

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

Order Instituting Rulemaking to Develop
Additional Methods to Implement the
California Renewables Portfolio Standard
Program.

Rulemaking 06-02-012
(Filed February 16, 2006)

**OPENING TESTIMONY OF ROBERT I. MORRISON
ON BEHALF OF THE CALIFORNIA WIND ENERGY ASSOCIATION**

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5 **Q: Please state for the record your name, position, and business address.**

6 A: My name is Robert I. Morrison. I am a Vice President with Coram Energy Group, Ltd.
7 (“Coram”), a developer, owner and operator of wind generating facilities in Western North
8 America and California in particular. My business address is 14961 Ballou Circle, Westminster,
9 CA 92683.

10 **Q: Please describe your experience and qualifications.**

11 A: I have been involved in the financing and development of wind powered electric
12 generating facilities for over 15 years throughout North America with a specific concentration
13 and focus on California. I have been a developer of new wind projects at both large and small
14 development companies and was for seven years a commercial lender specializing in the
15 financing of electric generating projects including conventional fossil fuels and renewables. I
16 have personally participated in the development of over 1,500 MW of wind facilities. As a
17 commercial banker, I provided financing for some of the earliest large wind projects in
18 California during the late 1980s and early 1990s. I hold a Bachelor of Science degree from the
19 University of Wisconsin and a Master’s degree from the University of Chicago. The company I
20 work for, Coram, has developed, owned and operated wind projects in California for over 20
21 years. Since joining Coram, I have evaluated and/or participated in various utility RFP processes
22 under the RPS program, was involved in the negotiation of Coram’s long-term contract with
23 Southern California Edison Company (“Edison”), and am working on the development of the
24 underlying project, which is located in the Tehachapi wind resource area.

1 **Q: On whose behalf are you testifying today?**

2 A: I am appearing on behalf of the California Wind Energy Association (“CalWEA”).
3 CalWEA is comprised of wind energy generators, project developers and various wind energy
4 service providers. CalWEA was one of the primary supporters of the RPS legislation and has
5 been involved in the Commission’s RPS implementation proceedings since their inception.
6 Many CalWEA members have participated in the utility RPS RFPs, and some have entered into
7 contracts as a result.

8

9 I. SUMMARY OF RECOMMENDATIONS

10 **Q: Please summarize the recommendations that you present in this testimony.**

11 A: My testimony recommends that the Commission continue to require California’s large
12 investor-owned utilities (i.e., Edison, Pacific Gas and Electric Company and San Diego Gas &
13 Electric Company) to offer long-term contracts to renewable energy project developers under the
14 RPS program and, for the time being, prohibit them from offering contracts less than 10 years in
15 duration. If allowed to offer short-term contracts now, which the utilities might prefer due to
16 their previously articulated debt-equivalence and credit concerns, a large segment of potential
17 suppliers could be excluded from the California energy market, reducing competition among
18 suppliers, depressing the market for new renewable generation and pushing up prices for
19 renewably generated electric energy. In fact, depending on how strongly the utilities push for
20 short-term contracts, it is possible that development of renewable projects could be significantly
21 hampered. By their very nature, short-term contracts increase the volatility of cash flow to any
22 project utilizing them and significantly increase the cost of financing for such a project. These
23 increased costs can only be passed through to consumers and ratepayers, resulting in higher
24 power prices. Recognizing that retail energy service providers (“ESPs”) currently lack the
25 financial wherewithal to enter into significant long-term contracts and, importantly, lack the
26 market power of the big utilities, some alternative compliance mechanism needs to be developed
27 for these entities. This could include a “procurement entity” such as proposed by The Utility
28 Reform Network (“TURN”) or some other mechanism, including tradable RECs.

29

1 II. THE COMMISSION SHOULD CONTINUE TO REQUIRE THE LARGE UTILITIES
2 TO OFFER LONG-TERM CONTRACTS AND PROHIBIT THEM FROM OFFERING
3 CONTRACTS WITH TERMS LESS THAN TEN YEARS.

4 **Q: What is CalWEA's primary recommendation and why?**

5 A: CalWEA recommends that the Commission continue to require California's large
6 investor-owned utilities to offer long-term contracts to renewable energy project developers
7 under the RPS program and, for the time being, prohibit them from offering contracts less than
8 10 years in duration. At some point in time, it may be appropriate for them to offer short term
9 contracts, but not at the present time. It is my understanding that, under current commission
10 policy, bidders may offer short-term contracts so that these contracts would not be precluded
11 entirely even under a prohibition on offering short-term contracts.

12 Essentially, all electricity generating projects, regardless of technology, face a
13 fundamental problem: they must amortize very large capital equipment costs over a very long
14 time period (15 to 25 years) in order to make the electricity they produce reasonably priced. But
15 since electricity is not a storable commodity, market prices changes dramatically over very short
16 time periods as supply and demand conditions change (often due to changing weather). This
17 leads to a fundamental mismatch in an electric project's economic situation: its revenue and
18 cash flow stream is short-term and volatile, but its liabilities are very long term and demand
19 stable cash flows. Wind projects particularly suffer from this problem, as they have relatively
20 low operating costs (no fuel costs) and relatively high upfront capital costs. Solar and
21 geothermal facilities also suffer from this problem, possibly even more so than do wind facilities.

22 The most common way for non-utility power plant developers to deal with this problem
23 is through long-term contracts. Long-term contracts with fixed capacity payments or, even
24 better, fixed all-in pricing, ensures a stable cash flow over which developers can amortize their
25 fixed costs. Long-term contracts are a proven way to provide assurance to investors that long
26 term stable revenue sources are available to repay upfront capital costs, thus encouraging capital
27 providers to invest in these types of electric generating projects. Since wind and other renewable
28 projects have no fuel costs and their other expenses are largely fixed, they can contract to deliver
29 energy at fixed prices for long periods of time, dampening the volatility in electric energy prices
30 resulting from underlying volatility in fossil fuel prices. Stable electric prices are inherently

1 valuable and should be a public policy goal nationwide. Forcing renewable projects to suffer
2 price volatility through the use of short term contracts throws away this inherent social benefit
3 associated with renewables.

4 That being said, it is theoretically possible to develop and finance a non-utility renewable
5 power plant (or any other non-utility power plant) without a long-term contract. In fact, during
6 the late 1990s through 2001, a large number of merchant gas-fired power plants were developed
7 and built around the country. These projects turned into financial disasters when spot power
8 prices collapsed, and this led to substantial upheaval in electric energy financial markets.
9 Consumers and ratepayers eventually pay the price for these mistakes. Notwithstanding this
10 experience there are some merchant renewable power plants being developed even today in
11 markets where conditions are fundamentally different from California. In addition, the mere
12 development of merchant renewable plants does not guarantee that they will be reliable and cost
13 effective providers of renewably generated electricity. Merchant plants built on incorrect
14 economic assumptions often suffer from inadequate operations and maintenance as new owners
15 try to cut costs, or on a worst-case basis, abandoned and not run at all.. There are at least three
16 reasons why short term contracts are problematic in California’s current renewable procurement
17 market.

18 First, a necessary precondition of a merchant market in which short term contracts may
19 be relied upon to develop and finance projects is open and robust competition where prices are
20 driven by market fundamentals. The presence of such a market is the minimum condition
21 needed to ensure low-cost providers that they may be able to earn a reasonable return on their
22 investment. Competition in California’s renewables market, however, is hardly open and robust
23 at the present time. There is virtually no price discovery, as all contract prices are confidential,
24 and huge cost components (e.g., necessary transmission) are uncertain. Market rules are also
25 changing, further destabilizing the long-term view of the market. These changing market rules
26 are a source of substantial uncertainty for the financing of projects in California. Currently in
27 California there is virtually no way for an investor, developer or lender to predict with any
28 confidence what short-term prices for renewable generation will be five, let alone ten or twenty,
29 years from now.

1 Second, even when competition is open and robust, the viability of, and availability of
2 financing for, merchant power plants is volatile and subject to dramatic change as the merchant
3 price of power and renewable attributes fluctuates. The risks associated with merchant power
4 plants were revealed dramatically in the market for combined cycle merchant power plants: in
5 the space of six to nine months during 2001 and 2002, a robust and liquid market for financing
6 merchant gas plants completely evaporated and disappeared. Large and supposedly stable
7 development companies went bankrupt quickly; tens of billions of dollars of investments in
8 merchant power projects were written off (with more to come). Ultimately, the retail consumers
9 of electricity in North America will pay the price for these inappropriate risks.

10 Third, the large California utilities, as the dominant load-serving entities in the state,
11 possess considerable buyer-side market power. As such, with only short-term contracts to rely
12 upon, a developer with limited potential customers could be subject to considerable pressure to
13 accept unfavorable terms and conditions.

14 Given the foregoing, the only developers likely to be able to develop and finance a
15 renewable power plant without a long-term contract are very large developers with substantial
16 financial resources – primarily the unregulated affiliates of large electric utilities. These
17 companies can finance the projects on their own without appealing to the traditionally more
18 conservative project finance lenders and investors, or at least support their projects with
19 considerably more equity than will be demanded by project lenders. Smaller developers must
20 rely on traditional sources of debt for significant project support. Large companies also are more
21 likely to be able to deal with price volatility, whether by purchasing financial products or simply
22 by riding out periods of very low prices. Smaller developers do not have this ability. And, large
23 companies have a better ability to aggressively negotiate with the utilities in any power struggle,
24 than do smaller companies. Should California conditions become unattractive, large developers
25 are likely have better access to other customers, being able to pursue more easily interests in
26 other states (or even other countries), than do small developers.

27 Therefore, were the Commission to authorize the utilities to rely on short-term contracts,
28 CalWEA is concerned that small developers will be squeezed out of the market by large
29 developers. This is, obviously, not good for small developers, many of whom are CalWEA
30 members, but it is also not good for California consumers. Short-term contracts also are not in

1 consumers' interest because they lose the long-term price hedge value of renewables, and pay
2 higher prices during the short-term because costs must be recovered in a compressed time frame.
3 The Commission should encourage competition in the development of renewable resources by
4 promoting long-term contracts in order to ensure that California consumers obtain the best price
5 and most diverse set of products as possible. By concentrating renewable generation in the
6 hands of a few large developers, price competition and product and technology innovation will
7 suffer.

8 **Q: Are you concerned that merely authorizing the utilities to offer short-term contracts**
9 **will diminish the market for long-term contracts?**

10 A: Absolutely. The California utilities have clearly shown that they prefer short-term
11 contracts to long-term contracts with independent generators and they have the market power to
12 enforce this preference. For example, SCE witness Colin Cushnie testified in the Commission's
13 2004 long-term procurement plan proceeding, R. 04-04-003, that "it is better to procure with
14 short- and medium-term contracts at this time." Southern California Edison Company's 2004
15 Long-term Procurement Plan Rebuttal Testimony, at 6: 6-7. Regarding "long-term" ten-year
16 contracts, SCE offered to enter into such contracts only "under certain limited conditions,"
17 including requiring that the contracts be subject to termination at SCE's election, apply only to
18 new construction, and be subject to a new debt equivalence policy to be issued by the
19 Commission. *Id.*

20 The utilities have long raised concerns about the negative financial impacts of
21 "debt-equivalence," a function of long-term but not short term contracts. *See, e.g.* D.05-05-012
22 (Commission acknowledging that "debt equivalence is not a new issue."); D.04-12-047, at 5
23 (Commission noting that debt equivalence became an issue in Rulemaking 01-10-024 regarding
24 policies and cost recovery mechanisms for generation procurement and renewable resource
25 development). While the Commission has recognized utilities' concerns that debt equivalence
26 associated with long-term contracts can affect utility credit ratios, credit ratings, and capital
27 structure, the Commission has declined to adopt a formal debt equivalence policy. *See* D.04-12-
28 47, at 15. Instead, the Commission elected to continue its long-standing practice of "assess[ing]
29 debt equivalence risks along with other financial, regulatory, and operational risks in setting a

1 [return on equity] and balanced capital structure reasonably sufficient to assure confidence in the
2 financial soundness of the utility” *Id.* at 14.

3 And, large developers can be expected to take advantage of the opportunity to enter into
4 short-term contracts to gain market share and drive out competition from small developers. It
5 would be perfectly rational for large developers to engage in a strategy involving low short-term
6 pricing in the near term in order to limit competition and then raise prices over the long term.

7 **Q: Does the RPS program currently contain barriers for small developers?**

8 A: Yes. Requiring small developers to engage in long and costly RFP processes is
9 already a significant disincentive. This is particularly true under current circumstances in which
10 the utilities are pursuing onerous credit and other contract terms and conditions. Again, large
11 developers are better able to finance RFP participation and to absorb credit conditions that small
12 developers are less able to tolerate.

13 **Q: Are your concerns with short-term contracts limited to participation by small
14 developers and the impacts that this has on consumers?**

15 A: No. If the utilities rely on short-term contracts, California runs an increased risk
16 of the total failure of the RPS program. As mentioned above, the viability of all power plants
17 depends upon a secure long-term revenue stream. Short-term power markets, however, are
18 inherently volatile. Thus, even though large developers may be able to develop and finance
19 power plants in reliance on short-term contracts, there is no assurance that these projects will
20 remain viable over the long-term. Again, the experience from the merchant gas turbine market
21 suggests that large-balance-sheet developers able to undertake merchant gas plant investments
22 failed to internalize accurately the risks of merchant-only sales. Many of these merchant plants
23 did get built, but many of the large-balance-sheet developers / sponsors went bankrupt soon
24 thereafter. Short-term contracts causing a mismatch between short-term revenues and long-term
25 liabilities is an even worse problem with renewable projects whose large upfront capital costs are
26 fixed on the day they enter service. Natural gas fired projects can better tolerate volatility in
27 power prices, as changes in the fuel costs are positively correlated with electric energy price
28 volatility.

1 In addition, reliance on short-term contracts, even if small developers are able to use
2 them, should be expected to increase ratepayer costs. Short term contracts carry with them much
3 higher volatility in project revenues and cash flow than do long-term contracts. Higher volatility
4 in cash flow means higher financial risks. Higher financial risks mean a higher cost of capital –
5 probably as much as 2% to 5% higher cost of capital for a merchant project. These higher costs
6 of capital translate directly into higher power prices from renewable projects.

7 For all of these reasons, CalWEA recommends that, for the time being, the Commission
8 continue to require the utilities to offer contracts of no less than ten years through their RPS
9 solicitations. When the market is more competitive and the utilities do not possess as much
10 market power as they do today, the Commission can re-evaluate whether to allow them to
11 employ short term contracts.

12

13 III. THE COMMISSION SHOULD DEVELOP AN ALTERNATIVE COMPLIANCE
14 STRATEGY FOR ESPS.

15 **Q: Does CalWEA also recommend that ESPs be limited to entering into long-term
16 contracts as their only RPS compliance mechanism?**

17 A: No. CalWEA recognizes that ESPs simply cannot sign long-term contracts in light of the
18 uncertainty associated with their customer base. Therefore, the Commission must develop some
19 method of facilitating the use of long-term contracts for ESP compliance, whether by creating a
20 “procurement entity” such as recommended by TURN, by requiring utilities to purchase
21 renewable power on ESPs’ behalf using long-term contracts, or some other mechanism. The
22 availability of an unbundled REC market might serve to assist the ESPs in complying in the
23 short-term due to the possible availability of RECs from existing projects. For the reasons
24 described above, however, the Commission should not count on the ability to create and trade
25 RECs (and the absence of any contracts at all) to result in significant activity in new merchant
26 renewable energy projects. As short-term contracts are clearly not the answer for ESPs over the
27 long-term, CalWEA does not support authorizing ESPs to employ short-term contracts. This
28 would only serve to divert attention from developing a proper long-term strategy for ESP
29 compliance.

1 **Q: Does this complete your testimony?**

2 **A: Yes.**