

Application No. 03-10-003

Exhibit No. _____

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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Implement
Portions of AB117 Concerning Community
Choice Aggregation

Rulemaking 03-10-003
(October 2, 2003)

**REPLY TESTIMONY OF ROBERT FREEHLING
ON BEHALF OF LOCAL POWER**

May 12, 2005

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Implement Portions of AB117 Concerning Community Choice Aggregation	Rulemaking 03-10-003
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**REPLY TESTIMONY OF ROBERT FREEHLING
ON BEHALF OF LOCAL POWER**

Q: Have you previously submitted testimony in this phase of the proceeding?

A: No, this Reply Testimony is the first instance in which I have submitted testimony in R.03-10-003.

Q: Please state your place of business and qualifications.

A: My place of business is 4281 Piedmont Avenue, Oakland, CA 94611. My educational background includes a BA in Liberal Arts from Lake Forest College, IL. I have been Research Director of Local Power from 2001 to date. In particular, in this capacity I am lead consultant for Sacramento Municipal Utility District on solar energy policy, analysis of San Francisco Community Choice renewable energy portfolio costs and benefits, analysis for Public Citizen on hazards of natural gas facilities for a nuclear reprocessing plant; analysis for Ratepayers for Affordable Clean Energy on policies regarding Liquefied Natural Gas in R.04-10-025.

Q: Do Utilities Err in stating that there are no tangible benefits to bundled service customers due to CCA?

1 A: Yes. Analysis follows with emphasis on San Francisco, though similar benefits
2 are likely to accrue from other CCAs, with the exact nature and valuation needing
3 to be monetized in each case based upon the details in their ordinance and/or
4 implementation plans.

5
6 Q: What are the savings for PG&E ratepayers due to CCA in San Francisco?

7 A: There are numerous actual and potential cost savings that will accrue to PG&E
8 customers and/or shareholders due to community choice aggregation in San Francisco.
9 The initial savings will come due to direct removal of responsibility for load and
10 electricity supply due to mechanisms discussed below. In 2000 San Francisco consumed
11 5748 million kilowatt-hours of electricity, valued by the Energy Commission at a
12 weighted average of 10.27 cents/kwh (2), for a delivered total value of \$590 million
13 annually. We estimate the total generation cost for this electricity to be approximately
14 \$197 million, again annually. Variable levelized costs per kilowatt-hour such as O&M
15 and fuel increase as more plant capacity is used, while the levelized capital expense
16 decreases. Since a large portion of San Francisco's electricity comes from natural gas
17 (42%), the variable costs greatly outweigh the effect of capital costs for plants, especially
18 those providing base load, that are owned by the utility. For contracted power, the
19 distinction between fixed and variable costs becomes irrelevant, with the only factor
20 affecting rate payer being the term and price of the contract.

21
22 The removal of load responsibility from PG&E will involve the construction of
23 significant renewable energy sources by and for the CCA as well as entire load removal
24 from the transmission grid and outside generation sources due to energy efficiency and
25 local distributed generation. Due to these elements PG&E's customers will realize
26 savings of three different types.

1 Q: Are there tangible benefits concerning liability for PG&E Externalities?

2 A: Yes. The first involves the impact of externalities related principally to
3 environmental and social environmental impacts. These include mainly the effects of air
4 emissions. A number of these already have specific monetization through market
5 structures. For example, NOx has financial value in emission trading schemes. CO2
6 emissions are beginning to assume economic valuation in Europe and many other
7 countries due to the Kyoto protocol; trading in these in Europe is near 16 Euro to the
8 tonne. Such valuation may mean that US companies that exceed goals may in the future
9 be able to sell such credits on the international market. Reduction of these impacts can
10 bring regions into compliance with federal emission laws, which can cause fines to be
11 imposed upon state and local governments. There is the potential that noncompliance
12 could induce these jurisdictions, or their taxpaying citizens, to seek compensation in
13 future lawsuits for damages from costs associated with fees, environmental, health and
14 social justice damages.

15
16 Removal of liability for external costs associated with San Francisco electricity supply;
17 international estimates by the EU and DOE on a per kilowatt hour basis have been
18 applied to PG&E's power label profile and would likely cost in excess of \$700 million
19 over the decade between 2007 and 2017. As climate impacts increase and international
20 market and government values for these costs become accepted, and knowledge of the
21 large costs become known, PG&E could expose itself to assessment for damages on a
22 very large scale. A large renewable portfolio combined with transfer of liability to an
23 ESP would remove much of this future potential impact upon PG&E ratepayers.

24
25 Q: Is there a transfer of renewable benefits?

26 A: Yes. The second category comes from transfer of responsibility for renewable
27 portfolio. San Francisco would be building an initial infrastructure of 360 MW of
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1 renewables, with up to 50% being provided by renewables by 2017. The current 13%
2 renewable share of PG&E for the City will then be transferred to the usage of PG&E for
3 its other customers, which will add to the RPS percentage immediately. PG&E would
4 also not have to come up with the additional 7% by 2017 to meet the City's needs, which
5 could potentially affect all ratepayers, particularly if it requires usage of the state's
6 transmission grid.

7
8 Q: Is there reduced market pressure on resource resulting from the CCA?

9 A: Yes. The third set of savings would come about through market effects due to
10 removal of risks from higher demand. Removal of extra resource requirements for San
11 Francisco could reduce overall market costs, as the last incremental demand has the
12 greatest pressure on prices, especially under conditions of market constraint when these
13 are most needed.

14
15 (1) Avoided costly 7% reserve requirements to meet unlikely one in ten year
16 demand peaks after 2007;

17 (2) Avoided exposure to price volatility and market manipulation risk from
18 natural gas; we note that 2002 CEC projections for natural gas prices for electrical
19 generation in 2005 was supposed to be \$3.94/mmbtu. By December of 2004 the US
20 average natural gas "electric power price" had risen to \$6.85/mcf (@1031 btu/cf this
21 equals \$7.06/mmbtu). The actual price exceeded the projected price by 79%,
22 representing an enormous exposure to risk relative to rational price projections.
23 Natural gas providing 43% of San Francisco's electricity, or 2414 million kwh/year,
24 a serious potential risk of rapid doubling fuel prices exposes PG&E to upside cost
25 risks near \$800 million over the next decade.

26 (3) Avoided exposure to potential supply constraints/disruptions for natural
27 gas; these could become particularly serious if the state begins to rely upon imported
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LNG from unstable regions of the world; such disruptions could not only reduce output from gas power plants, they could also send world market prices into chaos.

(4) Avoided cost for firming up capacity in low water years for hydro production for San Francisco’s load, especially in the summer.

(5) Protection against over-demand on transmission systems on the peninsula, an area identified as transmission constrained; avoided capital costs on transmission upgrade as local and distributed generation comes on line

(6) Direct benefit to PG&E from solar and wind facilities that supply power locally during peak demand in other parts of the grid not in or near San Francisco.

Q: Does this conclude your Reply Testimony?

A: Yes, it does.