



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

BOARD OF DIRECTORS  
CLIMATE PROTECTION COMMITTEE  
COMMITTEE MEMBERS

JENNIFER HOSTERMAN – CHAIR  
SUSAN GARNER  
CAROLE GROOM

GAYLE B. UILKEMA – VICE CHAIR  
JOHN GIOIA  
DAVID HUDSON  
SHIRLEE ZANE

MONDAY  
MARCH 7, 2011  
11:00 A.M.

4<sup>th</sup> FLOOR CONFERENCE ROOM  
939 ELLIS STREET  
SAN FRANCISCO, CA 94109

AGENDA

1. **CALL TO ORDER - ROLL CALL**

2. **PUBLIC COMMENT PERIOD**

*(Public Comment on Non-Agenda Items Pursuant to Government Code § 54954.3) Members of the public are afforded the opportunity to speak on any agenda item. All agendas for regular meetings are posted at District headquarters, 939 Ellis Street, San Francisco, CA, at least 72 hours in advance of a regular meeting. At the beginning of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Committee's subject matter jurisdiction. Speakers will be limited to three (3) minutes each.*

3. **APPROVAL OF MINUTES OF NOVEMBER 29, 2010**

4. **UPDATE ON JOINT POLICY COMMITTEE AND CLIMATE BAY AREA**

**J. Roggenkamp/4646**

[jroggenkamp@baaqmd.gov](mailto:jroggenkamp@baaqmd.gov)

*Bruce Riordan, climate consultant to the Joint Policy Committee, will provide an update on the Joint Policy Committee/Climate Bay Area development of a regional climate protection strategy.*

5. **LOCAL CLIMATE ACTION PLANNING UPDATE**

**H. Hilken/4642**

[hhilken@baaqmd.gov](mailto:hhilken@baaqmd.gov)

*The Committee will receive an update on the status of local climate action plans in the Bay Area.*

6. **UPDATE ON AB 32 IMPLEMENTATION**

**B. Bateman/4653**

[bbateman@baaqmd.gov](mailto:bbateman@baaqmd.gov)

*The Committee will receive an update on the Air District actions to implement AB 32 control measures.*

7. **COMMITTEE MEMBERS' COMMENTS**

*Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may; ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Government Code § 54954.2)*

8. **TIME AND PLACE OF NEXT MEETING – AT THE CALL OF THE CHAIR**

9. **ADJOURNMENT**

**CONTACT THE EXECUTIVE OFFICE - 939 ELLIS STREET  
SAN FRANCISCO, CA 94109**

**(415) 749-5130  
FAX: (415) 928-8560  
BAAQMD homepage:  
[www.baaqmd.gov](http://www.baaqmd.gov)**

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities (notification to the Executive Office should be given at least three working days prior to the date of the meeting so that arrangements can be made accordingly).
- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the District's offices at 939 Ellis Street, San Francisco, CA 94109, at the time such writing is made available to all, or a majority of all, members of that body. Such writing(s) may also be posted on the District's website ([www.baaqmd.gov](http://www.baaqmd.gov)) at that time.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
**939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109**  
**(415) 771-6000**

**EXECUTIVE OFFICE:**  
**MONTHLY CALENDAR OF DISTRICT MEETINGS**

**MARCH 2011**

<b><u>TYPE OF MEETING</u></b>	<b><u>DAY</u></b>	<b><u>DATE</u></b>	<b><u>TIME</u></b>	<b><u>ROOM</u></b>
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	2	9:45 a.m.	Board Room
<b>Board of Directors Stationary Source Committee</b> <i>(At the Call of the Chair)</i>	Thursday	3	9:30 a.m.	Board Room
<b>Board of Directors Public Outreach Committee</b> <i>(At the Call of the Chair)</i>	Thursday	3	11:00 a.m. Following Stationary Source Meeting	Board Room
<b>Board of Directors Legislative Committee</b> <i>(At the Call of the Chair)</i>	Monday	7	9:45 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Climate Protection Committee</b> <i>(At the Call of the Chair)</i>	Monday	7	11:00 a.m. Following Legislative Meeting	4 <sup>th</sup> Floor Conf. Room
<b>Advisory Council Meeting</b>	Wednesday	9	9:00 a.m.	Board Room
<b>Board of Directors Personnel Committee</b> <i>(At the Call of the Chair)</i>	Monday	14	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	16	9:45 a.m.	Board Room
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(At the Call of the Chair)</i>	Wednesday	23	1:00 p.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee</b> <i>(Meets 4<sup>th</sup> Thursday each Month)</i>	Thursday	24	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

**APRIL 2011**

<b><u>TYPE OF MEETING</u></b>	<b><u>DAY</u></b>	<b><u>DATE</u></b>	<b><u>TIME</u></b>	<b><u>ROOM</u></b>
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	6	9:45 a.m.	Board Room
<b>Board of Directors Executive Committee</b> <i>(At the Call of the Chair)</i>	Monday	11	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	20	9:45 a.m.	Board Room

## APRIL 2011

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Mobile Source Committee</b> <i>(Meets 4<sup>th</sup> Thursday each Month)</i>	Thursday	28	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(At the Call of the Chair)</i>	Thursday	28	11:00 a.m. Following Mobile Source	4 <sup>th</sup> Floor Conf. Room

## MAY 2011

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	4	9:45 a.m.	Board Room
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	18	9:45 a.m.	Board Room
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(At the Call of the Chair)</i>	Wednesday	25	1:00 p.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee</b> <i>(Meets 4<sup>th</sup> Thursday each Month)</i>	Thursday	26	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

HL – 2/28/11 (7:25 a.m.)  
P/Library/Forms/Calendar/Calendar/Moncal

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Memorandum

To: Chairperson Hosterman and Members  
of the Climate Protection Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: February 22, 2011

Re: Climate Protection Committee Draft Meeting Minutes

RECOMMENDED ACTION:

Approve attached draft minutes of the Climate Protection Committee meeting of November 29, 2010.

DISCUSSION

Attached for your review and approval are the draft minutes of the November 29, 2010 Climate Protection Committee meeting.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, California 94109  
(415) 771-6000

**DRAFT MINUTES**

Summary of Board of Directors  
Climate Protection Committee  
4<sup>th</sup> Floor Conference Room  
Monday, November 29, 2010, 9:30 a.m.

- Call to Order - Roll Call:** Chairperson Pamela Torliatt called the meeting to order at 9:34 a.m.
- Present:** Chairperson Pamela Torliatt, and Directors Dan Dunnigan, Susan Garner, John Gioia, Carole Groom, and David Hudson
- Absent:** Vice Chairperson Jennifer Hosterman, and Directors Dan Dunnigan, Gayle B. Uilkema and Shirlee Zane
- Also Present:** Chairperson Brad Wagenknecht
- Public Comment Period:** None

**Approval of Minutes of May 19, 2010**

**Board Action:** Director Hudson made a motion to approve the minutes of the May 19, 2010 Climate Protection Committee; seconded by Director Gioia; carried unanimously without objection.

**Status Report on Implementation of AB 32**

Director of Engineering, Brian Bateman, gave an overview and presentation of AB 32 Greenhouse Gas (GHG) reduction measures, with the goal of reducing GHG emissions to 1990 levels by 2020. He said the Scoping Plan is a roadmap for regulations, voluntary actions, and incentives, and includes 72 GHG reduction measures. He noted that a full list of measures which provides estimates of reductions, as well as status of their adoption, is at each Committee member's place.

Mr. Bateman presented a graph showing a column of projected business-as-usual emissions without AB 32 measures and another column showing AB 32 measures in the Scoping Plan. Transportation is the largest sector, followed by electrical generation, natural gas, and industry.

Director Gioia questioned and confirmed with Mr. Bateman that the emissions information relating to natural gas in industry is both from the commercial and residential sectors.

Mr. Bateman discussed emission caps by the Air Resources Board (ARB) and noted some industries were deemed not suitable for the cap-and-trade program, including various sectors that use high global warming potential gases.

Mr. Bateman then discussed the 9 discrete early action measures, as follows:

- Low carbon fuel standard, ship electrification at ports, aerodynamic efficiency for heavy duty vehicles, tire pressure program
- Landfill methane control
- Measures controlling high global warming potential compounds:
  - Motor vehicle air conditioning servicing (non-professional), semiconductor manufacturing, sulfur hexafluoride use (non-utility, non-semiconductor), consumer products

He discussed other measures that have been adopted, including:

- Pavley regulations (new passenger vehicles)
- Port drayage trucks
- Stationary equipment refrigerant management program
- Renewables Portfolio Standards and Renewable Electricity Standard
- Sulfur Hexafluoride in the electricity sector
- SB 375 regional emission reduction targets

Chair Torliatt questioned and confirmed that adopted targets for the Central Valley are much lower, and Mr. Bateman agreed to provide all target figures by county to Committee members. He noted that the cap-and-trade program is to be considered for adoption at the December 16-17, 2010 meeting and is a market-based measure which provides flexibility in reducing emissions. He noted affected facilities must:

- Reduce GHG emissions over time as the cap is reduced,
- Acquire “allowances” from facilities that reduce emissions by more than what the cap requires, and/or
- Acquire offsets (verifiable GHG reductions from sources not in the cap)

In terms of applicability, the first phase would start in 2012 for large industrial facilities and power generators (including imports) with emissions greater than 25,000 metric tons per year (CO<sub>2</sub>e). In response to a question of Chair Torliatt, Mr. Bateman noted the Bay Area will have about 75 facilities in this category, such as refineries and power plants. Chair Torliatt questioned the baseline used, and Mr. Bateman explained that it is based on statewide reporting requirements which took effect last year. It did not require much more effort for the District to capture GHG emissions because it was already integrated, and he noted that the cap-and-trade program requires reporting and verification through third party verifiers.

The second phase will take effect 2015 for distributors of transportation fuels, natural gas and other fuels and Mr. Bateman presented a figure of baseline emissions, cap level and abatement required to achieve the cap. The initial cap is set at the emissions forecast for 2012 and is reduced 2% per year in the initial compliance period (2012 through 2014). In the second phase, the cap is reduced by 3% per year from 2015 to 2020 timeframe, which includes the second and third compliance periods.

Mr. Bateman said this involves an allowance, which is a permit to emit 1 metric ton CO<sub>2</sub>e. Therefore, each facility must turn in allowances equal to their actual emissions at the end of each 3-year compliance period. The amount of allowances put out by CARB is equal to the cap amount, which will decline over time.

Mr. Broadbent spoke of CARB's efforts to push the federal government to put this program into place nationally. There is concern that facilities in California may be put at a competitive disadvantage. He said staff is watching and commenting and awaiting what will be done, given the economic climate. In response to questions of Directors, Mr. Bunker noted there is a provision that allows for suspension, and the Committee briefly discussed the range of scenarios which could potentially occur. Mr. Broadbent confirmed there has been discussion amongst industry, and staff will keep the Committee apprised of events.

Mr. Bateman continued his presentation, stating the issuance of allowances will be:

- Mainly free at program start;
- Free allowances based on efficiency benchmarking for each industry;
- Increasing auction percentage over time;
- Legislature to determine use of auction revenue;
- Electricity distribution utilities get free allowances, but must auction them and use proceeds to benefit rate payers;
- Some allowances will be set aside and sold at fixed price in Price Containment Reserve

He noted that the program is for California, but CARB sees it linked to other GHG trading systems, such as the Western Climate Initiative (WCI), and several WCI partner members are preparing cap-and-trade programs like CARB's with the hopes of linking them together.

Regarding cost of allowances, CARB estimates that 2020 costs will be in the range of \$15 to \$30 per metric ton CO<sub>2</sub>e.

Mr. Bateman discussed outstanding issues as:

- Conflict of interest requirements for GHG verifiers which he said will make it difficult for air districts to qualify.
- CARB doubled amount of offsets allowed (up to 8% of a facility's compliance obligation) compared to initial draft rule; and
- International offsets allowed (25 to 50%), which are restricted to Mexico and Canada

Regarding the District's role in cap and trade, staff has been participating in and tracking program development, will comment on the proposed regulation and coordinate with CAPCOA, track program implementation, and review permit applications for modifications made at facilities to meet declining GHG emissions cap.

Chair Torliatt questioned if the Committee should make a recommendation to the Board to take a position prior to the vote. Mr. Broadbent said the issue is still somewhat fluid, and as needed, staff can discuss the matter with the Board of Directors at their December 15, 2010 meeting.

Director Hudson referred to incentivizing and thinks the way CARB is regulating takes away the ability of the District Board. He asked to emphasize the opportunity for incentives, similar to what the District did with the Port of Oakland, as he believes some industries will be significantly affected.

#### Committee Comments/Discussion:

Chair Torliatt referred to reforestation offsets and its link to orchards and food production and cited it as an incentive for agriculture especially in the Central Valley.



Committee members thanked staff for the presentation.

**Committee Action:** None; for information only.

### **Dr. Stephen Schneider Climate Leadership Award**

Director of Communications, Lisa Fasano, gave the staff presentation, stating Dr. Stephen Schneider was a renowned climate scientist and professor at the Senior Fellow Woods Institute for the Environment at Stanford University. He recently passed on July 19, 2010. His legacy and work is worth remembering and recognizing. Staff proposes an award attributed to his legacy, and presented examples of awards which would appropriately be made of recycled materials. She said staff proposes annually recognizing local climate leaders who have made a regional, state, national or international difference.

Next steps include:

- Presenting the first award to Dr. Terry Root, in memoriam for Dr. Schneider;
- Staff would work on an award program timeline;
- Staff would put together nomination requirements and criteria, and review what others have done across the state.

Staff recommends the Committee recommend that the Board of Directors establish an annual Climate Leadership Award Program in the name of Dr. Stephen Schneider.

#### Committee Comments/Discussion:

Directors discussed venues in which to present the awards such as climate summits, a special Board meeting ceremony, or a Board Retreat and asked that staff flush out criteria, review other organizations that have issued climate awards, and return to the Committee with an update.

Directors discussed and confirmed with staff the desire to present an award on an annual basis, and to honor Dr. Schneider's climate protection leadership and present this award to his widow, Dr. Terry Root, a well-known scientist and climatologist. Staff will develop nominating and selection criteria for the award program, as well as a timeline to accept nominations, and return to the Committee.

**Committee Action:** Director Gioia made a motion to recommend Board of Directors' approval to initiate a Climate Leadership Award in honor of Dr. Stephen Schneider; Director Hudson seconded the motion; carried unanimously without objection.

### **Climate Protection Grant Program Update**

Principal Environmental Planner, Abby Young, gave the staff presentation and update, stating that in 2007, the Board awarded 53 climate protection grants totaling \$3 million to organizations and government agencies in all nine Bay Area counties. Since this time, staff has worked with recipients to ensure completion of deliverables and track results of the projects, which were made in several diverse areas.

Ms. Young reviewed program objectives, noting there were 5 categories of grants: Youth Outreach, Climate Planning, Regional Strategies, Regionalizing Best Practices, and Fostering Innovation.

She reviewed the following Grant Highlights:

San Mateo County Climate Program:

- \$75,000 for Resource Conservation Specialist
- Leveraged \$60,000 from County & C/CAG
- Helped 20 cities complete GHG inventories
- Matched cities with trained volunteers
- All 20 cities participating in CO2 San Mateo County

Santa Rosa Aquatic Biomass:

- \$75,000 to produce fuel from biomass
- Co-benefit: improved water quality
- Utilizes winery, dairy and wastewater by-products
- Produces electricity for City fleet
- Pilots a new technology for agricultural application

Richmond Youth Solar Training Program:

- \$24,000 to train 18 at-risk youth;
- Extensive training in solar power technology and installation
- Youth install 2KW array at Eco-village Farm Center in Richmond
- Prepared for North American Board of Certified Energy Practitioners Exam

El Cerrito Revolving Fund:

- \$75,000 for two 50% FTE
- Implemented Energy and Water Efficiency Program
- Secured additional grants to make loans to municipal departments
- Loans repaid with savings from energy and water efficiency projects

Earth Team High School Program:

- \$22,000 for climate programs in East Bay high schools (Alameda, Contra Costa counties)
- Expanded comprehensive climate program:
  - Global warming Awareness Month
  - Clubs, assemblies, speakers, events
  - Multi-media activities
- Over 1,000 youth impacted in 32 schools

Marin Community Choice Aggregation:

- \$75,000 to develop CCA program
- Marin local governments purchase electricity for local customers
- Supports local green energy sources
- 25% renewable at PG&E prices
- Immediate 17,000 ton reduction in GHGs

Ms. Young presented quantitative results of the program:

- GHGs reduced (annual metric tons):
  - Short term = 184,370 Long term = 290,644
- Job creation:
  - Adults = 15+ Youth = 61 Temporary = 25+

- Financial savings (annual):
  - Local governments = \$180,000 Residents = \$168,500
- 263 Public meetings and 7,661 participants
- Over 7,000 youth actively engaged
- Leadership for transformative change:
  - Built capacity of local workforce (local government staff, consultants, youth)
  - Accelerated pace and scale of CAPs
  - Seeded groundbreaking ideas (BerkeleyFIRST, Marin Community Choice Aggregation (CCA))
  - Poised region for climate collaboration (AB32, SB375)
  - Air quality co-benefits from all projects

Ms. Young presented guidebooks and tool kits to show the types of activities, which she said are promoted on the District's website.

Committee Comments/Discussion:

Director Gioia referred to the staff report and asked for expanded information on actual grant guidelines and how grant funds were used. He reported that the City of Richmond is in the process of updating their General Plan and confirmed with Ms. Young that (they) created an Energy and Climate Element, which had not yet been adopted.

Director Hudson questioned and confirmed with Ms. Young that Clean Air Plans were not in the grant program, as funding went toward the planning and implementation of projects.

In response to questions of Chair Torliatt, Ms. Young clarified that the total reduced emissions cited for Marin CCA were not solely due to Air District funding, as it would be difficult to break out the leveraging of funds projects use from various sources. Ms. Young suggested staff could more accurately reflect that the Air District's funding was significant in bringing about reductions.

Director Garner confirmed that grant funds were distributed in 2008 as a one-time program.

Director Groom thanked staff for their work on the program, stating that San Mateo County would have never been able to fund the policy work completed which she said is now integrated into their General Plan, Housing Element, and Climate Element.

**Committee Action:** None; for information only.

**Committee Members' Comments:** None

**Time and Place of Next Meeting:** 9:30 a.m. – At the Call of the Chair  
939 Ellis Street, San Francisco, CA 94109

**Adjournment:** The meeting was adjourned at 11:09 a.m.

Lisa Harper  
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Office Memorandum

To: Chairperson Hosterman and Members  
of the Climate Protection Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: February 28, 2011

Re: Update on the Joint Policy Committee's Climate Bay Area

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RECOMMENDED ACTION:

None. Information only.

BACKGROUND

The Joint Policy Committee (JPC) is comprised of Board/Commission representatives of the four Bay Area regional agencies – Association of Bay Area Governments, Bay Area Air Quality Management District, Bay Conservation and Development Commission and Metropolitan Transportation Commission. One of JPC's key programs is Climate Bay Area which focuses on coordinating the climate protection activities of the four agencies and providing a means for networking the agencies' climate protection activities with other organizations in the region. Staff of the four regional agencies are working with Bruce Riordan, climate consultant to JPC, on identifying the future focus of the agencies joint climate work to ensure a more effective use of our collective resources.

DISCUSSION

At the March 7, 2011 meeting of the Climate Protection Committee, Bruce Riordan will present the staff's work to date to identify the most important areas for the agencies to focus their climate protection activities. A draft document entitled "Climate Bay Area, Regional Strategy Recommendation" dated January 7, 2011 is attached.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Jean Roggenkamp

Attachment: Climate Bay Area Regional Strategy Recommendations



# ATTACHMENT

## Climate Bay Area Regional Strategy Recommendations **DISCUSSION DRAFT — January 7, 2011**

Climate Bay Area developed the findings and recommendations below through interviews and discussions with more than 100 Bay Area climate/energy *workers* and other stakeholders. The interviews sought to identify:

- The most important climate/energy projects in the region
- The biggest barriers to both reducing our greenhouse gas emissions and preparing for Bay Area climate change impacts
- How to advance Bay Area climate/energy action in the near-term, given the current economic and political environment

*The complete CBA inventory of projects and programs can be viewed online at the Air District climate portal <http://www.ca-ilg.org/node/2255>.*

### SUMMARY FINDINGS

#### **Finding #1:**

There are 100+ excellent, Bay Area climate/energy projects and programs—run by local governments, the private sector, and non-profits—covering building energy, transportation, waste/consumption, agriculture, adaptation and other sectors.

#### **Finding #2:**

While there is considerable *activity*, we are not working at the speed and scale required to (a) begin shifting the region to a low-carbon energy system, and (b) build a more climate-resilient Bay Area.

#### **Finding #3:**

There are significant Bay Area opportunities—in energy efficiency, local renewable power, transportation electrification, etc.— to address the climate crisis and the economic crisis *together*.

#### **Finding #4:**

There are 4 primary reasons why Bay Area stakeholders are taking action on climate and energy:

1. Successful implementation of **AB 32**, recently reaffirmed by California voters, depends significantly on local and regional support if we are to meet the 2020 goal. Strategies like green buildings, improving transportation, expanding renewable energy and water conservation all require, in varying degrees, local and regional actions to implement overall state policies and direction.
2. More than 30 Bay Area local governments have created **climate action plans** that support AB 32 and advance local priority strategies. The implementation of certain high-impact strategies in these plans will both reduce GHGs and provide important **co-benefits** for their

communities—including job creation, business growth, lower utility bills, improved health, expanded transportation options and stronger communities.

3. Bay Area businesses, local governments, non-profits, foundations, etc. are **laying the foundation** for our low-carbon energy future through innovative pilot projects, cross-sector partnerships, the development of bold new ideas, long-range planning, and state-level advocacy for supporting legislation and resources. In particular, we are learning how high-impact strategies like microgrids, building retrofit job training, Property Assisted Clean Energy (PACE) financing, electric vehicle infrastructure, and Priority Development Areas *really work* so they can be ramped-up to regional, state and national scales when resources eventually become available.
4. Local communities, regional agencies, utilities and other stakeholders are beginning to prepare for the unavoidable Bay Area **climate/energy impacts**—sea level rise, freshwater deficits, energy shortages, extreme weather events, etc.—that threaten our public health, economic well-being, biodiversity and quality of life. By undertaking planning activities to make the region more resilient, stakeholders are seeking to both protect what we have and pro-actively create a much stronger Bay Area to compete in the fast-changing 21<sup>st</sup> century.

## RECOMMENDATION

To accelerate the Bay Area’s climate/energy efforts, key regional stakeholders—including the regional agencies, cities/counties, businesses groups, and foundations— should focus their resources on five high-impact projects. This focused approach will accomplish two things. In the next few years, these five projects will support key parts of AB 32, provide great opportunities for learning, demonstrate their co-benefits and help prepare the Bay Area for climate/energy impacts. Looking longer term, these high-impact projects have the potential to integrate climate action, economic development and equity enhancements to help transform the Bay Area.

## PROJECTS

### #1 — Energy Upgrade California (residential and commercial building retrofits)

Energy efficiency is one of the most cost-effective and important strategies for reducing GHGs, increasing energy independence, creating jobs and boosting local economies. McKinsey and Company’s 2009 GHG strategy analysis shows that retrofitting commercial/residential building envelopes, HVAC systems (heating, ventilation and cooling) and lighting are all “net present value (NPV)-positive,” where cash flows from energy savings outweigh the initial upfront capital investment.

We know that attacking residential and commercial energy waste addresses one our of largest GHG sectors; In California, residential and commercial buildings are responsible for 22 percent of total GHG emissions, second only to transportation. Furthermore, a Bay Area-wide building retrofit program could generate tens of thousands of jobs at varying skill levels and boost thousands of small businesses. A California Community Colleges study in 2009 forecast a 38% increase over 3 years in Bay Area building energy efficiency jobs. Next Ten’s *Many Shades of*



*Green* found that California green jobs grew by 36% from 1995-2008 while overall jobs grew only by 13%. Finally, energy-saving retrofits are effectively a permanent utility bill reduction for all households, with particular importance for low- and fixed-income individuals.

Currently, there are a number of separate retrofit programs run by Bay Area cities/counties, PG&E and other utilities, private companies, non-profits and others. The new Energy Upgrade California (EUC) program, funded with \$34 million from the CEC and CPUC, is charged with integrating and strengthening these mostly uncoordinated efforts. EUC will collaborate with its public and private partners to build a more consumer-friendly and effective retrofit system through an integrated web site, marketing/outreach, a financing options clearinghouse, quality assurance programs and coordination with workforce development efforts. EUC will focus much of its statewide efforts on assisting 18 “Plus Counties,” a group that includes all nine counties in our region. EUC will also include two pilot projects (one in Sonoma County) to reconfigure PACE financing programs that have been largely stalled by federal loan agency directives.

***Possible Regional Agency Roles to Support Project #1:***

- Provide Bay Area coordination for EUC program, including the Local Government Advisory Committee (ABAG)
- Coordinate regional retrofit funding applications\* (ABAG)
- Convene stakeholders to design a sustainable, long-term, comprehensive Bay Area retrofit program (ABAG/Climate Bay Area)

\* Denotes work already underway

**#2 — Bay Area Smart Energy 2020 (local decentralized renewable power)**

In San Diego, advocacy groups have developed a strategic energy plan called *San Diego Smart Energy 2020* detailing how that region can get 50 percent of its electricity from renewable power by 2020 and reduce power generation GHGs by 50 percent, both in a cost-effective manner. The plan combines energy efficiency and conservation measures with a greater reliance on local solar, wind and combined heat and power (CHP) power plants, plus improved “smart grid” procedures. The San Diego plan is part of a growing movement that seeks to increase what is called “distributed” or decentralized renewable power, featuring many small and mid-sized solar photovoltaic installations on commercial buildings, schools, local government facilities, areas surrounding freeways and other disturbed/degraded urban open spaces. In this approach, thousands of power producers feed the overall electricity grid.

A 2010 study by UC Berkeley’s RAEL found that a California feed-in-tariff, the financial incentive that makes distributed generation attractive, would, in the next ten years, create three times the number of jobs, increase direct state revenues by \$1.7 billion and stimulate up to \$50 billion in private new investment versus a “business-as-usual” renewable energy supply approach. Distributed power could also be brought on-line much faster than distant centralized sources with long transmission lines. Such a program would increase energy independence (from natural gas price increases, hydropower declines, etc.), bring revenue to building owners and improve air quality. The study found that ratepayers would see a small increase in their bills

from distributed power in the near-term, but would save money long-term as fossil fuel prices inevitably rise.

A number of Bay Area groups are now studying and advocating for local renewable power in our region. Pacific Environment's *Bay Area Smart Energy 2020* (funded by Bay Area foundations) is conducting an analysis similar to the San Diego study. The FiT coalition and others are working in Sacramento for critical legislation that would provide local power producers the monetary incentive to install solar and wind facilities. In January 2011, Marin Clean Energy is kicking off a pilot feed-in-tariff project to pay local renewable energy producers. The Local Clean Energy Alliance and the Sierra Club have just released *Community Power: Decentralized Renewable Energy in California*, a detailed review of costs, economic and environmental benefits, and key issues of the local power approach.

***Possible Regional Agency Roles to Support Project #2:***

- Assist interested stakeholders by convening and facilitating a group of cities, counties, commercial property owners and others to learn about distributed power, including possible implementation steps. (Climate Bay Area)

**#3 — The Bay Area Electric Vehicle/Infrastructure Strategy**

Electrification of the transportation system—through plug-ins like the Chevrolet Volt and full battery EVs like the Nissan Leaf—has the potential to transform our biggest Bay Area GHG sector and improve air quality. A study of PHEV 20's (plug-in hybrid vehicles that go 20 miles on a charge) by the Electric Power Research Institute (EPRI) found that GHGs, *including those from electricity production*, were reduced by at least one-third and as high as two-thirds compared to a conventional vehicle, depending on the power plant fuel source. The Bay Area already has some of the nation's least carbon-intensive electricity (primarily hydroelectric, natural gas and nuclear) and our increasing use of solar, wind and other renewables will make EVs even greener. Similar to the effect of driving less demonstrated in CEOs for Cities' *Portland Dividend*, more EVs can shift billions in Bay Area energy dollars that are currently going to oil companies and foreign countries and redirect them to the local economy.

The regional EV strategy will bring together currently uncoordinated EV stakeholders—beginning with the regional agencies (MTC, BAAQMD and ABAG) and then extending to vehicle and infrastructure companies, local governments, utilities, advocacy groups, the State of California, and others. The strategy will provide a foundation “roadmap” for the on-going, private/public collaboration needed to create a customer-friendly regional EV system, attract critical investment from federal and private sources, and make the Bay Area the EV Capital of the United States.

***Possible Regional Agency Roles to Support Project #3:***

- Lead the development of a regional EV strategy (BAAQMD, ABAG, MTC)
- Assist with funding for EV infrastructure for home charging, public charging, fleets, taxis and car sharing programs (BAAQMD, ABAG, MTC)

#### **#4 — Sustainable Communities Strategy (SB 375 -- transportation/land use)**

Transportation is the largest GHG sector in the Bay Area inventory and a key contributor to local/regional air pollution. An efficient transportation network is critical to regional economic prosperity and to insuring access for millions to jobs, services and recreation. Long-term planning to better coordinate land use and transportation investments is one of the most important strategies for reducing GHGs and other air pollutants, and making our transportation network more productive. Since much of our travel is inter-city, the planning process must bring together local governments, transportation providers and regional agencies.

The Sustainable Communities Strategy (SCS) will implement California's third key climate/energy law (following the Pavley bill for vehicles and AB 32) and will guide the Bay Area's growth over the next 25 years. While its transportation GHG goals—a 7% reduction in per capita transportation GHGs by 2020 and a 15% reduction by 2035—are relatively modest compared to the scale of the transportation GHG problem, the SCS could also produce critical reductions in building energy and water use. Furthermore, the SCS will be able to guide future development based on an analysis of sea level rise, extreme rainfall/flood events, threats to biodiversity and other expected climate impacts.

##### ***Possible Regional Agency Roles to Support Project #4:***

- Lead the development of the Sustainable Community Strategy\* (MTC and ABAG with assistance from BAAQMD and BCDC)

\* Denotes work already underway

#### **#5 — Bay Area Climate Adaptation Strategy**

Over the next few decades, the Bay Area will face significant and unavoidable climate/energy impacts that will threaten our public health, economic prosperity and natural ecosystems. These changes, some of which have already begun, will include sea level rise, fresh water deficits, energy shortages, poorer air quality, extreme heat and rainfall events, and important loss of plant and animal species. While these impacts will affect everyone, some more vulnerable populations and geographic areas will be at much greater risk.

A pro-active and flexible Bay Area Climate Adaptation Strategy will make our region more resilient and prepared for these changing conditions. For example, implementing energy efficiency and water conservation programs now will help us deal with future water shortages and energy price spikes. Planning for bay and coastal shoreline areas with sea level rise in mind will help protect both human infrastructure and natural ecosystems. Identifying high-risk groups for heat stress and other health impacts will help us to implement prevention measures that will save lives. Projections of where plant and animal species are threatened and where they will be most likely to survive can help us design corridors to facilitate their movement.

Because these issues cross city and county lines (and sometimes reach outside the nine-counties) and because they often interact with each other, we must create a coordinated *Bay Area* approach involving diverse stakeholders. Because we will learn more about both problems and solutions as

we move forward, we must devise a flexible strategy approach. The first steps in this process have already begun. A PIER/UC Berkeley report to be released in February will outline the current knowledge on key climate impacts in the nine-county region. In December, Climate Bay Area convened the first regional stakeholder group to outline the goals of a coordinated adaptation planning process. Next, we must secure the resources needed (public agencies, foundations, universities and private sources) to bring together the key players to build the Bay Area strategy.

***Possible Regional Agency Roles to Support Project #5:***

- Lead a coalition of stakeholders to develop a regional adaptation strategy and an on-going adaptation planning process. (Climate Bay Area)

**KEY SUPPORTING ACTIONS**

While the five projects listed above are the heart of the near-term regional climate strategy, there are four important supporting actions that will help the projects to move forward. Since these efforts are not the specific responsibility of any one group, the regional agencies could play a key role in convening stakeholders and coordinating regional action or advocacy.

**Pricing**

The very best thing to do to make regional agency, local government, and private sector projects GO is to get the pricing right. If state and national policies shifted the economic system to favor actions that reduce GHGs (while remaining revenue neutral), we would unleash tremendous innovation from Bay Area businesses, local governments and individuals. Revenue neutrality can be attained through a cap-and-dividend approach or a tax shift where other taxes are lowered.

<http://www.carbontax.org/introduction/>

**Story**

We need to create and tell a compelling, positive narrative that describes, in personal terms, an attractive and stronger Bay Area *where we will want to live in 2020 and beyond*. The story will showcase a Bay Area that provides an innovative 21<sup>st</sup> century model for the nation and the world—health, jobs, quality of life, vibrant communities, resilient, etc.—**and a much reduced carbon footprint.**

**Scorecard**

To ground the region, we should create and broadcast a clear picture of *where we are*. We can design and produce a quarterly **Bay Area Scorecard** reporting on Kwhs, electricity power mix, natural gas therms, gasoline/diesel consumption and other key indicators. The scorecard will also report on status and key issues for the five high-impact Bay Area projects and other key strategies.

**High-Level Agreement on speed and scale**

We must obtain high-level agreement among a diverse set of Bay Area leaders on the speed and scale required for significant Bay Area action on climate, economic development and social equity. Through the Climate Bay Area/San Francisco Foundation's *30 Leaders Project*, we will identify and explore the common ground for bold action among the Bay Area's economic,

equity, and environmental agendas. How can we together forge a powerful movement that will make the Bay Area a model for the world for the 21<sup>st</sup> century? Topics may include leadership, governance and resources.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Memorandum

To: Chairperson Hosterman and Members  
of the Climate Protection Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: February 16, 2011

Re: Local Government Climate Action Plan Update

RECOMMENDED ACTION:

None. Information only.

BACKGROUND

Some local governments in the Bay Area have been measuring and tracking their greenhouse gas (GHG) emissions since the mid-1990's. Over the past fifteen years, the number of local governments addressing climate protection in their planning activities has increased significantly. Today, over thirty local governments in the Bay Area have adopted local climate action plans (CAPs) to reduce GHG emissions, with many more plans in development.

DISCUSSION

The District has supported the development of local CAPs through a variety of activities, including:

- Offering Climate Protection Grants to develop CAPs and hire climate/energy program staff;
- Convening county-based GHG inventory training workshops with ICLEI;
- Convening Bay Area regional climate protection summits in 2006 and 2009;
- Launching a web portal for Bay Area climate planning with the Institute for Local Government;
- Producing and distributing CEQA-related guidance and tools; and
- Providing responses to requests for data and technical assistance.

Staff will provide an update on the status of climate action planning in the Bay Area, including an overview of CAPs produced to date, those under development, and current assistance needed by local governments to continue with and improve their climate action planning efforts.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Abby Young  
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Memorandum

To: Chairperson Hosterman and Members  
of the Climate Protection Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: February 18, 2011

Re: Update on Implementation of AB-32 Control Measures

RECOMMENDED ACTION:

None. Information only.

BACKGROUND

Following the approval of their Climate Change Scoping Plan in December 2008, the California Air Resources Board (CARB) has adopted many of the greenhouse gas (GHG) emission reduction measures identified in the Plan. These include direct regulations for certain mobile and stationary GHG source categories, and the cap-and-trade regulation which will reduce GHG emissions from many sectors through a market-based approach.

District staff has supported CARB in the development of many of the GHG regulations that have been adopted under AB-32. The District will also be taking the lead, and/or assisting CARB, in the implementation and enforcement of direct GHG regulations that apply to Bay Area facilities.

DISCUSSION

Staff will provide an update on the status of implementation of AB-32 control measures, including the cap-and-trade regulation, the landfill methane control regulation, the semiconductor operations regulation, the stationary equipment refrigerant management regulation, and the sulfur hexafluoride regulations.

Staff will also provide a summary of a January 24, 2011, Superior Court tentative decision on a lawsuit that may affect the implementation of the Scoping Plan.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Brian Bateman  
Reviewed by: Jeff McKay



