

# Clean Energy & Jobs Oakland



## **Oakland Community Choice 2020 Development Plan**

By putting the procurement of electricity under public control, a Community Choice energy program can be a key vehicle for local energy resource development, economic growth, and clean energy jobs.

This document describes, at a very high level, an eight year integrated energy resource development plan for Oakland under a Community Choice energy program. The development plan is mindful of the need to develop in-city renewable energy assets in order to assure the economic viability and community benefits required of a successful Community Choice energy program.

The plan starts with the current portfolio of electrical energy resources and phases in over subsequent years increasing amounts of demand reduction<sup>1</sup> and local renewable generation.

Hence, the plan projects a changing portfolio of energy resources capable of meeting Oakland's electricity needs while at the same time reducing greenhouse gas emissions. In shaping Oakland's electricity mix the plan assumes readily achievable goals for implementing demand reduction and new local renewable electricity generation.

This plan does not propose specific energy resource development projects or programs for achieving its objectives. That level of granularity in the actual design of the Community Choice program requires investigation of Oakland's demand profile, study of its renewable energy resource potential, formulation of proposed development scenarios, assessment of the environmental and jobs impacts of proposed scenarios and projects, and exploration of financing mechanisms and financing programs for developing new resources.

The approach taken in this Oakland Community Choice 2020 Development Plan represents about the same level of detail as that adopted by San Francisco in its 2007 CleanPowerSF ordinance and implementation plan, which called for the building of 210 MW of in city renewable energy assets within three years and a 150 MW wind facility outside the city proper. It also called for development of 51% in-city and regional renewables by 2017.<sup>2</sup>

This 2020 Development Plan is based on the general approach taken by the East Bay Cities Community Choice Aggregation Business Plan of September 2008 prepared by Navigant Consulting, Inc.<sup>3</sup> The Navigant plan had the following characteristics:



For more information on the Clean Energy & Jobs Oakland campaign, see <http://www.localcleanenergy.org/policy-platform/campaign2012>.

- It assumed a business-as-usual growth in electricity demand of 1.5% per year.
- It would achieve 50% renewable energy supply in 8 years, by 2020.
- It would build 125 MW of regional wind generation capacity.
- It would implement the program in three customer rollout phases within the first two years.

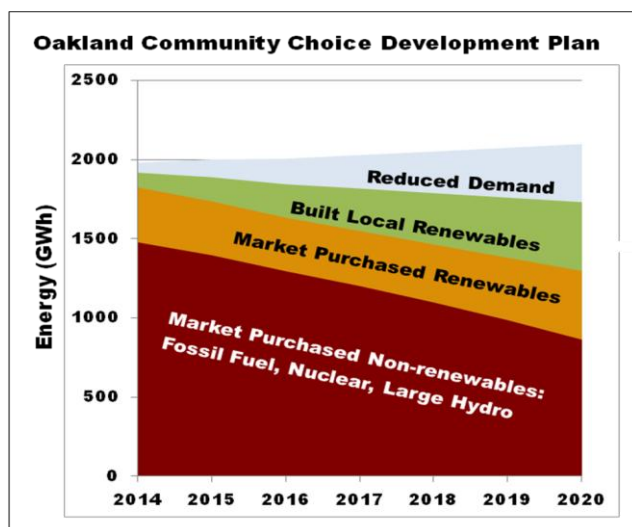
In addition, the Oakland Community Choice 2020 Development Plan utilizes a number of subsequent studies. For example the City of Oakland, as part of its Energy and Climate Action Plan, projected the development of building energy efficiency resources by 2020 that would result in an average yearly increase in demand reduction of approximately 2.1%.<sup>4</sup> This figure has been recently corroborated by Bill Powers' *Bay Area Smart Energy 2020* report.<sup>5</sup>

Dave Room of the Local Clean Energy Alliance, in a 2010 letter to Oakland City staff, cited the following shortcomings of the Navigant Plan: "Since 2005 we have developed a much better understanding of the following issues: the changes that are needed with respect to our energy system if we are to stabilize the climate, the local imperative for reductions in greenhouse gas emissions (AB32), the need for sustainable green economic development in Oakland, the importance of green jobs as pathways out of poverty, and best practices for power sourcing in a Community Choice program. The [Navigant] business plan does not adequately address these issues."<sup>6</sup>

In other words, the Navigant plan did not reflect either the climate or economic imperatives faced by our communities, and the need for a Community Choice plan to develop demand reduction and local renewable generation assets. Based on these imperatives, the Oakland Community Choice 2020 Development Plan has been fashioned to meet the following additional criteria:

- It would result in an additional 0.5% yearly demand reduction through conservation and demand response.<sup>7</sup>
- It would achieve 50% of the *renewable* energy supply through local resources in 8 years, by 2020. This would be achieved by increasing local renewable generation by 3.2% per year.<sup>8</sup> The remaining renewable energy will be provided by regional wind and purchase of electricity on the open market.

Based on the 2008 Navigant plan with the characteristics, modifications, and criteria enumerated above, The Oakland Community Choice 2020 Development Plan would result in the following development profile.





## Oakland Job Estimates Based on 2020 Development Plan

The demand reduction and local renewables built between 2013 and 2020 (over eight full years) will generate new clean energy jobs. The following table shows the estimated average number of people employed per year in Oakland based on the 2020 Development Plan.<sup>9</sup>

	Energy Efficiency (42 MW)	Local Renewable (218 MW)	Total
Direct Jobs	47	530	577
Total Jobs: Direct + Indirect + Induced	465	954	1419

Direct jobs represent employment in designing and building assets, indirect jobs represent employment by suppliers, and induced jobs are employment due to increased local spending. In other words, 577 people would be employed in installing energy efficiency and new renewables, but a total of 1419 people would be employed by the overall economic activity.

## End Notes

<sup>1</sup> Electrical demand can be reduced through a number of approaches: conservation (turning off electrical appliances when not needed), energy efficiency (using appliances and buildings that make more efficient use of energy), substitution (using natural processes instead of electrical appliances, for example skylights), demand response (using smart grid technologies to shift or lower demand based on the state of energy supply), and adopting designed-to-last products (which reduces the energy waste associated with unnecessary production).

<sup>2</sup> <http://www.local.org/sfccaip2007.pdf> Section 2.7.4 on page 46 of the Implementation Plan, 2007.

<sup>3</sup> <http://www.energy.ca.gov/2008publications/CEC-500-2008-091/CEC-500-2008-091-APH.PDF>, starting on page 80, 3 September 2008.

<sup>4</sup> <http://www2.oaklandnet.com/oakca1/groups/pwa/documents/policy/oak026496.pdf>, starting on page 31, March 2011.

<sup>5</sup> <http://pacificenvironment.org/-1-87>, starting on page 88, March 2012.

<sup>6</sup> Conveyed to Garrett Fitzgerald of Oakland's Environmental Services Division, September 29, 2010.

<sup>7</sup> This can be achieved with ratepayer education and demand response technologies such as smart meters.

<sup>8</sup> This could include urban solar, biomass, clean co-generation, and urban wind. Stopwaste.org thinks this level of solarization can be achieved with a comprehensive solar program that includes financing, outreach, and workforce development. In its *21<sup>st</sup> Century Energy Greenprint for the East Bay* the Local Clean Energy Alliance estimates that Oakland could generate over two-thirds of its electricity needs with rooftop on all suitable buildings. ([http://www.localcleanenergy.org/files/The\\_21st\\_Century\\_Energy\\_Greenprint\\_Full\\_Report.pdf](http://www.localcleanenergy.org/files/The_21st_Century_Energy_Greenprint_Full_Report.pdf))

<sup>9</sup> A study commissioned by Local Power found that San Francisco could generate between 107-175MW of clean co-generation power from the waste heat of the 50 largest boilers in the city, amounting to more than one-sixth of their peak load. An industrial city like Oakland may have even greater capacity for clean co-generation.

<sup>9</sup> The methodology and job intensities used in these estimates are documented at: <http://www.localcleanenergy.org/files/CleanPowerSFJobsEstimate.pdf>.