

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

In the Matter of the Application of
Pacific Gas and Electric Company for
Adoption of its Smart Grid Pilot
Deployment Project (U 39 E)

Application 11-11-017
(Filed November 21, 2011)

**CLEAN COALITION'S OPENING COMMENTS ON THE PROPOSED DECISION
GRANTING, IN PART, AND DENYING, IN PART,
PACIFIC GAS AND ELECTRIC COMPANY'S APPLICATION
FOR SMART GRID PILOT DEPLOYMENT PROJECT**

Dyana Delfin-Polk
Ted Ko
Clean Coalition
2 Palo Alto Square
3000 El Camino Real, Suite 500
Palo Alto, CA 94306

March 7th, 2013

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Pursuant to Article 14 of the Commission's Rules of Practice and Procedure, the Clean Coalition respectfully submits these Opening Comments on the Proposed Decision (PD).

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, foster environmental sustainability, and enhance energy security. To achieve this mission, the Clean Coalition promotes proven best practices, including the vigorous expansion of Wholesale Distributed Generation (WDG) connected to the distribution grid and serving local load. The Clean Coalition drives policy innovation to remove major barriers to the procurement, interconnection, and financing of WDG projects and support complementary Intelligent Grid (IG) technology solutions such as demand response, energy storage, forecasting, and communications.

The Clean Coalition is active in numerous proceedings before the California Public Utilities Commission and other state and federal agencies throughout the United States, in addition to working in the design and implementation of WDG and IG programs for local utilities and governments. The Clean Coalition has intervened before the Commission on many areas including SONGS OII (I. 12-10-013), Resource Adequacy (RA), Energy Storage (ES) and various Smart Grid proceedings.

I. Summary of recommendations and introduction

- Pilot programs should be designed to inform the smart grid deployment plans for all utilities, which we view as the primary purpose of developing pilot programs;

- We support the development of a Smart Grid that enables the extensive use of distributed generation and “intelligent grid” (IG) technologies including energy storage and demand response;

- PG&E should submit supporting documents for each pilot, as recommended by the Commission in the PD. The Clean Coalition specifically recommends that the following be included:
 - Compliance with SB 17 (explicitly shown)
 - Objectives of this project (including renewable integration plans)
 - Cost benefit analysis
 - Timeline of milestones

- We strongly recommend that the TEST initiative be considered in future PG&E pilot programs, as this pilot explicitly promotes the integration of DG+IG resources onto the grid;

- Lastly, we support the direction that this PD is taking in promoting transparency and accountability. We encourage this same level or higher of transparency and accountability in all types of distribution investments with similar goals of increased renewables in mind.

The Clean Coalition has been involved in A. 11-11-017 since the early stages and we continue our support for the development of a “smart” grid that enables extensive use of distributed generation with intelligent grid (DG+IG) technologies. The Clean Coalition also understands and appreciates the importance of pilot programs to test and evaluate new technologies that support established State renewable energy goals, such as the RPS goal and Governor Brown’s 12 GW of Distributed Generation (DG) goal. In addition, the Clean Coalition supports the funding of pilot programs that can further

clean local energy integration onto the grid and prove that increased levels of distributed renewables can in fact be a more cost effective, reliable and resilient option for ratepayers.

We take the firm position that pilot programs should be used to inform future smart grid deployment plans for all utilities. We view this as the primary purpose of developing pilot programs. We believe that pilots that support the rigorous use of clean local energy are effective investments of ratepayer dollars since the best way to examine the benefits of distributed generation and other renewables is to develop strong and effective pilot programs with stated objectives, clear cost benefit analyses and a plan to meet objectives and State goals for renewable energy.

In terms of this Proposed Decision, we support the Commission's commitment to "establish policies, standards and protocols to guide the development of a smart grid system and facilitate integration of new technologies such as distributed generation, storage, demand-side technologies, and electric vehicles."¹ This is the direction that the Commission is heading in relevant proceeding, such as the Long-term Procurement Planning proceeding and the ongoing Energy Storage proceeding. This direction is very much supportive of the integration of DG+IG onto the grid to promote grid safety, reliability and cost effectiveness for California's ratepayers.

II. SB 17 Compliance

As stated in previous filings, the Clean Coalition remains committed to utility compliance with SB 17, which "would increase the use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid."² SB 17 contains very clear criteria on what the outcomes of its compliance should be, but the PD is not clear as to how the markets for demand response and energy storage will be developed within the pilot programs. However, all projects that fall within compliance with SB 17 to ensure "grid reliability" should ensure that DG and

¹ PD at 3

² PD at 4

IG options are optimized, especially within pilot programs that could develop these markets.

The pilots should be designed to enable utilities to fix existing Smart Grid deployment plans so that they will be in compliance with SB 17. Deployment plans that were published to comply with SB 17 are missing key elements of SB 17 compliance. Pilot programs should include these key elements to give the utilities the information needed to fix and improve their current plans.

III. Pilot Program Comments

PG&E states that that all proposed projects directly improve energy procurement and efficiency at the system and California Independent System Operator level.³

PG&E asserts that the three proposed Distribution Project pilots will demonstrate Smart Grid technologies that can be used to increase reliability, reduce costs, reduce environmental impacts of electric system operation, and more effectively integrate distributed renewable generation on PG&E's distribution system.⁴ However, the majority of the pilots are not clear as to how the markets for renewable energy (especially DG+IG resources) will be supported and developed throughout the timeline of these pilot programs

a. Line Sensor Pilot

Used in conjunction with the other approved pilot programs, this program could prove of value to ratepayers. In addition, the Commission's requirements to ensure that this program meets the outlined criteria (including a cost benefit analysis, status reports and updated methodologies) will ensure that this program remains within the criteria for approved Smart Grid projects. However, we agree with TURN that PG&E has not proven that this program is SB 17 compliant. As the PD stated several times, compliance with SB 17 is a priority in this proceeding, and thus this pilot should not be approved

³ PD at 33

⁴ PD at 9

unless PG&E proves that this program explicitly complies with SB 17. This should be included in the additional documents required of PG&E by the Commission to ensure that all criteria are met (including and especially SB 17).

The Volt/VAC pilot program and Short Term Demand Forecasting do explicitly state that they will support DG+IG options (including DR, ES and DG) but the other programs are not clear as to *how* supportive they would be of renewable technologies. The goal of developing a smart grid system (via the Smart Grid proceeding) that supports these technologies is actually specifically stated by the Commission in the PD as a goal.⁵

All projects approved by this Commission that support grid reliability should explicitly support the rigorous use of wholesale DG, which can not only increase grid reliability, but can also promote cost effectiveness. As recommended in the testimony submitted by Clean Coalition's Executive Director, Craig Lewis, "it is a strong position of the Clean Coalition that WDG is the most cost-effective and timely renewable energy market segment in California, and policies supporting WDG have already been acknowledged by this Commission, the CEC, the California legislature and Governor Brown."⁶ For future Smart Grid pilot program consideration, the Clean Coalition recommends more detailed plans as to how the markets for the aforementioned renewable energy technologies will be developed by this pilot program and how much of the pilot program's budget will be dedicated to developing these markets.

b. The Volt/VAR Optimization Pilot

Our arguments on this pilot are similar to TURN's. The Clean Coalition is concerned with the lack of detail from PG&E on this project beyond what was stated in the Application. Specifically, the lack of objectives, benefits and costs and how this program will definitively support the increased integration of renewables onto the grid should be

⁵ PD at 3

⁶ CC Testimony dated May 17th, 2012, included as Attachment "A."

submitted to the proceeding parties. The Clean Coalition supports the conditional approval of funds for this pilot, which is contingent on the following information:

- Compliance with SB 17 (explicitly shown)
- Objectives of this project (including renewable integration plans)
- Cost benefit analysis
- Timeline of milestones
- Status reports

c. Detect & Locate Pilot

Like TURN, Clean Coalition wishes to echo our arguments from the previous two projects that PG&E should provide supporting documents on this program to ensure compliance with SB 17 and cost effectiveness with grid reliability and increased resilience.

d. Short-Term Demand Forecasting Pilot

The Clean Coalition is generally supportive of this project, as PG&E and the Commission acknowledge that this project will specifically “support the sale of demand response, energy efficiency, distributed generation and storage, and reducing the total environmental footprint”⁷ and that this project fully supports the objectives set out by this Commission for the future of the Smart Grid and Smart Energy Markets.

We continue to emphasize the submission of the supporting documents requested by the Commission requested for this project in addition to the other Distribution pilots described in the PD to prove cost effectiveness and to prove compliance with SB 17.

e. TEST Pilot Program

The program goals of this project are similar to other approved projects. While the Commission “sees no clear picture of how this Initiative meets a specific need, except to

⁷ PD at 48

hire additional employees “to evaluate and test new products and systems for their potential to integrate with PG&E’s devices and systems,” we support all pilot programs that will “address the integration of increased penetration of distributed renewable resources, distributed storage and advanced distribution automation, and electric vehicles into grid operations, as well as coordinating communication and control equipment development and specifications, and meeting cyber security requirements” as PG&E has stated this program would address.⁸

The Clean Coalition sees this pilot as providing additional resources to evaluate Smart Grid programs that support the use of renewable energy. As we stated in our introduction, we believe the best investment of ratepayer dollars is to invest in a Smart Grid that increases the use of renewable energy. The TEST program has the potential to assist in the development of the markets for the integration of renewables onto the grid, which is a stated goal of this proceeding.

We strongly recommend that this initiative be considered in future PG&E pilot programs. The Clean Coalition also recommends that PG&E provide more documentation (similar to the approved projects) to ensure that this program actually meets stated objectives and includes a cost benefit analysis. This pilot not only has the potential to assist in developing the renewable energy markets, but will ensure that PG&E assist in moving California’s renewable energy markets forward and contribute to established State goals such as the RPS and the 12 GW of distributed generation (DG).

IV. Transparency and Accountability

The Clean Coalition has previously advocated for increased levels of transparency by the utilities, and the requirement for PG&E to work more closely with the Commission to develop the Smart Grid pilot programs (including program milestones and anticipated date of completion for each phase of the pilot programs). This PD is the right direction that the Commission should be taking in order to keep utilities

⁸ PD at 56

accountable, not just for pilot programs like this one, but for all decisions and programs requiring millions of ratepayer dollars. In addition, the Clean Coalition is generally supportive of the Commission's commitment to ensuring that projects remain within their approved budget throughout the pilot program development process.

The supporting documentation that the Commission is requiring as part of these Smart Grid pilots is exactly the kind of rigorous transparency efforts that should be included in all levels of distribution planning and we applaud the Commission's strong direction of full transparency in the distribution system. We encourage this same level or higher of transparency and accountability in all types of distribution investments with similar goals of increased renewables in mind.

VI. Conclusion

The Clean Coalition appreciates the opportunity to comment on this Proposed Decision and we look forward to continuing discussion of our recommendations and incorporation into the Final Decision.

Respectfully submitted,

/s/Dyana Delfin-Polk
Dyana Delfin-Polk

/s/Ted Ko
Ted Ko

Policy Associate

Associate Executive Director

2 Palo Alto Square
3000 El Camino Real, Suite 500
Palo Alto, CA 94306
209-658-5837
510-381-6159
dyana@clean-coalition.org
ted@clean-coalition.org

Dated: March 7th, 2013

Attachment "A"

Docket: A. 11-11-017
Exhibit Number: CC-1
Commissioner: Michael Peevey
Admin. Law Judge: Kelly Hymes
Witness: Craig Lewis, Executive
Director, Clean Coalition

**TESTIMONY OF THE CLEAN COALITION ON PACIFIC GAS AND ELECTRIC
COMPANY'S PROPOSED RATE INCREASES ASSOCIATED WITH SMART GRID
PILOT DEPLOYMENT**

**SMART GRID PILOT DEPLOYMENT PROJECT
A.11-11-017**

Dated: May 17th, 2012

I. INTRODUCTION

Pursuant to ALJ Hymes' ruling of May 16th, 2012, the Clean Coalition respectfully submits the following testimony of Craig Lewis, Executive Director of the Clean Coalition, into the record.

The Clean Coalition's goals for this proceeding (as stated in our Amended Motion for Party Status) include:

- Ensuring compliance with SB 17 provisions and Commission Decisions that states that a smart grid is characterized, in part, by the “[d]eployment and integration of cost-effective distributed resources and generation, including renewable resources,” and the “[i]ncreased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid;”⁹
- Guaranteeing that PG&E's smart grid pilot project will achieve the above goals, which are essential to the Clean Coalition's objective of deploying large amounts of clean local energy;
- Emphasizing that ratepayer dollars should be spent on the distribution grid in a way that will most benefit the ratepayer, which is to prepare the grid for high penetrations of wholesale distributed generation.

The Clean Coalition is a California-based group that advocates for vigorous expansion of the Wholesale Distributed Generation (WDG) market segment, which is comprised of renewable energy generation that connects to the distribution grid and serves local load. Since penetrations of WDG above about 20% require local balancing of supply

⁹ PUC §8360(c),(a)

and demand of energy, the Clean Coalition not only drives policy innovation that removes the top barriers to WDG (procurement and interconnection), but also drives policy innovations that will allow private capital to deploy Intelligent Grid (IG) solutions like demand response and energy storage. The Clean Coalition is active in proceedings at the California Public Utilities Commission, the Federal Energy Regulatory Commission, and related federal and state agencies throughout the United States. The Clean Coalition also designs and implements WDG and IG programs for local utilities and governments around the country.

In previous Smart Grid proceedings, the Clean Coalition has stated “wholesale distributed generation (“WDG”) is the most cost-effective and timely renewable energy market segment in California.¹⁰ However, fully realizing the massive economic and environmental benefits of WDG identified by policy makers and utilities will require a smart grid pilot program that can integrate and balance large amounts of local energy. This vision of a smart grid integrated with distributed generation would allow for power to flow safely from thousands of generators across the state in any direction to meet load, keeping electricity supply in balance with demand at all times.

II. CONSISTENCY WITH SB 17

Several regulatory bodies, including this Commission, the CEC, the California legislature and Governor Brown himself have all advocated policy in favor of WDG. An example of this is both in Senate Bill (“SB”) 17 and the Utilities Code Section 8360, which was enacted by SB 17, which requires that California’s smart grid include the “[d]eployment and integration of cost-effective distributed resources and generation, including renewable resources.” Interpreting the requirements for smart grid deployment plans in SB 17, Commissioner Ryan noted that one of the driving forces behind building any smart grid is “enabling decentralized power generation so homes

¹⁰ A.11-06-006: CLEAN COALITION COMMENTS ON THE SMART GRID DEPLOYMENT PLAN WORKSHOP REPORT, p.3. (March 12, 2012).

can be both an energy consumer and supplier.” Similarly, Decision 10-06-047 states that smart grid policy goals must “[a]ccommodate all generation and energy storage options.”

PG&E has stated in their application that, in developing this program, they wish to remain consistent with the smart grid goals outlined in SB 17, which include “deployment and integration of cost-effective distributed resources and generation, including renewable resources.” The Clean Coalition remains committed to ensuring that the PG&E Smart Grid deployment pilot project upholds these objectives. However, the Smart Grid Pilot Deployment Plans submitted by PG&E do not adequately address how PG&E will prepare the grid for higher levels of renewable energy penetration. Thus, the Clean Coalition does not recommend approving the application until PG&E provides further information regarding how to address these increases and any future plans as to how the grid will be prepared for these increasing amounts of local energy as this pilot moves forward.

Another priority of the Clean Coalition as it pertains to this proceeding is how this and any future smart grid pilot program fits into the larger objective of California’s clean energy future; in particular, Governor Brown’s 12,000 MW RPS goal to be met by 2020. However, there is little mention in PG&E’s application of how this pilot will achieve or exceed any particular energy goal, other than PG&E stating that they will be deploying and integrating “cost-effective distributed resources and generation, including renewable resources.”¹¹ These are important elements to consider for both modernizing the grid and the implementation of a new smart grid pilot deployment program as we move forward towards meeting California’s clean energy goals.

A pilot of this nature should work towards a larger objective, and the 12,000 MW goal should have a priority in PG&E’s objectives, as this pilot program is well within the

¹¹ A. 11-11-017: SMART GRID PILOT DEPLOYMENT PROJECT APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E), p. 9 (November 21, 2011).

timeframe of 2020. It is the position of the Clean Coalition that this 12,000 MW goal should be considered in this application, as any smart grid should move California towards meeting and exceeding its clean energy goals.

III. Ratepayer Costs and Benefits

As stated in the application, PG&E requested funding for its Smart Grid Deployment Project up to \$109 million from 2013 through 2016, with an associated revenue requirement of approximately \$39 million over the same period. The benefits that PG&E describes include that “these projects and initiatives could achieve approximate benefits over 20 years of: \$550 million to \$1.1 billion in avoided energy procurement costs, \$80 million to \$100 million in avoided operation and maintenance costs and 5 to 9 percent improvement in system reliability.”¹²

The Clean Coalition remains committed to ensuring that the ratepayers are receiving the full benefits of this program at the lowest cost possible. It is a strong position of the Clean Coalition that WDG is the most cost-effective and timely renewable energy market segment in California, and policies supporting WDG have already been acknowledged by this Commission, the CEC, the California legislature and Governor Brown. PG&E’s pilot program is a costly one, and every measure should be taken to ensure that this program provides for the inclusion and implementation of WDG, which is the most cost effective degree of providing ratepayers with the highest benefits of clean local energy at the lowest cost. However, there has been little mention as to how PG&E will be implementing its smart grid pilot program to prepare the grid for high penetrations of WDG nor if the pilot will emphasize the use of WDG. As PG&E describes the costs and benefits of this pilot, the Clean Coalition believes that the investments to increase WDG will actually keep costs low and maximize benefits to the ratepayer.

¹² A. 11-11-017: SMART GRID PILOT DEPLOYMENT PROJECT APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E), p. 2 (November 21, 2011).

IV. RECOMMENDATIONS

The PG&E Smart Grid Pilot Program as outlined in both the application and the prepared testimony does not adequately enable and integrate WDG. Based upon the discussion included in this testimony, the Clean Coalition respectfully recommends that the application not be approved by this Commission until PG&E provides further information as to how it will be preparing the grid for high penetrations of clean local energy, consistent with the objectives set in SB 17 and PG&E's own goals for this pilot program. The Clean Coalition makes this recommendation based upon our policy position that investments in preparing the grid for high penetration of WDG provides ratepayers with the highest benefits of clean local energy at the lowest available cost.

In addition, the Clean Coalition does not recommend that this application be approved by this Commission without the consideration of how this smart grid pilot program will fit into the larger objectives of the state of California to meet its near-term and long-term DG and renewable goals as PG&E continues to modernize the grid.