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Bay Area Air Quality Management District
Bay Conservation and Development Commission
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JOINT POLICY COMMITTEE — REGIONAL PLANNING PROGRAM

Date: November 21, 2011

To: Joint Policy Committee

From: Bruce Riordan, Climate Consultant

Subject: **Bay Area Renewable Power Strategic Plan**

Summary and Recommendation:
In July, the JPC brought together 20 Bay Area renewable power stakeholders at the San Francisco Foundation to discuss how to accelerate the Bay Area's production of local renewable power and create clean energy jobs. The goal was to develop a unified Bay Area renewable power program that would support Governor Brown's ambitious proposal for 12,000 MW of local renewable power statewide by 2020. Over the last four months, the now 40+ person group has worked with the Governor's top energy staff, "mapped" an impressive list of Bay Area local renewable power projects already underway, and formed an initial regional action agenda. We are now ready to develop a coordinated plan that will help turn many local initiatives into a powerful regional program for renewable power and economic development. I recommend that Joint Policy Committee agree to take the lead in facilitating the development of this plan.

Staff Report:
A significant increase in renewable power is a major component of California's plan to reach our AB 32 greenhouse gas emissions target in 2020. State law now requires that investor-owned utilities, including PG&E, generate 33% of their power through solar, wind and other qualified renewables by 2020. PG&E is currently at the 16% mark.

Earlier this year, Governor Brown proposed a new program to develop 12,000 MW of local "distributed" renewable power using rooftops and other available urban spaces, plus 8,000 MW from utility-scale renewable power plants in California's rural areas. While both "distributed" and "utility-scale" renewables will be needed to reach California's goals, local renewable power can produce local jobs, bring new private investment to urban centers, and eliminate the need for new long-distance transmission lines.

Statewide, about 1,000 MW of local renewable power have been developed to-date with another 2,000 MW in the approval pipeline. In the Bay Area, significant projects have been completed by school districts, cities and counties, and non-profits. Examples include the SV-REP Project in the South Bay—the largest multi-agency solar power procurement in the U.S. (14.4 MW), involving 70 sites and 43 locations across 9 public agencies—and the HELiOS Project that just completed solar master plans for West Contra Costa USD, Oakland USD, and Berkeley USD. The Bay Area is also home to the East Bay Green Corridor Solar Permitting Project, Solar Tech, Marin Clean Energy, the Sonoma County RESCO Project, the Local Clean Energy Alliance, and many other groups that are aggressively addressing permitting, finance and other barriers.

In July, the JPC coordinated the first meeting of the Bay Area Renewable Power Experts Group, bringing together representatives from industry, cities, and non-profit stakeholders. (See attached current list.) At this first meeting, the group exchanged views with Michael Picker, Senior Advisor to Governor Brown, and Wade Crowfoot, Deputy Director of the Governor's Office of Planning and Research (OPR). The meeting was designed for (a) the Bay Area stakeholders to better understand the Governor's proposed program for 12,000 MW of local renewable power by 2020, and (b) the Governor's staff to understand how the Bay Area could help them achieve that statewide goal. In late July, a number of group members participated in the Governor's Conference on Local Renewable Energy Resources at UCLA, which featured Governor Brown, and Los Angeles' Mayor Antonio Villaraigosa.

On a parallel track, the JPC facilitated three meetings on "community choice aggregation" between the Governor's advisors and the three Bay Area counties—Marin, Sonoma and San Francisco—that are implementing or planning CCAs. The meetings were designed to get Sacramento support for the CCA approach that these counties believe will be critical to meeting our goals for renewable power and clean energy jobs.

In September, the JPC coordinated the production of a five-page memo to the Governor's staff (see attached) that outlined an initial action agenda for the region and listed nine actions that the state should take to support the Bay Area and other metro areas. This memo was the basis for a two-hour meeting with the Governor's energy experts on October 31 in Sacramento attended by 20 group members. The meeting served to identify permitting, solar schools programs and other topics for joint state-regional action. The meeting also included short presentations on key Bay Area projects featured in the new JPC-produced *Bay Area Local Renewable Power Map (see attached).*

After the Sacramento meeting, the group decided that its next step should be to develop a formal Bay Area plan for the development of local renewable power that will coordinate and focus the region's many stakeholders. Pre-planning work has begun, including the recruitment of new members to the group.

Bay Area Renewable Power Experts 11/1/11

Deborah Behles, Golden Gate University School of Law
June Brashares, Global Exchange
Timothy Burroughs, City of Berkeley
Michael Campbell, SF PUC
Damon Connolly, Marin Energy Authority
Rory Cox, Pacific Environment
Cisco DeVries, Renewable Funding
Bruce Dickinson, Solaria
Carla Din, East Bay Green Corridor
Garrett Fitzgerald, City of Oakland
Marianna Grossman, Sustainable Silicon Valley
Barbara Hale, SF PUC
Ann Hancock, Climate Protection Campaign
Woody Hastings, Climate Protection Campaign
Alison Healy, Solar Sonoma County
Tom Kelly, Kyoto USA
Ted Ko, Clean Coalition
Alex Levinson, Pacific Environment
Noah Long, NRDC
Peter Luchetti, Table Rock Capital
Ed Mainland, Sierra Club
Shawn Marshall, Marin Energy Authority/LEAN Energy US
Rachel Massaro, Joint Venture Silicon Valley
Megan Matson, LEAN Energy US
Andrew Michael, Bay Area Council
Nils Moe, City of Berkeley - Mayor Tom Bates
Danielle Murray, City of San Francisco DOE
Arthur O'Donnell, Sustainable Silicon Valley
Johanna Partin, City of San Francisco - Mayor Ed Lee
Doug Payne, SolarTech
Kayla Platt, County of Alameda
Bill Powers, Consultant
Rafael Reyes, Bay Area Climate Collaborative
Bruce Riordan, Joint Policy Committee
Kirsten Schwind, Bay Localize
Ethan Sprague, SunRun Solar
Cliff Staton, Renewable Funding
Adam Stern, City of San Francisco DOE
Francesca Vietor, San Francisco Foundation/SF PUC
Stephanie Wang, Clean Coalition
Al Weinrub, Local Clean Energy Alliance
Steve Weissman, Berkeley Law
Dawn Weisz, Marin Energy Authority
Abby Young, BAAQMD

TO: Ken Alex, Michael Picker, and Cliff Rechtstaffen
FROM: Bay Area Local Renewable Power Stakeholders
DATE: September 20, 2011
RE: Bay Area Action to Help Reach the Governor's 12,000 MW Goal

OVERVIEW

The Bay Area can provide significant assistance to the State of California to help attain the Governor's goal for 12,000 MW of new local renewable power by 2020. Bay Area stakeholders are prepared to bring substantial resources to this important statewide effort. At the same time, there are state-level actions that must be taken to enable the Bay Area and other regions around the state to fully develop their local renewable power resources. This memo briefly summarizes the Bay Area's local renewables platform and outlines our specific needs, based on Bay Area conditions and experiences, for new state policies and programs. We look forward to discussing this proposal with you.

BAY AREA PROGRAM

Targets:
Bay Area public and private stakeholders will work together to create at least 2,400 MW of local renewable power by 2020. This total is 20% of the State's goal, commensurate with the nine-county region's share of the state's total electricity consumption. We recognize that the Bay Area's potential for local renewable power is far greater—for example, *Bay Area Smart Energy 2020* (Pacific Environment) has identified 16,000 MW of potential Bay Area rooftop PV—and we stand ready to work with our state partners to fulfill that potential.

Goals:
While the 2,400 MW target can be reached in a number of ways, our Bay Area effort will be designed to achieve five important goals:

1. Bring economic benefits to the nine county region, including business growth and quality job creation.
2. Reduce greenhouse gas emissions and other air pollutants in the Bay Area.
3. Improve the health of communities especially burdened by legacy pollutants.
4. Distribute the benefits of local renewables equitably, with consideration to those most impacted by the economic and climate crises.
5. Build a more resilient and prosperous Bay Area for the 21st century that will serve as a scalable model for the national clean economy.

Approach:
Our Bay Area local renewables work will be fully integrated with efforts to increase energy efficiency and reduce demand. We fully endorse the state's energy "loading order" policy, which identifies energy efficiency as the top priority for new resource additions. Efforts to add distributed renewables in the Bay Area will be closely coordinated with efficiency and conservation measures to achieve the most productive and cost-effective use of state and local funds.

Resources:
We will reach our goals by building on the impressive list of existing Bay Area public and private efforts to produce local renewable power. This includes Marin Clean Energy, CleanPowerSF, Solar Sonoma County, Climate Protection Campaign, Carbon Free Water by 2015 (Sonoma County Water Agency), Joint Venture Silicon Valley's Smart Microgrid, the 14 MW *SV-REP Project* (largest multi-agency solar procurement in the country), the East Bay's Smart Solar Program, Richmond Build, Kyoto USA's widespread schools-based solar projects and many others.

At the same time, the Bay Area is home to a number of powerful advocacy groups for local renewables including the Local Clean Energy Alliance, the Clean Coalition, SolarTech, Pacific Environment, LEAN Energy US, and the East Bay Green Corridor. Finally, our Bay Area solar industry is growing steadily with Solaria, SunRun Solar, Sun Light & Power, Sungevity, BrightSource Energy, SunPower, SolarCity and many others providing renewable products, services and jobs.

Bay Area Actions:
To build on these program achievements and incent new innovative initiatives from public, private and non-profit partners towards the 2,400 MW target, Bay Area stakeholders will take the following primary actions <u>within</u> the region.

1. Reduce permitting, inspection, and interconnection costs by 50 percent over the next 3 years through standardization of forms, unification of local codes, and reduction/elimination of paperwork, increasing access to financing options, and addressing local land use policies that restrict renewables sitting. This will include both staff level work and executive leadership to solve these local issues, and will be coordinated with other state efforts.
2. Expand the development of community choice aggregation programs—with aggressive local renewables resource plans, feed-in-tariffs, premium net metering, and new renewables procurement—by working with Sonoma County, City of Richmond, Monterey/Santa Cruz area and others who are exploring the CCA approach.
3. Fully utilize a wide range of locally-based implementation strategies, such as aggregate purchase programs, community solar approaches like Oakland Solar Mosaic, community solar "gardens" (SB 843), and power purchase agreements for large public and private sector institutions.
4. Conduct informational and promotional campaigns to spotlight/reward cities, counties, school districts and others that are installing renewable power, and provide the "push" and technical assistance needed for hundreds of new Bay Area projects.
5. Work with all established Bay Area utilities—City of Palo Alto Utilities, Silicon Valley Power, Alameda Municipal Power and Pacific Gas and Electric Company—to create model interconnection and inspection policies and processes, incentives, rate structures and other methods to increase local renewable power.

STATE ACTIONS NEEDED TO SUPPORT BAY AREA 2020 GOALS

Based on Bay Area conditions and experiences, we believe that a number of state actions are critical to achieving the statewide and Bay Area goals for 2020. We can and will strongly support these efforts, but state leadership is required.

1. PACE II Financing: Mount an aggressive campaign at the federal level, including organizing other states' support, for HR 2599, the new "PACE II" legislation. (The PACE Assessment Protection Act of 2011.)
2. On-Bill Financing: Advocate at the CPUC for an effective on-bill financing program for local renewable installations that will benefit a wide range of utility customers and address the fiscal liability issues for financial institutions and investor-owned utilities. Note: Sonoma County has a CEC/DOE on-water bill pilot project underway. Depending on the results of this pilot, water bills may provide another means of financing not only water efficiency measures but also other energy retrofit measures.)
3. Feed-In Tariff: Work with the CPUC, lawmakers, advocates and other stakeholders to support and adopt a strong, integrated, comprehensive statewide feed-in tariff program that would provide a dramatic boost to local renewable generation, create thousands of small clean energy producers in our communities and produce local jobs. A strong feed-in tariff could follow the prescription outlined in *Bay Area Smart Energy 2020* (Pacific Environment). This proposed tariff assumes commercial rooftop PV will supply about half of total Bay Area capacity, followed by larger ground-mounted systems, and residential rooftop PV.
4. Revolving Loan Financing: Develop a state Renewable Energy/Efficiency Development Revolving Loan Fund for commercial building owners and others, possibly funded through utility public goods charges.
5. Interconnection Reform: Push for rapid development of an improved statewide interconnection process that applies to all distribution grid interconnections. Help to accelerate the current reform process underway at the PUC and support it with any necessary legislation.
6. Integrated State Planning: Advocate for much stronger integrated resource planning to incorporate demand response, demand reduction, energy efficiency and renewable power. Create a stronger demand reduction policy framework and program, administered by an independent third-party, in which "negawatts" are procured in a way similar to energy generation.
7. Community Choice Aggregation: Provide critical support for the expansion of CCA's in California, including:
    - Credit-Enhancement: Pursue a range of credit-enhancing instruments to turn the new demand of CCAs into funded renewable energy projects. This includes project credit wrap/guarantees, contract reserve pools, government-provided subordinate debt in asset formation, and shifting a portion of infrastructure support at the California Infrastructure & Economic Development Bank to renewable energy projects.
    - Start-Up Financing: To solve a primary hurdle for CCA formation, repurpose a

portion of I-Bank and other funds to support CCA start-up through matching grant $1M allotments to qualified communities, released at specific milestones. (A live CCA is self-sustaining and develops financing capacity through its rate base once it is through the development phase.

- LEED Tax Credits: Review the federal statute model of extending LEED tax credits to public buildings, for possible parallel adoption as a state level statute extending tax credits for any renewables development that supplies only public load.
- Feed-in tariffs: Address and resolve the interconnection issues that hamper CCA efforts to implement their own feed-in tariffs.
- SB 790: Help pass SB 790 CCA (Leno) and sign it.

8. Co-Mingling of Public and Private Funds: Modify the tax treatment of public/private funds. There is a distinct disadvantage for public entities and governmental bodies under federal and state tax-based incentives for renewable energy project development. To the extent possible, regulations should be changed to allow public entities to co-mingle tax-exempt funds with private funding for the development of projects defined as having 100 % public purpose.
9. Local Government Incentives and Assistance: Support the creation of innovative private/public partnership financing that will provide working pools of capital to incentivize local and regional government investments in critical process infrastructure improvements, e.g., standardization of permitting, inspection, and interconnection requirements. Provide technical assistance to local permitting offices that are standardizing their permitting processes for how to treat new technologies that are not part of existing codes, e.g. micro-inverters, building-integrated photovoltaics and (adding weight to) “living roofs.” Support workforce training for industry professionals to keep up with ever-changing technology, and policies, and to overcome barriers for those entering the workforce.

We look forward to discussing these recommendations with you. In conclusion, let us spotlight the obvious—that one critical change to greatly accelerate progress on the measures described above would be to address the current low cost of fossil fuels relative to renewable energy. If the true cost of fossil fuels were reflected in their prices instead of being externalized, a true public/private partnership could aggressively tackle the obstacles to realizing the 12,000 MW goal.