

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: May 8, 2009

To: The Commission
(Meeting of May 21, 2009)

From: Pamela Loomis, Director
Office of Governmental Affairs (OGA) — Sacramento

Subject: **AB 380 (De La Torre) – California Clean Energy Curriculum and Training Initiative of 2009.**
As Amended April 15, 2009

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: OPPOSE UNLESS AMENDED

SUMMARY OF BILL:

- This bill would establish the California Clean Energy Curriculum and Training Initiative of 2009, which would require the Labor and Workforce Development Agency to develop a standardized training curriculum (i.e., complete courses of study) to help build a skilled workforce in the clean energy sector.
- This bill would require the Secretary of Labor and Workforce Development, in collaboration with the major stakeholders, to provide outreach, assistance and guidance to schools creating clean energy training programs.
- This bill would establish the California Clean Energy Curriculum and Training Initiative Subaccount within the Labor and Workforce Development Fund in the State Treasury, and require the appropriation of moneys by the Legislature to implement this initiative.
- This bill states that no more than \$1 million shall be appropriated to establish a standardized curriculum.
- This bill would further require the CPUC to allocate monies, equivalent to the amount of the appropriation by the Legislature, from the Research, Development and Demonstration (RD&D) budget of the California Solar Initiative (CSI) to fund this California Clean Energy Curriculum and Training Initiative.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

Decision 07-09-042 adopted a plan for awarding \$50 million in the form of grants to research, development, deployment and demonstration (RD&D) projects under the California Solar Initiative (CSI) program. The CPUC has begun the process of allocating the RD&D funds. If passed, the bill would require the CPUC to revisit the program and require modifications to contracts related to the RD&D program.

SUMMARY OF SUGGESTED AMENDMENTS:

Other sources of funding should be identified to establish the California Clean Energy Curriculum and Training Initiative, including funds from union training programs, American Recovery and Reinvestment Act training and workforce development funds, and the resources of colleges and vocational schools.

DIVISION ANALYSIS (Energy Division):

- Per Decision (D.)07-09-042, 70-85 percent of RD&D funding will be allocated to projects that support research, development and demonstration of solar technologies¹. AB 380 would divert funds that would be used to support these projects, and, therefore, undermine the larger goals of the RD&D program.
- AB 380 contains similar goals as set forth in the RD&D principles that were adopted by the Commission in D.07-09-042. These goals include overcoming significant barriers to adoption of solar and promoting integration of solar technology into the grid by addressing the shortage of skilled labor in the clean energy sector. The California Clean Energy Curriculum and Training Initiative, or any party in support of the goals of such an initiative, could therefore bid for a RD&D grant to achieve these objectives. Solar training and workforce would likely be considered for grants in the existing RD&D program, as already specified by Commission decision.
- D.07-05-047 directed CSI Program Administrators, Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and the California Center for Sustainable Energy (CCSE) to each allocate \$500,000 to marketing and outreach activities annually. These activities currently include installer training classes aimed at educating the solar workforce. Further, the CPUC plans to develop a long-term marketing and outreach plan in the future, which could potentially allocate funds to activities outlined in AB 380. CSI marketing and outreach activities could implement AB 380's goal of workforce development without legislation.

PROGRAM BACKGROUND:

- The CSI has a total budget of \$2.167 billion. \$1.897 million is allocated to the General Market Program (including direct incentives for PV and non-PV technologies), \$217 million is allocated to programs for Low-Income residences,

¹ D.07-09-042, p.3.

\$2.6 million is allocated to a solar hot water pilot program, and \$50 million is allocated to the RD&D program.

- Public Utilities Code 2851 requires \$50 million of CSI funds to be allocated “to research, development, and demonstration that explores solar technologies and other distributed generation technologies that employ or could employ solar energy for generation or storage of electricity or to offset natural gas usage”.² Pursuant to this statute, the RD&D Program was established by D.07-09-042 in 2007.
- Per D 07-09-042, the RD&D Program budget allocates 25 to 30 percent of the budget to Research and Development of solar technologies, 45 to 55 percent of the budget to Demonstration (i.e., activities that bring the technologies closer to market), and 5 to 10 percent to Deployment (i.e., activities that promote widespread commercialization of solar technologies).
- California may secure up to \$50 million of ARRA funds for workforce development and training, to be awarded on a competitive basis.

LEGISLATIVE HISTORY:

AB 2224 (De La Torre) introduced in February 2008, also proposed establishing a California Clean Energy Curriculum and Training Initiative funded by CSI RD&D funding. The bill was held on suspense in the Senate Appropriations Committee.

STATUS:

AB 380 is on the Assembly Appropriations Committee Suspense File.

SUPPORT/OPPOSITION:

Support: American Lung Association
California Association of Regional
Occupational Centers Programs
Clean Power Campaign
Latino Issues Forum (sponsor)
National Parks Conservation Association

Opposition: California Manufacturers and Technology Association (oppose
unless amended)

STAFF CONTACTS:

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Date: May 8, 2009

² PU Code 2851 (C)(c)(1).

BILL LANGUAGE:

BILL NUMBER: AB 380 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY APRIL 15, 2009

INTRODUCED BY Assembly Member De La Torre

FEBRUARY 23, 2009

An act to add Chapter 5 (commencing with Section 3100) to Division 3 of the Labor Code, ~~and to add Section 326 to the Public Utilities Code,~~ relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 380, as amended, De La Torre. California Clean Energy Curriculum and Training Initiative of 2009.

Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations. A decision of the PUC adopted the California Solar Initiative, an electrical corporation program to provide incentives for solar energy systems funded through rates paid by the electrical corporation ratepayers. ~~Existing law requires the PUC to undertake certain steps in implementing the California Solar Initiative and prohibits the PUC from allocating more than \$50,000,000 to research, development, and demonstration that explores solar technologies and other distributed generation technologies that employ or could employ solar energy for generation or storage of electricity or to offset natural gas usage.~~ Existing law requires local publicly owned electric utilities to initiate a public proceeding to fund a solar energy program to support the goal of installing 3,000 megawatts of photovoltaic solar energy in the state.

Existing law establishes the Labor and Workforce Development Agency, which is responsible for coordinating labor and employment policy, services, and programs for workers and businesses through its various component agencies.

This bill would require the Secretary of Labor and Workforce Development, in collaboration with the major stakeholders, including appropriate state agencies, building trades unions, education, and the clean energy industry, to create by July 1, 2010, the California Clean Energy Curriculum and Training Initiative of 2009 to establish standardized curriculum for use at schools and provide outreach, assistance, and guidance to schools on creating clean energy training programs. The initiative would be implemented when the Legislature makes an appropriation of moneys for that purpose.

This bill also would establish the California Clean Energy Curriculum and Training Initiative Subaccount within the Labor and Workforce Development Fund within the State Treasury. The bill would require that, upon the appropriation of moneys ~~, not to exceed \$1,000,000,~~ by the Legislature to implement the initiative, the PUC order electrical corporations that have collected moneys for research, development, and demonstration for allocation

by the PUC pursuant to a specified provision, to transfer an amount of those moneys, equivalent to the amount of the appropriation, to the subaccount for purposes of the initiative. By requiring moneys collected by electrical corporations to be transferred to the subaccount, a bill making such an appropriation also would impose a state tax.

~~—The bill also would require the PUC to collaborate with all industry stakeholders and to perform other duties related to the California Solar Initiative program. Under the program, the PUC would not be permitted to assess or establish any new fees, surcharges, rates, or any other charges on ratepayers.~~

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. The Legislature finds and declares all of the following:

(a) It is the goal of the state to reduce global warming pollution to 1990 levels by 2020, in part through clean energy technologies.

(b) It is also the goal of the state to install solar energy systems with a generation capacity equivalent of 3,000 megawatts, to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses in 10 years, and to place solar energy systems on 50 percent of new homes in 13 years.

(c) It is also the goal of the state to increase energy efficiency and other clean renewable energy resources such as solar hot water technologies, wind turbine, and zero-energy buildings.

(d) To establish this goal, the state will need a well-trained workforce, including licensed contractors, journeymen electricians, preapprentices, apprentices, and inspectors.

(e) Clean energy industries can bring long-term economical vitality and development to California's cities and rural areas.

(f) It is the goal of the state to make training programs at technical and vocational schools, skills centers, high schools, and community colleges, among others, accessible and available to all Californians, including those most in need, such as Californians living in economically depressed urban and rural areas. In addition, it is the goal of the state to expand apprenticeship programs, preapprenticeship programs, and vocational programs serving the clean energy industry.

SEC. 2. Chapter 5 (commencing with Section 3100) is added to Division 3 of the Labor Code, to read:

CHAPTER 5. CALIFORNIA CLEAN ENERGY CURRICULUM AND TRAINING INITIATIVE OF 2009

3100. This chapter shall be known, and may be cited, as the California Clean Energy Curriculum and Training Initiative of 2009.

3101. (a) For purposes of this section, the following definitions apply:

(1) "Clean energy" means equipment, processes, and technologies that increase resource efficiency and reduce pollution, including the following:

(A) Energy audits that include a determination of energy savings.

(B) Retrofitting and weatherization activities that increase

energy efficiency and conservation.

(C) Energy-efficient buildings.

(D) Retrofitting and installing energy-efficient household appliances, windows, doors, insulation, and lighting.

(E) Retrofitting and installing energy conservation technologies in existing homes, industrial buildings, commercial and public buildings, and farms, forest lands, and ranches to improve efficiency, including the use of energy management technologies and control systems.

(F) The manufacture, sale, assembly, installation, construction, and maintenance of energy-efficient technologies and renewable energy facilities or the component parts of renewable energy technologies.

(G) Projects related to energy-efficient technologies or practices and renewable energy production or the component parts of renewable energy plants and energy distribution, including energy storage and energy infrastructure (including transmission), and transportation (including logistics).

(2) (A) "Curriculum" means complete courses of study that cover those components necessary to effectively and safely install, inspect, or repair clean energy systems, and teach others how to do so and includes, but need not be limited to, all of the following:

- (i) Safety.
- (ii) Terminology.
- (iii) Codes and guidelines.
- (iv) Mathematics.
- (v) Site evaluation
- (vi) Cost estimating.
- (vii) Product knowledge.
- (viii) Structural considerations.
- (ix) Handling and mounting techniques.
- (x) Permitting.
- (xi) State rebates and guidelines.
- (xii) System analysis.
- (xiii) Troubleshooting and repair.
- (xiv) Introduction to Workers' Rights.

(B) In addition, state-approved apprenticeship programs and other training programs may teach the following:

(i) Introduction to Photovoltaic Systems, including photovoltaics, PV Applications, the PV Industry, and Solar Energy Technologies.

(ii) Solar Radiation, including array orientation, and Solar Radiation Data Sets.

(iii) Site Surveys and Preplanning, including preliminary assessment, preparing proposals, and installation planning.

(iv) System components and configurations.

(v) Cells, Modules, and Arrays, including photovoltaic cells, current-voltage-(IV) Curve, and device response.

(vi) Batteries and Battery Systems.

(vii) Charge Controllers, including features, types, setpoints, and applications.

(viii) Inverters AC Power, power conditioning unit, inverter features and specifications.

(ix) System sizing methodologies and calculations.

(x) Mechanical Integration and mounting configurations.

(xi) Electrical Integration, including conductors and wiring methods, overcurrent protection, disconnects, grounding, and battery systems.

(xii) Utility Interconnection, including interactive distributed generation.

(xiii) Permitting and Inspection, including the National Electrical Code published by the National Fire Protection Association and other relevant building codes.

(xiv) Commissioning, Maintenance, and Troubleshooting.

(xv) Economic analysis, including estimating, incentives, rebates, and cost analysis.

(3) For the purposes of paragraph (2), "inspect" means a standard course of study that covers all aspects of inspecting a clean energy system by both visual and electronic meter testing and includes all of the following:

- (A) Code compliance.
- (B) Structural components.
- (C) Electrical connections and devices.
- (D) Grounding.
- (E) Performance standards.
- (F) Workmanship.
- (G) Safety.

(4) For the purposes of paragraph (2), "install" means a standard course of study that covers the training, skills, licensing and certification requirements, and competencies required to safely install clean energy systems that comply with safety, structural, and electrical codes, state and local codes, and public utility requirements.

(5) "Schools" means state-approved apprenticeship programs, training programs, technical and vocational schools, community colleges and universities, high schools, and other public and private educational institutions operating in the state that have been approved by the Division of Apprenticeship Standards or registered with the Bureau of Private Postsecondary and Vocational Education.

(6) "Solar energy system" means a solar energy device that has the primary purpose of providing for the collection and distribution of solar energy for the generation of electricity, that produces at least one kilowatt, and not more than five megawatts, alternating current rated peak electricity, and that meets or exceeds the eligibility criteria established pursuant to Section 25782 of the Public Resources Code.

(7) "Solar water heating system" means a solar energy device that has the primary purpose of reducing demand for natural gas or electricity through water heating, space heating, or other methods of capturing energy from the sun to reduce energy consumption in a building.

(b) The Secretary of Labor and Workforce Development, in collaboration with the major stakeholders, including appropriate state agencies, building trades unions, education, and the clean energy industry, shall, by July 1, 2010, create the California Clean Energy Training Initiative of 2009 to do all of the following:

- (1) Establish standardized curriculum for use at schools.
- (2) Provide outreach, assistance, and guidance to schools on creating clean energy training programs.

(c) In developing the curriculum, the Secretary of Labor and Workforce Development shall do all of the following:

(1) Direct the Division of Apprenticeship Standards to establish and convene the Electrical Industry Training Committee to develop a model solar curriculum to be included in the California Clean Energy Curriculum.

(2) Develop a program utilizing the Division of Apprenticeship Standards, Employment Training Panel, and the Workforce Investment Board to provide outreach, assistance, and guidance to schools on

creating clean energy training programs.

(3) Ensure full participation of all stakeholders, including, but not limited to, federal, state, and local government agencies, including the State Department of Education; labor organizations, including teachers, building trades, and electricians; joint labor-management training programs; workforce investment boards; utilities; public or private employers; industry, including the solar and other renewable energy technology industries; educational institutions; small businesses; cooperatives; qualified service and conservation corps; and nonprofit and community-based organizations when creating both the solar and all other components of the curriculum outlined in paragraph (1).

(4) Ensure full participation from private industry, including encouraging the commitment of funds by the private industry for training programs intended to meet the state's workforce needs within the clean energy markets.

(5) Collaborate with all stakeholders described in paragraph (3) to disseminate information on successful innovations for labor market services and worker training with respect to clean energy technologies.

(6) Encourage training programs that demonstrate all of the following:

(A) Experience in implementing and operating worker skills training and education.

(B) The ability to identify and target populations of individuals who would benefit from training and be actively involved in activities related to solar energy, renewable energy industries, and energy efficiency.

(C) The ability to help individuals achieve economic self-sufficiency.

(7) Ensure that the California Clean Energy Curriculum and Training Initiative of 2009 is accessible, available, and affordable to all Californians and that it especially serves economically depressed urban and rural communities, including all of the following:

(A) Workers impacted by national energy and environmental policy.

(B) Individuals in need of updated training related to the energy efficiency and renewable energy industries.

(C) Veterans or past and present members of reserve components of the Armed Forces.

(D) Unemployed individuals.

(E) Individuals, including at-risk youth, seeking employment pathways out of poverty and into economic self-sufficiency.

3102. (a) There is hereby created the California Clean Energy Curriculum and Training Initiative Subaccount within the Labor and Workforce Development Fund within the State Treasury.

(b) Implementation of the California Clean Energy Curriculum and Training Initiative shall be subject to appropriation of ~~moneys, not to exceed one million dollars (\$1,000,000),~~ moneys by the Legislature.

(c) Following an appropriation of moneys by the Legislature pursuant to subdivision (b), the Public Utilities Commission (PUC) shall order electrical corporations that have collected moneys for research, development, and demonstration for allocation by the PUC pursuant to paragraph (1) of subdivision (c) of Section 2851 of the Public Utilities Code to transfer an amount of those moneys equivalent to the amount of the appropriation to the California Clean Energy Curriculum and Training Initiative Subaccount. *Of the*

amount appropriated, not more than one million dollars (\$1,000,000) shall be expended for the establishment of a standardized curriculum for use at the schools, pursuant to subdivision (c) of Section 3101.

(d) The moneys transferred pursuant to subdivision (c) shall be available to the Labor and Workforce Development Agency for purposes of this chapter.

~~SEC. 3.— Section 326 is added to the Public Utilities Code, to read:~~

~~326. (a) In order to further the objectives of the California Solar Initiative and in accordance with the California Clean Energy Curriculum and Training Initiative of 2009, the Public Utilities Commission (PUC) shall do all of the following:~~

~~(1) Collaborate with all industry stakeholders to disseminate information on successful innovations for labor market services and worker training with respect to clean energy technologies.~~

~~(2) Facilitate the connection of clean industry stakeholders with training programs recognized by the Labor and Workforce Development Agency as defined in Chapter 5 (commencing with Section 3100) of Division 3 of the Labor Code.~~

~~(3) Provide technical support and information relative to clean energy technologies to the Electrical Industry Training Committee.~~

~~(4) Identify revenues allocated to the California Solar Initiative program that could be made available to fund training programs. The PUC shall allocate funds appropriated for this purpose as follows:~~

~~(A) The Workforce Investment Board for the creation of a preapprenticeship program targeting the clean energy industry as defined in this act.~~

~~(B) The Division of Apprenticeship Standards to provide supplemental funding for apprenticeship programs serving the clean energy industry.~~

~~(C) The Employment Training Panel for distribution to business in the clean energy industry.~~

~~(b) In adopting and implementing this section, the PUC shall not assess or establish any new fees, surcharges, rates, or any other charges on ratepayers.~~