CITY OF OAKLAND

AGENDA REPORT

TO: Office of the City Administrator
ATTN: Dan Lindheim
FROM: Public Works Agency
DATE: March 30, 2010

RE: **Presentation On Oakland Energy And Climate Action Planning**

SUMMARY

In July 2009, the City Council directed staff to develop a draft Oakland Energy and Climate Action Plan (ECAP) using a preliminary planning greenhouse gas (GHG) reduction goal of 36% below 2005 GHG emissions by 2020.

A draft ECAP has been developed to identify and prioritize actions to reduce energy consumption and GHG emissions to meet the adopted City Council GHG reduction goal. The ECAP will clarify policy direction and provide a roadmap for the City and the Oakland community in a framework that supports implementation and funding decisions.

The attached presentation will be delivered at the City Council Special Workshop on March 30, 2010. This presentation will provide an update on the development of Oakland's ECAP covering the following information:

1. Purpose of Addressing Energy and Climate Issues
2. The Next Phase of Local Climate Action
3. Climate Action Planning Process
4. Preliminary Findings: Achieving the 2020 Goal
5. Implementation: Identifying 3 Year Priority Actions
6. Next Steps

A draft ECAP is scheduled to be released for public review on April 22, 2010 (Earth Day). Community workshops will be held on May 6, 2010 to receive public input on the draft plan. Input also will be accepted through the City's website at www.sustainableoakland.com until June 11, 2010. A revised draft of the ECAP will be prepared and brought to the City Council for consideration.

FISCAL IMPACT

No fiscal impacts are associated with this informational report.

BACKGROUND

In July 2009, the Oakland City Council directed staff to develop a draft Oakland Energy and Climate Action Plan using a preliminary planning GHG reduction target equivalent to 36% below 2005 GHG emissions by 2020, and annual benchmarks for meeting the target.

A draft Oakland Energy and Climate Action Plan (ECAP) has been developed to identify and prioritize actions to reduce energy consumption and greenhouse gas (GHG) emissions in Oakland to meet the adopted GHG reduction goals. The ECAP is intended to clarify policy direction and provide a roadmap for the City and the Oakland community in a framework that supports implementation and funding decisions. Taking action to reduce GHG emissions will continue Oakland's legacy of leadership on energy, climate and sustainability issues.

The ECAP development began in November 2008 by holding multiple community workshops for residents and businesses to gather input on GHG reduction targets and actions for consideration. The Public Works Agency has led the development of the ECAP, working in collaboration with staff throughout the City organization, external subject matter experts, and community stakeholders.

Hundreds of Oakland residents and businesses have provided input, which helped to shape the analysis and inform the development of the draft ECAP. Local organizations provided valuable assistance by providing additional outreach and gathering input for the development of the ECAP.

KEY ISSUES AND IMPACTS

The primary focus of the ECAP is to recommend GHG reduction actions (also called mitigation measures) through which the City government can put Oakland in position to meet the established targets. The ECAP will identify the role that recent State policies are expected to play in reducing emissions and the scale of vital community leadership and engagement needed. In addition to GHG reduction actions, the ECAP includes a plan for identifying the foreseeable impacts of climate change to the City's infrastructure caused by changes in sea level, fresh water availability, and weather and describes actions, called adaption measures, for consideration.

The attached PowerPoint slideshow will be presented at the City Council Special Workshop on March 30, 2010.

PROGRAM DESCRIPTION

The draft ECAP will be released on April 22, 2010 (Earth Day). Community workshops will be held for the public to give input. Additionally, public comment will be accepted for several weeks after the community workshops through the City's website. Following the public

comment period, a revised draft of the ECAP will be forwarded through the City Council process. Public comment will be taken during this process.

The draft ECAP public comment schedule is:

- April 22, 2010 – Public release of draft ECAP
- April 23, 2010 – Public comment period begins via City website
- May 6, 2010 – Community workshops on draft ECAP
- June 11, 2010 – End of public comment period on draft ECAP

SUSTAINABLE OPPORTUNITIES

Economic: Many potential GHG reduction actions can save money through improved efficiency and decreased waste, as well as create other economic benefits through job creation and business attraction.

Environmental: Reducing GHG emissions can create significant environmental benefits by helping to reduce the impacts of climate change, as well as potentially conserving water and natural resources, reducing impacts associated with landfills, improving local air quality, reducing ecological impacts associated with pollution, and many others.

Social Equity: Reducing GHG emissions can result in social equity benefits, such as through the creation of green jobs, reduction in local air pollutants in specific areas, and targeting of programs to underserved communities.

DISABILITY AND SENIOR CITIZEN ACCESS

This is an informational report and will not have any direct impact on access for persons with disabilities or senior citizens.

ACTION REQUESTED OF THE CITY COUNCIL

Staff requests that the City Council accept this informational report.

Respectfully submitted,

Vitaly B. Troyan, P.E.
Interim Director, Public Works Agency

Reviewed by:
Brooke A. Levin, Assistant Director

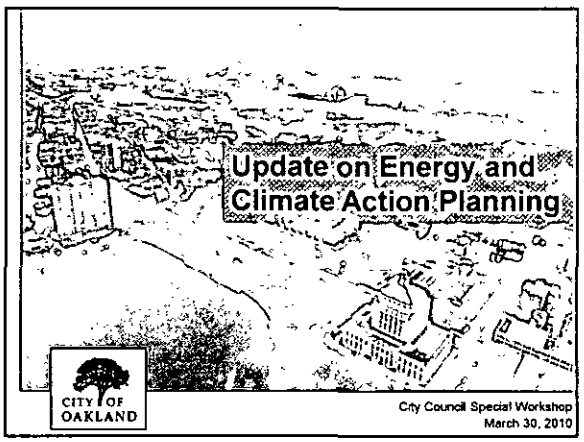
Reviewed by:
Susan Kattchee, Environmental Services Manager

Prepared by:
Garrett Fitzgerald, Sustainability Coordinator
Environmental Services Division

FORWARDED TO THE CITY COUNCIL:

Office of the City Administrator

Item: _____
City Council
March 30, 2010



Presentation Outline

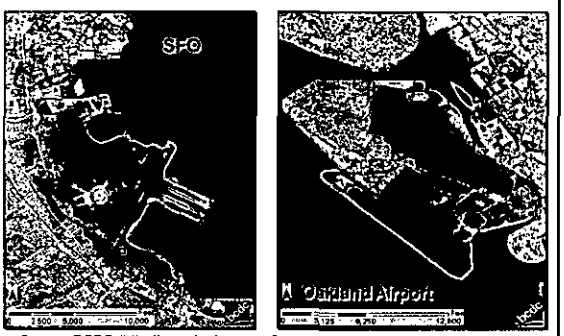
- Purpose of Addressing Energy and Climate Issues
- The Next Phase of Local Climate Action
- Climate Action Planning Process
- Preliminary Findings: Achieving the 2020 Goal
- Implementation: Identifying 3 Year Priority Actions
- Next Steps

2

Purpose of Addressing Energy and Climate Issues

3

Potential Climate Impacts: Sea Level Rise



Source: BCDC (http://www.bcdc.ca.gov/)

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Potential Climate Impacts: Sea Level Rise

Source: Pacific Institute

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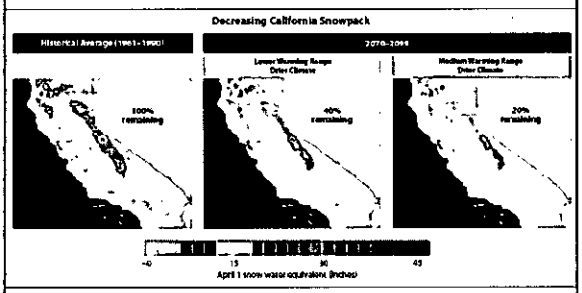
Potential Climate Impacts: Loss of Snowpack / Water



Source: CA Climate Change Center

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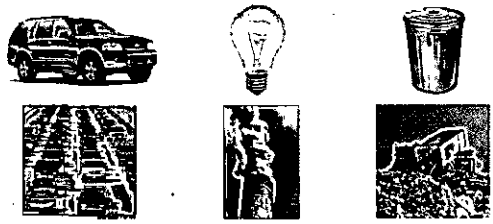
Energy and Climate
The Local Connection



Land Use and Transportation

Building Energy Use

Materials and Solid Waste

8

Oakland is Among the Ten Greenest Cities in America

9

Green Buildings & Energy Efficiency

2100 Franklin
(Part of Center 21)

Owner: CIM Group
Office Building

LEED Gold Certified

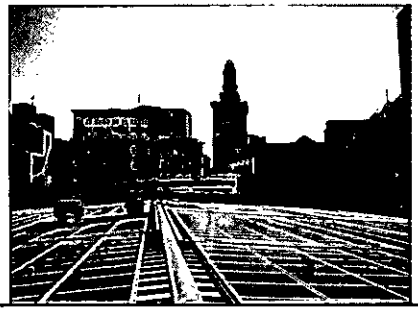
Betty Irene Moore Natural Sciences Building

Mills College
Developer- Mills College
Civic Building

LEED-NC Platinum

10

Renewable Energy



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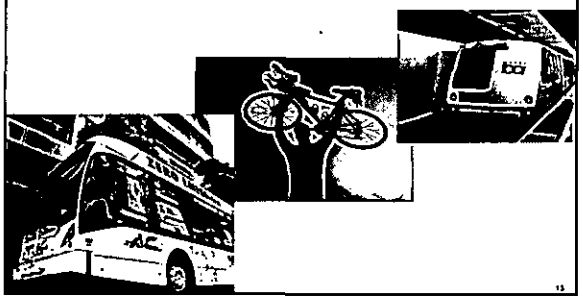
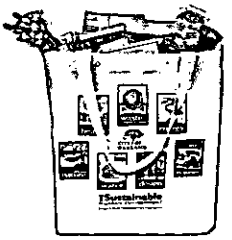
Low-Carbon Development

Low-Carbon Transportation

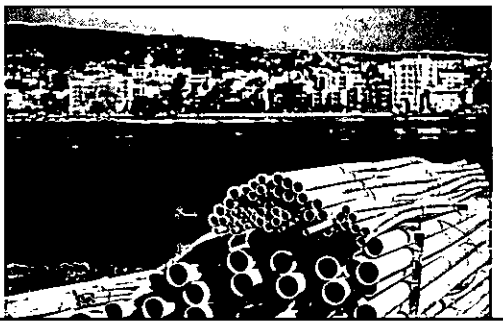


Reuse, Recycling & Composting

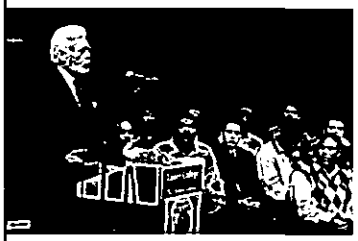


Local & Sustainable Food

Water Conservation & Efficiency



Creating Local Green Jobs



The Next Phase of Local Climate Action

Local Climate Action: Mitigation and Adaptation

Mitigation:

Reducing greenhouse gas (GHG) emissions to slow climate change and lessen/avoid future climate impacts

Adaptation:

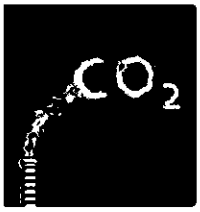
Adapting to local climate impacts and increasing future resilience to lessen the effects of climate impacts on local quality of life

Climate Adaptation Planning

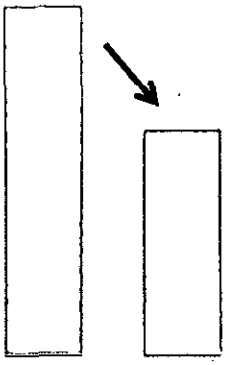
- Study local climate impacts (e.g., land use, infrastructure, health, economic)
- Educate community on projected impacts
- Develop adaptation strategies; examples:
  - Land use restrictions in vulnerable low-lying areas
  - Storm/sewer infrastructure upgrades
  - Water efficiency, conservation indoors and outdoors
  - Urban forest and reflective surfaces for cooling
  - Preparedness systems for vulnerable residents

Focus of the ECAP: Mitigation

- Primarily a plan to reduce energy use and GHG emissions
- Emphasis on City government actions
- Also telling the story of actions needed at the State level and by the community



Preliminary planning target:



36%

reduction in GHG emissions from 2005 by 2020

En route to >80% by 2050

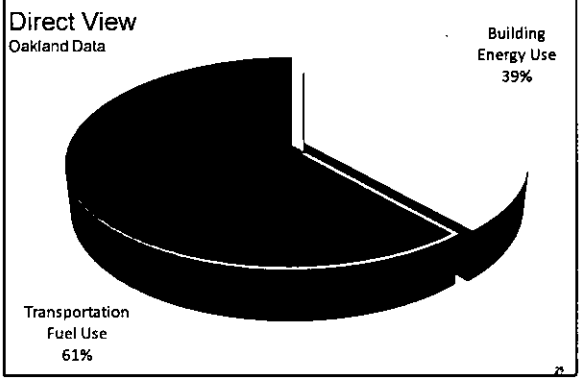
Purpose of the Energy and Climate Action Plan

To identify, evaluate, and prioritize actions the City can take to help minimize energy use and reduce greenhouse gas emissions throughout the Oakland community

Oakland's Climate Action Planning Process

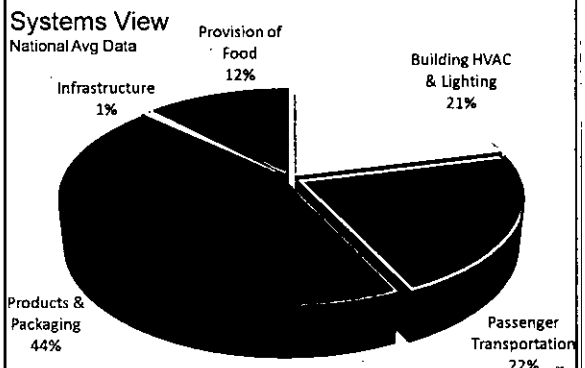
GHG Emission Sources

Direct View
Oakland Data

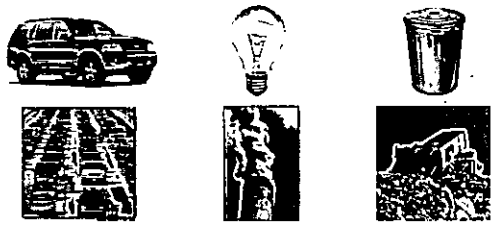


GHG Emission Sources

Systems View
National Avg Data

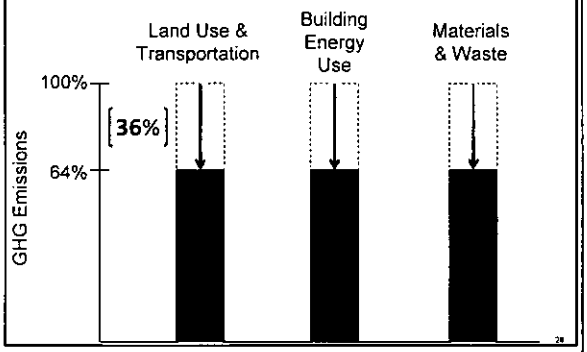


Bottom Line: All Three Sectors Matter



Land Use and Transportation | Building Energy Use | Materials and Solid Waste

Setting Climate Goals



Community Workshops

- Four community workshops held to date
- Provided presentation template to local orgs for additional workshops
- Received input from hundreds of stakeholders.
- Input gathered:
  - Target setting
  - Potential actions
  - Prioritizing

Source Documents

City Adopted Policy Documents

- e.g., General Plan, Bike/Ped Master Plans, Zero Waste Strategic Plan

Other Idea Documents

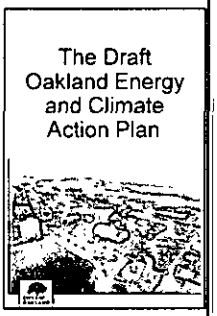
- e.g., Oil Independent Oakland Plan, Oakland Partnership Strategies, East Bay Greenprint, Other Cities' Climate Action Plans

Analysis Phase

- Researched >100 potential climate actions
- Developed calculator tools to estimate GHG reduction benefits, costs, etc, applied to local conditions
- Analyzed anticipated State policy impacts

Public Comment Phase

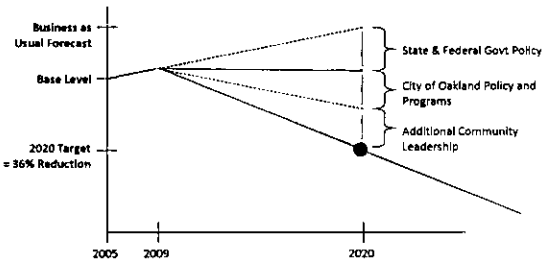
- Draft will be released for public review on Earth Day, April 22nd
- Public workshops will be held in mid May with comment period for one month
- Revised draft will be brought through Council process



Preliminary Findings:

Achieving a 36% Reduction in GHG emissions by 2020

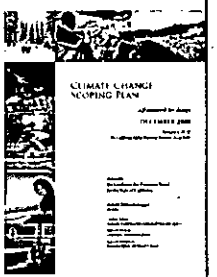
36% -- What Will It Take? Progress by Multiple Actors



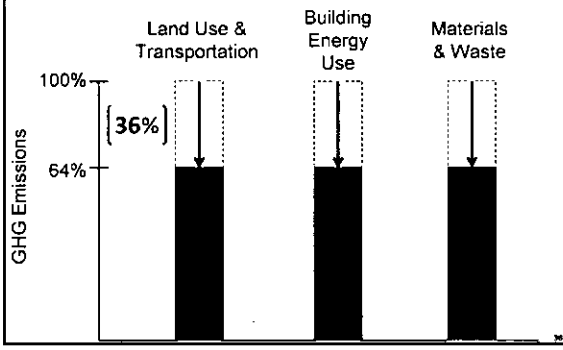
36% -- What Will It Take?

Role of the State

- AB 32 set statewide GHG reduction goals of 1990 levels by 2020
- Climate Change Scoping Plan identifies strategies
- State strategies will get us about a third of the way toward Oakland's 2020 goal



36% -- What Will It Take? Progress in Multiple Areas



36% -- What Will It Take? Progress in Multiple Areas

Land Use & Transportation	Building Energy Use	Materials & Waste
• Integrated planning	• New construction	• Waste reduction
• Transit-oriented development	• Retrofits of existing buildings	• Recycling
• Bike/ped options	• Streetlights	• Composting
• Parking	• Water use / conservation	• Reuse and repair
• Vehicles/fuels	• Renewable energy	• Landfill waste
• Port	• City facilities	• Purchasing
• Urban forestry		• Producer responsibility
• Urban agriculture		
• City fleet		

36% -- What Will It Take?

Land Use & Transportation

Big Picture Goal

- State actions improve vehicle fuel efficiency and reduce fuel carbon intensity
- Local actions **reduce driving by 20%**, increase transit and fuel-efficient vehicle use

36% -- What Will It Take?

Land Use & Transportation

City Strategies

- Develop citywide transportation plan for all modes of transportation – work with AC Transit, BART
- Support a Transportation Impact Fee
- Tailor parking options to reduce driving
- Support low carbon fuels and vehicles

36% -- What Will It Take?

Land Use & Transportation

Community/Business Leadership

- 20% reduction in vehicle miles traveled
  - Less driving; more biking, walking and transit
- Choose to live and work in places that reduce the need to drive (e.g., near transit)
- Choose fuel efficient vehicles
- Businesses offer flex schedules, bikes, telecommute options

36% -- What Will It Take?

Building Energy Use

Big Picture Goal

- State actions improve building and appliance efficiency and add more renewable energy to the grid
- Local actions help **reduce electricity use by 33%, natural gas use by 14%**

36% -- What Will It Take?

Building Energy Use

City Strategies

- Provide ongoing energy retrofit programs, including technical support, incentives, financing and workforce development
- Adopt superior building energy standards (e.g., via Green Building Ordinance)
- Advance use of renewable energy

36% -- What Will It Take?

Building Energy Use

Community/Business Leadership

- Conserve on energy use aggressively at every opportunity
- Retrofit half of Oakland's residential properties
- All businesses achieve 20% improved energy efficiency
- Maximize use of new renewable energy systems

36% -- What Will It Take?

Materials & Waste

Big Picture Goal

- State vision reinforces the need to reduce waste to landfill
- Local actions to **achieve adopted Zero Waste Goal** of 90% reduction in waste to landfill by 2020

36% -- What Will It Take?

Materials & Waste

City Strategies

- Redesign the city's solid waste management system
- Preserve industrial areas for zero waste industry
- Expand the Construction & Demolition Recycling Ordinance
- Support producer product responsibility
- Promote local manufacturing with recycled materials

36% -- What Will It Take?

Materials & Waste

Community/Business Leadership

- Reduce, reuse, and repair goods
- Buy only what you need
- Recycle and compost all eligible materials at home and at work
- Buy locally made and recycled products that are durable, reusable and recyclable

36% -- What Will It Take?

Community Engagement

City Strategies

- Support community education and organizing throughout the community
- Promote local model practices
- Provide new engagement opportunities
- Support local green workforce development

36% -- What Will It Take?

Community Engagement

Community/Business Leadership

- Widespread community engagement driving conservation and efficiency
- Creative new ways of engaging, educating, and motivating the entire community
- Growing green businesses to meet new demand

36% -- What Will It Take?

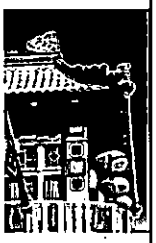
Advocacy Issues

- Prioritize transit funding (Fed, MTC)
- Indirect Source Rules (Air District)
- Port tenant off-road vehicle compliance (CARB)
- On-bill financing for energy retrofits (PG&E & CPUC)
- Increased RPS for renewable energy (State)
- Regional/Statewide revenue tools (JPC, State)
- Manufacturer product responsibility (State)

Implementation: Identifying Three Year Priority Actions

Identifying Three Year Priority Actions

- Recommendations based on consideration of Council-approved criteria
- Emphasis on:
  - Near-term feasibility
  - Opportunities to leverage existing funding sources
  - Opportunities to lay the foundation for next-level progress



Three Year Priority Actions

Land Use & Transportation

Under Existing Resources

- Identify/adopt Priority Development Areas
- Launch downtown free shuttle
- Review/analysis of Bus Rapid Transit
- Quarterly participation in SB 375 discussions

Three Year Priority Actions

Land Use & Transportation

Requiring New Resources

- Comprehensive transportation plan that "drives" City CIP/resource allocation
- Acceleration of bike/pedestrian plan implementation
- Creation of Transportation Impact Fees
- Prioritize consideration of VMT impacts above congestion impacts (CEQA)

Three Year Priority Actions

Land Use & Transportation

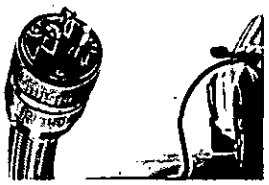
Requiring New Resources

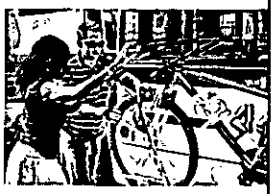
- Tailor parking options to reduce driving
- City fleet vehicle replacement program
- Support low carbon fuels and electric vehicles
- Support transit, not parking, for City staff
- Support local urban agriculture

Three Year Priority Actions

Land Use & Transportation

Challenging Issues





Three Year Priority Actions

Building Energy Use

Under Existing Resources

- Green building ordinance for private development
- Property-based energy financing
- Downtown commercial retrofit program
- Residential green retrofit program
- Expanded weatherization programs

Three Year Priority Actions

Building Energy Use

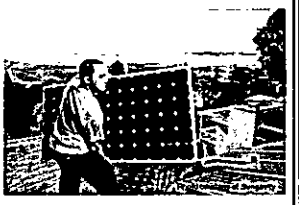
Requiring New Resources

- Engage 10% of medium-to-large businesses in energy retrofit programs
- Launch renter-occupied residential program
- Implement residential energy conservation ordinance
- Monitor community choice energy
- Facilitate community solar programs

Three Year Priority Actions

Building Energy Use

Challenging Issues



Three Year Priority Actions

Materials & Waste

Under Existing Resources

- Restructure solid waste management system
- Refine C&D Recycling Ordinance implementation and integrate with proposed Green Building Ordinance
- Promote waste reduction at community events
- Promote buying recycled, locally made products

Three Year Priority Actions

Materials & Waste

Requiring New Resources

- Mandatory enforcement
- Residential social marketing campaigns
- Business outreach
- Study options for advancing next-level waste reduction activities

Three Year Priority Actions

Materials & Waste

Challenging Issues

Three Year Priority Actions Summary

- Many actions would need to be taken during first three years to make steady progress
- Some can move forward without new resources
- Others will move forward if resources are available

Next Steps

Next Steps

- April 22nd (Earth Day) – Public release of draft ECAP & start of public comment period
- May 6th – Community workshops
- Comments taken through June 11th

More information:
www.sustainableoakland.com

Oakland City Council

March 30, 2010
5:30pm to 8:30pm

Special Meeting* on

ENERGY AND CLIMATE ACTION PLAN and

COMMUNITY CHOICE AGGREGATION

Meeting Agenda

I. Open Forum (total time available – 15 minutes)
II. Presentation on the Energy and Climate Action Plan
III. Presentation on Community Choice Aggregation

* This meeting is noticed as a Special Meeting of City Council, and no final City Council Actions will be taken.

LOCAL CLEAN ENERGY ALLIANCE

Community Choice as a Community Development Approach

The City of Oakland could tailor the local grid to maximize local clean energy development, green jobs, and GHG reductions. In this "Community Development" scenario, using California's Community Choice law, Oakland and other interested muncipalities would charter a Joint Powers Authority (JPA) to meet local energy goals. The JPA would contract with a licensed energy provider to buy clean electricity in bulk, build energy generating facilities, and implement energy efficiency programs. There would be provisions for the input of multiple stakeholders including community and labor. PG&E would continue to handle transmission, distribution, billing, metering, and customer service. The program would also maximize opportunities for local community solar, regional wind and wave energy, clean co-generation, and demand response to reduce consumption. This program would include local hire, prevailing wage and project labor agreements for large scale contracts as well as local, minority owned and union contractors, local manufacturing and monitoring/reporting to the city and the public.

The Market Approach Presented in the East Bay Cities Business Plan
The East Bay Cities Community Choice Aggregation (CCA) business plan (last presented to the City Council in Jan 2009) is competently written and explores many complex and varied issues involved with starting a Joint Power Authority for CCA – hereafter referred to as the East Bay Power Authority (EBPA). The plan presents information on the organizational structure, load forecast and resources, finances, ratesetting, marketing, and contingency for early termination. The EBPA business plan appears to answer all of the questions that needed attention when the project began in 2005.

However, since 2005 we have developed a much better understanding of the following issues: the changes that are needed with respect to our energy system if we are to stabilize the climate, the local imperative for reductions in greenhouse gas emissions (AB32), the need for sustainable green economic development in Oakland, the importance of green jobs as pathways out of poverty, and best practices for power sourcing in a Community Choice program. The EBPA business plan does not address these issues.

Perhaps least understood are the best practices for power sourcing in a Community Choice program, especially since there is no CCA program currently operating in California. (There are over 1.5 million CCA customers in Massachusetts and Ohio.) At least two divergent philosophical approaches for power sourcing are being considered by aspiring California CCAs: the "Market" approach and an alternative "Community Development" approach.

The "Market" approach – to which the EBPA business plan largely adheres – assumes that a CCA program should compete against PG&E and other power purchasers on the wholesale market for most of its renewable energy.

Table 1 shows the energy balance in the business plan for the EBPA in Year Ten. Net additional distributed generation (26 GWh = 42 GWh minus the already existing 16 GWh) reduces the retail demand by less than 1%. That means local solar generation plus cogeneration in the tenth year of the program is less than 1%. In Year Ten, energy efficiency reduces the retail demand by a minuscule 0.2%. Of the total demand, 47% would be supplied by renewable energy with 36% purchased in the wholesale market and 11% of EBPA-owned wind power.

Because the Navigant study takes a "Market" approach, the result is an uninspiring though competently structured plan. Importantly, it demonstrates that CCA programs can compete with PG&E on buying wholesale power. It indicates the basic feasibility of the approach, but a CCA program such as this, will create almost zero greenhouse gas reductions, zero potential for local sustainable economic development, and zero local green job opportunities. As such it does not realize many of the potential benefits of a CCA program.

Table 1. EBPA "Market" Energy Balance

EBPA Demand (GWh)	**Year 0**	**Year 10**	**Net in Year 10**	**Percent of retail demand in Year 10**
Retail Demand		-2,861	-2,861	
Distributed Generation	16	42	26	-0.9%
Energy Efficiency		7	7	-0.2%
Losses		-197	-197	
Total Demand		-3,009	-3,009	
EBPA Supply (GWh)	**Year 0**	**Year 10**	**Net in Year 10**	**Percent of total demand in Year 10**
Renewable Resources				
Generation		322	322	11%
Power Purchase Contracts		1084	1,084	36%
Total Renewable Resources		1,406	1,406	47%
Conventional Resources				
Generation				0%
Power Purchase Contracts		1,603	1,603	53%
Total Conventional Resources		1,603	1,603	53%
Total Supply		3,009	3,009	

Community Development Approach to Community Choice

As an alternative, we propose a "Community Development" approach to CCA that honors the cross sectorial alliances and coalitions that have been campaigning for green economic development and green jobs in Oakland for the last several years. A Community Development approach gives these forces a seat at the table such that they can collaborate with the East Bay cities to develop a CCA program that creates local business opportunities and local jobs, as well as greenhouse gas reductions.

We see the Port's MAPLA agreement and its social justice committee as being potentially useful as a model for including labor and community concerns in contracting around the large scale renewable energy and energy efficiency projects from the EBPA. We refer to this as a Labor and Community Driven Energy Purchasing Program for the East Bay, and it is one of the policies recommended by the Oakland Climate Action Coalition.

Using California's Community Choice law, Oakland (possibly along with other East Bay Cities such as Berkeley) would charter a Joint Powers Authority (JPA) to meet local energy goals. The JPA would contract with a licensed energy provider to not only buy clean electricity in bulk, but equally important, to build distributed generation and implement demand reduction technologies. PG&E would continue to handle transmission, distribution, billing, metering, and customer service.

The program would be configured to maximize opportunities for local community solar, regional wind, clean co-generation, energy efficiency, conservation, and demand response to reduce consumption.

The Community Development approach – which is also being advocated for San Francisco's CCA program – prioritizes local renewable energy, regional wind, and clean co-generation, as well as aggressive measures to reduce load, including energy efficiency and conservation measures such as demand response. This approach provides local GHG reductions as well as local green jobs and business opportunities. While some power would still be purchased on the wholesale market, it would be much less than in the Market approach.

The key policy objectives of the Community Development approach for the EBPA would be:

1. The eligible renewable percentage would start at 20% in Year 1 and scale to 51% in Year 10. This is the same renewable energy goal as the East Bay Cities CCA Report and the other reports commissioned by the Local Government Commission.
2. Energy efficiency would make an additional 2% reduction in energy demand per year. Building performance can reduce electricity demand by 20-40%. A additional 2% annual demand reduction would require a comprehensive EE retrofit program that includes financing, outreach, and workforce development. Stopwaste.org thinks this level of demand reduction can be achieved with a comprehensive retrofit program. One of the innovations of Marin Clean Energy is that the JPA can also work on PACE (property assessed clean energy, like the Berkeley solar roofs program) and other AB 32 compliance programs.
3. Conservation/demand response would make an additional 0.5% reduction in energy demand per year. This can be achieved with ratepayer education and changing the pricing so that electricity is cheaper during off-peak hours.
4. The proportion of renewable energy provided by "distributed generation" (e.g., commercial and residential rooftop solar) or regional wind would be 75%.
5. Local distributed generation would increase and additional 2.5% per year. This could include urban solar, urban wind, and clean co-generation. Stopwaste.org thinks this level of solarization can be achieved with a comprehensive solar program that includes financing, outreach, and workforce development. In their Energy Greenprint[i], the Local Clean Energy Alliance estimates that Oakland could generate over two-thirds of its electricity needs with rooftop on all suitable buildings. A study commissioned by Local Power found that San Francisco could

generate between 107-175MW of clean co-generation power from the waste heat of the 50 largest boilers in the city, amounting to more than one-sixth of their peak load. An industrial city like Oakland may have even greater capacity for clean co-generation.

Table 2 below shows the alternative Community Development energy balance assuming these policy objectives. The Regional Demand, Losses, and Wind Generation figures are taken from Navigant. However, in Year 10, energy efficiency and demand reduction would reduce projected demand 26% as compared to Navigant's EBPA demand. Also, in Year 10, local distributed generation would supply 49% of renewable energy. In addition, the reduction in energy demand and the local distributed generation would likely reduce the transmission losses compared to those estimated by Navigant.

Table 2. "Community Development" Energy Balance

EBSPA Demand* (GWh)	**Year 0**	**Year 10**	**Net in Year 10**	**Percent of retail demand in Year 10**
Retail Demand		-2861	-2861	
Conservation/Demand Response		126	126	4%
Energy Efficiency		504	504	18%
Losses		-197	-197	-7%
Total Demand		-2428	-2428	15%
Demand reduction (%)		26%		

EBPA Supply* (GWh)	**Year 0**	**Year 10**	**Net in Year 10**	**Percent of retail demand in Year 10**
Renewable Resources				
Generation (Regional Wind)		322	322	11%
Distributed Generation	16	609	593	21%
Power Purchase Contracts		311	311	11%
Total Renewable Resources		1242	1242	43%
Generation (%)		75%		
Distributed Generation (%)		49%		
Conventional Resources				
Generation		0	0	
Power Purchase Contracts		1186	1186	41%
Total Conventional Resources		1186	1186	41%
Total Supply		2428	2428.325	100%

The Community Development approach leverages the ability of governmental entities to issue revenue bonds to finance and build renewable generation, demand response, and energy efficiency at a much lower cost than PG&E. Investor owned utilities do not want anyone to know that Oakland and the EBPA have a powerful advantage over them. With revenue bonds paid off by ratepayer utility bills, local government entities have a cost of capital of about 5%. Investor owned utilities such as PG&E pay on the order of 12%. This huge difference in the cost of capital means that it costs a CCA program much less than PG&E to build renewable energy generation. That's why many existing

public utilities have services and rates that are very competitive, if not better than the private utilities.

Assuming CPUC approval, the Community Development approach would leverage funds collected for energy efficiency from ratepayers in the East Bay cities on utility bills to pay for energy efficiency programs (e.g., administration of financing programs, retrofits for low income home owners) in the East Bay cities. This could greatly increase the amount funds available for energy efficiency work in the East Bay cities as PG&E does not necessarily spend these funds where they are collected. Rumor is that a disproportionate amount is spent in the Central Valley to the detriment of the Bay Area.

Table 3 shows the estimated funds that are collected for energy efficiency projects from ratepayers in Oakland, Berkeley, and Emeryville. The East Bay cities use approximately 3% of the state's electricity. The electric public goods charge (PGC) is a public purpose surcharge that the utilities can use for energy efficiency programs. We estimate that over $21M was collected in Electric PGC from ratepayers in the East Bay cities from 2006-2008. The gas public purpose program surcharge (Gas PPP) is a public purpose surcharge similar to the electric side. Procurement is a surcharge from procurement rates for energy efficiency programs.[ii]

Table 3. Estimated Ratepayer funds that were collected for Energy Efficiency in Oakland, Berkeley, and Emeryville

Year	Gas PPP	Electric PGC	Procurement	Total
2006	$ 1,180,407	$ 5,596,343	$ 1,645,378	$ 8,422,127
2007	$ 1,394,549	$ 6,839,094	$ 1,678,285	$ 9,911,929
2008	$ 1,720,531	$ 8,773,748	$ 1,711,851	$12,206,130
Total	$ 4,295,488	$ 21,209,185	$ 5,035,514	$30,540,186

While the East Bay cities participate in the East Bay Energy Watch program with PG&E, we have no idea how much of the energy efficiency funds were spent in the East Bay cities from 2006-2008. Unfortunately, the CPUC currently has no legal avenue to get this information due to legislation and CPUC decisions regarding CCAs, current Energy Efficiency policies and procedures, etc.[iii]

Analysis Results

The Local Clean Energy Alliance analyzed GHG reduction and job creation potential of Community Development scenario described above.

The policy reduction goals were applied to Oakland's 2005 building energy load, which determined the annual energy supply needed from energy efficiency, distributed generation, and regional wind. These values were converted to capacity by using the system operation assumptions. Direct jobs were estimated using the values of job-years/MW for each category. Indirect and induced jobs were calculated using job intensity factors from UC Berkeley's Renewable Alternative Energy Lab and other sources.

Greenhouse Gas Emissions Reduction

We estimate that the achievement of the policy goals will reduce Oakland's GHG emissions over 800 thousand tons of CO_2-equivalent during the course of the first 10 years of the policy. In the last year (year 10) alone, Oakland's greenhouse gas emissions are projected to be reduced by about 300 thousand tons.

Economic Impacts

The Program will create jobs that could potentially employ youth and adults with barriers to employment who graduate from job-training programs. A portion of jobs could be carved out for

residents from Oakland's Urban Revitalization Program Areas. The program could enable local residents and businesses to save money on energy bills.

Clean Energy Jobs

The Program is estimated to create about 7,200 job-years over the ten year period from 2010 to 2020. Assuming the average job tenure between 2011-2020 is 5 years, this will amount to approximately 1,400 jobs.

About 2,300 job-yrs (or 450 jobs) are living wage jobs dealing with the local installation, operation and maintenance of energy efficiency retrofits, rooftop solar, wind, and other distributed generation. About two-thirds of these jobs would be entry level. We made the following assumptions based on readily available information:

- All policy goals are met
- The job intensity of Solar PV (7.62 job-ys/MW) can be applied to distributed generation
- 1.49 job-years/MW of installed regional wind
- 11 job-years/MW of installed energy efficiency
- 0.9 indirect job-year s created for every direct job-year doing installation of distributed generation and regional wind.
- 1.3 induced job-years created for every energy direct job-year doing installation of distributed generation and regional wind.
- 0.33 indirect job-years created for every direct energy efficiency job-year
- 1.33 induced job-years created for every energy efficiency direct job-year
- The average job tenure during th e period from 2011-2020 is 5 years
- EE systems operate 24 hours/day 365 days a year

Conclusions

Development and implementation of a Community Choice program could be a viable option to fulfill important goals in Oakland. A Community Development approach to CCA has the potential for addressing Oakland's greenhouse gas reduction and economic development needs. In the Community Development model, the CCA focuses on local efforts to implement energy efficiency and distributed generation on a scale that matches our community's greenhouse gas reduction goals while creating local jobs and economic growth.

In addition, since a CCA program can get cheaper financing rates using revenue bonds, need not generate profits nor pay hefty executive compensation and taxes, a CCA that invests in local clean energy has the potential to generate more renewable energy locally and reduce demand, thereby reducing greenhouse gas emissions at a much lower cost than is possible for any private utility. These savings can help drive green economic development and green jobs by investing in technologies that reduce overall demand.

The Local Clean Energy Alliance urges the Oakland City Council to:

- Continue to hold the funds set aside for a Community Choice program in the Williams Energy Settlement
- Support the resolution against Prop 16 on 4/20
- Determine the direct impacts of Community Choice on organized labor
- Form a representative Task force including labor, community leaders, and business to:
    - Monitor Community Choice Energy progress in Marin and San Francisco
    - Monitor distributed generation cost-competitiveness
    - Identify Community Development needs and opportunities.

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[i] The 21st Century Energy Greenprint for the East Bay, Rory Cox, Aaron Lehmer, Kent Lewandowski, David Room, Kirsten Schwind, Local Clean Energy Alliance, May 2008.

[ii] Conversation with Jeorge S Tagnipes of the CPUC

[iii] Conversation with Anne W. Premo of the CPUC

COMMUNITY CHOICE AGGREGATION AND THE DEVELOPMENT OF MARIN CLEAN ENERGY

I. Community Choice Aggregation

In 2002, Assembly Bill 117, known as Community Choice Aggregation or CCA, enabled California cities and counties with the right to procure energy on behalf of electric consumers within their jurisdictions.

The CCA system has been adopted into law in the states of California, Massachusetts, Ohio, New Jersey, and Rhode Island.

Currently, nearly 1 million Americans receive service from CCAs.

II. Marin Clean Energy

Marin Clean Energy (MCE) is a renewable energy alternative to PG&E's electric supply that will soon be available to Marin customers. MCE is responsible for sourcing the power and purchases the energy supply while PG&E continues to deliver the energy, maintain and repair transmission lines, and provide customer service and billing.
The Marin Clean Energy Program will supply nearly twice the renewable energy content that PG&E customers currently receive - at the same rates that is currently paid.

III. Who Administers Marin Clean Energy?

The Marin Energy Authority (MEA) is the not-for-profit public agency that provides the renewable energy alternative through the Marin Clean Energy program.

MEA was created in December 2008 to address climate change by reducing energy related greenhouse gas emissions and securing energy supply, price stability, energy efficiencies and local economic and workforce benefits. It is the intent of MEA to promote the development of a wide range of renewable energy sources and energy efficiency programs including, but not limited to, solar and wind energy production at competitive rates for customers.

The Marin Energy Authority is governed by an 8-member Board of Directors representing each of the following 8 participating jurisdictions.

MARIN ENERGY AUTHORITY MEMBER JURISDICTIONS	
City of Belvedere	Town of San Anselmo
Town of Fairfax	City of San Rafael
County of Marin	City of Sausalito
City of Mill Valley	Town of Tiburon

IV. Infrastructure and Investment Needs

a. Near term renewable sources
b. Long term renewable generation sources
c. Financing operations and capital

V. **How did Marin evaluate the financial risks when selecting the program and its administration**?

VI. **Marin Clean Energy Customers**

a. How will the energy efficiency programming compare to that of PG&E's?
b. Rates
c. How will low income customers be affected by the new programs?
d. Will there be special programs in the budget serving low income households, and are any different from current programs?

VII. **Key lessons learned from Marin's experience in forming a Community Choice program**