6,500,000,000</b>
California Share	N/A

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### PROGRAM COMMENTS

Increased loan and borrowing authority for new construction and upgrading of electric power transmission lines and related facilities. Western Power Administration to receive \$3.25 billion in loans. Bonneville Power Administration to receive \$3.25 billion in borrowing authority.

### STATUS/ANNOUNCEMENTS

Direct Loans to Bonneville and Western Power Administration.

## Applied Research, Development, Demonstration, and Deployment Activities

DOE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

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National Total	<b>\$2,500,000,000</b>
California Share	<b>\$13,960,383</b>

COMPETITIVE & DIRECT ALLOCATIONS

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### PROGRAM COMMENTS

Competitive grants available for energy efficiency and renewable energy research, development, demonstration; and deployment to universities, business, and national laboratories. Includes a minimum of \$800 million for biomass projects, \$400 million for geothermal projects and \$50 million for Information and Communications Technology. The remaining funds can be used for other energy efficiency and renewable energy research.

Information on any solicitations are available at:  
[ [www.energy.gov/recovery/funding.htm](http://www.energy.gov/recovery/funding.htm) ]

### AWARDS

*July 16, 2009:* DOE awarded almost \$14 million to 28 new wind energy projects (\$12.8 million in ARRA funds). Three California companies received a total of \$595,385:

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*Alpha Star Corporation - Long Beach (\$200,383 - ARRA)*  
*Anatom, Inc - Sunnyvale (\$200,000 - ARRA)*  
*V&R Energy Systems Research - LA (\$195,002 - non ARRA)*

*June 11, 2009* DOE awarded \$22 million to 24 solar projects from the May \$117.6 million allocation for solar. Five California companies received a total of \$9.26 million:

*Palo Alto Research Center, Inc., Palo Alto (\$150,000)*  
*Solar Red, San Jose (\$150,000)*  
*Sierra Solar Power, Fremont (\$3 million)*  
*Silicon Genesis Corporation, San Jose (\$3 million)*  
*XeroCoat, Redwood City (\$2.96 million)*

*April 29, 2009:* DOE awarded \$193 million to support wind energy projects. The National Renewable Energy Laboratory (NREL) was directly awarded \$100.7 million for its facility and infrastructure improvements including installing solar, geothermal, and fuel cells and upgrading the current buildings to maximize energy efficiency measures. The National Wind Technology Center was awarded \$10 million to support the wind industry through testing current and new technologies. Up to three partnerships between universities and the industry can compete for \$24 million to establish research and development programs to advance design and performance. Another \$43 million is apportioned for wind turbine drive train R&D and testing however it is unclear if this will be awarded by competitive bid or direct allocations.

*April 15, 2009:* DOE awarded \$41.9 million to 13 projects nation-wide to accelerate and commercialize fuel cell technology. Two California companies received \$4.3 million: Jadoo Power – Folsom (\$1.8 million) and PolyFuel – Mountain View (\$2.5 million).

#### **STATUS/ANNOUNCEMENTS**

*July 15, 2009:* DOE announced FOA (DE-FOA-0000123) for \$85 million to for partnership that will develop algae-based biofuels and advanced compatible biofuels. Applications due September 15, 2009. [[http://www1.eere.energy.gov/biomass/news\\_detail.html?news\\_id=12670](http://www1.eere.energy.gov/biomass/news_detail.html?news_id=12670)]

*July 15, 2009:* DOE announced FOA (DE-FOA-0000122) for \$21.4 million to support planning and installation of utility-scale community renewable energy projects in up to four communities nationwide. DOE expects applicants to have matching funds from public and private sector. Funding restricted to state and local governments and Native American Tribes. Applications due September 3, 2009. More information [[http://apps1.eere.energy.gov/news/daily.cfm/hp\\_news\\_id=185](http://apps1.eere.energy.gov/news/daily.cfm/hp_news_id=185)]

*June 30, 2009:* DOE announced FOA (DE-FOA-0000120) of \$32 million for Hydroelectric Facility Modernization. Eligibility is restricted industry and industry-led partnerships only. Letters of intent due July 22 and applications due August 20, 2009.

*June 29, 2009:* DOE announced the specific allocations for the \$346 million for Energy Efficiency Building Technologies: \$100 million for Advanced Building Systems Research; \$70 million for Residential Buildings Development and Deployment; \$53.5 million for Commercial Buildings Initiatives; \$72.5 million for Buildings and Appliance Market Transformation and \$50 million for Solid State Lighting Research and Development. DOE also released six Funding Opportunity Notices for these funding areas. To view the FOAs (DE-FOA-0000118, DE-FOA-0000115, DE-FOA-0000099, DE-FOA-0000082, DE-FOA-0000057, DE-FOA-0000055) go to [<http://www.energy.gov/recovery/funding.htm>] Application deadline August 10 - September 1, 2009.

*June 23, 2009:* DOE released the Funding Opportunity Notices (DE-FOA-0000112) for \$45 million for the development of a wind drive train testing facility. Applications due August 6, 2009. [<http://www.energy.gov/recovery/funding.htm>]

*June 11, 2009:* DOE re-issued a \$240 million Funding Opportunity Announcement from the Vehicle Technologies Office for high efficiency vehicles that will include \$110 million of ARRA funding (DE-FOA-0000079). The solicitation focuses on increasing efficiency of heavy-duty commercial trucks (Class 8) and advanced technology power trains for light-duty trucks. Applications are to due September 9, 2009. More information is available at: [[www1.eere.energy.gov/vehiclesandfuels/financial/solicitations\\_detail.asp?sol\\_id=279](http://www1.eere.energy.gov/vehiclesandfuels/financial/solicitations_detail.asp?sol_id=279)].

DOE will invest up to \$27 million to develop the nation's solar installation training infrastructure. DOE will fund this effort using \$5 million from the American Recovery and Reinvestment Act as well as \$22 million in annual appropriations. The funding will focus on a single national organization that will facilitate the development and distribution of model training curricula, best practices in training, and information on solar career pathways and a select number of regional training providers that will offer solar instructors advanced courses on solar technologies, instructional design, and course development. [[www.oe.energy.gov/news\\_room\\_and\\_events/1229.htm](http://www.oe.energy.gov/news_room_and_events/1229.htm)]

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*June 2, 2009:* DOE issued Funding Opportunity Announcement (DE-FOA-0000090) for \$24 million allocated for developing a consortia between universities and industry for critical wind energy challenges. Letters of intent due to DOE by June 16 and applications by July 30, 2009.

DOE also will fund \$50 million to advance commercialization of renewable heating and cooling systems (geothermal heat pumps) focusing in three areas: Innovative Technology Demonstrations, Life Cycle Cost Tools and National Certification and Accreditation (DE-FOA-0000116).

*June 1, 2009:* DOE will fund \$256 million to support energy efficiency improvements for manufacturing, and information technology industries: \$156 million for combined heat and power, district heating systems and efficient industrial equipment (DE-FOA-0000044); \$50 million RD&D for advanced clean energy technologies (DE-FOA-0000075); and \$50 million for improved information and communications technologies (DE-FOA-0000107). Other FOAs are: DE-FOA-00092

*May 27, 2009:* DOE released funding allocations totaling almost \$468 million for solar (\$117.6 million) and geothermal (\$350 million) energy projects. Geothermal: \$140 million in competitive solicitations for Geothermal Demonstration Projects; \$80 million in competitive solicitations and direct awards for Geothermal System R&D; \$100 million in competitive solicitations for Innovative Exploration Techniques (DE-FOA-0000109) and \$30 million in competitive solicitations to labs and universities for Geothermal Data System. Solar Market Transformation: \$51.5 million for Photovoltaic Technology Development (no solicitation yet); \$40.5 million competitive solicitations for Solar Energy Deployment and \$25.6 million competitive solicitations and direct awards to national labs for Concentrating Solar Power R&D. Solar Funding announcements: DE-FOA-0000085 and DE-FOA-0000078.

[[www.energy.gov/recovery/funding.htm](http://www.energy.gov/recovery/funding.htm)]

*May 5, 2009:* DOE announces \$786.5 million for biofuels research and commercialization. Funding is allocated to four main areas: \$480 million solicitation for integrated pilot- and demonstration-scale biorefineries (DE-FOA-0000096), \$176.5 million for commercial-scale biorefinery projects, \$110 million for research on key program areas, \$20 million for ethanol research. Notice of intent to apply to DOE due May 29, 2009 and proposals submitted by June 29, 2009.

## Science & Research Facilities

DOE OFFICE OF SCIENCE

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National Total	<b>\$1,200,000,000</b>
California Share	<b>\$208,510,000</b>

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COMPETITIVE & DIRECT ALLOCATIONS

### PROGRAM COMMENTS

Funds are allocated for accelerated construction of key scientific facilities, laboratory infrastructure, and expanded research efforts for the ten National Laboratories in eight states (Ames, Argonne, Brookhaven, Fermilab, Jefferson, Lawrence Berkeley, Oak Ridge, Pacific Northwest, and Stanford Linear Accelerator).

### AWARDS

*August 6, 2009:* DOE Office of Science awarded \$377 million to fund 46 Energy Frontier Research Centers (\$277 million is direct ARRA funds). Seven California EFRCs will receive total of \$108 million in combined ARRA and DOE funding:

*University of Southern California (\$12.5 million) and UC Santa Barbara (\$19 million) both ARRA funded. Lawrence Berkeley National Laboratory (\$20 million), Stanford (\$20 million), UCLA (\$11.5 million), California Institute of Technology (\$15 million), UC Berkeley (\$10 million).*

*August 4, 2009:* DOE Office of Science awarded more than \$327 million for science research to national lab's and universities. The following California laboratories received a total of \$61.21 million in funding:

*Lawrence Berkeley National Laboratory (\$37.8 million)  
SLAC National Accelerator Laboratory (\$21.8 million)  
Lawrence Livermore National Laboratory (\$810,000)  
Sandia National Laboratories (\$800,000)*

*March 23, 2009:* California's Lawrence Berkeley Lab was awarded \$115.8 million and the Stanford Accelerator \$68.3 million for new buildings and existing facility retrofits.

### STATUS/ANNOUNCEMENTS

*April 27, 2009:* DOE Office of Science will invest \$777 million in 46 Energy Frontier Research Centers over the next five years using regular appropriations and ARRA funding. Although funding specifics have not been released, each of these EFRCs will receive between \$2 million–\$5 million annually. California has seven centers (UCLA, UC Santa Barbara, UC Berkeley, Stanford, Lawrence Berkeley, California Institute of Technology, and USC). Two of these, USC and

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UC Santa Barbara, will receive ARRA funding.

*March 23, 2009:* DOE allocated \$1.2 billion for science and research to national laboratories and universities. California's Lawrence Berkeley Lab was awarded \$115.8 million and the Stanford Accelerator \$68.3 million for new buildings and existing facility retrofits.

## Clean Fossil Energy

DOE OFFICE OF FOSSIL ENERGY

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National Total	<b>\$3,400,000,000</b>
California Share	<b>\$308,000,000</b>

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### PROGRAM COMMENTS

Competitive grants for carbon capture and sequestration technology projects. Recipients are to be determined but likely will include states, utilities and private entities and partnerships. DOE laboratories will likely receive direct allocations.

### AWARDS

*July 1, 2009:* DOE awards up to \$408 million to two companies from the third round of the Clean Coal Power Initiative (CCPI) to support innovative demonstrations of advanced coal technology to advance carbon capture and storage. California company:

*Hydrogen Energy International LLC*, will receive \$308 million to design, construct, and operate an integrated gasification combined cycle power plant that converts coal and coke into hydrogen and CO<sub>2</sub>. [[http://www.fossil.energy.gov/news/techlines/2009/09043-DOE\\_Announces\\_CCPI\\_Projects.html](http://www.fossil.energy.gov/news/techlines/2009/09043-DOE_Announces_CCPI_Projects.html)]

### STATUS/ANNOUNCEMENTS

*June 29, 2009:* DOE released FOA (DE-FOA-0000032) for Geologic CO<sub>2</sub> Sequestration Training and Research for universities, colleges and college-affiliated research institutions. Application due August 11, 2009. [<http://www.energy.gov/recovery/funding.htm>]

*June 9, 2009:* DOE reopened and amended the original Funding Opportunity Notice (DE-FOA-0000042) from 2008 adding \$800 million for Clean Coal Power Initiative Round 3 to demonstrate advanced clean coal-based technologies that captures CO<sub>2</sub> emissions and put them to beneficial use. Letters of intent due July 24 and Applications due August 24, 2009

*June 8, 2009:* DOE released Funding Opportunity Announcement (DE-FOA-0000015): Almost \$1.4 billion for carbon capture and sequestration from industrial sources and \$100 million for beneficial CO<sub>2</sub> uses. Minimum cost share is 20%. Application due August 7, 2009.

*June 2, 2009:* DOE issued FOA: \$50 million for site selection of promising geologic formations to store CO<sub>2</sub> (DE-FOA-0000033). Applications due August 3; \$20 million for geologic CO<sub>2</sub> sequestration technology training (DE-FOA-0000080). Applications due July 22.

*May 15, 2009:* DOE will be posting Notices of Intent to issue \$2.4 billion to advance RD&D in these areas of Carbon Capture and Storage Projects: \$1.52 billion for Industrial Carbon Capture & Storage for a competitive solicitation for large scale CCS from industrial sources to focus on beneficial CO<sub>2</sub> reuse and CO<sub>2</sub> capture from the atmosphere (this includes \$20 million to a facility in Washington state and \$70.6 million to a host facility in Arizona); \$800 million for Clean Coal Initiative to expand new coal technologies; \$50 million for Geologic Sequestration Site Characterization for competitive solicitations to differentiate 10 geologic formations in the US; and \$20 million for Geologic Sequestration Training and Research focusing on educating and training future generation of geologists.

*February:* Notice of Intention (NOI) released in late February, then retracted.

## Environmental Clean-up

DOE OFFICE OF ENVIRONMENTAL MANAGEMENT

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National Total	<b>\$6,000,000,000</b>
California Share	<b>\$62,100,000</b>

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### PROGRAM COMMENTS

Funding is specifically used to accelerate environmental cleanup work in 12 states – including a major investment in California. Projects identified for funding will focus on accelerating cleanup of soil and groundwater, transportation and disposal of waste, and cleaning and demolishing former weapons complex facilities.

### STATUS/ANNOUNCEMENTS

*March 31, 2009:* Two California science facilities were allocated a total of \$62.1 million for site clean up. The Energy Technology Engineering Center (ETEC) in Ven-

tura County was allocated \$54 million for the U.S. EPA to conduct radiological assessments necessary to complete an environmental impact statement and enable completion of site cleanup. The Stanford Linear Accelerator Center was awarded \$8.1 million to accelerate excavation and disposal of contaminated soil and accelerate installation of ground-water treatment systems.

## Projects Agency – Energy (ARPA-E)

DOE OFFICE OF SCIENCE

National Total	<b>\$400,000,000</b>
California Share	COMPETITIVE & DIRECT ALLOCATIONS

### PROGRAM COMMENTS

The ARPA-E supports innovative high-risk, high pay-off energy research that accelerates traditional and alternative energy sources and energy efficiency that are not likely to be pursued independently.

### STATUS/ANNOUNCEMENTS

*April 27, 2009:* The ARPA-E solicitation (DE-FOA-0000065) was released for \$400 million. The awards are expected to be between \$500,000 and \$20 million and cost share will range from 20 percent to 50 percent. Concept papers are due between May 12 and June 2, 2009. Successful concept applicants will then submit a full proposal.

## Transit Investments for Greenhouse Gas & Energy Reduction (TIGGER)

US DEPARTMENT OF TRANSPORTATION  
(FEDERAL TRANSIT ADMINISTRATION)

National Total	<b>\$100,000,000</b>
California Share	COMPETITIVE

### PROGRAM COMMENTS

Transit agencies can fund capital projects that reduce energy use and/or greenhouse gas emissions. Grants from \$2 million – \$25 million.

### STATUS/ANNOUNCEMENTS

Grant announcement (FTA-2009-0013) released. Proposals to the Federal Transit Administration due May 22, 2009.

## US Department of Agriculture

National Total	<b>\$57,000,000</b>
California Share	<b>\$4,748,000</b>

### PROGRAM COMMENTS

Grants available for projects that use wood-to-energy and biomass that promote the development of biofuels and reduce hazardous fuels that increase wildland fires.

### AWARDS

*July 22, 2009:* The USDA and DOE jointly awarded \$6.3 million in non-ARRA funds for biofuels research. The California USDA - ARS Western Regional Center (Albany, CA) received \$1.3 million.

*June 11, 2009:* The USDA announced \$57 million in funding for a variety of wood-to-energy grants and biomass projects. California was awarded \$4.5 million to restart an existing cogeneration facility in Humboldt county and \$248,000 to re-open a closed cogeneration facility in Shasta county.

## Military Facilities

US DEPARTMENT OF DEFENSE

National Total	<b>\$1,900,000,000</b> (energy related)
California Share	<b>\$245,437,000</b> (approximately) DIRECT ALLOCATIONS

### PROGRAM COMMENTS

The Department of Defense received \$7.4 billion in ARRA funds with approximately \$1.9 billion earmarked for energy efficiency improvements and renewable projects for military facilities. The funds for energy projects will be distributed in these areas: almost \$1.4 billion for Facilities Sustainment, Restoration & Modernization; \$100 million for Military Construction; \$120 million for Energy Conservation Improvement; and \$300 million for Near-Term Energy Efficiency Demonstration and RD&D. The DOD expects

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that 80% of these ARRA funds will be awarded on a competitive basis to help stimulate the economy.

**AWARDS**

*May 15, 2009:* The DOD finalized its ARRA funding plan, allocating more than \$245 million to 29 California military facilities for energy improvements and renewable projects in these areas: \$172.8 million for Facilities Sustainment, Restoration & Modernization; \$10.7 million for Military Construction; \$61.9 million for Energy Conservation Improvement. Funding for Near-Term RD&D has not been awarded yet.

# ENERGY-RELATED TAX CREDITS AND FINANCIAL INCENTIVES

UPDATED SEPTEMBER 10, 2009

CALIFORNIA ENERGY COMMISSION • WWW.ENERGY.CA.GOV/RECOVERY

## Tax Credits for Energy-Efficient Improvements to Existing Homes

Final ACT Estimates **\$2,300,000,000**

### COMMENTS

The bill extends the tax credits for improvements to energy-efficient existing homes through 2010. Under current law, individuals are allowed a tax credit equal to 10% of the amount paid or incurred by the taxpayer for qualified energy efficiency improvements installed during the year. **For 2009 and 2010, the bill increases the amount of the tax credit to 30% of the amount paid or incurred by the taxpayer for qualified energy efficiency improvements during the year. The bill also eliminates the property-by-property dollar caps on this tax credit and provides an aggregate \$1,500 cap on all property qualifying for the credit. The bill updates the energy-efficiency standards of the property qualifying for the credit.** [[http://www.energystar.gov/index.cfm?c=tax\\_credits.tx\\_index](http://www.energystar.gov/index.cfm?c=tax_credits.tx_index)]

## Long-term Extension and Modification of Renewable Energy Production Tax Credit

Final ACT Estimates **\$13,143,000,000**

### COMMENTS

The bill extends the placed-in-service date for wind facilities for three years (through Dec. 31, 2012). The bill also extends the placed-in-service date for three years (through Dec. 31, 2013) for certain other qualifying facilities: closed-loop biomass, open-loop biomass, geothermal, small irrigation, hydropower, landfill gas, waste-to-energy, and marine renewable facilities.

## Temporary Election to Claim the Investment Tax Credit in Lieu of the Production Tax Credit

Final ACT Estimates **\$285,000,000**

### COMMENTS

Under current law, facilities that produce electricity from solar resources are eligible to take a 30% investment tax credit in the year that the facility is placed in service. Facilities that produce electricity from wind, closed-loop biomass, open-loop biomass, geothermal, small irrigation, hydropower, landfill gas, waste-to-energy, and marine renewable resources are eligible for a production tax credit. The production tax credit is payable over a 10-year period. Because of current market conditions, it is difficult for many renewable projects to find financing due to the uncertain future tax positions of potential investors in these projects. The bill allows facilities to elect to claim the investment tax credit in lieu of the production tax credit.

## Qualified Energy Conservation Bonds

Final ACT Estimates **\$803,000,000**

### COMMENTS

The bill authorizes an additional \$2.4 billion of qualified energy conservation loans and grants to finance state, municipal and tribal government programs, and initiatives designed to reduce greenhouse gas emissions. The bill would also clarify that qualified energy conservation bonds may be issued to make loans and grants for capital expenditures to implement green community programs. The bill also clarifies that qualified energy conservation bonds may be used for programs in which utilities provide ratepayers with energy-efficient property and recoup the costs of that property over an extended period of time.

## Removal of Dollar Limitations on Certain Residential & Business Energy Credits

Final ACT Estimates **\$872,000,000**

### COMMENTS

Under current law, businesses are allowed to claim a 30% tax credit for qualified renewable energy system. Individuals are allowed to claim a 30% tax credit for qualified solar water heating property (capped at \$2,000), qualified small wind energy property (capped at \$500 per kilowatt of capacity, up to \$4,000), and qualified geothermal heat pumps (capped at \$2,000). The bill repeals the individual dollar caps. As a result, each of these properties would be eligible for an uncapped 30% credit.

## Clean Renewable Energy Bonds

Final ACT Estimates **\$578,000,000**

### COMMENTS

The bill authorizes an additional \$1.6 billion of new clean renewable energy bonds to finance facilities that generate electricity from the following resources: wind, closed-loop biomass, open-loop biomass, geothermal, small irrigation, hydropower, landfill gas, marine renewable and trash combustion facilities. This \$1.6 billion authorization will be subdivided into thirds: qualifying state/local/tribal government projects; qualifying projects of public power providers; and qualifying projects of electric cooperatives.

## Plug-in Electric Drive Vehicle Credit

Final ACT Estimates **\$2,002,000,000**

### COMMENTS

The bill modifies and increases a tax credit passed into law at the end of last Congress for plug-in electric drive vehicles placed in service during the year. The base amount of the credit is \$2,500. If the qualified vehicle draws propulsion from a battery with at least 5 kilowatt hours of capacity, the credit is increased by \$417, plus another \$417 for each kilowatt hour of battery capacity in excess of 5 kilowatt hours up to 16 kilowatt hours. Taxpayers may claim the full amount of the allowable credit up to the end of the

first calendar quarter in which the manufacturer records its 200,000th sale of a plug-in electric drive vehicle. The credit is reduced in following calendar quarters. The credit is allowed against the alternative minimum tax. The bill also restores and updates the electric vehicle credit for plug-in electric vehicles that would not otherwise qualify for the larger plug-in electric drive vehicle credit and provides a tax credit for plug-in electric drive conversion kits.

## Tax Credits for Alternative Refueling Property

Final ACT Estimates **\$54,000,000**

### COMMENTS

The alternative refueling property credit provides a tax credit to gas stations that install alternative fuel pumps, such as fuel pumps that dispense E85 fuel (85% ethanol, 15% gasoline), electricity, hydrogen and natural gas. For 2009 and 2010, the bill increases the 30% alternative refueling property credit for businesses (capped at \$30,000) to 50% (capped at \$50,000). Hydrogen refueling pumps remain at a 30% credit percentage; however, the cap for hydrogen refueling pumps will be increased to \$200,000. In addition, the bill increases the 30% alternative refueling property credit for individuals (capped at \$1,000) to 50% (capped at \$2,000).

## Treasury Department Energy Grants in Lieu of Tax Credits

Final ACT Estimates **\*\$3,000,000,000**

### COMMENTS

*July 31, 2009:* Treasury Department announced they are accepting applications for renewable energy projects that would receive direct cash payment in lieu of tax credits.

*July 15, 2009:* Under current law, taxpayers are allowed to claim a production tax credit for electricity produced by certain renewable energy facilities and an investment tax credit for certain renewable energy property. These tax credits help attract private capital to invest in renewable energy projects. This new program allows taxpayers to forgo tax credits in favor of an immediate reimbursement from the

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Treasury Department for a portion of the property expense. The direct payments are 10% - 30% of the basis of the property and paid within 60 days of the facility being placed in service or, if later, within 60 days of receiving an application for such grant. Eligible projects must produce electricity, have land use in the US and have been completed or broke ground by the end of 2010. This is not a competitive program and there is no cap on the total grants.\*

## Treasury Department Advanced Energy Manufacturing Tax Credits

ARRA - Section 48C

**\$2,300,000,000**

### COMMENTS

*August 13, 2009:* Treasury Department announced they will award \$2.3 billion in tax credits for qualified investments in advanced renewable, storage, efficiency, vehicles components and transmission energy projects, to support new, expanded or re-equipped domestic manufacturing facilities. The Advanced Energy Manufacturing Tax Credit (MTC) provides a 30 percent credit for investments based on expected commercial viability of their project. Initial applications are due to DOE by September 16, 2009 and final due to the DOE and IRS on October 16, 2009. More information and application available at [<http://www.energy.gov/recovery/48C.htm>].