

Thursday, December 6, 2007

Special Meeting

Members:

Jane Seleznow	District 1	Mike Petouhoff	At Large
Louise Bedsworth	District 2	Parin Shah (Chair)	Mayor
Ian Kim (Vice Chair)	District 3	<i>Vacant</i>	Mayor
James Lutz	District 4	Richard Heinberg	Mayor
Shannon Graham	District 5	Patrick Tang, Esq.	Deputy City Attorney
David Room	District 6	Alice Glasner	Public Works Legislative Analyst
Richard Register	District 7		

BUSINESS MEETING: 6:00 pm to 9:00 pm

Hearing Room 1, City Hall, One Frank H. Ogawa Plaza

AGENDA^{*}

1. Roll Call and Establishment of Quorum.
2. Open Forum.
3. Approval of Draft Minutes of November 19, 2007 meeting. (A)
4. Continued Discussion (from October 18, 2007, November 8, 2007, and November 19, 2007 Meetings) of Task Force Recommendations and the Final Action Plan, Including its Format, Organization, Prioritization, Content, and Development of Executive Summary. (I/A)
5. Future Agenda Items. (A)
6. Announcements. (I)
7. Adjournment.

*The order of the items on the Agenda may be changed by the Chair.

I = Informational Item

A = Action Item

Persons may speak on any item appearing on the agenda; however, a Speaker Card must be filled out and given to the OIO Task Force administrative representative *before that item is called*. Multiple agenda items cannot be listed on one speaker card. If a speaker signs up to speak on multiple items listed on the agenda, the Chairperson may rule that the speaker be given an appropriate allocation of time to address all issues at one time (cumulative) before the items are called. All speakers will be allotted 3 minutes or less – unless the Chairperson allots additional time.



This meeting is wheelchair accessible. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in the meetings of the Oil Independent Oakland By 2020 Task Force, please contact the Office of the City Administrator at (510) 238-3301. Notification two full business days prior to the meeting will enable the City of Oakland to make reasonable arrangements to ensure accessibility. In compliance with Oakland's policy for people with chemical sensitivities, please refrain from wearing strongly scented products to events.

If you have questions or concerns regarding this agenda, or to review any agenda-related materials, please contact the Oil Independent Oakland (OIO) By 2020 Task Force at (510) 238-7031.



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Monday, November 19, 2007, 6:00 pm to 9:00 pm
Hearing Room 3, City Hall, One Frank H. Ogawa Plaza

Members:

Jane Seleznow	District 1	Mike Petouhoff	At Large
Louise Bedsworth	District 2	Parin Shah (Chair)	Mayor
Ian Kim (Vice Chair)	District 3	<i>Vacant</i>	Mayor
James Lutz	District 4	Richard Heinberg	Mayor
Shannon Graham	District 5	Patrick Tang, Esq.	Deputy City Attorney
David Room	District 6	Alice Glasner	Public Works Legislative Analyst
Richard Register	District 7		

Members Present:

Bedsworth, Room, Shah, Register, Petouhoff, Seleznow

Members Absent/Excused:

Heinberg, Kim, Petouhoff, Heinberg, Graham

Staff Members Present:

Alice Glasner, Public Works Committee Legislative Analyst

AGENDA

1. Roll Call and Establishment of Quorum.
 - a. The meeting was called to order at 6:20 pm. Roll was called, but quorum was not established until 6:47 pm.

2. Open Forum
 - a. Rebecca Kaplan addressed the Task Force and spoke to her interest in extending the Task Force meetings beyond 2007, and also suggested that the Task Force recommend new staffing to implement the recommendations. She also suggested that Oakland be a leader in non-auto transportation, that the Port seek funding for rail connections, that an "Ecopass" be implemented immediately, and that Oakland participate in regional transit meetings to pursue its interests. Other issues not addressed are inequitable treatment of income tax deductions for autos used and not transit. She says that Oakland does not coordinate with transit agencies, or specifically allocate staff to coordinate with them. She mentioned that there are less expensive ways to provide airport connections rather than the current proposal.
 - b. Anna Lee of Communities for a Better Environment introduced herself. She says that East Oakland and West Oakland share some of the same concerns regarding diesel traffic, health (especially asthma) and safety. Transit is expensive for some in East Oakland, especially because of limits on transfers.
 - c. Task Force members affirmed interests in bringing green industries to Oakland, and Bus Rapid Transit.

3. Approval of Draft Minutes of November 8, 2007 meeting.
 - a. Minutes were unanimously approved after one spelling correction, to correct the name of Open Forum speaker Jeanne-Marie Rosenmeier.

4. Continued Discussion (from October 18, 2007 and November 8, 2007 Meetings) of Task Force Recommendations and the Final Action Plan Framework, Including its Format, Organization, Prioritization, Content, and Development of Executive Summary.
 - a. There was a discussion regarding how to give a sense of urgency.
 - i. TFM Register encourages a more urgent tone in introduction, and agreed to draft something. Perhaps include idea around “change can happen at the speed of thought.”
 - ii. Should TF recommend declaring a “state of emergency”?
 - iii. Should TF recommend “trigger points” as criteria for emergency?
 - iv. Is “state of emergency” too extreme?
 - v. This report should convey the “imminent importance” of the situation and offer a plan for what should be done immediately and what can be done over a longer time frame (including prepare contingency plans).
 - b. TFM Bedsworth is preparing a section that will present a general idea of what the “average” Oakland resident consumes, and then what 3 percent reductions would look like. 4B--Individual actions could be removed from current placement and joined with the Oakland resident analysis.
 - c. Regarding the table presented on Page 3 (C. timing of potential actions):
 - i. TFMs generally support the format of the draft table.
 - ii. Table should be broken into smaller units to go with appropriate chapters.
 - iii. “Individual actions” should be pulled out of this table and placed into a separate table or box. That could go into the “public awareness” chapter.
 - d. On Chapter 1, page 4 of the draft – Introduction
 - i. Idea of creating a more resilient community could go on page 1 of this section.
 - ii. TFM Seleznow will work on the Introduction sections 1 and 2.
 - iii. TFM Petouhoff will be asked to work on sections 3a, b, and c.
 - e. Silver Sequence
 - i. TFM Register will prepare a graphic for this part, showing priorities and interconnections.
 - f. Development of TFM Petouhoff outline
 - i. Examples, such as information regarding Vancouver should be split out from main text--- all examples could go in appendix.
 - ii. Take care not to repeat what is in the transit section.
 - iii. Section should be streamlined.
 - iv. Parking information in transportation section should be moved to land use section.
 - v. TFM Register will draft introductions to parts 1B, 1C, 1D.
 - vi. The TDR recommendation should be presented as a tool within a “development of conservation and open space areas” recommendation.
 - g. Regarding creation of an office to handle implementation of recommendations
 - i. TF proposed names for this, such as “peak oil preparedness” office.
 - ii. There was also a proposal to have a broader name.
 - iii. There was a proposal to leave the naming to others besides the Task Force.
 - iv. It could be preferable to recommend hiring consultants to staff office.
 - v. Alternatively, using an interagency team to run the program could be beneficial. This could be done in conjunction with dedicated staff if desired.

- h. Page 17-18 --- On coordination.
 - i. Include a recommendation for a transit coordinating body, as in Berkeley and Alameda.
 - i. On Section 3, Page 20.
 - i. There was a discussion on the tradeoffs of promoting employee shuttles as opposed to direct transit promotion.
 - ii. There was interest in BART to area shuttle, such as the Emery-Go-Round.
 - iii. A Transportation Master Plan should be included as a recommendation.
 - iv. Recommendations should prioritize streetcar system and BRT.
 - v. TFM Graham will work on the “disincentives” section, though it will be split up as #1 will go to “regional” unit, #2a will become part of a leadership discussion, #2b will move to land use, and #4 will be combined with the fleet discussion.
 - vi. ABAG section should be moved to Land Use.
 - vii. TFM Room will put primary recommendations in beginning of section.
 - viii. Add recommendation regarding local manufacture of bikes and buses.
 - ix. TFM Room will add information about Consumer Choice Aggregation and Telecommuting.
 - j. Page 30 - Implementation and Public Education.
 - i. One example for #2 is “Flex Your Power” program.
 - k. Page 30, New Section.
 - i. Title: “Leadership and Regional Initiative.”
 - ii. Include lobbying for state and federal measures.
 - l. General work for Task Force.
 - i. Distinguish between short and long term recommendations.
 - ii. Place recommendations at beginning of chapters.
 - iii. Have a list of examples for policy makers.
 - iv. **All TFM should think about their top recommendations (up to 10).**
5. Future Agenda Items.
- a. Task Force Top recommendations for focus in the report.
 - b. Same as 4. above, without the term “framework”.
6. Announcements.
- a. The next meeting is on December 6.
 - b. All work should be submitted to the Chair by 9:00 a.m. on November 29.
7. Adjournment
- a. The meeting was adjourned at 9:45 p.m.

Continued Discussion
(from October 18, 2007, November 8, 2007, and
November 19, 2007 Meetings)
of Task Force Recommendations and the
Final Action Plan, Including its Format, Organization,
Prioritization, Content, and
Development of Executive Summary.

Executive Summary

Opportunities and Challenges - We are at a flashpoint

The globalized economy has bound us together in a web of mutual dependency this has both positive and negative impacts. Today the human race has better chances than ever before of solving the enormous challenges we face. Achieving the goal of oil independence here in Oakland or elsewhere in the world will require a new way of thinking and resolute action appropriate to the true emergency we face.

Declining access to conventional oil, in combination with our joint responsibility to stop global warming, will be a test of Oaklander's and the global society's readiness to switch to energy systems that are more sustainable in the long term and provide economic benefit to all. Basically, it is a question of the will to show solidarity with present and future generations.

The Oil Independent Oakland by 2020 Task Force (OIO) has concluded that cities everywhere and Oakland in particular, must simultaneously adopt policies and actions that immediately bring about greater efficiency in our energy systems and transform the urban form. In transforming the urban form we mean from the foundations in basic land use patterns on up through building design, appropriate technologies, creation of green jobs, and transformation of personal lifestyles and civic efforts to avert potentially catastrophic economic, social and ecological conditions.

Peak Oil

(Note: Do we need to refer to some proof of Oil Depletion- while global warming now has wide public visibility, the peak oil situation is less well known, and we need to make the case, or at least refer to an addendum or chapter that makes the case using Richard H's material)

Oil depletion presents a unique set of vulnerabilities and risks. While global warming is a problem that has increasing public awareness, a separate problem- "Peak Oil"-is less well understood- that global oil discovery and production is actually peaking, and will decline, while global oil consumption continues to rise. The potential is not just that we will have less oil in the future, but also that the resulting shortages will result in scarcity that will be both disruptive, and costly. Even if it were not for the problems of global warming, the global geopolitical and local economic impact of increasingly constrained oil supplies is a problem in its own right. Though forecasts do show steadily declining production, scarcity could be made much worse, and could be much more abrupt, if exacerbated by foreseeable geopolitical events that could disrupt oil distribution even as supply is more constrained. This supply constraint is happening at the same time that we face the problems of global warming.

If policy makers fail to understand this, the resulting policies may leave society mired both in internal economic turmoil and external conflict caused by fuel shortages, to the point that the pursuit of international climate policies becomes much more difficult than is already the case. This would truly be a worst-case scenario.

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Policy makers may assume that, in addressing the dilemma of global Climate Change, they are also doing what is needed to deal with the problem of dependence on depleting petroleum. This could be a dangerously misleading assumption. For example, if nations were to try to mitigate the economic impacts of oil depletion by producing large amounts of synthetic petroleum from coal and other low-grade hydrocarbons, the climatic effects could be catastrophic.

Fossil fuels have delivered enormous economic benefits to modern societies, but we are now becoming aware of the burgeoning costs of our dependence on these fuels, and the age of plentiful supply is coming to an end. The Peak in oil production is forecast to be followed shortly by a peak in global natural gas production, complicating a simple shift from one type of fossil fuel to another. The human community's central task for the coming decades must be the undoing of its dependence on oil, coal, and natural gas in order to deal with the twin crises of resource depletion and climate chaos. It is surely fair to say that fossil fuel dependency constitutes a systemic problem of a kind and scale that no society has ever had to address before. If we are to deal with this challenge successfully, we must engage in systemic thinking that leads to sustained, bold action. Those cities that undertake careful planning will find themselves able to respond a more resultant way, providing a relatively better a refuge for their citizens, than those cities that do not have a plan.

The Oil Depletion Protocol

One way to avert or ameliorate the impacts of Peak Oil would be to implement a citywide commitment to proactively, cooperatively reduce the use of oil (effectively, a reduction in *demand*) ahead of actual production declines. Setting a bold but realistic mandatory target for demand restraint would reduce price volatility, aid with preparation and planning, and reduce international competition for remaining supplies.

The Oil Depletion Protocol would set a target of about 3% reduction per year in oil consumption, but would not specify how nations might achieve this goal. In order to enlist public support for such efforts, governments would need to devote significant resources to public education campaigns. In addition, planning and substantial public investment would be needed in three critical areas: transportation & land-use, agriculture, and chemicals industries.

Solutions

In this document, we propose a number of far-reaching, concrete measures that can end our dependence on oil by the year 2020 and tangibly reduce our use of oil products. Our ambitious objectives are as follows....(need to do after full report is done).

All this means that we can both reduce oil use and emissions of greenhouse gases. We can also secure our supply of energy, strengthen our economy and promote the development of sound growth driven by technology, planning, equity, and environmental balance.

In short: the phase-out of oil can further strengthen our position as one of the country's leading cities in sustainable development. However, our ambitions are not really new. They have a long previous history. And they will obviously need to be followed up and intensified in the decades following 2020.

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List past successes.....(request from staff)

Naturally, efforts to make more efficient use of energy and the phasing out of both oil and other fossil energy carriers will need to continue for decades after 2020. This is connected above all with climate policy and the already existing objectives and requirements to reduce by 2050 emissions of greenhouse gases by 80 percent compared with 1990 levels of emissions as called for in AB32.

We want to be at the forefront in the gradual use of resource-efficient lifestyles and renewable technology – electric buses and street cars, urban villages, solar cells, universal transit access, and also technology we cannot know anything about yet or can just divine. We prepare for this type of development in our proposals by incentives for promoting less oil intensive transportation and land use planning as well as research, development and commercialization of new technology.

We would also like to underscore the need for partly new values and a way of life based to a greater extent on solidarity, at both national and individual levels. The role of homes and schools is therefore important, and we need to support the bearers of ideas, the popular movements, in their ambition to encourage new thinking and a deeper understanding of our world.

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Overview and Background

What was the Oil Independent Oakland Task Force?

The Oakland City Council established the "Oil Independent Oakland by 2020" (OIO) Task Force on October 17, 2006. The Task Force was requested to develop an action plan for Oakland to become oil independent by 2020, including addressing strategies to create jobs and economic growth in Oakland and by examining potential new policies within the City's municipal power that would benefit its residents.

Recognizing the many problems associated with our dependence on oil, the City Council realized the potential for the city to make significant changes to reduce that dependence and in so doing, become one of the worlds' leading cities in sustainable development.

Members and Structure

The Task Force convened in April 2007, met at least monthly and delivered its final report in December 2007. Ten members were appointed by the Mayor and City Council. Those members were Chair Parin Shah, Vice Chair Ian Kim, and members Louise Bedsworth, Shannon Graham, Richard Heinberg, James Lutz, Mike Petouhoff, Richard Register, David Room and Jane Seleznow. Task Force members had a wealth of knowledge and expertise in the following areas:

- Community Choice Aggregation
- City/Urban/Land-Use Planning
- Alternative Fuels/Transportation
- Alternative Energy/Energy Efficiency/Energy Conservation
- Green/Sustainable Appraisal/Environmental Indicators
- Workforce/Job Development
- Economic Development
- Public Policy
- Environmental Health/Emissions Reduction
- Port of Oakland

One of the first things the OIO 2020 Task Force did was to review and analyze the work of two similar groups who had studied this topic. One was the June 2006 report by the Sweden Commission on Oil Independence entitled *Making Sweden an Oil – Free Society*. The other was the March 2007 Report of the City of Portland, Oregon Peak Oil Task Force entitled *Descending the Oil Peak: Navigating the Transition from Oil and Natural Gas*.

At each Task Force meeting, members heard presentations from a wide range of experts including:

- Prof. Peter V. Schwartz, California Polytechnic Physics Dept on *Navigating The Way Out of Fossil Fuel Dependence*.
- Daniel Lerch on *Post Carbon Cities: Planning For Energy and Climate Uncertainty*.
- Ian Kim from the Ella Baker Center in Oakland, CA on Green Jobs and Eco-Equity.
- Kirsten Miller, Executive Director of Ecocity Builders on *Ecocities and Oil Independence*.

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- Robert Baertsch of UC Santa Cruz on *Solving Transportation, Land- Use, and Energy Issues Using Personal Rapid Transit*.
- Ron Swenson, advisor to the Swedish Institute for Sustainable Transportation on a more sustainable transportation system.
- Richard Heinberg summarized his book entitled *The Oil Depletion Protocol*.
- Task Force member Mike Petouhoff showed a DVD on Transportation Coordinated with Land Use, Specifically Bus Rapid Transit - A Case Study: Curitiba Brazil.

In order to focus its efforts, the Task Force established four Working Groups that also met periodically. Those Working Groups were:

- Transportation – This group focused on reducing dependence on oil by reducing car use in Oakland and the region, increasing the efficiency of private transportation and the use of alternative fuels, and the development of green jobs.
- Land Use & Infrastructure – This group focused on reducing dependence on oil through better urban planning including transit oriented development and urban villages to create neighborhoods where residents could shop and work close to where they live.
- Food & Materials – This group focused on policies that would help the city reduce the amount of oil that is used in food production and distribution, in producing plastics and chemicals and in road – paving materials.
- The Port of Oakland- This group considered ways to make the Port less oil dependent by reviewing operations at Oakland's international airport, 8 marine terminals, and 20 berths that have 2 railroads leading up to it along with significant trucking operations.

Problems with Oil Dependence

The rising price of oil affects Oakland's growth and employment—higher oil prices slow business expansion, impact wages and jobs and increase production costs. The burning of fossil fuels, one of the chief causes of global warming, threatens the living conditions of future generations of Oakland residents- Oakland suffers from asthma disproportionately in neighborhoods adjacent to freeways and other major sources of exhaust and pollution generated by traffic and the burning of fossil fuels. And oil continues to play a major role in global peace and security issues. In addition, experts predict global oil production will peak within five years and may have already peaked. The Task Force did not debate when the peak would occur and instead focused on changing consumption patterns by changing the way the city is designed to lessen its residents' dependence on the private automobile. The effort is a huge one that will take decades to achieve. But by undertaking this effort, Oakland will be well positioned to deal with the challenges that will be faced by declining oil supplies.

Key Drivers of Oil Dependence

It became clear to the Task Force that if Oakland wants to reduce its dependence on oil, then the Task Force needed to focus its attention on transportation. Although specific information about oil use in Oakland was not readily available, the following information was provided: ICLEI data in the *Baseline Greenhouse Gas Emissions Inventory Report*, dated December 2006 showed that for the year 2005, Transportation accounted for 47% of Oakland's greenhouse gas emissions. Fuel for transportation comes from oil. Although stationary energy consumption in the residential, commercial and industrial sectors accounted for 53.1% of greenhouse gas

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emissions, little, if any, of that energy was generated from oil. The City of Oakland receives its electricity from Pacific Gas & Electric Company (PG&E) and much of that utility's electricity is generated from natural gas, hydro power and nuclear.

(INSERT CHART from Dec 2006 ICLEI report included in April Task Force Agenda)

With transportation as the focus, the task force has come up with a number of recommendations to restructure the City of Oakland in a way that its residents will not have to rely on private automobiles for transportation. This will mean changes in land use decisions and more transportation options.

When the city was growing after World War II, Oakland had a rail system that linked many neighborhoods with job sites and commercial centers. As cars became affordable for the working class and oil prices were low, the rail lines were torn up and public transportation was replaced by cars. The price of oil has stayed relatively low ever since then and not until recently has the price begun to soar. With a growing population and the vision of the "American Dream" of a house in the suburbs, inner cities declined and housing was built far from jobs and city centers. Families began to spend less time together as parents drove farther and farther each day to work and all daily activities including grocery shopping, required a trip by car.

Over time, spending time in one's car has become a way of life for many in California and in Oakland. Long commutes are the norm, traffic is gridlocked throughout the Bay Area, open space and agricultural land is being turned into housing and sprawl is rampant. The OIO 2020 Task Force is recommending that these trends be reversed through a change in the way the city is designed which will enable residents to live independent of oil. By so doing, they will not be impacted by rapidly rising oil prices, they will have more transportation options and Oakland will continue to be a highly desirable place to live and do business.

Our Approach

Action Plan Chapters

1. Drive Less
2. Use Less and Buy Smart
3. Leading the Way
4. Breaking the 'Knot'

Timing of Potential Actions

The concepts of short mid and long term actions, is also related to the concept of individual, city, and leadership. In other words, the degree to which individuals can make choices is increased in the future by enabling decisions by governments and business that open up more options in the future. Likewise, governments and businesses can take more actions when more individual consumers and citizens are willing to take the leap.

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For example, the degree to which individuals can take transit, or bike or walk to work, is an individual choice, but one that is greatly enhanced by the decisions and actions city and other governments make, in terms of infrastructure, urban design, and transit. In the longer term more options are available to individuals for a number of reasons, not the least of which are actions governments collectively make.

As we untie or take on the Herculean task of chopping in half the Gordian knot we need to look at short and long term actions and the interplay of individual and collective decision making, in the context of greater information and education.

1. Short Term-1-3 yrs/Medium Term: 4-7 yrs/Long Term: 8-12 yrs

		Actions			Timeframe		
		Individual	City	Leadership	1-3 years	3-5 years	5-10 years
Transportation	PROMOTE PUBLIC TRANSPORTATION						
	Expand Public Transit – Bus Rapid Transit			?		?	
	Expand Public Transit – Municipal Street Cars		?				?
	Expand Public Transit – High Speed Rail			?			?
	Expand Public Transit – Regional Transport			?			?
	Increase Walking	?			?		
	Increase Bike Usage	?	?		?		
	Provide Universal Transit Access		?		?		
	Provide Public Transportation Education		?		?		
	ENCOURAGE TRANSPORT SHARING						
	Support Expanded Car Sharing		?	?	?		
	Support Dynamic Ride Sharing		?		?		
	Expand Car Pooling		?	?	?		
Promote Bike Sharing		?		?			

Chapter 1 DRIVE LESS

Introduction: Back to the Future

Note: someone needs to take a look at doing an introduction...if we want to do it.

- o Impact: Lower GHG emissions-More Resilient Communities
- 1. The low carbon oil independent lifestyle
 - A. Vibrant higher density communities
 - i. Easy walk or street car ride to daily retail needs
 - ii. Lively community appropriate shops and eateries
 - iii. "Urban Nature"- communities near the edge of natural amenities such as waterfront and greenbelts
 - iv. Oakland transit is nearby, safe and 'fun'
 - v. Nearby public amenities, parks, and streetscapes
 - B. Healthier residents and lifestyles
 - i. Walking and biking encourage healthy lifestyles
 - ii. Low carbon = sexy
 - iii. Shorter commutes = more time with family
 - C. Community character
 - i. Families of range of incomes live in proximity
 - ii. Unique community character
 - iii. Greater sense of identify with community
 - iv. Community eyes on the street means less crime

How to Drive Less

1. Urban Villages
 - A. Mapping for GP Amendment
 - B. Design of Vitality Centers and zoning policies to bring "live", "shop" and "work" closer
 - C. Proactive Architecture & Design Review Standards to make density *livable and vibrant*
 - D. Financing and Public Amenities to support a positive transportation hierarchy, and affordable access
 - E. Development of conservation and open space areas
2. Promote public transport
3. Encourage transportation sharing
4. Disincentives for private autos
5. Promote less oil-intensive transport
6. A Model City Fleet

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Land use changes are in order at the foundation of oil demand in Oakland and in all cities, towns and villages in this country and others where automobiles have reshaped cities over vast distances, setting in place dependence on massive use of transportation fuels.

Land use and transportation are integrally linked. At the simplest level, the ability to use transit is greatly dependent on the degree to which urban design places a large segment of the population within easy range of transit stations and the degree to which infrastructure makes it practical to get to the stations. This of course impacts ridership, which drives the degree fares can fund better transit. At an even more fundamental level, the very need to travel large distances in the daily live, work, and shop routine depends on the type of city layout and the proximity of these diverse uses.

The urban design we inherit today, has been facilitated by the assumptions of cheap and plentiful oil. Just as European cities, which were laid out before the prevalence of the automobile are more compact and more energy efficient than most US cities, even within the US, older cities such as New York are far more energy efficient per capita, than cities such as Los Angeles, which was developed with the more recent prevalence of the automobile.

So the citizens of cities built on the assumptions of cheap oil are more vulnerable to supply scarcity and price shocks, while more efficient cities will be a far more resilient refuge for their residents.

In addition, as a greater segment of both public and personal transportation transitions to electric power, the result is a shift of a major segment of transportation energy from fossil fuels to electric power. The implication is that buildings need not only be energy efficient to reduce the GHG emissions and natural gas vulnerability from existing electric production, but also that buildings and cities must become generation sources of renewable electric energy to meet the shift in transportation energy needs from fossil fuels to electric power.

Thus, we need to identify centers of vitality, building them up with more density and diversity of activity, often called "mixed uses" among planners. And we need vigorous commitment to and economic investment in renewable solar, wind, hydro and geothermal renewable energy sources and in transit and bicycle transportation as part of the overall pattern. Each neighborhood, major district center and the downtown can be like a living organism in its own right providing the full range of many or most of its needs for housing, employment, food, everyday services, basic education and transportation to other areas in our urban region and beyond. The close analogy is with the organs of any animal – all are required in compact arrangement. These centers of the city, where all the "organs" of housing, jobs, culture, transport, etc. are present, are potentially healthy units within the larger city and the region. In our deliberations these were called variously "vitality centers" or "urban *fractals*" being a fraction of the whole with essential components (housing, employment and so on as mentioned above) present and arranged appropriate to climate, sun angles at particular latitudes, type of energy and soils available, history and projections into an energy and climate constrained future.

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This approach is similar to the one that promotes “transit villages” or “Transit Oriented Development” (TOD) but takes the notion farther. It promotes development of growing vitality centers of serious scale while restoring open space for nature and food growing. Planning for such vitality centers promotes making the centers more like semi-self-reliant real small cities, towns and villages in their own right. This is the pattern to radically reduce energy demand and make an orderly transition to the best of the renewable energy sources available in the future. Energy is saved through far better operation of transit, enabling people to walk or bike many more places and through clustering of units in apartments and condos that share walls and thus energy for heating and cooling in very large measure. This represents energy use reduction by demand reduction at its land use foundation.

The Oil Independent Oakland Task Force members agreed that there is no single overriding “silver bullet” to solve the problem of society’s oil dependence. Many particular policies, actions and decisions by individuals are called for but the sequence of moving from largest arrangements of the city, up through the architecture and on to the attached and sheltered technologies and life styles gives us a means of ordering our thinking and shaping our strategy for best results.

With the awareness of what then is required for a very low energy, smaller ecological footprint future for Oakland we can then list the jobs that are truly green and those economic activities we need to invest in. In this we see the very positive potential of moving away from automobile and oil dependence, placing the indispensable larger and more difficult issues squarely at the beginning of the planning process. We were well aware of the tendency to postpone the knottier problems and agreed they have been postponed far too long already, thus causing much of the energy, environmental, climate and economic problems we now see surrounding oil dependence.

“Silver bullets” are single solutions to single problems. We promote a principle that states one should go for the solutions first that contribute to the most solutions simultaneously, not just one solution.

Getting the land uses right in cities solves most of the energy problem by reducing demand dramatically, thus profoundly reducing dependence on oil and helping solve climate change problems. It also makes possible preservation and recovery of land for nature and agriculture, restoring food gardens near home and natural environments. By providing the services of the city without having to spend massively on cars and automobile infrastructure it serves lower income people and goals for social justice. Since cars, promoted by sprawl and vice versa, land uses that liberate us from dependence on car and gasoline serve safety and security goals as well. It is hard to get more solutions from one approach than those attained by reorganizing city land uses on the basis of ecological principles.

One of the most difficult problems of all is rezoning, which is at the crux of land use solutions. But it is also something that is generally exclusively in the control of city governments. We don’t have to wait for Federal or State initiative or regional agencies to solve the biggest problems for us – we can tackle them through the zoning that is in the power of cities to do on

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their own. To avoid or postpone re-zoning for ecological and energy health is to avoid the first step on the “sliver sequence.” It should be understood to be the solution at the foundation of numerous other solutions built upon it and the means to by far the highest energy and land efficiencies attainable in moving away from oil.

1A. Mapping for GP Amendment

Urban Planning and Land Development are primarily city functions, thus are ripe for city action undertaken in coordination with regional agencies. Under California Law, the City's guiding Land Use document is the city's General Plan. In the case of Oakland, the existing Land Use and Transportation Element (LUTE) of the Oakland General Plan dates back to 1998 and is ripe for an update. The opportunity is for the update to address both coordination of land use with public transit and also to coordinate types of land uses so that daily live, work and shopping needs can be met in close geographic proximity providing access by proximity where possible. The latter goal implies not only a high density, but also a high diversity of uses to meet daily needs in close proximity, creating a sense of community and place which we refer to as Urban Villages. Thus petroleum independence is proposed to be achieved in a way that strengthens local communities.

An important tool in this process is GIS mapping to help identify existing centers of vitality with *high density* and *high diversity* of land uses, to further an Urban Villages approach.

Recommendation

Planning should update 1998 LUTE of the General Plan by amendment

- Use GIS Mapping Tools to identify existing vitality nodes as priority areas for development.
 - Evaluate diversity of uses and plan to remedy shortfalls
 - Needs community engagement for each area
 - Vitality centers have been defined as a starting point
(Insert chart of diversity evaluation areas)
- Coordinate with Short and Long Term Plans of AC Transit and BART, ABAG and MTC
 - AC Transit BRT and other plans (insert graphic)
 - BART Regional Rail Plan (insert graphic)
 - ABAG Focus Program (insert graphic)
- Look at Vancouver Plan as one model
- <http://www.vancouver.ca/engsvcs/transport/plan/index.htm>

Ultimately, we need to make our cities ecologically healthy. Humanity does not live separately and independently from nature. Learning from nature we can create ecologically healthy, low energy vitality centers something like urban villages and vital towns linked by very energy efficient transportation.

(Details) (Details can include places where “eco-mapping” has occurred if not yet applied: Berkeley, Los Angeles and Gold Coast, Australia. In other places the techniques furthered by

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eco-mapping are applied including Saint Paul, Minnesota, by area plan and development paired with creek and lake restoration, South Lake Tahoe, by transfer of development rights (TDR) and Johnson Creek in Portland Oregon, by direct use of city tax revenues.)

1B. Design of Vitality Centers and zoning policy

Once the general plan is updated, zoning policy and Specific Plans in certain areas must provide the implementing details. In general Oakland has a general need to update zoning to remedy inconsistencies with the general plan. In this process some updated tools may be needed for the toolbox.

The fundamental premise of zoning- sequestering use types- may be needed to be overhauled asking if there is a need to separate "residential" areas from "polluting" "industrial" job centers in all cases?

Economic Trends are towards jobs in new types of businesses

- The job base is shifting towards much smaller businesses
- The job base is shifting towards more service oriented business (rather than manufacturing)
- At least some manufacturing can be "clean"

The above may be candidates for co-location of jobs with residential areas

- Urban Villages or Community Oriented Development (COD) to create *access by proximity, with a hybrid type of mixed use that* puts job centers near residential and retail to join all three legs of use diversity- live, shop, *and work*
 - Most current mixed use focuses on residential and retail components
 - Define environmental performance standards in a CEQA context, for types of job inducing, clean commercial/industrial uses that would be appropriate
 - Evaluate crime reducing benefits of high diversity of use, with active eyes on the street rather than a "ghost town" effect that ensues when workers go home at night from monolithic use areas.
- Coordinate with Mayor's Green Jobs and Land Use Task Force
- Eliminate uncertainty caused by speculation and difference in Zoning and General Plan
- Create specific development goals for job creating zoning
- "Specific Plans" may help add further definition
- Utilize North San Jose approach to planning for job creation
 - Designate some areas for no residential job creating opportunities (e.g. Oakland Army Base has existing no-residential Tidelands Trust restriction)
 - In some locations, use residential development to help fund job creation opportunities (where compatible) in a mixed use residential-commercial-industrial- retail environment
 - *Evaluate Oakland's own C-27 Zoning or similar zoning for Business Districts near residential*
 - *Evaluate North San Jose plan's focus on Jobs as current planning effort unfolds*
 - *Create certainty as to what city wants with General Plan, Specific Plan, and Zoning and let market respond*

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Recommendations

- Evaluate BART Transit Oriented Development Guidelines for application to Oakland
- Evaluate-coordinate with Transit Village Planning Efforts currently underway in locations like San Jose/Santa Clara Transit Village

Matter of degree... is the focus on the Transit or the Community

(Insert graphic to illustrate difference in transit focus verses local community focus)

Zoning Policy: Parking

- Parking and traffic congestion is an important aspect of high density development
- In theory, high density and high use diversity should reduce auto usage, but, one of the major objections to high density development in Oakland is traffic and parking congestion
 - May be a short term issue as use diversity builds
 - E.G. New York City has low energy use per person and low car ownership. The density and use diversity is such that not owning a car is common
- Oakland City parking ratios are still in effect
- Market Risk: Even those attracted to "in town" living may not be ready to give up their cars. Thus lenders are reluctant as well
- Car free provisions for senior housing are considered realistic
- Parking ratio credits near transit may be more acceptable
- "Shuttle" solutions may help as well
 - Movement within activity centers
 - Movement to BART Stations
 - Utilization of empty BART Parking at night
 - May be street car system

Recommendations

- Additional look at Don Shoup's Work at UCLA as background, the idea of subsidized bundled parking (embedded into overhead) rather true ala cart pricing
- Historical Impact of Oakland's Parking Ratio Requirement and extra parking cost on Housing Affordability
- Dan Zack's work in Redwood City as a Bay Area example of implementation of Market Rate Parking
- <http://pedshed.net/?p=105>
- Examine Applicability of "Car Free by contract" to Oakland on a pilot basis or for particular areas or types of uses
- Provide developer incentives to reduce parking ratios where parking can be unbundled and those not choosing parking can participate in onsite car share program-
 - Provides ready cadre of car share users in the same place to increase utilization
 - Cost savings from not choosing parking increases affordability

Zoning Policy- Retail Balance

- Lack of Retail Balance means more vehicle trips out of the city and greater Petroleum Dependence

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- Oakland residents often leave Oakland for prime retail shopping. Conley consulting group found Oakland retail leakage includes:
 - \$1 Billion/Year in Oakland Residents going outside Oakland
 - \$10M loss in sales Tax revenue
 - About 10,000 potential retail jobs
 - Potential for about 5 Million SF of Space (new construction and construction jobs)
- An analysis of Oakland's tax base shows it to be highly dependent on residential parcel tax with lower sales tax ratios than comparable cities
 - *Bakersfield* 51%
 - *Concord* 40 %
 - *Fresno* 35 %
 - *Stockton* 35 %
 - *San Diego* 17 %
 - *Oakland* 9%
- City's current focus through Conley Consulting Group is focusing on arterials of Broadway, 27th Street, and Valdez Street

Recommendations

- Look at both local serving retail and regional comparison shopping.
- Local Serving (how far do you have to go for a loaf of bread or a dry cleaner)
 - Ensure residential areas have a good mix close to residents rather than "mono-use" zones.
 - Use GIS mapping as planning tool
 - Reduce and shorten trips for daily/weekly items
 - Walking distance to residential centers where possible
 - Can encourage grocery stores that promote *local foods* as further means of oil independence
- Regional Comparison Shopping (do you have to drive to Walnut Creek for the latest fashion)
 - Give Priority to Transit Proximity
 - Consider Street car system as part of streetscapes to add mobility and charm
 - Require electric car charging stations as part of parking solution
 - Good for retailers: More resiliency to oil supply shocks

Zoning Policy- Retail Balance-Crime Aspect

- Fear of crime scares many retailers away
- Potential for *high diversity of use* to break the cycle
- More local retail reduces trips while high use diversity makes more eyes on the street

Zoning Policy- Housing Balance

- A balance of housing that reflects the diversity of the workforce, means more people can live near where they work
- Creates greater resiliency to oil Supply Shocks

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- Oakland Blue Ribbon Panel has studied affordable housing with recommendations still being considered by council:
 - For Market Rate projects over 20 units
 - First Two years 5% on site or 10% off site
 - Third Year 15% on site or 20% off site
 - In-Lieu fee option
 - Transfer Tax from first sale of market rate units would be used to support affordable housing
 - Focus of above is low income (below median)
 - City Redevelopment Agency contribution recommended to increase from current 25% (legal minimum is 20%) to
 - 35% in two years
 - 50 % within 5 years
 - Focus of the above is very low income

Recommendations

- Use GIS Mapping to support planning location of high density (over 20) units in appropriate locations
- Especially for very low income housing controlled by RDA, ensure transit proximity as a priority in siting to insulate the poorest among us from oil supply and price shocks
- Consider Car Share as an affordability measure with less cost towards parking for project and less income dedicated to car ownership.
- Consider workforce housing as part of RDA controlled housing (not necessarily low income) for people who need to work in city
 - Police and Fire- Community Building Aspects for public safety professionals to live within communities they serve
 - Teachers near schools
 - Would imply designating family rental units with portion of pay dedicated to rent while under Oakland or OUSD employment

Social Equity Aspects

- More Jobs in Oakland
- More jobs closer
- Less dependence on the cost of a car in general
- Less dependence on a car to get to work
- Using the density and transit premiums as a means to create value that funds affordable or inclusionary housing requirements, out of land value premiums, not developer margins
 - across the board through zoning and general plan, to come out of land value premiums, not project specific!

Social Equity-Public Participation and Redevelopment Aspect

- Many of the Activity Nodes and Transit Centers are located in redevelopment areas
- Ensure Transit Development is coordinated with RDA
- Ensure "Project Area" 5 year plans reflect transit as well as affordability requirements

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- Ensure “Project Area Committee (PAC)” is used to define economic redevelopment and affordable housing objectives
- PAC is required in “Project Areas”, but *may be* created for any “Project Area”
- Use this input to make as much of the RDA solicitation process competitive as possible, so developers compete for entitlement rights based on publicly defined goals
- Oakland has a huge portion of the city defined in RDA Project Areas (about 40%)
- Oakland has 3 Project Area Committees now formed

Financial Strategy

- Create and Capture Land Value Premiums with proactive across the board rather than reactive project specific approaches
 - Transit
 - Density
- Infrastructure Impact Fees
- Improvement Agreements
- Affordability requirements coordinated with RDA areas
- Transit Funds e.g. MTC
- RDA Tax Increment with investment strategy coordinated with 5 year plans with Citizen input through Project Area Committees (whether required by eminent domain or not)

1C. Proactive Design Review Guidelines for Buildings & Streetscape

- Redwood City may provide a good Bay Area Example with their Downtown Precise Plan (ABAG)
- <http://www.redwoodcity.org/cds/planning/precise/preciseplan.html>
- Areas to address:
 - Large monolithic structures are a major source of objection to density
 - Proactive guidelines important to all parties to reduce disruption at the end of the process
 - Needs to address major areas of concern
 - Importance of transition from high density to lower densities area and looking at building elevations from all four sides in transition areas
 - Flexible ground floor story
 - Incorporating solar power to create more renewable electric capacity on the grid, especially as electric cars and transit become more prevalent.
- Aesthetic, livable, vibrant

Recommendation

- Oakland Planning Needs to create a process to review and update existing HD DR guidelines, similar to the process convened in 2005 for design review guidelines for 1 and 2 family residences. Get examples of guidelines from other cities that work well, e.g., Portland, Vancouver

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An important aspect of the design Review Guidelines must be not use energy efficiency, but active renewable energy production.. An important policy issue that Oakland can effectively engage is the limitation that energy produced can only be used to make a user's bill go to zero, but not to actually generate revenue. This effectively limits the size of solar productions facilities, since there is no incentive to produce more power than a building uses.

1D. Financing and Public Amenities to support a positive transportation hierarchy, and affordable access

- Some aspects are within the City of Oakland's control such as streetscapes, bike racks and paths and street furniture.
- Improve Mechanisms for funding within city
- "Improvement Agreements" and
- "Development Impact Fees"
- Land Value Premiums from Density and Transit Proximity may help fund above items
- Redevelopment funds where appropriate
- Coordinate with outside funding sources such as MTC
 - Create a vision
- Create a set of standards for streetscape furniture etc consistent with streetscape plan and with cohesive appearance
- Create examples of infrastructure we'd like to see that could be included in improvement agreements. Bus loading stations, bike racks, benches, electric car charging stations (doubles effective range of electric cars) self charging street lights with vertical turbines, street light timer/dimmers for dawn and dusk, potential for turbines in parks.

Insert chart with Example Transportation-Land Use Hierarchy below

- Walking- Facilitated by development with "access by proximity" in urban villages, Community Oriented Development (COD), putting jobs and shopping near home, with high diversity of use. Big health benefits.
- Bicycling
- Electric Scooters, and Carts- Facilitated by development with access by proximity in Urban Villages, COD
- Bus Rapid Transit (BRT) - high density along linear "centers" -high rider ship and high density complement each other over time.
- Mass Transit- facilitated by Transit Oriented Development (TOD), efficient public transportation between high density nodes, that is not necessarily high diversity.
- Electric Cars- a more efficient way to use the existing road network. Limited range implies shorter trips which is a good thing. Range can be doubled by infrastructure that includes charging stations.
- Plug in hybrids that have an *electric drive train*, with a fueled generator to extend range.
- Plug in hybrids that have a *fuel drive train*, with batteries and electric assist motors.
- Alternative Fuels Vehicles, Hybrids.

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- Petroleum Fueled Cars-least preferred option in terms of energy and petroleum independence

1E. Development of Conservation and Open Space Areas

- A means to conserve some areas (or discourage development) by transferring rights to more desirable location.
- The “de-development areas” would generally be those farthest from the centers and those preventing the restoration of important natural elements like creeks and those where expansion of community gardens, parks and sports areas are needed.
- Existing Oakland TDR Ordinance requires contiguous property
- In Redevelopment Areas TDR may be used in conjunction with or in place of eminent domain proceedings, for voluntary transfers
- Recommendation: Council Modify existing Oakland TDR ordinance changing contiguous requirement

1. Promote Public Transit

- a. Develop and Implement Public Transit Master Plan (5-10 years)
- b. Implement the Pedestrian and Bicycle Master Plans (5-10 years)

Every public transport trip is bookended with pedestrian trips and many also include bicycling trips. Hence, efforts to promote public transit must also address walking and bicycling.

Just as the City of Oakland has Bicycle and Pedestrian Master Plans, Oakland also needs a citywide, long-range policy document for promoting public transit in Oakland over the next several decades. Such a plan would be included in the Land Use and Transportation Element as an amendment the Oakland General Plan to promote public transit alternatives to the private automobile. We encourage council to set a target of December 2008 for a Public Transit Master plan to be completed and to give staff a mandate to implement the plan as developed over the next decade.

The Bicycle Master Plan is scheduled to be completed December 2007. It focuses on building infrastructure to increase bicycling safety. We strongly recommend that council not only approve the plan but also give staff a mandate to build consensus and a vision for seeing the work through. In concert with the development of the Public Transit Master plan, staff should review the Pedestrian Master Plan and determine whether updates are in order.

2a. Develop and Implement Public Transit Master Plan

Improving the coverage of and access to public transit supports the City’s efforts to become more environmentally, economically, and socially sustainable. In developing a Public Transit Master Plan, Oakland should identify aggressive and realistic goals for increasing public transit in the context of high oil and gasoline prices. The primary goal is to substantially increase ridership thereby making Oakland much more resilient in the event of escalating oil prices and oil price shocks. Secondary goals should address coverage, access, social equity, and safety. Oakland’s Public Transit Master Plan should have the following objectives:

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1. Infrastructure — Develop the physical infrastructure for a comprehensive transit network that improves access and use throughout Oakland, supports the urban village model, and connects Oakland to neighboring cities.
2. Encouragement—Improve the use of transit through encouragement, education, and community outreach.
3. Coordination—Develop processes and outreach to coordinate Oakland transit efforts with regional transit agencies, such as the Metropolitan Transportation Commission (MTC), AC Transit, Bay Area Rapid Transit (BART), and the California High Speed Rail Authority.

To oversee the planning process, city staff needs to form a Citizens Advisory Committee (CAC) composed of citizens representing council districts and community-based organizations. Interested individuals would be welcome participate in the monthly meetings of the CAC. Staff might also consider expanding the charge of Oakland's Bicycle and Pedestrian Advisory Committee (BPAC) - a monthly meeting on the prioritization and implementation of bicycle and pedestrian projects – to include public transit as well.

Infrastructure

Oakland should do a thorough investigation of options for creating a comprehensive public transit infrastructure that provides sufficient options and access to citizens for commute, recreational, and utilitarian trips. The current BART-AC transit system, while useful, leaves significant gaps in coverage and timing. This work would begin with an evaluation of the current public transit infrastructure and identification of gaps or poorly served areas given likely demographic changes in the next several decades and the plans of regional transportation agencies as well as the Bicycle and Pedestrian Master plans (see the section on Coordination).

As a key example and recommendation, Oakland should work with AC Transit, public transit entrepreneurs, and the public to investigate the development of a municipal streetcar system or if sufficient interest exists, an East Bay streetcar system. To the extent such a system is electrified or could be electrified in the future with relative ease, it would make Oakland much less vulnerable to oil shortages and price shocks, and thereby more resilient.

Street cars are shown to have higher rider ship and thus higher revenue potential than other transit system. Street car installation has been shown to increase land values. Oakland should investigate how to capture the land value premium through private investment and use it to finance the capital costs, as well as whether fares could cover operating costs. An Oakland street car should have distinctive and attractive branding that addresses the street car style, color, graphics, etc... An Oakland street car system could be built in Oakland, thereby generating many green-collar manufacturing as well as operating jobs. Avoiding the common objection to overhead lines, the Bordeaux, France Light Rail Transit implementation placed electrical cables safely in the street using the INNORAIL ground level switched system. [Light Rail Without Wires: A Dream Come True?, John D. Swanson, Parsons Brinckerhoff Quade & Douglas, Inc.]

The precedent for such a system is the Key System, a privately owned company which provided mass transit in the cities of Oakland, Berkeley, Emeryville, Piedmont, San Leandro, Richmond,

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Albany and El Cerrito from 1903 until 1958. In 1960, its assets were sold to a newly formed public agency, AC Transit.

The Key System consisted of local streetcar and bus lines operating solely in the East Bay, and a network of commuter rail and bus lines connecting to San Francisco via ferries and tracks on the lower deck of the Bay Bridge. At its height in the 1940s, the Key System had over 66 miles of track that connected the communities of Richmond, Albany, Berkeley, Oakland, and San Leandro with each other and to San Francisco.

The Key System's commuter train system was dismantled in 1958 after years of declining ridership as well as the effort by National City Lines, a General Motors affiliate which bought the system in the late 1940s, to petition the public utility board to abandon the last rail lines. In 1949, a Federal Court convicted General Motors, Standard Oil of California, Firestone Tire and others of criminally conspiring to replace electric transportation with gasoline or diesel powered buses, and to monopolize the sale of buses and related products to local transit companies throughout the U.S. They were fined \$5,000. State planners anxious to embrace California's postwar love for the automobile also pushed to have the track across the Bay Bridge and street rights of way removed to increase highway and street capacity. Local governments in the East Bay attempted to purchase the Key System, but were unsuccessful.

In its investigation, Oakland should evaluate the Key Route System to see where it could be still feasible in light of the Urban Village transition. AC Transit's plans for dedicated Bus Rapid Transit (BRT) lanes could possibly be a first step to street cars.

For any new transit, Oakland should also consider the possibility of zero fare system. Zero-fare public transport services are fully funded by means other than collecting a fare from passengers. Such a system could be funded by national, regional or local government through taxation or by commercial sponsorship. While several mid-size European cities and many smaller towns around the world have converted their entire bus networks to zero-fare, zero fare shuttles (such as Emeryville's Emery Go-Round) and inner-city loops are much more common than city-wide systems. In addition to a streetcar system, Oakland should also consider zero fare shuttles to improve transit coverage.

An East Bay Streetcar system would be consistent with Policy T-5 of the Transportation element of Berkeley's General Plan which calls for Berkeley to support regional efforts to develop light rail or bus rapid transit service connecting East Bay cities.

Encouragement and Education

Oakland needs to do outreach and education to ensure that all city workers, citizens, workers, and students are aware of their public transit options. One way is to increase its efforts to work with MTC's 511.org program. Oakland should also identify opportunities to provide financial incentives to encourage city workers and others to use public transit.

Oakland needs an education and outreach program to help citizens understand the importance of using public transit and what choices are available to them. As part of such a campaign, for

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specific neighborhoods where many transit opportunities exist but there is still low public transit usage, Oakland might consider a program like TravelChoice, a grant funded program of the Transport and Land Use Coalition which educates and informs households on their specific public transportation options. Since this program is labor intensive, it could be a source of green jobs but should be targeted to specific neighborhoods with the greatest opportunities.

The Public Transit Master Plan should consider options for Universal Transit Access (UTA) in Oakland, which would include programs to give free or discounted transit passes for city employees, as well as low income and public housing residents. Oakland should work with large employers and schools to join the program. Participation could be a requirement for new development. Policy T-3 of the Transportation Element of Berkeley's General Plan (See Appendix) calls for the city to work with transit agencies to establish a citywide or regional "Eco-Pass" program that would provide free transit passes to city employees, requires participation by new businesses with over 50 employees, and encourages existing businesses to join the program. The Policy also calls for Berkeley to consider a Citywide Transit pass for citizens to be funded by a tax that would allow pass holders free access to AC Transit and BART.

Another way to encourage workers to use public transport is to give them a stipend. City of Pleasanton employees get \$2 per day if they take BART, Altamont Commuter Express, carpool, bike or walk to and from work. The city also offers a public transit subsidy, monthly drawings for people who use alternative such modes of transportation and a commuter of the year prize.

Coordination

The City of Oakland should set up the processes and outreach to collaborate with regional transit agencies and neighboring cities such as Berkeley and Emeryville to expand public transit. Berkeley and Alameda both have staff to do this type of coordination. Alameda has transportation board composed of two representatives from AC transit and two city councilors. Oakland should consider assigning such responsibility to staff as appropriate. There are a number of existing initiatives that in the East Bay that Oakland should coordinate with including AC Transit's Bus Rapid Transit (BRT), BART's transit village development, MTC's 511.org program, and the High Speed Rail.

The city could act in an advocacy or coordination role with agencies such as BART, AC Transit, CALTRANS or others to weigh-in with the State to direct Proposition 1 bonds funds to encourage efficient transit rather than sprawl (i.e., Fourth Bore).

Improved coordination between regional transit agencies and Oakland Land Use Planning efforts might include:

- Work with AC Transit on priority traffic signaling which could increase service by a third
- Create a Joint Powers Authority to streamline Transit Village development
- Coordination of Land Use and Infrastructure with AC Transit and BART future Plans.

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Specific areas of regional coordination include:

- Support implementation of the Translink “one-fare” system
- Advocate infrastructure for bus loading stations
- Advocate AC Transit provide the “ribs” that feed into the “spine” of BRT and BART.
- Advocate AC Transit provide shuttle type services within activity nodes (urban villages) and to BART using excess BART parking at night where feasible
- Coordinate transit plans with city infrastructure plans

Some Specific Geographic Coordination Areas with AC Transit and BART

(Insert graphics for each proposed BRT location)

BRT Coordination

- Telegraph at 49th
- Telegraph at 31st
- International at 34th - Current

Oakland staff should respond to AC Transit’s initial thoughts for other transit priority locations:

- 20th Street between SP and Harrison (where AC just spent \$4 million to fix the street between Telegraph and Broadway)
- Broadway between 2nd and Grand
- 11/12th between MLK and Oak
- 8th OR 7th between Oak and MLK
- W Grand between Toll Plaza and SP Avenue

Oakland staff should coordinate with the following BART Regional Rail and Transit Village projects:

Short Term

- Corridor Preservation – Oakland Subdivision
- Increase frequency of Capitol Corridor
- Port of Oakland Intermodal Facility and 7th Street Grade Separation

Medium and Long Term

- BART implements Metro vision and 30-year CIP
- Fourth Track in Downtown Oakland
- West Oakland Capitol Corridor Station
- Potential new Transbay Rail / BART Crossing with HSR station at West Oakland BART and train yard in Oakland

BART Transit Village Sites (format table and insert graphics)

Station	Status	Development Status	Project Value
Fruitvale (Phase I)	Completed	47 rental units, 135,000 sf (37,000 retail, 27,000 office, 71,000 public)	\$100 M
Fruitvale (Phase II)	Approved	278-425 units	\$130-190 M
MacArthur	Negotiations CEQA	675 units, 34,000 sf retail, 5,000 sf community space	\$350 M
West Oakland	Negotiations	1. West Oakland Alliance 2. McGrath Properties	\$73 M (both projects)
Coliseum	Negotiations	Oakland Economic Development Corporation and MacFarlane Partners	\$341 M (BART land)

Every public transport trip starts and ends with a pedestrian trip and many also include bicycling trips. Hence, efforts to improve public transit in Oakland should be coordinated with the Bicycle and Pedestrian Master Plans (see next section).

2b. Implement the Pedestrian and Bicycle Master Plans

Since all public transit trips include walking and many in Oakland include bicycling, promoting public transit is synergistic with promoting and improving safety for pedestrians and bicyclists. The Land Use and Transportation Element of the Oakland General Plan has both Pedestrian and Bicycle Master Plans to address this need.

The Pedestrian Master Plan promotes pedestrian safety and access to help ensure that Oakland is a safe, convenient, and attractive place to walk. It establishes a Pedestrian Route Network emphasizing safe routes to school and connections to transit. The routes include streets, walkways, and trails that connect schools, libraries, parks, neighborhoods, and commercial districts throughout the City. It identifies priority street segments along these routes for targeted improvements over the next twenty years. The plan also identifies new pedestrian design elements to promote pedestrian safety and access throughout the City. In concert with the development of the Public Transit Master plan, staff should review the Pedestrian Master Plan and determine whether updates are in order.

Oakland is updating its Bicycle Master Plan which was originally adopted in 1999. Scheduled for completion in December 2007, the updated plan contains specific projects and policies to increase bicycling throughout Oakland. This effort integrates Oakland's bike plan with bike plans of the San Francisco Bay Area region, Alameda county and neighboring communities. The

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resulting plan will guide the implementation of future projects and ensure Oakland's competitiveness for funding from bicycle grant programs.

As noted in the draft Bicycle Master Plan:

In the United States, 40% of all trips are under two miles in length (Federal Highway Administration 1999). In Oakland, 85% of residents live within two miles of a BART station. This two-mile distance equates to an easy 12-minute bicycle ride. Forty percent of American adults identified that they would sometimes commute or commute more often by bicycle if there were safe bikeways serving their trips (Parkwood Research Associates 1995). As the population of Oakland and the Bay Area continues to grow, the transportation system faces increasing demands on its crowded infrastructure. Compared to automobiles, bicycles are a very efficient use of roadway capacity and parking space. Bicycling is the most energy efficient form of transportation and it has no emissions. In Oakland, transportation is responsible for 47% of the city's greenhouse gas emissions (ICLEI 2006, p. 7). The use of bicycles for short trips reduces the number of short trips by automobile. These are high-polluting trips because of the car's cold start and the associated inefficient operation of the engine's catalytic converter. In fact, up to 70% of the pollution from a ten-mile car trip is generated in the first mile because of the cold start. By extending human-powered travel beyond walking distance, bicycles are especially effective for linking neighborhoods to major transit stations and thereby eliminating short, high polluting car trips.

Of the 24 California cities with populations over 150,000, Oakland had the third highest cycling rate (tied with Anaheim at 1.2%), following San Francisco (2.0%) and Sacramento (1.4%). At a finer level of detail, cycling rates vary significantly between census tracts in Oakland. Some neighborhoods have cycling rates over 5% while other areas report no residents cycling to work as their primary transportation mode.

The focus of the Bicycle Master Plan is the basics: infrastructure to make bicycling in Oakland safer and easier such as more bike lanes, more and better way-finding signage, more and better bike parking. One of the aims is addressing bicycle safety and access in the design and maintenance of all streets." The intent is to institutionalize the bike aspect as part of how the City works and makes decisions. There is also a significant need for more education and enforcement, especially as Oakland continues to have more bicyclists. While Transportation Services will lead the building the infrastructure, it is crucial that other agencies within the City contribute to implementing and being active with the Bicycle Master Plan. We strongly recommend that council not only approve the plan but also give staff a mandate to build consensus and a vision for seeing the work through.

3. Encourage Transport Sharing

Notes-more vision, one car community share program

- a) Support expanding car sharing, beginning with city staff and car sharing parking place management. Use car share services in lieu of city vehicles.
- b) Support dynamic ride sharing with online, telephone, and mobile phone access

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- c) Expand carpooling – incentives, adding online and telephone support infrastructure, organization and coordination.
- d) Bike sharing

The City of Oakland should encourage sharing of cars, rides, and even bikes. As an initial step, Oakland could follow Berkeley's lead in expanding car sharing and encouraging employees to use car sharing services. The city conducted a pilot program with City CarShare beginning in the fall of 2006.

The City of Berkeley's Measure G implementation program is considering a goal of Universal Car Sharing such that car share vehicles are accessible throughout the city with the possible exception of the Berkeley Hills. As a first step, they are working with car share companies (e.g., City Car Share, FlexCar, and ZipCar) to increase the number of car share vehicles in Berkeley. In exchange for putting car share vehicles in less heavily trafficked areas, the City is dedicating some parking spots in high traffic areas that are for city vehicles to car share vehicles. In turn, the city is also encouraging city employees to use car share vehicles for city business and has accounts for this purpose with car share companies.

While Oakland goes through the time consuming process of improving public transit and shifting development to urban villages, Oakland should in the meantime encourage and collaborate with efforts to increase car pooling and dynamic ride sharing in the region. Carpooling is the shared use of a car for commuting to work, often by people who each have a car but travel together to save costs and/or in the interest of other socio-environmental benefits. While several online car pooling sites serve Oakland (e.g., erideshare.com and www.carpoolworld.com), MTC's 511 Rideshare program has by far the best service. Dynamic ride sharing systems allow people to make one-time ride matches close to their departure time using online and/or telephone systems. While many ride sharing systems have been tried, none have reached critical mass in the United States. In Europe, the Mitfahrzentrale has been successfully operating for years (www.mitfahrzentrale.de).

Oakland could help increase rates of carpooling by offering incentives for workers to carpool. In May 2006, MTC started a \$50,000 incentive program that gave new carpoolers as much as \$100 for gas or groceries. The City of Pleasanton offers employees a \$2 per day bump in their paycheck if they take BART, Altamont Commuter Express, carpool, bike or walk to and from work. The city also offers a public transit subsidy, monthly drawings for people who use alternative such modes of transportation and a commuter of the year prize.

It is anticipated that such efforts may to some extent undermine public transit by making it less expensive to drive. We anticipate, however, that the net benefit will be positive with respect to reduction of oil consumption and that the recommended improvements in public transit will have much greater impact on public transit usage than increased car pooling and ride sharing.

An even better option for city workers than carpooling, both from an oil reduction and health standpoint would be to increase the use of bicycles, both for commuting and short work-related trips. To help people access bicycles, Oakland needs a bicycle rental business, especially one

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that could serve the Bay Trail and the new improvements around Lake Merritt. As a step toward bike sharing, Oakland may be ready for a "bike pool," parallel to the City's car pool, that would encourage employees to use bicycles for city business (where practical). In addition, the city should be sure that future land use plans facilitate safe and expedient bicycle travel.

2. Disincentives for Private Autos (Shannon will provide update during meeting)

1. Support regional congestion charging
2. Increase the cost of driving
 - a. Local carbon or gas tax (Berkeley, <http://www.ilsr.org/ecotax/greentax.html>)
 - b. Higher parking fees (MTC 's parking toolbox in Great Communities Collaborative)
3. Less Parking in new developments funding public transportation
4. Reduce city-subsidized parking and car allowances

3. Promote Less Oil Intensive Transport-need vision to this.....

- a) Driver education on vehicle maintenance to improve vehicle efficiency
- b) Enforce existing traffic laws (e.g., speed limits)
- c) Enforce anti-idling laws
- d) City EV procurement and leasing
- e) Plug-in hybrid purchase and infrastructure development
- f) Promote alternative fuels

While the city of Oakland does not have regulatory authority over the efficiency of the vehicle fleet, there are a number of steps that the city can take to promote less oil-intensive vehicle choices and use. These range from driver education to enforcement of existing laws to programs to induce the purchase and use of clean vehicles and fuels.

Proper vehicle maintenance can have a significant effect on vehicle efficiency. Improper tire inflation increases a tire's rolling resistance and, therefore, reduces a vehicle's efficiency.¹ Vehicle mileage can be reduced up to 0.4% for every 1 psi reduction in tire inflation (on all four tires). Keeping a vehicle's engine properly tuned and replacing air filters can provide even larger fuel economy benefits.² A public education program can help to encourage vehicle owners to properly maintain a vehicle.

The city can also reduce transportation oil use by enforcing existing laws. These include speed limits and anti-idling regulations. Vehicle fuel economy declines rapidly at speeds over 60 miles per hour, therefore, a focus on enforcement of the speed limit on the city's major streets and highways could result in an improvement in fuel economy.³ Five to fifteen percent of a vehicle's CO₂ emissions, which correlate directly with fuel consumption, occur at idle.⁴

¹ NAS, 2007, *Tire and Passenger Vehicle Fuel Economy: Informing Consumers, Improving Performance*, Washington DC: National Academy Press.

² <http://www.fueleconomy.gov/feg/maintain.shtml>

³ <http://www.fueleconomy.gov/feg/driveHabits.shtml>

⁴ An, F., D. Friedman, and M. Ross. 2002. Near-Term Fuel Economy Potential for Light-Duty Trucks. Warrendale, PA: Society of Automotive Engineers, 2002-01-1900. June.

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Finally, the city can provide incentives and services to support greater use of electrified forms of transport. This includes vehicle choice in city vehicle procurement programs as well as development of infrastructure to support electric vehicles. An increased effort by the city to develop infrastructure to support electric vehicles will require coordination with Pacific Gas and Electric as well as consideration for inclusion into future land use development plans.

We also recommend that the city consider judicious support of increased use of alternative fuels. We would like to make a cautionary note regarding biofuels. It is crucial to evaluate biofuels in light of the conflicting evidence on the energy benefits of biofuels as well as the increasing amount of information emerging on the competition between crops for fuels versus food. In addition, the environmental and ecological damage that can result from biofuel crop production poses significant concerns. Therefore, we encourage the city to focus on biofuels derived from reclaimed waste oil (i.e., biodiesel) rather than virgin crops.

4. A model city fleet-long and short term projects policies, electric cars.....

- a) Reduce the size of the city fleet through partnerships with carshare groups
- b) Increase biodiesel use in city diesel vehicles
- c) Require best in class purchases, with priority given to electric and plug-in hybrid electric vehicles as appropriate

One element of Oakland's transportation footprint that the city has direct control over is its own vehicle fleet. The city currently maintains a fleet of just over 1700 vehicles. Of these, 45% are cars, 20% are light trucks and vans, and 15% are heavy trucks and construction equipment. The city's fleet vehicles are driven approximately 8.8 million miles per year.⁵

The city has launched a pilot program with City CarShare. The program has just over 30 employees currently enrolled and the city expects that this will increase as the size of the fleet is reduced through the removal of underutilized fleet vehicles.⁶ We encourage the city to explore options to expand this program further as discussed in item #3.

The city could reduce oil usage in its heavy trucks and construction equipment through increased use of biodiesel. We encourage the city to utilize biodiesel from reclaimed waste oil for this use, as discussed in item #5. In addition, we encourage the city to give preference to using biodiesel that is locally produced.

When the city is purchasing new fleet vehicles, the city should employ a best in class fuel economy rule, were feasible. There is significant variation in the fuel economies of vehicles available in each class. For example, the highway fuel economy rating for a midsize car ranges from 33 miles per gallon down to 16 miles per gallon (excluding hybrids). The range for SUVs

⁵ Data from memo from Public Works Agency to the Office of the City Administrator, "Report and Action on Fleet Usage, City CarShare Pilot Program, Commute options, Vehicle Locators Using Satellite Technology, and Fleet Replacement Needs, November 13, 2007.

⁶ *ibid.*

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is from 28 miles per gallon down to 13 miles per gallon (excluding hybrids).⁷ Using best in class purchasing rules could reduce fuel use significantly and save the city money.

CHAPTER 2 USE LESS AND BUY SMART

Green Port plan that emphasizes oil independence as well as public health
Cold Ironing from the 'grid'
Contingency planning for oil price shocks

Overview of the Port of Oakland

The Port of Oakland was originally established in 1927 as an independent department of the City of Oakland and functioned as a self-supporting company with no tax revenue. The idea at the time was to separate the Port from City government as much as possible in order to protect the Port's business and operations from corrupt city officials.

The Port is the 4th busiest container port in the United States and is crucial to the economy of Northern California and the Western Central States. It is a major economic feature of the city of Oakland. The Port directly provides 60,000 jobs locally and 700,000 in the region. The Port of Oakland supports billions of dollars in economic activity each year, and indirectly generates significant state and local tax revenues for the City of Oakland.⁸ The Port of Oakland has 8 marine terminals, (between 50 to 150 acres in size), 20 berths and 2 railroads leading up to it. Oakland brings in 8% of California's cargo imports while Long Beach and Los Angeles bring in the majority at 89% (the remaining 3% come from other CA ports).¹

- *NOTE: Potential for localization strategies for manufacture or materials reprocessing. One way to reduce the oil use is to modify the current "model"-globalization uses oil localization uses less there is still economic growth.*

Obviously, this Task Force is making recommendations to the Oakland City Council, not the Port Commission. However, given the major importance of the Port of Oakland to the City's economy – and given the Port's major role in oil consumption and emissions in the Bay Area – we felt it was crucial to devote our resources and time to making some recommendations related to the Port. Some of these recommendations will not fall under the jurisdiction of the City Council, and must ultimately be taken up by the Port Commission. We urge the City Council to recommend to the Port Commission that they take these recommendations seriously.

⁷ Data from EPA: www.fueleconomy.gov

⁸ Meeting July 30, 2007. Port of Oakland Meeting at the Port of Oakland Offices.

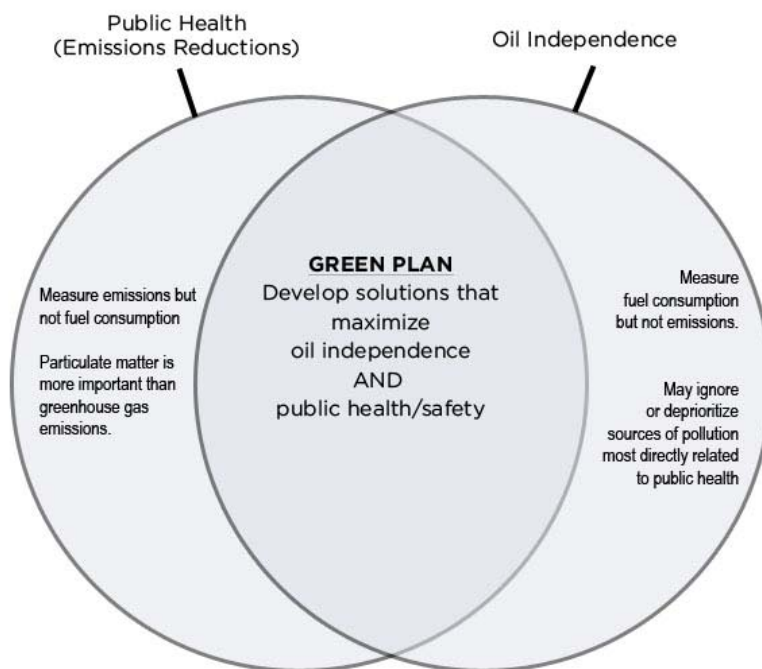
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In the development of these recommendations related to the Port, we have done our best to be in good communication with the Port of Oakland. We met multiple times with senior staff at the Port, and made one interim reportback to the City-Port Liaison Committee.

RECOMMENDATION 1: GREEN PORT PLAN THAT EMPHASIZES OIL INDEPENDENCE AS WELL AS PUBLIC HEALTH

The Port's primary emphasis in the above measures is to reduce pollution and emissions of particulate matter. They are public health measures first and foremost. This is critically important, and the above measures should be accelerated and enforced to the highest degree possible for the sake of vulnerable residents in Oakland.

However, the Port must also develop, deploy, and enforce measures that are aimed at reducing petroleum dependence. There will be many synergistic and mutually reinforcing measures that can address both public health as well as petroleum dependence. The Port should avoid solutions that address only public health or only oil independence.



Key components of a Green Port Plan would include the following:

- A study of fuel consumption and emissions that measures three key variables: fuel consumption, particulate matter (and health-related emissions), and greenhouse gas emissions. This study should track all the different types of vehicles related to the Port (ships and tugboats, trains, trucks, airplanes, cranes and other equipment). The study

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should first be conducted as a baseline with repeated measures every five years to track progress.

- Plan and budget for staffing and enforcement of Green Port Plan policies. Too often, "green" policies have no teeth because enforcement is inadequate. It is important to devote the staffing and financial resources for successful follow-through.
- [What else?]

RECOMMENDATION 2: COLD IRONING FROM THE GRID

Cold ironing is the practice of plugging into an electrical source while docked instead of burning diesel or other dirtier fuels. The South Coast Air Quality Management District (Southern California) estimates this practice can reduce pollution by 2/3 if source of electricity is coal-fired plant, and up to 100% if renewable source is used.

The Port of Oakland is currently testing a cold ironing system that uses natural gas. This is a positive step forward. However, over the long term, the global markets for fuel face a "peak natural gas" problem very similar to the "peak oil" supply curves. The Task Force recommends planning for cold-ironing systems that tie into the city's main electrical grid (relying on the grid to have a large and increasing mix of renewable energy sources).

Other major ports such as L.A./Long Beach are implementing cold ironing, so it is clear that the necessary technology exists, despite the lack of standardization amongst ships' electrical systems in the global goods movement network.

One challenge to implementation in Oakland is infrastructural: There are currently no "easy" ways of building large enough transmission lines to the grid. The nearest electrical substation to the Port of Oakland is [_____]. To build out the needed transmission may require collaborative planning between the Port, the City of Oakland, and other government, utility, and private sector stakeholders. (what did R Reinstein say about this?)

Another possible set of challenges for cold ironing is related to the average size of ship and length of stay at the Port of Oakland. Reportedly (source?), cargo ships size tends to be smaller (average __ feet, vs __ feet in L.A./Long Beach) and length of stay tends to be shorter (average __ days, vs. __ days in L.A./Long Beach) in such a way that cold ironing is less cost effective. Cold ironing at the Port of Oakland will require some logistical creativity to ensure a cost effective and efficient system.

RECOMMENDATION 3: CONTINGENCY PLANNING FOR OIL PRICE SHOCKS

The Port is a huge aspect of the City of Oakland's economy. Since the Port's maritime and aviation activities are so dependent on petroleum products, any significant change in fuel price or availability is likely to have a large impact on those activities.

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The City should urge the Port to prepare contingency plans for dramatic changes in fuel price and availability. Since petroleum is a world market, fuel prices will be strongly influenced by the international market. The Port of Oakland will not be able to directly impact fuel prices. However recent trends in oil prices suggest that it is quite possible that dramatic changes will continue to occur.

As a first step the Port should investigate the impact of price rises and fuel constraints on shipping volume and airport activity. There no doubt have been studies on the elasticity of shipping volume and airline traffic relative to fuel prices. This literature should be researched. The likely impact on Port activities of a sudden fuel price rise could be evaluated based on that information. If a sudden fuel price rise is likely to reduce Port activities, uncomfortable as it might be, the Port, in consultation with stakeholders, should prepare contingency plans for such an outcome.

Since marine shipping and aviation is necessarily of a national and international scale, much of this activity is beyond the influence of the City Council. However, the City and the Port can take a more active role in national and international arenas. As a Task Force, we urge the City and the Port to become active in national and international activities supporting policies to reduce oil consumption in the goods movement sector and in aviation. This could take the form of increasing efficiency of transportation systems and reducing the amount of transportation needed.

USEFUL BACKGROUND INFORMATION:

Green "Best Practices" for Maritime Ports

Based on our scan of policies and practices at other ports in the United States, green best practices fall into five basic categories, listed below. At the Port of Oakland, a few of these are already being done in some form, but many are yet to be implemented and could form the basis for far-reaching recommendations.

➤ **Alternative Marine Power (AMP):**

The major AMP technique is 'cold ironing', which is the practice of plugging into an electrical source while docked instead of burning diesel or other dirtier fuels. The South Coast Air Quality Management District (Southern California) estimates this practice can reduce pollution by 2/3 if source of electricity is coal-fired plant, and up to 100% if renewable source is used. (addressed at length above).

➤ **Switch to cleaner fuels:**

- Low-sulfur fuels: Cruise ships in Seattle and San Francisco have incentives (financial and non-financial) and/or requirements for using low-sulfur fuel as well as using other green practices
- The International Marine Organization (IMO) recently set international standards for reductions in nitrous and sulfur emissions

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- Biodiesel: The National Atmospheric and Oceanic Administration (NOAA) operates a fleet of research vessels and small boats, and has replaced petroleum usage with biodiesel and biodegradable hydraulic oils, transmission fluid, maintenance lubricants and cleaners.
- Natural gas: Long Beach – EPA grant to retrofit for yard hostlers (small trucks at cargo terminal)
- Green Flag Program: Voluntary (with incentives such as lower dockage fees) programs requiring ships to slow to 12 knots at distance of 20 miles from shore. Traveling at lower speeds reduces emissions. (Long Beach)

The Port of Oakland already has the following policies and practices in place to reduce emissions and incentivize cleaner-burning fuels: ⁹ [NEED TO DEVELOP THIS LIST]

Ships and Tugboats (unclear what the actual policies and numerical targets are for many of these)

- Idle on one engine at sea when not transferring pilots
- Engine Technology:
 - Upgrade bay high speed run boats with Tier 2 engines
 - Replace high polluting boats with new boats have Tier 2 engines
 - Efficient fuel injectors
 - Common rail injection
- Post Combustion Technology
 - Exhaust scrubbers (create liquid waste)
- Hotelling Emission Reduction
 - Electrification – Off Grid or Distributed Generation (cold ironing)
 - Bonnet Technology – a sock that cleans ships emissions by dragging out the pollutants from the engine
- Burn clean fuels:
 - Low sulfur diesel - reduces sulfur oxide and particulate matter
 - Distillate vs. residual - reduces nitrous oxide and particulate matter
 - Water emulsified fuel - reduces nitrous oxide and

Trains

- 20% Reduction in Particulate Matter by 2008:
 - 400 trains equipped with automatic shutdown devices w/ 15 min. idling limitation
 - 80% of fuel is ultra low-sulfur (6 yrs earlier than required by Federal Law)
 - 99% of locomotives will comply with stringent smoke regulations
 - Health risk assessments carried out at 16 major rail yards in CA
- Air Quality Investments

⁹ Based on information presented at the August 1, 2007 "Seaport Operations and Air Quality" Workshop co-hosted by the Port of Oakland and the Bay Area Air Quality Management District

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- 1,559 Tier 2 engines as of July 2007
- By Dec. 2007, 60% of units in CA will emit at the ultra low emitting locomotive rate
- \$358.3 million invested in new equipment serving CA since 2000

Trucks (again, unclear what the actual policies and numerical targets are for these technologies)

- Ultra Low Sulfur Diesel (ULSD), Liquid Petroleum Gas (LPG)
- Diesel Particulate Filters (DPF)
- Verified Diesel Emission Control Systems (VDECS approved by CARB and Tier Four Engines)
- Tier 3 and Tier 4 engines (newer engines just burn cleaner fuel, not necessarily more fuel efficient)
- 24 Nautical Mile compliance
- Replacing trucks to meet CARB requirements

➤ **Upgrade/Retrofit Equipment:**

A wide variety of engines are used at dockside to unload and handle containers. Replace with electric, low emission engines; equip with diesel oxidation catalysts, idle limiters:

- Yard equipment: electrification of cranes, propane or electric forklifts (Los Angeles, Long Beach, Seattle)
- Diesel oxidation catalysts in short-haul trucks (Long Beach)
- Container handling equipment equipped with exhaust controls (Long Beach)
- Idle limiters in Locomotives (Long Beach:)
- Nonmaintenance dredging done with electric equipment (Long Beach)
- Modernization of locomotives – use of natural gas switchers, idle limiting devices, cleaner fuel

➤ **Infrastructure changes:**

- Greater use of rail, bring tracks closer to dock (New York/New Jersey)
- Modify gates (computerize, switch to electric, relocate and/or extend gate hours) to reduce fuel use and truck waiting time (New York/New Jersey, Long Beach)

➤ **Systemic policy changes:**

- Implement Environmental Management System
- Voluntary Tenant Environmental Awareness Training
- Green Task Force
- Goal: Expand percentage of cargo transported by rail with a specified percentage goal.
- New leases with tenants must include green agenda
- Truck traffic - considering incentives for commercial truck owners to upgrade truck to more modern clean fuel / fuel efficient trucks; institute measures to reduce idling time

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- Institute 'green building' in all new construction and retrofits (tenant improvements?)

Key structural, political, and economic factors at the Port of Oakland

Competition with other ports is a major consideration for any decision: Competition between the Port of Oakland and other major ports facing the Pacific (such as Los Angeles/Long Beach, Portland, and Seattle) is of major strategic importance. Port officials and operators consistently raise concerns about competition in response to proposed environmental policy changes related to fossil fuel consumption and air quality. They argue that regulations and policy changes should be enforced nationally and internationally to avoid adversely affecting the economic competitiveness of the Port of Oakland. Otherwise, they argue, higher costs at the Port of Oakland will cause companies to re-direct their cargo down south to LA or up north to Seattle, taking business away from the Port of Oakland.

- *NOTE: Cite the BMP and initiatives (listed at end) from the other ports as motivator. Oakland Port will not be 'forging' new territory they are just catching up.*

The Port's governance is highly independent from oversight by the Mayor and the City Council: There is only one direct way that the City of Oakland's central government oversees the Port, and that is through the appointment of Port Commissioners (the Mayor appoints, subject to approval by the City Council). After appointment, the Mayor and City Council cannot "revoke" a Port Commissioner's status. Beyond appointment, there is little that the City can do to directly influence the decisions and policies at the Port of Oakland. This is in contrast to the Port in Los Angeles, where the Mayor can both appoint and "fire" Commissioners at will.

A recent positive development is the resurrection of the "City-Port Liaison Committee", which provides for some communication and coordination between the City Council and the Port Commission. This does not place the City Council in a position of oversight or power over the Port Commission, but it does create opportunities for coordination and strengthened collaboration between the two governance structures.

The Port is mostly a landlord, not an actual operator of goods movement activities: While the vast majority of activity on the Port involves the movement of people (aviation operations) and goods (maritime and aviation operations), those activities are for the most part carried out by "tenants" of the Port of Oakland, which acts primarily as "landlord." While it is possible for the Port to exert some influence over how those tenants operate, the influence is not nearly as direct as many may think. The Port can establish conditions for leasing Port facilities, but is not directly in charge of the daily operations that take place on the land. Private companies set their own standards of operations for their ships, trucks or trains within the guidelines of state and national regulations. The Port of Oakland provides the facilities and equipment for the Marine Terminal Operators to maintain. It is important to acknowledge the complexity of the landlord/tenant reality while at the same time not allowing that arrangement

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to become an excuse for failures to act on systemic problems, failures to plan adequately for the future, or failures to act on behalf of other major Port stakeholders (such as local community residents and the workforce at the Port).

NOTES:

- *Conditions in leases per LA model.*
- *Education/Workshops for tenants paid for by Port revenue (public goods funds).*
- *As landlord are there incentives for local economy building businesses.*

Controversy around the Port's fossil fuel consumption is largely centered on local/regional air quality and public health impacts, not economic vulnerabilities or global climate change: It is important to note that the problem most heavily associated with oil consumption at the Port is negative health impacts from oil-based air pollution. This has resulted in problem statements and solutions that are primarily geared toward mitigating health impacts. For instance, the Port of Oakland is implementing new "cold-ironing" technology that relies on electricity generated from natural gas, as a way to reduce local combustion of bunker and diesel fuels. Switching to natural gas is more effective as a public health solution, and less effective in addressing "peak oil/natural gas" and global climate change problems. Studies conducted related to oil consumption at the Port are more geared toward measuring health risks from pollution, and are less geared toward establishing baselines of fossil fuel consumption or greenhouse gas emissions.

- *NOTE: Potential for using community health impacts as a lever.*

The Port of Oakland is in the midst of major growth and expansion: Several years ago, the Port of Oakland initiated a major, multi-year expansion plan which is still underway. Container traffic at the Port is expected to increase by huge percentages in the decades to come.

- *NOTE: The underlying assumption is that globalization is going to grow. An alternative approach is building local economy.*

A unique labor and community agreement exists to govern the Port's expansion: When the Port's expansion plan was first put in place, it was the subject of a major negotiation between the Port, labor unions, and community groups. The result of that negotiation was the establishment of the Maritime and Aviation Project Labor Agreement, or MAPLA. This agreement ensures that the expansion of the Port results in some benefits for community stakeholders and labor unions.

- *NOTE: Potential that local labor groups would want to have manufacturing jobs grow in the region through local economy models.*

Buy Smart

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The Task Force came to the realization early in its deliberations that Food and Materials are two important areas of dependency and vulnerability for Oakland with regard to petroleum. However, due to time and personnel limitations, the Task Force realized it would be impossible to focus as much attention on these subjects as on transportation and related issues such as land use, which together account for the substantial majority of Oakland's oil consumption. Therefore, we decided to include the following general overview, with the recommendation that further studies of economic and societal vulnerability from future oil supply problems for food and materials, and more detailed suggestions for reducing those vulnerabilities, be pursued further at a later date.

Food

Conventional industrial agriculture is entirely dependent on fossil fuels. Artificial ammonia-based nitrogenous fertilizers use natural gas and atmospheric nitrogen as raw materials. Much of the world's cropland has been so chemically exhausted, its topsoil so weathered and destroyed that, without these artificial fertilizers (or extensive work to rebuild the topsoil), and it cannot produce crops in the volume or at the pace that the world's population now requires. The use of farm machinery impelled by internal-combustion engines, which run on petroleum products, has freed up millions of acres of cropland from the need to grow feed for draft animals; those acres now grow food for the burgeoning human population. Without oil, farming may again require animal power, and traction animals will need to be fed. Farms always attract pests; however, the growing of monocrops, which is made economically necessary by mechanization, attracts huge numbers of insect pests. Oil provides the feedstock for making the cheap pesticides used to control these swarms of pests and to maintain crop yields.

As a result of all of this, approximately ten calories of fossil fuel energy are currently needed to produce one calorie of food energy in conventional American agriculture. (Pimentel...)

With the global proliferation of the industrial-chemical agriculture system, the products of that system are now also traded globally, enabling regions to support human populations larger than local resources alone could support. Those systems of global distribution and trade also rely on oil. Within the US, the mean distance for food transport is now estimated at 1,546 miles, though this distance varies greatly depending on the food item—233 miles is the average for pumpkins, 2095 miles for broccoli (Pirog et al 2001).

Oakland's situation is typical of that of modern cities: most food is imported from elsewhere, and most of that food is grown using prevailing fossil-fuel intensive methods.

Again, this implies a critical vulnerability for the people of Oakland. The Task Force therefore strongly recommends (1) maximizing local production of food in order to reduce the vulnerability implied by a fossil-fuel based food delivery system; and (2) promoting forms of agriculture that rely on fewer fossil-fuel inputs. While efforts along these lines require support at the Federal and State levels, some local polices could be extremely helpful:

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- Promote Farmers' Markets and CSAs (community-supported agriculture) in any way possible.
- Promote gardening, including community gardens, rooftop gardens, and school gardens
- Favor local and organic production over conventional food for school food programs and other purposes that are under the control or influence of the City government.

Oakland is already pursuing such efforts as a result of Resolution #79680 C.M.S., (December 2005), in which the City Council authorized the Mayor's Office of Sustainability to develop an Oakland food policy and to plan for thirty percent local area food production. As a consequence of that Resolution, UC Berkeley graduate students Serena Unger and Heather Wooten conducted the Oakland Food System Assessment, which is available online at <http://oaklandfoodsystem.pbwiki.com/>.

Since these efforts were initiated in response to concerns somewhat different from those motivating the work of this Task Force, further study is warranted to determine whether additional strategies are required to ensure food security for the citizens of Oakland in an increasingly oil-constrained world.

Plastics and Chemicals

About 5% of oil consumed in the US annually (about 1 million barrels per day) goes into the making of plastics and chemicals. While this is a small proportion of the total oil consumed, it is crucial to the American economy.

Petrochemicals are made by "cracking" oil, a process of breaking hydrocarbon molecules apart with intense heat and sometimes a chemical catalyst, and are the raw materials for an uncountable number of materials both frivolous and essential. Some of the more common petrochemical building blocks of our industrial world are ethylene, propylene, and butadiene. Further processing of just these three chemicals produces products as common, diverse, and important as disinfectants, solvents, antifreezes, coolants, lubricants, heat transfer fluids, and of course plastics.

One of the most important petrochemicals, ethylene, can polymerize into polyethylene, a plastic used to make everything from toys to food containers and furniture. Ethylene can also react with chlorine to produce ethylene chloride, which can then be used to produce vinyl chloride, or its polymerized form, polyvinyl chloride (commonly known as PVC or vinyl), another important plastic. PVC is used in everything from building construction materials to clothing to toys.

Clearly, future oil supply problems will affect the entire chain of industrial products that incorporate these chemicals. The citizens and economy of Oakland will obviously be impacted, and it is difficult to imagine a scenario in which that impact could be entirely eliminated absent

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policies and practices implemented globally and nationally. Nevertheless, there are things that Oakland could do to reduce its vulnerability to these economic consequences of oil depletion.

Needed policies and practices must focus on two strategies: (1) identifying alternative materials made from renewable sources to replace petrochemicals; and (2) devising strategies to reduce the amount of materials required and consumed.

Plastics and other products now composed of petrochemicals can be made from corn, hemp, and other crops. A few companies such as NatureWorks (a division of Cargill) and Dow Chemical are actively pursuing such alternatives.

From the standpoint of consumers, it would be a tragic mistake for the industry to postpone making the lengthy and costly transition to alternative feedstocks until forced to do so by rising oil prices and shortages. In that case, entire supply chains might be disrupted, causing costs for products of all kinds to rise precipitously. Instead, the shift must be proactive, encouraged through corporate and government policy. As one example: last year, WalMart announced its intention to use biorenewable materials for all of its packaging.

Research into and development of alternative materials could provide Oakland with an opportunity for jobs growth.

The replacement of petrochemical-based materials with renewable alternatives is not without problems, however. To replace the entire stream of plastics and other oil-based materials in the US economy with crop-based materials would further strain an agricultural system already stressed by the increasing mandate to produce biofuels in addition to food. Moreover, many chemical processes that incorporate renewable feedstocks are energy-intensive, which means that the expansion of those processes would entail increased energy consumption.

Therefore the second strategy, finding ways to use less, will be of even greater importance in the long run. In the opinion of the Task Force, the banning of the use of plastic bags in Oakland represents a good first step in this direction.

Road Materials

One of the two most important road-paving materials is asphalt (the other is cement, a natural gas dependent material), which is a low-grade component of petroleum. As higher grades of oil will likely tend to be used preferentially during the coming years, it is unlikely that asphalt prices will rise as high or as quickly as those for light-sweet crude. Nevertheless, prices for conventional road materials will escalate substantially, making road building and road repairs more problematic as time goes on.

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The following are recent figures for oil-based materials usage for road building and repairs in Oakland, as supplied by the Public Works Agency.

Oil Based Materials Usage, in Tons For The City of Oakland, 2002 – 2007

Description	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	TOTAL
Asphalt Concrete (AC)- CIP Overlays	30,098	17,165	42,377	10,205	14,032	113,877
AC for Pothole crew	2,400	2,400	2,400	2,400	2,400	12,000
AC for Base Repair/Speed Bumps	5,000	5,000	5,000	5,000	5,000	25,000
Rubberized AC	24,869	17,388	12,850	0	0	55,107
Cold Patch AC	112	90	90	135	158	5858
Slurry Seal	127	180	0	0	0	307
Parks, Streetscape, and Sewer	6709	8174	6508	6242	6,000	33,633
TOTAL	69,315	50,397	69,225	23,982	27,590	240,509

NOTE: In FY04-05, the Public Works Agency began the Street Resurfacing ACTIA Project, which accounts for the higher AC Overlay quantities.

The Task Force recommends that the City of Oakland investigate alternative materials for these purposes. One promising possibility is a material made from clay mixed with alkaline chemicals, which is being used increasingly in Zambia and other African nations. According to one report, the new material, besides being environmentally friendly, is both cheaper and more durable than conventional asphalt. (see <http://allafrica.com/stories/200706220926.html>)

Implementation and Public Education

1. Create Office of Energy Sustainability
 - a. Manage oil independence and carbon emissions reduction efforts
 - b. Explore various options for funding oil independence initiatives including grants, selling offsets, taxes and fees, etc
 - c. Develop information system to monitor & model oil and energy consumption
2. "Your Choices Matter" Public awareness campaign
 - a. Web site and hot line
 - b. Outreach to stakeholder groups
 - c. Urban villages education and outreach
 - d. Open space neighborhood meetings
 - e. City staff awareness campaign
 - f. Outreach to large employers in Oakland to develop programs to reduce oil consumption
 1. Educate about/encourage flex time models and compressed work weeks
 2. Develop model programs for employers (e.g., model ordinances)
 3. Provide incentives for trip tracking and reduction
 4. Educate employers on opportunities for waste minimization, renewable energy use, clean fleet purchases, etc.

Break out box or addition to sections

Green Collar Jobs

- a. Work with Community Colleges
- b. Conversion of gas to electric vehicles

New Section without a title

Support Clean Local Energy

Renewable energy is the polar opposite to oil and natural gas dependence. To the extent the City of Oakland decreases its oil consumption, it must curtail activity, make activities more efficient, and/or switch to other power sources. All of these strategies are addressed in this report. This task force and Oakland's sustainability goals suggest that to the extent feasible, Oakland should move towards greater reliance on renewable energy rather than increase dependency on natural gas and nuclear power. Greater reliance on renewable energy will make for a more resilient Oakland by reducing vulnerability to oil and natural gas price shocks and shortages, while decreasing Oakland's contribution to climate change.

A centerpiece of Oakland's Sustainability Program is the promotion of renewable energy with a particular emphasis on solar. Oakland has established aggressive renewable energy goals, including:

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- 50% of the city's entire electricity use from renewable sources by 2017
- 100% of the city's entire electricity use from renewable sources by 2030.[1]

Among its many attractive characteristics, the Bay Area is blessed with ample sun and wind resources. These resources could be used to generate clean, renewable power here in Oakland. A recent study showed that the ¼-square mile Eastlake neighborhood could install 8.5 megawatts (MW) of solar power capacity without sacrificing other rooftop uses (e.g., living roofs) where appropriate. The photovoltaic installations would generate over 11 million kilowatt hours (kWh) of electricity per year, satisfying approximately 25% of the Study Area's electricity demand.[2] Had solar been assigned to all roofs in the study area (thereby sacrificing other uses), the installations would cover a considerably larger fraction of the Study Area's electricity demand. Considering that the Eastlake neighborhood is more than 5 times denser than the city overall, even with the provision of only using solar where it is the best use, solar could likely meet more than Oakland's entire electricity demand.

Since this task force recommends that Oakland promote and encourage the re-electrification of private and public transport to reduce reliance on oil and natural gas, in the interests of resiliency, it is crucial that Oakland begin building the infrastructure to generate more local renewable electricity. Importantly, building out and maintaining the infrastructure for local renewable energy would be one of Oakland's best near term opportunities to create thousands of meaningful, well-paying, green-collar jobs.

A study conducted by University of California Berkeley's Energy and Resources Group and the Goldman School of Public Policy in 2004 compared different scenarios of using various amounts of renewable energy (up to 20 percent) with respect to the number of jobs created. They found that for all feasible scenarios, the renewables industry consistently generated more jobs (per MW generated) in construction, manufacturing and installation, in operations and maintenance and in fuel processing, than the fossil fuel industries. The scenario with most renewable energy coming from wind energy resulted in 116% more new jobs created by 2020 (about 188 thousand) than the fossil fuel scenarios (less than 87 thousand). They found that each dollar invested in renewable energy creates three to five times more jobs than are created by the same level of investment in fossil-fuel energy production.[3]

A more recent study explored the job creation possibilities of a San Diego Community Choice Aggregation (CCA) program that increases electricity efficiency by 40% and installs photovoltaic (PV) systems on about 20% of its roofs and parking lots.[4] The study found that installing photovoltaics and electricity efficiency improvements would create more than 96 thousand and 27 thousand direct job-years of employment, respectively, over 40 years or an average of 3,105 direct job-years of employment each year. The study also found that such a San Diego CCA would create 13 times more direct job-years of employment and 22 times more indirect job-years of employment than continued dependence and investment on fossil fuels and nuclear power.

Jobs in the renewable energy industry are being created on a massive scale in places with supportive public policy such as California and Europe. In Germany, for example, the

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renewables industry is the number one source of new jobs. Between 2004 and 2005, employment in this sector rose by 13 thousand, an 8% increase, against a backdrop of 12% unemployment.[5]

This task force applauds Oakland's goal of 50% renewable energy by 2017 and further endorses the goals of the Local Clean Energy Alliance (LCEA), a coalition of local nonprofits and businesses including Bay Localize, KyotoUSA, Nomad Café, Pacific Environment, Rainforest Action Network, and Sierra Club Bay Chapter:

- *Achieve a mix of at least 50% renewables by 2017*
- *Maximize local renewable energy production*
- *Offer stable and affordable rates for all*
- *Create local business opportunities and green-collar jobs*
- *Facilitate local businesses and residents' ability to sell excess energy back to the grid*
- *Mandate energy conservation*

This Task Force believes that CCA is the best tool available to move these goals forward, especially for creating more local green collar jobs and offering stable electricity rates. During the California Energy Crisis of 2000-2001, communities tied to investor owned utilities like PG&E experienced rolling blackouts and steep price spikes. Communities with public power like Alameda did not experience extreme price spikes and were not subject to blackouts. In the wake of the crisis, the California legislature passed AB117 to enable communities to reclaim control of their energy systems and insulate themselves against future energy crises.

Community Choice Aggregation, as defined by AB 117, permits any city, county or city and county to aggregate the electric loads of residents, businesses and municipal facilities to facilitate the purchase and sale of electrical energy. Prior to AB 117, individual customer participation in electric load aggregation programs required their written declaration indicating their choice to participate (opt-in programs). In contrast, CCA allows for aggregating customer loads within city or county boundaries with each customer given an opportunity to leave their community's aggregation program and thereby continue to be served by the incumbent distribution utility (opt-out program). If a customer makes no negative declaration, that customer is served through the CCA program. This is a major departure from previous aggregation structures as it frees the aggregator from the need to market the program and ensures wide-scale customer participation.

The community choice aggregator must inform participating customers at least 60 days in advance of the date commencing automatic enrollment. Distribution utilities [in this case, PG&E] are directed to cooperate fully with any community choice aggregator in its efforts to develop their aggregation program including providing all necessary data as well as to continue to provide all metering, billing, collection, and customer service to retail customers that participate in CCA programs. CCA programs cannot begin until departing load fees are determined, and the California Public Utilities Commission (CPUC) has determined rules and protocols for implementing aggregation programs. [6]

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Oakland, Berkeley, and Emeryville are considering the formation of a joint powers authority (JPA) to manage and administer a CCA system for their cities. The three cities are proceeding with Phase II, which involves the development of an Implementation Plan that will look at items like demand for electricity by customer types, governance plans, power supply options, financing options and regulatory issues. The Implementation Plan is scheduled for completion in 2008, at which time the respective City Councils will have to decide if they wish to become Aggregators.

A CCA system could potentially be structured to achieve all of the goals noted above including Oakland's goal of 50% renewable energy by 2017 (a goal that PG&E is unlikely to achieve).

On May 25, 2005, the Oakland City Council received The Base Case Feasibility Report developed by Navigant Consulting, Inc. which summarizes the feasibility of CCA for the City of Oakland. [7] The feasibility analysis found that a CCA program could save Oakland \$12.5 million annually (or approximately 4% of total customer electricity costs), thereby reducing rates for Oakland ratepayers, or generating income for the City, or a combination of both. The report also found that by aggregating Oakland's electric load, the use of renewable energy in Oakland could increase to 50% by 2017, more than doubling the renewable energy content that PG&E would provide during the same time period. In the base case, Oakland's CCA program would contract energy from a diverse portfolio of resources designed to achieve the City's 50% renewable energy objective. The City would initially match the renewable content of PG&E's portfolio, and incrementally increase the renewable component to achieve a mix of 50% by 2017. The portfolio also includes power purchases through five-year contracts and spot market purchases to supplement the production of the City's generation resources.

The City of San Francisco, Marin County, the San Joaquin Power Authority and a number of other jurisdictions in Edison and Sempra service territories are already moving ahead by implementing their own CCA programs.

PG&E has indicated that it will not likely meet the 2010 state-mandated deadline to generate 20% of their power from renewable sources. PG&E believes it will meet the letter of the law by reaching 20% renewable power by 2011 or 2012 and further asserts that they are already 60% carbon neutral. While most studies indicate that nuclear power has much lower CO2 emissions than fossil-fuel fired plants, they also indicate that nuclear's carbon emissions are comparable to renewable if the full nuclear life cycle is considered (i.e., mining uranium ore, refining and enriching fuel, building and operating the plant). In any case, this tack steers the conversation away from "real" renewables such as solar, micro-hydro, wind, geothermal, tidal, wave, biomass, etc...

While it is possible that PG&E may enjoy a near term "greenhouse gas" advantage as the CCA program ramps up due to their installed base of nuclear and hydro plants, a locally focused CCA has the potential to create thousands of local green jobs and well over \$100 million dollars in cost savings during the initial ten year implementation phase. CCA's carbon emissions may initially be higher than current carbon emissions from PG&E, however, overall comparisons are difficult to make because emissions depend on the mix of fuels used to produce electricity.

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Once the CCA is established, the competition to reduce the use of fossil fuels should increase the amount and number of renewable energy sources from which the electricity is purchased.

Furthermore, remaining tied to PG&E projected generation mix poses significant financial risk to Oakland. A study by the Community Environmental Council notes that cities face serious risks by sticking with the status quo. [8] Based on projections from the UC Santa Barbara Economic Forecast Project, they found that the cost of electricity generated by nuclear, coal, and gas is projected to rise considerably for all three sources between now and 2030. Hence, in the "business as usual" scenario, in which current price trends are projected to continue, switching to a 100% renewable power system would save Santa Barbara county residents about \$830 each year by 2020 and \$3,015 each year by 2030. In a "low fossil fuel cost" scenario, net annual savings for county residents from becoming fossil free are projected to be \$389 per person in 2020 and \$1,487 per person in 2030. Even in a low fossil fuel price future, switching to renewable power still makes fiscal sense.

In a feasibility study for the City of Berkeley, NCI found that cities can reduce the cost of acquiring renewable energy by financing development of renewable resources used to supply its CCA program. [9] The capital-related costs are significantly less if the City were to own or otherwise finance the resource, compared to ownership by an investor owned utility such as PG&E. The use of low cost debt and greater financial leverage by the City reduces the annualized costs such that during the first year of operation, the City can produce energy at a cost that is nearly 40% lower than what the investor owned utility would incur if it owned the identical resource. Thus, the City's cost of producing renewable energy would be nearly the same as the market price of system power. CCA is an opportunity for Oakland to take a leadership role and truly become a model city for local renewable energy and green jobs. In the JPA under consideration, Oakland would account for over 70% of the energy supplied. Due to the economies of scale, it is unlikely that Berkeley and Emeryville could undertake CCA without Oakland. While creating such a JPA to administer the CCA program would require coordination and agreement among the municipalities involved, a JPA could also lower the administrative cost per MW supplied and enable Oakland to tap into the expertise of Berkeley and Emeryville staff.

Administering and managing the CCA need not be drain of city staff and resources. The Oakland-enabled JPA could follow the lead of San Francisco, and contract out the administration and management of CCA to an Electric Service Provider (ESP). San Francisco is in the process of putting out an RFP for the development and operation of CCA. The basic structure of the deal (subject to change pending the actual writing of the RFP) is that PG&E will continue to handle billing, metering, and transmission (for a nominal fee), while the new ESP on behalf of the City and with oversight, will handle procurement. In addition, the City will issue approximately \$600 M in revenue bonds ("H Bonds") to the ESP to finance local clean energy generation capacity – initially 72 Megawatts of renewable distributed generation and at least 31 MW of solar photovoltaics, 107 MW of demand response, efficiency and conservation technologies, and a 150 MW wind farm. The CCA will control monthly revenues and prioritize H Bond repayment, making the ESP will assume the risk for facilities performance and rollout time, and must post bonds to cover liability for any potential service default or facilities nonperformance (which

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reduces the risk to the city). At the end of the contract with the ESP - upon the repayment of the bonds - the city will own the new generation capacity, and may transfer ownership to residents and businesses who choose to purchase and own systems based on a monthly charge.[10]

Another way for Oakland to take a leadership role would be to initiate and host an ongoing forum for all Bay Area CCA efforts to share experiences, best practices, and collaborate, as well as to promote CCA in Bay Area municipalities that do not have public power and are not yet working on CCA. Such a forum would address issues such as how to retain large businesses in CCA.

This task force strongly recommends that Oakland fully commit to the co-development of a JPA with Berkeley and Emeryville to use CCA as a means to generate clean local power and green jobs in the East Bay Area. CCA is superb opportunity to demonstrate regional leadership in oil independence and renewable energy while meeting its own self-proclaimed goals.

Furthermore, we recommend the following for the Oakland-enabled JPA:

- Include solar photovoltaics as a key component of the CCA. While solar is not as cost-effective as wind, given federal subsidies, projections of lowered manufacturing costs, and the low cost of capital for municipalities, solar can certainly be a cost effective way to boost locally generated renewable power and quickly ramp up CCA, while providing many green-collar jobs installing and maintaining solar panels.
- Include a "feed-in tariff" or a strong "net-metering" plan so that municipalities, businesses, and individuals are fully compensated for any net solar energy they contribute to the grid.
- Include energy efficiency and conservation as key components of the CCA. Energy efficiency is generally considered the cheapest electricity "generation" option and could generate a large number of green jobs for youth through programs such as California Youth Energy Services (CYES). Efficiency and conservation measures will reduce demand, which has the collateral benefit of further enhancing the reliability of the JPA's power supply and lessening the environmental impacts from conventional sources.
- Investigate financing options such as municipal bonds (e.g., San Francisco's H bond measure) and federal subsidies such as the "new market tax credit" for low income communities.
- Use some of the CCA cost savings to fund green jobs training for youth of color and coordinate with green jobs programs like the Oakland Green Job Training Corp.
- Consider programs like the one recently announced in Berkeley that allow property owners to pay for energy efficiency improvements and solar system installations as a long-term assessment on their individual property tax bills.
- Consider the possibility of setting up the JPA such that other East Bay municipalities such as Fremont and Hayward can be added in the future.

The task force does not mean to minimize the difficulty of getting consensus among Oakland, Berkeley, and Emeryville city councils to move forward as PG&E appears to be actively trying to

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work directly with city governments on renewable energy. Though cities will almost certainly not reach 50% renewable energy by 2017 working with PG&E, partnering with PG&E could be seen as an easier and more financially attractive way to increase renewable energy.

In the event that an Oakland-enabled JPA for Community Choice Aggregation does not come to fruition, the task force strongly reaffirms the great importance of Oakland meeting its goal of 50% renewable by 2017 in the interests of greater resiliency and in a way that creates local green collar jobs.

1. Contingency Planning (*Jim will update*)

- c. Require contingency planning for oil price and availability shocks by new development, municipal and regional agencies, and large employers
- d. Municipal contingency plan that addresses a 7 day fuel outage as well as a slow creep in prices

Take an active role in supporting national and state laws and regulations that will reduce oil consumption (e.g., feebates, zero-emission vehicles, climate change rules, carbon taxes, etc.)

Appendix:

Parking Policy- Oakland 1961 Parking Policy example

- In 1961 Oakland adopted a new policy of requiring one parking space per dwelling unit for apartment buildings
- Brian Bertha- housing economist collected data for 45 projects prior to change and 19 projects after the change
- Results:
- Cont cost went up
- Investment in land, density, and land values went down
- Rents went up, for larger, but fewer units

Variable	Before	After	Change	% Change
Const Cost (\$/DU)	\$6,613	\$7,805	\$1,192	+18%
Density (DU/Acre)	77.5	54	-23.5	-30%
Investment (\$/Acre)	\$513K	\$421K	-92K	-18%
Land Value (\$/Acre)	\$217K	\$145K	-\$72K	-33%

Parking Policy- San Francisco for-Sale Example

- SF requires one off-street space for each new dwelling unit
- Wenya Jia and Martin Wachs at UC Berkeley studied conflict between affordable housing and parking availability in San Francisco (1998) through hedonic regression analysis
- SFD without parking \$348K
- SFD with off-street parking space \$395K
 - Difference of \$47K
 - Translates to 24% less households able to buy a home when this difference was translated to income share for housing

Parking- Electric Avenue Project with Car Share- In Vancouver

- 465 Unit Condominium Project in Vancouver
- Includes an On Site Car-Share program with 7 cars
- Four Toyota Prius hybrids, a station wagon, a van and a pickup
- Will be stored on site and available to condo owners who join up with the Co-operative Auto Network for interim use.
- The fleet was carefully chosen to give users the widest possible usage, from simple car use to moving groups of passengers or bigger items.
 - On Site program provides convenience and a critical mass of users for higher utilization
 - Can realistically reduce parking ratios and car use

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Car Ownership and Affordability in Vancouver

- Gordon Price of Vancouver translated the car ownership cost avoidance to housing affordability
- Canadian Automobile Association estimates that an average car costs \$9,000 a year to own and maintain.
- Take that money to pay down a mortgage each year, and you can afford another \$100,000 of home mortgage, assuming current interest rates.
- Individual savings would vary from these averages, but the savings is substantial
- Car share within a building or density node creates realistic alternative to care use and parking issues.
- Cars could be electric as well for short rang trips

City of Berkeley-Policy T-3 Eco-Pass City Program

Increase transit use and reduce automobile traffic and congestion in Berkeley by creating an Eco-Pass program.

Action: A. Work with AC Transit, BART, neighboring jurisdictions, major employers, and neighboring transit districts to establish an "Eco-Pass" program for Berkeley employers that would allow pass holders free unlimited rides on AC Transit and/or BART. Once the program is established:

1. Provide Eco-Passes for all City employees.
2. Establish participation in the Eco-Pass program as a condition of approval for all new businesses with over 50 employees.
3. Encourage existing area employers, particularly major employers such as UC Berkeley, Berkeley Unified School District, Lawrence Berkeley National Laboratory, and Alta Bates Medical Center, to join the program.
4. Contact all employers with 50 or more employees to encourage their participation in Eco-Pass.
5. Work with the participating transit agencies to offer a neighborhood Eco-Pass, which would allow neighborhoods to participate in the program, similar to the Boulder, Colorado, Neighborhood Pass.
6. Consider creation of a Citywide Transit Pass for Berkeley residents financed by a tax that would allow pass holders free unlimited rides on AC Transit and/or BART.

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7. As an interim measure, contact and encourage area employers to participate in the existing Commuter Check program. Maintain or increase existing transit subsidies for City employees and encourage other employers to maintain and increase existing transit subsidies.

City of Berkeley-Policy T-5 Light Rail/Bus Rapid Transit

Support regional efforts to develop light rail or bus rapid transit service connecting East Bay cities.

Actions: A. Locate light rail or bus rapid transit systems on the primary transit corridors identified on the Transit Network map.

B. Consider bus rapid transit, with bus priority signals and bus priority lanes on transit corridors, as an interim and low-cost alternative to a new light rail system.

C. Aggressively pursue regional funding sources with AC Transit and neighboring cities for a light rail or bus rapid transit system.

D. Continue to work with AC Transit and regional transportation agencies to evaluate potential major public investment strategies and alternatives to improve transit services for Berkeley citizens, including light rail and bus rapid transit.

E. Work with local merchants to build support for a light rail system and bus rapid transit and minimize potential impacts to businesses from construction and loss of parking.

F. Investigate a low-cost open trolley service along major pedestrian and shopping corridors such as University, Shattuck, and Telegraph as an interim or permanent solution similar to the Santa Barbara waterfront trolley system.

G. Support AC Transit's Major Investment Study with its recommendations to achieve long-term rail on Telegraph Avenue. Advocate for extension of the recommendations to the foot of University Avenue and connection with service enhancements on San Pablo Avenue.

[END OF AGENDA]