Decision **PROPOSED DECISION OF ALJ EBKE** (Mailed 12/21/2010)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of the Manzana Wind Project and Issuance of a Certificate of Public Convenience and Necessity (U39E).	Application 09-12-002 (Filed December 3, 2009)

DECISION DENYING A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE MANZANA WIND PROJECT

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DECISION DENYING A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE MANZANA WIND PROJECT

1. Summary

This decision rejects the application of Pacific Gas and Electric Company (PG&E) for approval of and issuance of a certificate of public convenience and necessity for the Manzana Wind Project. PG&E's application seeks authorization to acquire, develop, and construct the Manzana Wind Project as utility-owned renewable generation and to recover the $911 million costs of the Manzana Wind Project in rates.

The main reasons for the rejection of the Manzana Wind Project are that it is not cost-competitive and poses unacceptable risks to ratepayers. We find that the proposed cost of the Manzana Wind Project is significantly higher than the cost of other resources PG&E can procure to meet its Renewables Portfolio Standard (RPS) program goal. Moreover, the Manzana Wind Project will subject the ratepayers to unacceptable risks due to potential cost increases resulting from project under-performance, less than forecasted project life, and delays in commercial online date, which might occur as a result of delays in transmission upgrades. The concerns regarding costs risk are exacerbated to some degree by the utility-owned nature of the project. As proposed, ratepayers would be at risk should the project underperform. In particular, if the Manzana Wind Project fails to achieve production as expected for any reason such as construction delays or curtailments as a result of a collision with a California condor,[1] shareholders face no risks while customers could incur increased costs.

[1] The California condor is an endangered species under both State and Federal law and is fully protected under State law.

However, this concern should not be construed as a general policy shift in the Commission's disposition toward utility-owned renewable generation projects. As we have stated in several prior decisions, utility-owned renewable projects have a potentially valuable role to play in helping the state realize its renewable energy objectives. Consistent with Commission's practice, in the future, should utilities submit requests for approval of utility-owned renewable generation, those requests will be considered on their individual merits.

We also find that PG&E has not made an adequate showing of need to support its application. For example, there is no demonstration that the Manzana Wind Project is needed to meet reliability or forecasted electrical demand of PG&E's customers. There is also no demonstration that this project is needed to meet PG&E's RPS goals or that this project is needed as a hedge against the development risks of other projects in PG&E's current RPS portfolio.[2] There is also no showing of a gap in the market for wind projects that must be filled by utility-owned projects to otherwise justify this application. While in this case, this shortcoming is not dispositive, in the future we expect a utility's justification of need to include a more robust showing of need and additional information regarding how a given project fits into a utility's overall renewable portfolio.

Although the project would contribute to the California renewable generation goals, given the availability of other lower-priced renewable projects in the competitive market that could impose less risks on ratepayers, PG&E has failed to demonstrate a need for this project.

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[2] The RPS was established in 2002 under Senate Bill (SB) 1078, Stats. 2002, ch. 516, and accelerated in 2006 under SB 107, Stats. 2006, ch. 464.

2. Background

On December 3, 2009, Pacific Gas and Electric Company (PG&E) filed this application seeking Commission authorization to acquire, develop and construct the Manzana Wind Project and recover the associated costs in rates. Specifically, PG&E requests the Commission to:

- Grant a Certificate of Public Convenience and Necessity (CPCN) authorizing PG&E to construct the Manzana Wind Project, including a 246 megawatt (MW) wind facility and an approximately six-mile generator interconnection transmission line(Gen-tie);
- Determine, pursuant to Section 1005.5 (a) of the Public Utilities Code,[3] that the maximum reasonable and prudent cost for the Manzana Wind Project is $911.0 million;
- Approve a prudent initial capital cost estimate of $911.0 million for the Manzana Wind Project;
- Adopt an estimated annual revenue requirement for the Manzana Wind Project's first year of operations equal to $131.8 million;
- Authorize PG&E to recover in rates the actual costs of the Manzana Wind Project up to the Commission-adopted prudent initial capital cost estimate without the need for an after-the-fact reasonableness review and, if actual costs exceed the prudent initial capital cost estimate, allowing recovery of the excess costs above the estimate only following submission of a separate application and upon a Commission finding of reasonableness;
- Adopt the initial three-year forecast of operation and maintenance (O&M) expense for the Manzana Wind Project;

[3] All section references are to the Public Utilities Codes unless otherwise indicated.

- Authorize PG&E to update the Manzana Wind Project's initial capital cost and initial O&M estimate for (1) cost increases associated with monthly delays in commercial operations beyond December 31, 2011; (2) operational enhancements pre-approved by the Commission via an expedited advice letter process; (3) reductions in the revenue requirement if the final project size is less than 246 MW; and (4) revisions due to new or modified regulatory requirements, change in law or force majeure events to the extent pre-approved by the Commission via an expedited advice letter process;
- Authorize revisions to the initial revenue requirement for (1) updated revenue requirement factors to reflect the then-current cost of capital, franchise and uncollectibles, and property tax factors; (2) finance costs for transmission upgrades, if required; and (3) changes in or expiration of renewable tax credits, including if the project is delayed beyond the December 31, 2012 operations deadline for federal tax credits;
- Establish a Manzana Wind Project memorandum account to track the difference in the initial revenue requirement adopted in the proceeding and the actual revenue requirement based on the actual capital cost and authorizing transfer of the Manzana Wind Project memorandum account balance to the Utility Generation Balancing Account (UGBA) for recovery in the next Annual Electric True-up (AET) following commercial operation;
- Adopt a non-bypassable charge to recover stranded costs over a 10-year period or, alternatively, for the period adopted by the Commission for utility-owned generation following implementation of Senate Bill 695 (Stats. 2009, ch. 337);
- Authorize PG&E pursuant to § 851 to sell the Manzana Wind Project back to Iberdrola Renewables under certain circumstances; and
- Grant such other relief as is necessary to effectuate the Application and issuance of a CPCN.

Division of Ratepayer Advocates (DRA), the Greenlining Institute, and The Independent Energy Producers Association filed protests and responses to PG&E's application.

3. The Proposed Project

The Manzana Wind Project is a proposed wind project in the Tehachapi region in Kern County, California. The project was initially offered to PG&E in the 2005 Renewables Portfolio Standard (RPS) Request For Offers (RFO) as a power purchase agreement (PPA) by Iberdrola Renewables, Inc. (Iberdrola), the current project owner. In 2009, after delays due to transmission issues and the economic downturn, Iberdrola offered to sell the Manzana Wind Project to PG&E. PG&E and Iberdrola began negotiating and reached an agreement on the sale of the project in December 2009.

To acquire the project, PG&E has signed a Purchase and Sale Agreement (PSA) with Iberdrola Renewables. PG&E has also negotiated and will sign a Project Completion Agreement (PCA) with an affiliate of Iberdrola Renewables, PPM Technical Services, Inc. (PPM Technical Services), which will obligate PPM Technical Services to finish project development and then to construct the project on PG&E's behalf. Under the terms of the PCA, PG&E will be responsible for permitting and constructing the Gen-tie from the Manzana Wind Project to the proposed Southern California Edison (SCE) Whirlwind Substation.

While PG&E seeks a CPCN authorizing 246 MW as the maximum project capacity, not all the components of the project have been obtained for the entire capacity[4] Thus, ultimately, the capacity of the Manzana Wind Project may be

[4] PG&E Opening Brief at 5.

less than 246 MW. PG&E expects the Manzana Wind Project to be operational by December 2011.

4. Procedural History

The Commission held a prehearing conference (PHC) on October 7, 2008. Following the PHC, the assigned Commissioner issued a Scoping Memo and Ruling (Scoping Memo) on March 25, 2010, which established the scope of issues and the schedule for the proceeding.

The Scoping Memo set forth six issues to be examined as follows:

- Environmental Review: as established under California Environmental Quality Act Guideline Section 15096;
- Resource need and diversity;
- Adequacy and thoroughness of the independent evaluation;
- Cost;
- Cost recovery mechanism; and
- Utility ownership of a facility previously bid in a solicitation.

The Scoping Memo required that "[e]very party shall jointly prepare a Case Management Statement and Settlement Conference Report."[5] The Scoping Memo also directed PG&E to file and serve this report on behalf of all parties after the final settlement conference.[6]

The Scoping Memo required all active parties in this proceeding who serve written testimony, or intend to cross-examine witnesses at the evidentiary hearing to participate in at least one mandatory settlement conference and jointly

[5] Scoping Memo at 2.

[6] Scoping Memo at 3.

prepare a Case Management Statement and Settlement Conference Report identifying the following:

- Any settled or otherwise stipulated issues.
- All remaining contested issues.

Pursuant to the Scoping Memo, on May 21, 2010, PG&E filed the Case Management Statement and Settlement Conference Report (Report) on behalf of The Utility Reform Network (TURN), DRA and PG&E. The Report provided a list of contested issues for this proceeding.

Parties served testimony and rebuttal testimony pursuant to the schedule established in the Scoping Memo. Evidentiary hearings were held on May 24 through May 26, 2010. DRA, PG&E and TURN filed opening briefs on June 18, 2010 and reply briefs on July 2, 2010.

5. Motion to Withdraw

A proposed decision (PD) was issued in this proceeding on December 21, 2010. On January 19, 2010, after comments and replies on PD were filed, PG&E filed a motion to withdraw the Manzana Wind Project application. PG&E's motion states that on January 14, 2011, Iberdrola, the current project owner notified PG&E that it was exercising its right to terminate the PSA. PG&E states because the PSA has been terminated and PG&E is no longer able to purchase and construct the Manzana Wind Project, the application is now moot. PG&E therefore requests that the Commission grant its request to withdraw the Manzana Wind Project application.

TURN and DRA filed timely responses protesting the withdrawal. Both urge the Commission to reject the motion and adopt the PD. They argue that the Commission and the parties have devoted significant resources to this application and granting withdrawal of the application would waste the

Commission's and the parties' considerable work. In addition, they argue granting the motion after a party has received unfavorable outcome in a PD, would encourage parties to withdraw an application to avoid an adverse Commission decision. TURN points out that just days before the termination of the PSA, Iberdrola sent an extensive ex parte letter to the Commission recommending changes to the PD, but did not indicate that Iberdrola had any intentions of terminating the PSA. In TURN's view this indicates that termination of the PSA was motivated by the fear of an adverse decision on the merits of PG&E's application. DRA and TURN also contend it is important for the Commission to vote the PD, as it addresses Commission policy and issues that have relevance and application well beyond the Manzana Wind Project. Because we reject the application, we deny PG&E's motion to withdraw the application as moot.

6. Reasonableness of the Proposed Manzana Wind Project

PG&E claims the Manzana Wind Project is a cost competitive and highly viable project that will contribute to meeting California's RPS goals.

DRA and TURN oppose the application, arguing that the project does not offer ratepayer benefits and is not cost competitive compared to other resources. Furthermore, they argue that the Manzana Wind Project could cost even more due to potential delays in completion of transmission connection and achieving the expected commercial operation date. DRA and TURN are concerned that the costs of any delays will be borne entirely by ratepayers through a higher revenue requirement and an increased levelized cost of energy (LCOE) over the project life. They also believe there is the risk of project operation curtailments in the

event a California condor collides with the project. Thus, DRA and TURN recommend rejecting the application.

As set forth in the Scoping Memo, a threshold issue is whether there is a need for this facility and the energy it may produce pursuant to § 1001 and General Order (GO) 131-D Section VIII,[7] and consistent with the intent of the RPS legislation. We address this issue first. Because much of the data regarding the project cost and RPS solicitation information have been identified as confidential, this decision specifically mentions only the non-confidential material but considers the entire record.

6.1. Resource Need and Diversity

6.1.1. Parties' Positions

PG&E claims the Manzana Wind Project will contribute significantly toward meeting California's 20% RPS goal. According to PG&E, assuming a 31.1% wind capacity factor, a 246 MW project would represent 670 gigawatt-hours (GWh) annually, which would account for approximately 0.8% of PG&E's 20% RPS goal. Under an expanded renewable goal of 33% by 2020, PG&E asserts deliveries from the Manzana Wind Project will continue to play an important role in meeting this expansion.

6.1.2. Discussion

We find that PG&E has not made an adequate showing of need to support authorization of its application. Utilities are permitted some flexibility in demonstrating the need for a project, which may include, for example, a showing

[7] GO 131-D implements § 1001 *et seq.* with respect to electric generation, transmission, and distribution facilities. (GO 131-D, Section I.)

that a project is needed for reliability, or to meet forecasted electrical demand, or as a hedge against development risks of other contracted projects. PG&E's only justification of need for the project, however, is limited to the statement that the project is highly viable and can contribute to PG&E's 20% RPS goal. PG&E states "If project development continues on schedule, the project will be online as early as December 2011, and bolster California's efforts to meet state current 20% RPS goals."[8] PG&E also contends "There are few highly viable renewable projects of this magnitude that can be operational within this timeframe."[9] These statements alone, however, are insufficient to justify the need for the project. In comments on the PD, PG&E claims the reply brief's reference to the fact that Manzana's delivery profile coincides with PG&E's need for power in its peak season and daily peak periods is justification of need for the project. While energy produced during peak periods from the Manzana Wind Project may be more valuable than energy produced in off-peak periods, that in and of itself is not a justification of need for the project.

The Scoping Memo required that the Commission must determine whether there is a need for this facility and for the energy it may produce. Specifically, the Scoping Memo established that "This includes an analysis of whether there is a need for this facility and for the energy it may produce consistent with the intent of the California Renewables Portfolio Standard Program legislation (Pub. Util. Code § 399.11)."[10] PG&E has failed to provide any analysis to support the need for this project. For example, PG&E has not

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[8] PG&E application at 6.

[9] Exhibit 1-C at 1-4.

claimed that it will not meet its 20% RPS goals without the Manzana Wind Project or that Manzana is needed as a hedge against the development risks of other projects in PG&E's current RPS portfolio. There is also no demonstration that the Manzana Wind Project is needed to meet reliability or forecasted electrical demand of PG&E's customers. The mere fact that the output from Manzana Wind Project will contribute to PG&E's renewable target is not sufficient justification of need.

While we conclude that the application is deficient in justifying the need for the project, this deficiency is only one factor in denying the application. We also conclude that the Manzana Wind Project is not cost-competitive and poses unacceptable risks to ratepayers. Although these risks may exist with other renewable projects, in this case the viability risk are born by ratepayers rather than the developer. Rejection of this application however, does not suggest that PG&E should not procure additional renewable resources for RPS compliance. That determination needs to be made in the RPS proceeding. We are merely concluding here that PG&E has not produced evidence showing that the Manzana Wind Project, as proposed in its application, is needed.

6.2. Project Viability Risk

PG&E claims the Manzana Wind Project is highly viable due to several factors, including its transmission status. PG&E expects the Manzana Wind Project will be developed according to the proposed schedule and fully operational as early as December 2011 after several new transmission facilities

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[10] Scoping Memo at 4.

are constructed to allow the project to be connected and deliver power to the grid. The transmission requirements include:

- Construction of Whirlwind Substation, a new substation which will be constructed by SCE and interconnect to SCE's Tehachapi Renewable Transmission Project (TRTP).
- A new six-mile Gen-tie that will be constructed by PG&E to connect the Manzana Wind Project to the Whirlwind Substation.
- Looping the existing Midway-Vincent #3 line, which will be part of segment 4 of SCE's TRTP, into the Whirlwind Substation to allow power to be delivered from the Manzana Wind Project to the grid.

6.2.1. Parties' Positions

PG&E asserts there is no risk of transmission delay because the above projects are well along in the development process and have a high probability of being completed on time.[11] In addition, PG&E states that it has an updated interconnection plan that will enable the looping of the existing Midway-Vincent #3 line to be completed according to the schedule. DRA and TURN have a different view of the project timetable and are not as optimistic as PG&E about the transmission completion and the project online date. TURN's primary concern is with the expected completion date of the Whirlwind Substation. TURN also questions the projected completion date for Segment 4 of the TRTP. TURN is also troubled by the evolving new information and updated schedules for PG&E's assumptions and cautions the Commission that there is a real risk of delay associated with the interconnection of the project given the above

[11] PG&E Opening Brief at 31.

uncertainties.[12] Both TURN and DRA express a concern that a delay in the completion of the required transmission interconnection will increase project costs to the ratepayers.

6.2.2. Discussion

As a proposed utility-owned generation project, ratepayers will pay a lump sum cost rather than a performance-based cost for the project. Thus, ratepayers are directly impacted by events that can result in lower than expected generation, including delays, under performance, or shut down (for example, due to a California condor collision) of the Manzana Wind Project which can increase the project's levelized cost of energy. In contrast, under a PPA, project owners rather than ratepayers assume the risks for project production.

We conclude that there is significant risk that the Manzana Wind project may be subject to transmission delays and project curtailments. We do not believe it is reasonable for ratepayers to assume such risks.

First, we agree with TURN and DRA that according to the most recent evidence in the record, a significant risk of delays exists even with the proposed updated alternative interconnection plan. Although PG&E asserts confidence that the Manzana Wind Project will achieve commercial operation in December 2011, DRA's confidential brief argues why PG&E's proposed transmission interconnection schedule is unrealistic given the environmental review and the approval process required for the proposed interconnection plan. Specifically, DRA shows that the Whirlwind Substation completion date is not reasonable in light of the possibility that the United States Fish and Wildlife

[12] TURN Opening Brief at 5.

Service may conduct a risk assessment on the effects of future Tehachapi wind projects on the California condors as part of its review. TURN also demonstrates that there is a risk of delay associated with the interconnection of the project due to the projected completion date for Segment 4 of the TRTP.[13] PG&E fails to provide a satisfactory response as to why its transmission projections are accurate and reliable in light of these potential outcomes.

In comments on the PD, PG&E claims that the PD relies on outdated information regarding the project's interconnection status. However, the information PG&E claims we should rely on regarding the transmission milestones is based on developments that occurred after the record was closed. In particular, PG&E refers to two letters issued by the United States Fish and Wildlife Service on July 30, 2010, and the United States Forest Service on October 4, 2010, as support for receiving required permitting and approval for the construction of transmission facilities. Both letters, however were issued after the record was submitted on July 2, 2010.[14] PG&E further claims, without citing to any facts or source, that construction of the Whirlwind substation has started. To the extent these documents and facts were necessary to establish the reasonableness of the transmission interconnection schedule, PG&E could have requested that the Commission reopen the record to accept new evidence. PG&E, however, did not make such a request. We cannot rely on information that is developed outside the record.[15]

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[13] TURN Opening Brief at 5.

[14] Per the schedule established in the Scoping memo, the record in this proceeding was submitted on July 2, 2010, upon submittal of the reply briefs.

[15] PG&E comments at 3 and 9.

In addition to the risk of potential transmission delay, the operational viability of the Manzana Wind Project may also be at risk due to the potential death or take of a California condor.

DRA argues that the California Department of Fish and Game considers the loss of condor a significant issue that could result in partial or complete shut down of the Manzana Wind Project operation. DRA contends that the condor population will likely increase over the life of the project and does not believe PG&E's proposed mitigation measures with respect to redesign of the project are adequate to reduce such a risk. In response, PG&E asserts that it is unlikely that condors will move into the area even as their range expands. According to PG&E, the project site lacks the elevation that California condors typically use for flying in the area. Furthermore, PG&E states it has eliminated the wind turbines on the highest elevation that could possibly be close to the area where condors fly. Thus, PG&E contends it is highly unlikely that a condor will collide with the project. PG&E also argues that California Department of Fish and Game has not appeared in this proceeding to express any concern about the Manzana Wind Project's potential impact on condors.[16]

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[16] PG&E Opening Brief at 50. We note, however, that while the California Department of Fish and Game has not actively participated in this proceeding, it sent two letters to the Energy Division regarding the Manzana Wind Project. The first letter dated October 25, 2010, raises several concerns with the Manzana Wind Project and the possibility of California condors colliding with the operating wind turbines. Specifically, the California Department of Fish and Game's letter states "the Department has concluded that condors are likely to utilize the Project site and may be at risk of colliding with wind turbines" and "operating wind turbines at this location risks 'take' of California condor." (October 25, 2010 letter from The California Department of Fish and Game, at 1-2 in correspondence file of this proceeding.) The second letter dated November 23, 2010, states that the California Department of Fish and Game is working with PG&E on

Footnote continued on next page

In PG&E's view, the PD presents an unduly pessimistic picture of the California Department of Fish and Game's view of the Manzana Wind Project. PG&E particularly emphasizes the California Department of Fish and Game's November 23, 2010 letter and the fact that the letter indicates that the California Department of Fish and Game is working with PG&E on addressing the condor issues. PG&E argues that state and federal laws provide regulatory agencies with discretion to determine appropriate action to address circumstances where a protected species has been killed and believes the precedent in California suggests project shutdown or curtailments are unlikely even in the event of a take.[17]

We agree with TURN and DRA that even with the redesigned turbine locations and other proposed mitigation measures to deter condors from the project site, it is possible that California condors could be present in the site in the future. The California condor population is expected to increase during the life of the project and even if condors are not attracted to the site today, they may be in the future given their increased population and the need to increase their foraging area, which could include the project site.[18] In addition, PG&E's contention that the project lacks the features or characteristics that would make it attractive to condors appears at odds with the California Department of Fish and Game's statement that there is a likelihood of condors utilizing the site. Even PG&E's witness testified, "These are wild animals, and I can't predict what they

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developing measures and strategies that it believes will reduce the potential for take of condors during project construction and operation.

[17] PG&E Opening Brief at 49.

[18] DRA Opening Brief at 5.

will do."[19] Furthermore, the effectiveness of PG&E's other proposed mitigation measures to deter condors from the project site is speculative at this point. The newly proposed mitigation measures are not part of the record. Additionally, the October 25, 2010 letter submitted by the California Department of Fish and Game raises questions regarding the need for additional environmental review. While PG&E minimizes the potential of condor fatality, as well as the likelihood of project shutdown or curtailment should such a fatality occur, PG&E seems to agree that project modifications including project shutdown are potential, legal remedies available to California Department of Fish and Game in case there is a condor collision.[20] Given that California condors could be present in the project site and that any take of a California condor violates state and federal law, the risk of project shut down or curtailment as a result of condor fatality unquestionably exists. These risks, even if unquantifiable at this point, impact the viability of the project and could impose additional cost on ratepayers. Furthermore, to the extent additional environmental review may be necessary, additional project delay will further impact the viability of the project and the likelihood that the already high cost of this project will be even higher. As with the issue regarding need, while this is not in and of itself dispositive in this case, we cannot ignore the risks and the potential impact of condor fatality on project operations and economics. In combination with other factors presented in this case, in particular the high cost of energy from this project, the environmental

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[19] Recorder's Transcripts at 350.

[20] PG&E Opening Brief at 49.

risks described above further compound our concerns regarding the risks to ratepayers.

6.3. Manzana's Cost Comparison

The Scoping Memo requires the Commission to determine whether Manzana's proposed capital cost and operating costs are reasonable and competitive with other similar renewable wind resources, i.e. whether the project costs, on both a net present value and levelized cost basis, are reasonable in comparison to other relevant projects.[21]

6.3.1. Parties' Positions

PG&E compares the Manzana Wind Project's net market value to the net market values of current and recent renewable projects from its 2009 RPS RFO and long term RPS contracts filed within 12 months of the submittal of the Manzana application. PG&E asserts the net market value is the most appropriate approach for evaluating the Manzana Wind Project because it captures the differences in value related to when and where energy is delivered and allows for comparison across renewable technologies.[22] Based on this approach, PG&E asserts the Manzana Wind Project is cost competitive, because it ranks high among the selected renewable projects. PG&E also contends that the Manzana Wind Project ranks high among just wind projects. PG&E does not provide any testimony using the LCOE approach as directed by the Scoping Memo.

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[21] See also § 1005.5 where, when the Commission grants a CPCN for new construction estimated to cost greater than $50 million, the Commission must specify a certain maximum cost "determined to be reasonable and prudent."

[22] PG&E Opening Brief at 19.

TURN and DRA disagree with PG&E's assessment and express several concerns with PG&E's underlying assumptions and the approach in evaluating the project's cost competitiveness. To begin, they argue that the net market value approach should not be used to compare the Manzana Wind Project to other projects because net market value does not provide an apples-to-apples comparison for projects. They believe that comparing the LCOE of projects is a better approach.

Furthermore, they believe the Manzana Wind Project should be evaluated against only wind projects not all other renewable technologies. In addition, they argue all wind projects that are shortlisted as part of the PG&E's 2009 RPS solicitation should be included in the comparison. Finally, they argue that PG&E's cost comparison should take into account the cost impact of several optimistic assumptions that, if not materialized, will result in even higher costs for Manzana.

TURN believes PG&E's use of net market valuation is flawed because it assesses projects executed at different times, with dissimilar contract or ownership duration, different online dates, and different forward energy and capacity forecasts.[23] According to TURN, each of these factors introduces potential bias that could impact the net market value calculation and skew the results. In TURN's view, PG&E's approach is deficient and the Commission should not use it to determine the cost competitiveness of Manzana. Instead, TURN recommends we use the time of day adjusted LCOE to compare projects coming on line within similar time horizons.

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[23] TURN Opening Brief at 14.

DRA opposes PG&E's proposed net market value approach as the primary benchmark for determining cost reasonableness, because in its view, the net value approach relies on uncertain forecasts and does not provide an apples-to-apples benchmark for comparing offers for renewable projects. DRA recommends we use the LCOE because in its view, the LCOE "is a better, simpler, more transparent benchmark."[24]

DRA is also concerned that the use of the net market value approach in determining cost reasonableness would create inconsistencies among utilities to the extent their evaluation methodologies differ. For example, DRA contends that PG&E's net market value approach is different from other utilities because it uses a time of delivery profile and a proprietary forward price curve to determine a market value of the bid. DRA, therefore argues that using "each utilities' unique least cost best-fit methodologies will not produce a transparent or consistent test for assessing cost reasonableness."[25] DRA urges the Commission to "adopt an approach to evaluating cost reasonableness that can be applied to other California investor-owned utility applications for utility owned renewable generation."[26]

TURN and DRA are also concerned about several key assumptions made for Manzana. DRA and TURN challenge the accuracy of some of PG&E's assumptions and argue that a number of PG&E's estimates are too optimistic and if not materialized, could significantly impact the economics of the projects and the project's ranking. For example, they argue assumptions including project

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[24] DRA Opening Brief at 44.

[25] DRA Opening Brief at 44.

performance, the 30-year project lifespan, commercial on line date, and operating costs are unreliable and could yield to higher costs for the Manzana Wind Project, making the project even less economical. They recommend we discount these assumptions in determining the cost effectiveness of the Manzana Wind Project.

In response to the methodology used to compare the Manzana Wind Project to other projects, PG&E claims that LCOE does not reflect the value of energy to customers. PG&E contends that the LCOE must be compared to forward energy and capacity curves in order to yield a meaningful estimate of value. Thus, PG&E believes the net market value approach is preferable.

6.3.2. Discussion

The calculation of cost competitiveness is perhaps the most contentious issue in this proceeding. It is also potentially the most complex matter as it is not based on one formula or a mutually agreed upon methodological approach. Instead, each party has presented different ways in which the cost competitiveness of the proposed project should be assessed. The methodology and the group of projects selected for comparison are important factors in determining the Manzana Wind Project's cost competitiveness. Parties disagree on the following issues:

- Whether to use the LCOE vs. the net market value approach;
- Whether the Manzana Wind Project should be compared to other wind projects or to all other renewable projects;

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[26] DRA Opening Brief at 44.

- Whether the Manzana Wind Project should be compared to contracts that have been executed and filed at the Commission for approval or to all available offers; and
- Whether to consider potential costs if PG&E's forecasted assumptions are altered.

We find PG&E's use of the net market value approach deficient for several reasons. First, the Scoping Memo directed PG&E to compare the Manzana Wind Project on both the net market value and the LCOE approach. PG&E's net market value approach does not provide an apples-to-apples comparison of the Manzana Wind Project to other projects because it uses different forward energy price curves to calculate the net market values of various projects. In our view, net market value calculations should use similar inputs to the extent possible. Therefore, although the Manzana Wind Project receives a high ranking under PG&E's net market value methodology, we cannot determine that it would have the same relative ranking if the same forward curve was used for all projects to which it is compared. Accordingly, we cannot conclude that the Manzana Wind Project is cost competitive based on PG&E's proposed net market value approach.

We also disagree with PG&E's contention that the Manzana Wind Project should only be compared to selected renewable projects that have been finalized, namely only current and recent renewable projects from 2009 RPS RFO and from long term RPS contracts filed within 12 months of the submittal of the Manzana application.

In comments on the PD, PG&E argues that the PD should focus on how Manzana's cost compares to all renewable technologies rather than just to other wind projects. PG&E believes that the Manzana Wind Project should be

compared to all renewable technologies since the RPS program is technology agnostic.

PG&E's contention that the analysis herein focuses only on comparisons to other wind projects is not correct. Indeed, as explained in more detail below, we find that compared to all projects on the 2009 shortlist, using more standardized assumptions, Manzana fairs poorly. PG&E believes if a project ranks highly against other projects, it should be selected. We do note, however, that once a project has been selected, we must still determine if the cost of that project, even if lower relative to other projects and other technologies that have bid in, is reasonable. To that end, it is reasonable for the Commission to look not only to how a project compares to all projects bidding in, but also to assess how it compares against other projects of the same technology.

PG&E also argues that comparing Manzana only to bids on the 2009 shortlist rather than to executed contracts is unfair in that bid prices are not reflective of the ultimate price that emerges once a contract has been consummated. While it may be true that bid prices are not reflective of the ultimate price on contract execution, PG&E has not presented evidence to suggest that bid prices are an unreasonable proxy for how much projects ultimately cost, or any evidence demonstrating the degree to which executed prices trend higher than bid prices. Furthermore, based on the analysis we rely on below, it does not appear that Manzana is on the margin in terms of how it compares to projects on the shortlist. Rather, it ranks well below the vast majority of projects on the shortlist.

In our view, it is reasonable to include all projects that are shortlisted and might be selected to meet PG&E's renewable energy goals in the comparison because as noted in the Assigned Commissioner's Ruling of May 19, 2009, if

approved, the Manzana Wind Project would displace such projects that might otherwise be selected. Excluding from the comparison, projects that are under negotiations under the RPS process but not yet finalized, unnecessarily limits the scope of our assessment. In addition, for an RPS solicitation, the Commission evaluates the reasonableness of each proposed RPS PPA price by comparing the proposed PPA to a variety of factors including the RPS solicitation results and other proposed RPS projects such as renewable procurement contracts. Comparing Manzana to all bids shortlisted from the 2009 solicitation on the basis of both the projects LCOE and NMV, we find that the Manzana Wind Project does not rank competitively compared to other types of renewable projects, including other wind projects. In fact, on an LCOE and NMV basis, the Manzana Wind Project ranks significantly lower than other RPS shortlisted wind projects.[27] Moreover, the record shows that Manzana's ranking will further deteriorate if PG&E's original forecasts are changed. While PG&E argues that its assumptions and forecasts are reasonable, it provides a limited analysis on how Manzana's ranking would change if a combination of the underlying assumptions were changed.

In contrast, DRA provides a more comprehensive comparison of projects in confidential tables 1 and 2 of its reply brief presenting not only the net market value and LCOE values for the Manzana Wind Project and all renewable projects, but also a comparison of Manzana's ranking under various scenarios. DRA's tables show that Manzana's ranking varies significantly with different assumptions. Specifically, DRA shows Manzana's ranking would diminish if

[27] See Confidential Figure 6-2, DRA Opening Brief at 64.

key factors such as project life, transmission requirements, project size, and project performance were different from PG&E's assumptions.[28] This analysis suggests that even though Manzana's ranking may be higher in the scenario presented by PG&E, any delay or change in any one of PG&E's assumptions could result in a much lower ranking of the project. In comments on the PD, PG&E does not show any error in the PD's approach, but argues that the PD's focus on the various scenarios makes it very difficult for the Manzana Wind Project to compete head-to-head with a power purchase agreement alternative. We believe that the scenarios that adjust the underlying assumptions to assess the value and cost of the Manzana Wind Project provide a realistic set of outcomes that must be considered when exploring the reasonableness of the application.

As previously noted, there is a possibility that commercial operation of the project may be delayed as a result of delays in the transmission construction. There is also a distinct possibility that the project life will be less than what PG&E has predicted. Although PG&E claims its forecast of a 30-year project life is based on a variety of sources such as consultation with industry manufacturers, independent research of publicly available information and assumptions regarding project replacements and repairs, there is no technical data to support the reasonableness of the 30-year life forecast for the turbines used in the project. We agree with TURN and DRA that the data provided by

[28] We note that DRA's tables rely on PG&E's net market value calculation which uses different forward curves. As argued in the preceding paragraphs, we do not endorse this approach. However, for the purpose of the following argument, this point is not material.

PG&E does not support the forecasted project life for the Manzana Wind Project.[29]

Additionally, we are not persuaded that assuming a 30-year life to compare Manzana's energy costs against other projects that are amortized over a different time frame is reasonable. Increasing the length of time over which the costs of the project are amortized has the immediate effect of making PG&E's project appear substantially more cost competitive. A more consistent approach for assessing whether or not Manzana is reasonably priced is to amortize its costs over 20 years to reflect the term of the contracts against which Manzana is being compared.[30] Doing so suggests that Manzana is substantially more costly than other wind projects when compared on a consistent basis. We are also not convinced by PG&E's comparison of the Manzana Wind Project to hydro and fossil plants for the purpose of justifying a 30-year life projection. As TURN states, "the operation life of a new wind turbine is wholly unrelated to the history of fossil and hydro plants in California."[31]

There are several other concerns about the project achieving the performance benchmarks in the application. There is a possibility that PG&E may not be able to secure the required lease renewals to operate the facility for the forecasted 30 years. As DRA points out, some of the land leases for the project will begin to expire before the end of the assumed 30-year project life.[32]

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[29] DRA Opening Brief at 49 and TURN Opening Brief at 15.

[30] This assumes that investors recover their investment in a renewable project over the term of the contract.

[31] TURN Reply Brief at 19.

[32] DRA Opening Brief at 51.

While PG&E may intend to negotiate lease extension with landowners, there is no guarantee that PG&E will be able to obtain any lease renewals. Accordingly, the project life could be shorter than what PG&E predicts. If the project operates fewer years than forecasted, the costs will be higher because project costs will be offset by less generation.

Another concern if PG&E is unable to negotiate land leases at current costs, is the potentially higher leasing costs that will translate into a higher LCOE and a lower NMV.

In comments on the PD, PG&E argues that it presented "substantial evidence" in support of a 30-year project life. PG&E's forecast of a 30-year project life however, is heavily based on PG&E's assumptions with little documentation and support. We find that overall, under a reasonable range of scenarios, and adjusting some of the underlying assumptions used to evaluate the Manzana Wind Project to reflect a more uniform and consistent basis for comparison to other renewable projects, the Manzana Wind Project is not cost competitive compared to other resources. We find that even if the Manzana Wind Project were to operate for 30 years, it would not be cost competitive because the LCOE of the project could be higher than PG&E's estimate due to various risk factors. As TURN and DRA point out, PG&E's forecasted cost of maintaining reliable turbine operation may be understated because it is based on insufficient data beyond twenty years.[33]

As TURN states, "in comparison to alternative renewable power options, the Manzana Wind Project does not offer compelling value to ratepayers even

[33] DRA Opening Brief at 51 and TURN Opening Brief at 16.

under a best-case scenario. It ranks in the middle of current PPA offers but poses far more risks than any of the PPAs to which it is being compared."[34]

7. Other Issues

Given that this decision rejects the application, we do not need to address or make findings on other issues in the Scoping Memo.

8. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Maryam Ebke in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on January 11, 2011 by PG&E. Reply comments were filed on January 18, 2011 by DRA and TURN.

9. Assignment of Proceeding

President Michael R. Peevey is the assigned Commissioner and ALJ Maryam Ebke is the assigned ALJ in this proceeding.

Findings of Fact

1. The demonstration of need to support this application is deficient.
2. PG&E's proposed interconnection schedule is unrealistic.
3. The operational viability of the Manzana Wind Project may be at risk due to potential death or take of a California condor, an endangered species under both State and Federal laws.

[34] TURN Opening Brief at 12.

4. As a utility-owned generation project, ratepayers will pay a lump sum cost for the Manzana Wind Project rather than paying for the actual performance of the project.

5. As proposed, ratepayers bear the cost risk if the Manzana Wind Project produces less than expected or if the costs of maintaining and operating the project increase.

6. PG&E's estimate of net market value does not provide an apples-to-apples comparison across projects due to the use of different inputs.

7. Using the LCOE approach, the Manzana Wind Project does not rank competitively compared to all other renewable projects, including wind projects.

8. The Manzana Wind Project's ranking will deteriorate under a set of scenarios reflecting a reasonable range of values for key underlying assumptions.

Conclusions of Law

1. It is reasonable to assume some delays in project commercial operation date.

2. It is reasonable to assume there may be potential project operation curtailments in the event that a California condor collides with or is killed as a result of the project.

3. PG&E's net market value approach is not reasonable to support a conclusion of cost-competitiveness because it fails to rely on an adequately uniform set of assumptions.

4. It is reasonable to compare the Manzana Wind Project to all renewable technologies.

5. It is reasonable to compare the Manzana Wind Project to all available offers for renewable projects.

6. It is reasonable to consider potential cost impacts if the forecasted assumptions for the Manzana Wind Project change.

7. The Commission should reject PG&E's application as proposed.

8. The Commission should deny PG&E's motion to withdraw the application as moot.

O R D E R

IT IS ORDERED that:

1. The Application of Pacific Gas and Electric Company to approve the Manzana Wind Project and to issue a Certificate of Public Convenience and Necessity is denied.

2. Pacific Gas and Electric Company's motion to withdraw its application to approve the Manzana Wind Project and to issue a Certificate of Public Convenience and Necessity is denied as moot.

3. Application 09-12-002 is closed.

This order is effective today.

Dated _____, at San Francisco, California.