The Revolution Will Be Funded

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Advisor to Chairman Douglas
California Energy Commission

Economic and Technology Advancement Advisory Committee
9/20/09
Sacramento, CA
Where We Are Going Today

- Recovery Act
- Formula Programs
- Competitive Programs
- Tax Incentives
American Recovery and Reinvestment Act (ARRA)

- $787 Billion in funding appropriations and tax relief
- Nearly $63 billion for energy activities
  - $42 billion in appropriations
  - $21 billion in energy tax incentives

www.energy.ca.gov/recovery
ARRA Goals

- Preserve and create jobs and promote economic recovery.
- Assist those most impacted by the recession.
- Provide investments needed to increase economic efficiency by spurring technological advances in science and health.
- Invest in transportation, environmental protection and other infrastructure that will provide long-term economic benefits.
- Stabilize State and local government budgets in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.
ARRA Energy Appropriations

- Total of $42 billion
  - $11.3 billion in formula-based funding
    - Efficiency
    - Renewables
    - Green Community Plans
  - $30.7 billion in competitive and direct grant, loan and loan guarantee funds
    - Transportation
    - Transmission
    - Renewables
    - Research
American Recovery and Reinvestment Act of 2009
Energy Funding Implications for California
ARRA Formula Energy Appropriations

- Total of $11.3 billion in formula-based funding
  - $3.1 billion State Energy Program
    - Energy Commission will receive $226 million
  - $3.2 billion Energy Efficiency and Conservation Block Grant Program
    - California local governments are expected to receive over $300 of million
    - Energy Commission is expected receive $49 million
ARRA Formula Energy Appropriations

- Total of $11.3 billion in formula-based funding
  - $5 billion for Low Income Home Weatherization
    - Community Services and Development Department will receive $185 million
  - $300 million nationally for Energy Star Appliance Rebates
    - Energy Commission is expected to receive $30 Million
State Energy Program (SEP)

- Energy Commission is expected to receive $226 million
  - Traditional SEP appropriations to CA $1–3 million annually
- Types of activities allowed under SEP
  - Implementing building, industrial and transportation energy efficiency programs
  - Expanding distributed generation, renewable energy and public education programs
  - Conducting any activity to improve energy efficiency, increase use of renewable energy or increase energy efficiency and economic development.
Phase I: SEP Proposed Allocations

1. Department of General Services (DGS) Revolving Loan Program $25 million
2. Clean Energy Workforce Training $20 million
3. Energy Conservation Assistance Act (ECAA) Revolving Loan Program $25 million
4. SEP School and Public Sector Matching Grants up to $50 million
Phase II: SEP Proposed Allocations

5. Clean Energy Systems Revolving Loan Program
   Up to $35 million

6. Energy Efficiency Retrofit Programs
   - Residential Retrofit
   - Non Residential Retrofit
   - Municipal Financing Districts
   Up to $96 million
State Building Revolving Loan Fund
Clean Energy Workforce Training Program

- Transportation
- Energy and Water Efficiency
- Renewable Energy

$65 Million

- $20 million in ARRA funds

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9.27.08 TO BUILD THE NEW ECONOMY
Energy Conservation Assistance Act (ECAA)

Revolving Loan Program

- $25 million in low-interest (1%) loans
- For energy efficiency, combined heat and power, demand reduction, water efficiency and generation projects
- Eligible entities include:
  - Public Schools
  - Public Hospitals
  - Public Care Institutions
  - Units of Local Government
- Maximum Loan Amount is $3 million
School and Public Sector Matching Grants

- SEP-funded grants will be available to public schools, colleges and other public agencies
- Recipients must match grant funds with Energy Conservation Assistance Act Loans
Clean Energy Systems

- Targeting the private sector with up to $35 million in revolving loans
- Focused on the following technologies:
  - Distributed Generation
  - Combined Heat and Power
  - Bioenergy
  - New Energy Manufacturing Facilities
Building Energy Efficiency Barriers

- Building owners lack capital for improvements
- Lack of market-tested standardized building rating system (residential less so)
- Fragmented existing building stock requires complex solutions and is difficult to scale
- Widespread lack of awareness of costs and benefits
- Gaps in knowledge, skills, and experience of workforce limit scale
- Lack of coordination between existing programs
Municipal Financing District Program
California Comprehensive Residential Building Retrofit Program
Municipal and Commercial Building Targeted Measure Retrofit Program
## SEP Efficiency Retrofits
### Anticipated Schedule

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<tr>
<th>Date Range</th>
<th>Task Description</th>
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<tbody>
<tr>
<td>08/08/09 – 8/20/09</td>
<td>Revise final guidelines</td>
</tr>
<tr>
<td>8/21/09 – 9/21/09</td>
<td>Post final guidelines for public review, simultaneously develop solicitation from guidelines</td>
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<tr>
<td>9/30/09</td>
<td>Issue solicitation for bids</td>
</tr>
<tr>
<td>10/30/09</td>
<td>Proposals due</td>
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<tr>
<td>11/30/09</td>
<td>Announce winners</td>
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<tr>
<td>12/01/09 – 1/31/10</td>
<td>Issue awards to winning bidders</td>
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Energy Efficiency and Conservation Block Grant

- $3.2 billion nationally
  - 68% to local governments (directly to cities > 30,000 and counties > 200,000 population)
  - 28% to state energy offices
  - 2% to tribes
  - 2% competitive grants
- California local governments are expected to receive over $302 million directly
- Energy Commission is expected to receive $49 million
Energy Efficiency and Conservation Block Grant

- Assist eligible entities in implementing energy efficiency and conservation strategies
  - to reduce pollution emissions from fossil fuels created as a result of activities within the jurisdictions of eligible entities;
  - to reduce total energy use; and
  - to improve energy efficiency in the transportation, building, and other appropriate sectors.
Energy Efficiency and Conservation Block Grant

- Energy Commission is expected to receive around $49 million
  - 60% of the funds will be distributed to small municipalities through a block grant program
  - 40% will be placed into the State Energy Program and spent at the Energy Commission’s discretion

- Department of Energy released guidelines March 26
EECBG
Small City/County Pass-Through Funds

- Allocation based on a per capita formula
- Base allocation of $5.00 per person
- Base allocation increased by unemployment rate
  - \((1 + \text{Unemployment rate}) \times 5.00\)
- Establishes minimum funding levels:
  - $25,000 per City
  - $50,000 per County
- Allows for energy efficiency projects or direct equipment purchases
- Allocates approximately 70% of EECBG (ARRA requires a minimum of 60%)
<table>
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<tr>
<th>Date</th>
<th>Task</th>
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<tr>
<td>08/07/2009 – 09/09/2009</td>
<td>Post final Guidelines for public review, simultaneously develop solicitation and reporting requirements from Guidelines</td>
</tr>
<tr>
<td>09/17/2009</td>
<td>Issue solicitation packages for grants</td>
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<tr>
<td>09/30/2009</td>
<td>US DOE approval expected</td>
</tr>
<tr>
<td>10/1/2009 – 2/15/2010</td>
<td>Grants applications accepted</td>
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<tr>
<td>10/15/2009 – 03/15/2010</td>
<td>Process Grant Applications</td>
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DOE Weatherization Assistance Program
($5 Billion Nationally, $185 million for CA)

- Administered by Community Services and Development Department for over 30 years

- Purpose of the DOE WAP is to:
  - increase the energy efficiency of dwellings owned or occupied by low-income Californians
  - reduce total energy expenditures
  - improve health and safety

- Focus on vulnerable population
Energy Efficient Appliance Rebate Program and Energy Star Recovery Funding

- Authorized in Energy Policy Act of 2005
- $300 million available nationwide
  - Estimated $35 million to California Energy Commission
- Provides rebates to residential consumers for purchase of Energy Star products to replace used appliances of the same type
- Rebates shall be used to supplement, not supplant existing funds
ARRA non-Formula Energy Appropriations

- Total of $30.7 billion in competitive and direct grant, loan and loan guarantee funds
ARRA non-Formula Energy Appropriations

- $11 billion for Transmission
  - $4.5 billion for competitive smart grid demonstration projects
  - $3.25 billion for Western Area Power Authority
  - $3.25 billion for Bonneville Power Authority
ARRA non-Formula Energy Appropriations

- $1 billion for Transportation
  - $300 million Clean Cities
  - $300 million Diesel Emissions Reductions
  - $400 million Electric Drive Vehicles
ARRA non-Formula Energy Appropriations – cont.

- $6 billion for Renewable Energy
  - Renewable Energy Loan Guarantees
    - Must commence construction prior to Sept. 30, 2011
ARRA non-Formula Energy Appropriations – cont.

- $8.4 billion for Research
- Clean Fossil Energy, Energy Efficiency and Renewable Energy Research, Advanced Battery Research
ARRA Energy Tax Incentives

- Total of $21 billion in tax incentives for energy
  - $13 billion in renewable energy tax credits
  - $1.6 billion Clean Renewable Energy Bonds
  - $2.4 billion Qualified Energy Conservation Bonds
  - $2 billion plug-in electric vehicle

www.energy.ca.gov/recovery
The first US stimulus package, approved in October 2008, brought the green agenda to the fore. It contained $18.2bn in tax cuts and credits for clean energy, a $9.45bn extension of tax credits on wind and solar power, and $2bn in spending on carbon capture and storage.

However, the second package, passed in February 2009, cut a number of expected green features and resulted in an estimated $57bn loss in environmental spending.

Congress granted $22.5bn in incentives for renewable energy, including further extensions to tax credits on wind, biomass and geothermal energy. There was also investment in energy efficiency, with $52bn for projects such as modernising the electricity grid. $10bn was set aside for public transport.

The combined effect of the investments is expected to create around 2.5m green jobs.
Thank You!

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