

CLIMATE ACTION TEAM

Energy Working Group

Near-Term Implementation Plan

Scoping Plan Measure E-1 and CR-1

CAS Strategy 1a

Energy Efficiency

CAT Working Group Overview: The Energy Working Group of the Climate Action Team focuses its efforts on both green house gas emission reduction and adaptation actions affecting the energy sector.

Working Group Agencies: ARB, Cal/EPA, CPUC, CAISO, Energy Commission, Resources.

Measure / Strategy

- A) **Description:** Energy efficiency is a significant strategy for reducing greenhouse gas emissions in the electricity and natural gas sectors. Measures E-1 and CR-1 set goals for reductions in building electricity and natural gas use, respectively. The goals will be achieved by maximizing energy efficiency building and appliance standards; pursuing additional efficiency efforts including new technologies, and new policy and implementation mechanisms; and developing comparable investment in energy efficiency from all retail providers of electric in California (including both investor-owned and publicly-owned utilities). The Energy Efficiency strategy is an overall state-wide reduction goal that will be achieved primarily through a multitude of utility programs executed by IOUs and POUs. Additional reductions will be achieved through market transformation activities such as new technology development and deployment, innovative financing, and education and outreach, many of which are funded by the Public Goods Charge. State building codes and appliance standards will continue to play a strong role in advancing energy efficiency as they are both critical aspects of getting to zero net energy in new and existing buildings. Planning efforts at the CEC include the biennial IEPR and at the CPUC the Energy Efficiency Strategic Plan (2009).
- B) **Agencies Involved:** California Public Utilities Commission, California Energy Commission, all investor-owned and public utilities, Air Resources Board, and local governments.
- C) **Scoping Plan/Adaptation Plan Reference:** Scoping Plan Measures No. E-1: Energy Efficiency (electricity) and CR-1 Energy Efficiency Recommendations – Commercial and Residential, and Adaptation Strategy 1a: Meet the Energy Efficiency Goals Outlined in AB 32 Scoping Plan. The green building measure (GB-1) overlaps with building energy efficiency, and much of its emissions reductions are included within energy efficiency targets.
- D) **Metrics:** The goal Measure No. E-1 is to reduce energy usage by 32,000 GWh by 2020, and to reduce consumption the equivalent of 800 million therms for Measure No. CR-1. The IOUs have triennial reduction targets set by the CPUC, which are measured on an ongoing basis through an extensive evaluation, measurement and verification process.

Although the Scoping Plan targeted 32,000 MWh in electricity savings by 2020, the effect of the recession and other factors have reduced both expected 2020 demand and savings. ARB's Updated Economic Analysis for the Scoping Plan and modeling done as part of ARB's development of the Renewable Electricity Standard regulation both assumed 24,000 MWh of savings by 2020.

- E) Crosscutting Issues: Energy efficiency is primarily addressed by the Energy Working Group. As one of the least expensive Scoping Plan measures, by reducing demand, energy efficiency reduces the amount of more expensive renewable energy development needed to meet the Renewable Portfolio Standard and Renewable Electricity Standard goals.
- F) Tasks and Deliverables: Specific tasks and deliverables are described below. In general, most of the energy efficiency tasks are being carried out and/or overseen by CEC and CPUC. CEC is responsible for updating the building and appliance energy efficiency standards and for working with the publicly-owned utilities to plan and track energy efficiency savings. CPUC is responsible for setting investor-owned utility energy efficiency goals and approving their energy efficiency plans. CPUC developed the Long Term Energy Efficiency Strategic Plan, which ARB used in developing Scoping Plan energy efficiency strategies and goals.

ARB's main role is ongoing Local Government and Small Business Climate Action outreach. ARB has developed the Local Government Toolkit to assist local governments in reducing emissions, with a strong emphasis on building energy efficiency. Similarly, ARB's Small Business Toolkit provides information for businesses on incentives, financing and low-cost voluntary energy efficiency actions.

Task 1: IOU Energy Efficiency Programs

1. Description: The CPUC oversees proposals, vetting, and implementation of current and future 3-year cycle IOU energy efficiency programs, which currently include major statewide programs directed at seven sectors: Residential, Commercial, Industrial, Agricultural, New Construction, HVAC (Heating, Ventilating, Air Conditioning), and Lighting.
2. Deliverables: The total reduction goal for the IOUs in the 2010-2012 program cycle is 7,000 GWh, 3460MW, and 150 MMTherms. The total budget is \$3 billion across the three IOUs. These goals tie into a larger goal of reducing energy consumption by 23,000 GWh by 2020.
3. Agency Roles: see "description"
4. Timeline: The current IOU program cycle runs from 2010-2012. Planning for the next cycle of 2013-2015 will begin shortly with a study of the savings potential, followed by IOUs program proposals and the opening of a proceeding at the CPUC to establish goals and finalize IOU programs.

Task 2: POU Energy Efficiency Programs

1. Description: Thirty-nine POUs currently offer energy efficiency programs. Unlike the IOUs, POU programs are not reviewed and authorized by a central regulatory authority.
2. Deliverables: Each POU develops an efficiency portfolio that is considered for approval and funding by an individual board or other oversight agency, generally for one year at a time.

3. Agency Roles: The CEC oversees requirements of SB 1037 (2005) and AB 2021 (2006), both of which are designed to promote energy efficiency among POUs and document verified reductions in energy consumption. It is the role of the CEC to make recommendations for improvements needed to be made in the level of energy savings reduction targets or in improved practices for achieving those targets.
4. Timeline: POUs generally operate on a fiscal-year basis.

Task 3: Building Codes and Appliance Standards

1. Description: The Building Energy Efficiency Standards are contained in Part 6 of Title 24. The Efficiency Standards cover every building occupancy type (except prisons and hospitals) and are mandatory for all new construction (which includes additions to buildings and many alterations to existing buildings). The appliance regulations set mandatory efficiency levels for various appliances not covered under federal standards. Appliances covered by these regulations can only be sold in California if the manufacturer has certified the efficiency of each regulated model to the Energy Commission. Staff efforts to develop and implement building and appliance standards are on-going.
2. Deliverables: Aggressive efficiency improvements with each cycle of building standards with an overall goal of getting to zero net energy residential (by 2020) and nonresidential (by 2030) new buildings.
3. Agency Roles: The Energy Commission is responsible for adopting the energy efficiency standards and the appliance efficiency regulations.
4. Timeline: The Energy Commission seeks to adopt and implement building standards every three years (generally scheduled for 2011, 2014, 2017, and 2020). The Commission adopts appliance regulations when enough information to warrant new regulations is available.

Task 4: Market Transformation

1. Description: A number of different programs are currently underway at the CEC and CPUC to achieve the goals set out in the Energy Efficiency Strategic Plan, including Zero Net Energy buildings. Major efforts include: research, development and deployment of emerging technologies to bring new technologies to market and to assist with the market adoption of existing technologies; workforce training programs to train workers to participate in the energy efficiency and clean energy economy; marketing, education and outreach programs designed to move customers in all sectors from awareness to attitude change to action; and innovative financing strategies to provide low and no-interest capital needed to make investments in energy efficiency.
2. Deliverables:
 - Emerging Technology: PIER research program is an ongoing program; and the Emerging Technologies Coordinating Council (ETCC) statewide market promotion of market-ready emerging technologies is currently under development.
 - Workforce Training: IOU Workforce Education & Training (WE&T) taskforce strategy and action plan will be completed by December, 2010; ARRA-funded Clean Energy workforce training program with California Employment and Development Department is an ongoing training program.
 - Marketing & Outreach: The campaign, led by CPUC and co-developed with IOUs and other stakeholders, will launch by December 2010.

- Innovative Financing: CEC is releasing a program for innovative financing for EE by Quarter 3, 2010; ARRA-funded EE activities are ongoing; On-bill financing through the IOUs will be underway in 2010.
3. Agency Roles: Various, per the deliverables descriptions above.
 4. Timeline: Various, per the deliverables descriptions above.

G) SUMMARY TABLE:

Deliverable	Agencies	Deadline
IOU 2010-2012 Program Implementation	CPUC	Ongoing through December 2012
POU Program	CEC	Ongoing
Codes and Standards	CEC	Triennial adoption of building standards (2011, 2014, etc.) and periodic adoption of appliance regulations
IOU WE&T Strategy and Action Plan	CPUC	December 2010
Marketing & Outreach Campaign	CPUC	Launch by December 2010
Innovative EE Financing Program	CEC	September 2010
IOU On-Bill Financing	CPUC	December 2010