Pacific Gas and Electric
2012 RPS Plan: Assumptions for Net Short Quantitative Analysis
April 23, 2012

I. General Assumptions in PG&E's Deterministic Delivery Forecast

	Assumptions
Bottoms-Up Delivery Assumptions (Signed Contracts) *Excluding RAM and PV program*	• Except for the contract categories described below (see *Proposed OFF Criteria for Deterministic Forecast* below on page 4), all signed contracts are assumed to deliver at 100% of contract volumes, and deliveries start at current best estimate of commercial operation date (COD), or expected commercial operation date (ECOD) if different.
Operational Projects *Contracts Executed Post-2002*	• Forecast is based on contract volumes or three year historical average output (for projects with at least a full calendar year of deliveries if more than 12 months of actual delivery data is available). • Year 2012 deliveries: Recorded meter data replaces forecasted deliveries for all projects as it becomes available.
Baseline Non-Hydro *Pre-2002, QF Contracts*	• PG&E forecasts non-hydro QF projects at 95% of their 3-year average output (2008 – 2010), with the slight reduction based on the observation that, for a variety of reasons, these older resources (as a portfolio) have tended to under-deliver when compared to their average historical performance. • Year 2012 deliveries: Recorded meter data (as available) replaces forecasted deliveries for all projects.

Baseline Small Hydro *Pre-2002 QF, Irrigation District, and legacy utility-owned assets*	• Projects are forecast at 75% of normal for 2012 (based on PG&E's latest internal hydro delivery forecast), 91% of normal for 2013, and 100% of normal for future years. • Year 2012 deliveries: Recorded deliveries are used in place of forecasts as they become available.
Re-contracting	• For the following reasons this risk-adjusted forecast does not assume that expiring volumes are retained: 1. PG&E does not yet have contractual commitments for these expiring volumes; 2. A number of the expiring contracts are with aging generating facilities with limited remaining useful life; 3. Contract-renewal bids may not be competitive with offers for new projects received in the current or future solicitations; and 4. Assuming re-contracted volumes obscures PG&E's current real need for additional energy in later years. • Re-contracting is not precluded by this assumption, but rather it reflects that re-contracting will be considered in the future side-by-side with procurement of other new resources. • This forecasting methodology (i.e. not assuming any re-contracting) is consistent with PG&E's semi-annual RPS compliance filing that only shows PG&E's current contractual commitments.
Shortlisted Projects *From 2011 Solicitation or Bilateral Offer*	• No shortlisted projects are included in PG&E's forecast. • Only executed contracts, or generic deliveries from pre-approved procurement programs (i.e., PV Program, RAM[1]) are included in PG&E's forecast.

[1] Expect to include generic deliveries from future AB 1969 contracts in a future iteration of Deterministic forecast model.

Future Volumes from Pre-Approved Programs	**Feed-in Tariffs (AB 1969)** • All deliveries from executed contracts are assumed at 100% of contract volumes. • Annual energy volumes are modeled based on PG&E's best estimate for project start dates/initial energy delivery date. • Expect to include generic deliveries from future contracts in next iteration of forecast model.
	Renewable Auction Mechanism (RAM) • Assume full program subscription (420.9 MW), and a projected technology mix of 20% baseload and 80% as-available product. • Assume first deliveries begin 24 months after contract execution for new projects (6 month regulatory approval, 18 month project development, 6 month max delay). • All deliveries from executed contracts are assumed at 100% of contract volumes, and modeled deliveries are adjusted upon contract execution.
	Solar PV Program (PPA) • Assume that deliveries from Project Years (PY) 2-5 are consistent with those of PY 1 (~105 GWh/year), and that projects come online after exercising maximum contract delays. • All deliveries from PY 1-5 are assumed at 100% of contract volumes. **Solar PV Program (UOG)** • For planning purposes, assume annual installation of 50 MW, and that PY 2-5 projects begin deliveries in Q3 of respective year.
Compliance Period and Reasonable Progress Target Assumptions	As implemented by D.11-12-020, retail sellers of electricity are required to procure the following quantities between 2011 and 2020: • Twenty percent of the combined bundled retail sales during the first compliance period (2011-2013). • A percent of the combined bundled retail sales during the second compliance period (2014-2016) that is consistent with the following formula: (.217 * 2014 retail sales) + (233 * 2015 retail sales) + (.25 * 2016 retail sales). • A percent of the combined bundled retail sales during the third compliance period (2017-2020) that is consistent with the following formula: (.27 * 2017 retail sales) + (.29 * 2018 retail sales) + (.31 * 2019 retail sales) + (.33 * 2020 retail sales).

Bundled Retail Sales	• Forecasts of 2011-2020 retail sales are generated by PG&E's *Rate Data Analysis* team every January, and may be updated throughout the year as additional data becomes avalable. • The same retail sales forecast is used in the semi-annual RPS Compliance Reports, LTPP and ERRA filings, and advice letter filings. • Monthly recorded sales replace forecasts as currentyear (e.g., 2012) progresses.

II. Proposed OFF Criteria for LSE Deterministic Delivery Forecasts

PG&E proposes that a number of factors be considere d when determining whether a project is counted (i. e., turned "ON" or "OFF") in any load-serving entity's (LSE) delivery forecast. Below is a list of potential circumstances under which an LS E may elect to turn a specific project OFF, although the listed criteria may not be exclusive. For instance, projects turned OFF may meet one or m ore of these listed criteria, or other criteria established in the future. Similarly, a project may meet one or more of these criteria, and yet still be counted in an LSE's delivery forecast. **All final assessments are project-specific and may not be limited to the criteria listed below.**

1. A new project that has failed to meet significant contractual milestones (e.g. GCSD, GCOD).

2. Project is not currently expected to meet significant contractual milestones based on the LSE's internal assessment of project's financing, permitting, and/or interconnection progress or challenges (as informed by project developers, permitting agencies, status of CAISO transmission studies or upgrades, expected interconnection timelines, and/or other sources of project development status data).

3. Project has faced significant CPUC approval delays (12 months or more after filing), or with no clear indication that it will be approved.

4. Project requires contract amendment in order to be commercially viable.

5. Projects that may have executed contracts, but not yet approved by the CPUC.

6. Projects that are no longer operating or are expected to cease operations based on the LSE's internal assessment.

7. Contracts for which the CPUC has directed LSE not to count in forecasting and planning (e.g. Solaren).