

**FORMS AND INSTRUCTIONS FOR  
ELECTRICITY DEMAND FORECASTS  
(Including Retail Price Information)**

**Prepared in Support of the 2009  
*Integrated Energy Policy Report***

**COMMITTEE FINAL REPORT**

December 2008  
CEC-100-2008-011-CTF



**Updates to  
Draft Demand Forecast Forms and Instructions  
For the 2009 Integrated Energy Policy Report<sup>1</sup>**

<b>DOCKET</b> 09-IEP-1C
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**Updates to Demand Forecast Instructions**

- 1) **Page 5.** Clarifying instructions are included for investor-owned utilities in regards to “committed” and “uncommitted” energy efficiency programs.
- 2) **Page 8.** Form 1.6 instructions are updated to match the revisions to the forms (see below).
- 3) **Pages 18-23.** Years 2004-2008 are changed to 2006-2008 to match revisions in Form 1.8a (see below).
- 4) **Page 28.** Instructions for Energy Efficiency expenses from Procurement Budget added to Form 8.1a(POU)
- 5) **Page 32.** Instructions for Form 8.3 deleted

**Updates to Demand Forecast Forms**

- 1) **Form List & Filer Info.** Columns are added to distinguish the type of entity to submit each form. Form 1.7c is included in the list of forms.
- 2) **Form 1.6a.** Columns are added to distinguish transmission planning area load and control area load where applicable.
- 3) **Form 1.6b.** The draft form is deleted and replaced by Form 1.6c. The draft Form 1.6c is renamed “Form 1.6b.”
- 4) **Form 1.7c.** This form was unintentionally omitted from the forms though the description of Form 1.7c was included in the draft instructions.
- 5) **Form 8.1a.** Years 2004-2005 are deleted.
- 6) **Form 8.1a(POU).** Row added for energy efficiency expenses paid out of procurement budget.
- 7) **Form 8.1b.** Years 2004-2005 are deleted.
- 8) **Form 8.3** Form 8.3 is deleted.

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<sup>1</sup>The updates to *Draft Demand Forecast Forms and Instructions for the 2009 Integrated Energy Policy Report* are incorporated in *Forms and Instructions Electricity Demand Forecasts Prepared in Support of the 2009 Integrated Energy Policy Report, Committee Draft Report*, to be presented at the California Energy Commission’s December 17, 2008 business meeting for possible adoption.

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# **CALIFORNIA ENERGY COMMISSION**

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### **DISCLAIMER**

This report was prepared by the California Energy Commission's Integrated Energy Policy Report Committee as part of the development of the 2009 Integrated Energy Policy Report – docket #09-IEP-1C. The report will be considered for adoption by the full Energy Commission at its Business Meeting on December 17, 2008. The views and recommendations contained in this document are not official policy of the Energy Commission until the report is adopted.

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## **ABSTRACT**

These electricity demand forms and instructions ask load-serving entities in California to provide information to the California Energy Commission. The information relates to electricity demand forecasts, demand-side management impacts, energy efficiency, private supply impacts, and related information for years 2009-2020 and historic years 1990-2008.

**Keywords:** Electricity demand, consumption, forecast, peak, self-generation, conservation, demand-side, energy, efficiency, price, retail, end-use.



# GENERAL INSTRUCTIONS FOR DEMAND FORECAST SUBMITTALS

## Introduction

To develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety, the California Energy Commission (Energy Commission) is directed by Public Resources Code (PRC) Section 25301 to conduct regular assessments of all aspects of energy demand and supply. These assessments serve as the foundation for analysis and policy recommendations to the Governor, Legislature, and other agencies in the *Integrated Energy Policy Report (IEPR)*. To carry out these assessments, "the Energy Commission may require submission of demand forecasts, resource plans, market assessments, and related outlooks from electric and natural gas utilities, transportation fuel and technology suppliers, and other market participant" (PRC Section 25301[a]). The Energy Commission's data collection regulations authorize these forms and instructions to collect data identified in CCR, Title 20, §1345.

The Energy Commission is preparing to undertake assessments for the 2009 *IEPR*. The adopted forecast, or range of forecasts, will provide a foundation for the analysis and recommendations of the 2009 *IEPR*, including resource assessment and analysis of progress towards energy efficiency, demand response, and renewable energy goals. Energy Commission forecasts are used in the California Public Utilities Commission (CPUC) procurement and resource adequacy proceedings, by the California Independent System Operator (California ISO), and in transmission planning studies. Energy Commission demand and supply assessments are also used in the *California Gas Report*.

To provide the Energy Commission and the public with the opportunity to consider a range of perspectives on demand trends, the Energy Commission is requesting electricity demand forecasts, demand-side management impacts, as well as energy efficiency and private supply impacts from uncommitted new or expanded programs to achieve broad goals established by regulatory agencies, and related information from all load-serving entities (LSEs) with annual peak demand greater than 200 megawatts (MW). These submittals are to be prepared and documented according to the attached instructions.

Separate documents will direct the contents and format of resource planning information. Each LSE should take care that the assessments submitted on the resource plan forms are consistent with the submitted demand forecast.

Definitions of terms used in the instructions are found at the end of this document.

## Who Must File

Data are requested from all load-serving entities whose annual peak demand in the last two years exceeded 200 MW.

Statutes found in the Public Resources Code and supporting regulations give the Energy Commission authority to require forecast submittals from all entities engaged in generating, transmitting, or distributing electric power by any facilities. This includes utility distribution companies (UDCs), energy service providers (ESPs), community choice aggregators (CCAs) permitted to operate under Assembly Bill 117 (Migden, Chapter 838, Statutes of 2002), and all other entities that serve end-use loads, collectively referred to as LSEs. However, according to existing regulations, small LSEs<sup>1</sup> need not comply with the complete reporting requirements but may be required to submit demand forecasts in an alternative abbreviated format established by the Energy Commission. For this specific *IEPR* proceeding, the Energy Commission is not requesting long-term forecast data using these forms from any UDC with peak demand less than 200 MW.

## Summary of Requested Data

UDCs are to submit Forms 1 through 6 and 8. ESPs are to submit Form 7, 8. A table indicating which forms are to be filled out by various participants is presented in the beginning of the Forms template.

- Form 1. Historic and Forecast Electricity Demand – annual sales and peak demand, private supply, and hourly loads.
- Form 2. Forecast Input Assumptions – economic and demographic assumptions and electricity rate forecasts.
- Form 3. Demand Side Management (DSM) Program Impacts and Costs (Committed and Uncommitted), including demand response and distributed generation program impacts.
- Form 4. Forecast Methodology Documentation
- Form 5. DSM Methodology Documentation (Committed)
- Form 6. DSM Methodology Documentation (Uncommitted).
- Form 7. ESP Load Forecasts
- Form 8. Price and Rate Forms

## Changes From 2007 IEPR

This data request is largely the same as the 2007 *IEPR* demand forecast data request, except for the following notable additions:

- The Methodology section requires substantially increased documentation about methods used to quantify impacts of energy efficiency programs in the demand forecast.

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<sup>1</sup> A small LSE is one that has experienced a peak demand of 200 megawatts or less per year in both of the two calendar years preceding the required data filing date and is owned or operated by a public government entity or regulated by the California Public Utilities Commission.

- Abbreviated versions of the Retail Electricity Price Forms (Form 8.1 - 8.2) have been included as part of these Demand Forms in lieu of submitting separate Retail Electricity Price Forms as was required in the 2007 IEPR process.

## Due Date

Forms must be submitted to the Energy Commission on or before February 13, 2009. LSEs that require additional time may request an extension by submitting a written request to the Executive Director, as described in California Code of Regulations, Title 20, Article 2, Section 1342. The data do not have to be distributed to the IEPR service list.

## Submittal Format

To expedite the forecast comparison and review process, an Excel template with formats for each form in 1, 2, 3, 7 and 8 is provided. While it is preferred that filers use this template, participants may provide these results in their own format as long as the equivalent information is provided and the information is clearly labeled.

Parties submitting data without a request for confidentiality are requested to submit a diskette, compact disk, or electronic file containing the data and documentation:

By electronic mail to:

Docket@energy.state.ca.us

Please include "Docket #09-IEP-1C Demand Forecast" in the subject line.

Or by mail to:

California Energy Commission  
Docket Office  
Attn: Docket 06-IEP-1C  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512

## Confidentiality

For the 2009 IEPR submissions, a modified process will be pursued to address confidentiality. A *Guide to Confidentiality Designations* covering demand, supply and other planning data will compile previous Executive Director designations. This will serve as a guide for entities wishing to submit confidentiality requests but are unclear how similar requests have been handled in the past. While this guide is not a definitive determination, it provides a reference for consideration by applicants.

If you are requesting confidentiality for any part of your submittal, please read and carefully follow the instructions in the Appendix "How to Request Confidentiality."

## **Protocols for Submitted Demand Forecasts**

In general, the demand forecast submitted should be the most likely projection of unmanaged total consumption. Unmanaged consumption means that the forecast should not include uncommitted DSM, and total consumption means that the forecast should include total electricity usage irrespective of the type of LSE, although locally supplied energy is reported separately from sales. Because one use of these forecasts will be to provide a basis for resource assessments, total consumption at the end user level must be adjusted by losses to reflect total usage at the generation level. Since local private supply reduces system requirements and losses, forecasts of local private supply are also required from distribution utilities.

The primary purpose of most of the data requested is for each UDC to provide its view of demand trends and document the methods and data it uses to develop its forecast. Some data are also used for development of the staff forecast. The Energy Commission is not requiring the use of specific forecasting methods.

General instructions on how the forecast is to be submitted:

- UDC forecasts are to project expected electricity demand for 2009-2020. Data for 2008 should represent the UDC's best estimates available at the time of filing. ESPs should provide projections for the period through which they have contracted load.
- UDCs are to provide forecasts for both their expected "bundled" customers (customers to whom they provide both generation and distribution services) and for all customers to whom they provide distribution services, including direct access, CCA load, and any other form of LSE providing generation services to end users. Bundled load is reported on Forms 1.1 and 1.3, and total load on Forms 1.2 and 1.4.
- UDCs are to prepare demand forecasts using either:
  - (A) Franchise service area defined by applicable state law or regulatory decisions lawfully determined by the CPUC, or
  - (B) A definition of distribution utility service area that has been mutually agreed upon by the distribution utility and Energy Commission staff.
- Impacts of demand-side management (DSM) and demand response programs on energy and peak demand should be provided according to the guidelines below:

Section 1345 of the Energy Commission's regulations (found in Title 20 of the California Code of Regulations) requires that demand forecasts are to account for all conservation "reasonably expected to occur." Since the *1985 Electricity Report*, reasonably-expected-to-occur conservation programs have been split into two types: committed and uncommitted. This demand forecast continues that distinction. Committed programs are defined as programs that have been implemented or for which funding has been approved. While

conservation "reasonably expected to occur" includes both committed and uncommitted programs, only the effects of committed programs should be included in the demand forecast.

For the IOUs, committed conservation programs are those programs funded through 2008. The revised 2009-2011 program plans scheduled to be filed February 2, 2009, according to the November 25, 2008 CPUC Scoping Memo and anticipated to be approved in the CPUC Energy Efficiency Rulemaking Proceeding (R06-04-010) in summer 2009 should be filed as uncommitted impacts. Should the revised programs be adopted and funded before the revised forecast adoption, these programs will be considered as "committed" programs in the revised forecast. Currently for post-2008 programs, forecasts should include as committed the effects associated with the 2006-2008 level of programs only if they represent impacts associated with replacement of aging building stock and equipment, or installation of new stock and equipment at efficiency levels that comply with current building and appliance standards. Also considered "committed" programs are programs covered by "bridge" funding for 2009. Staff will work with the IOUs as part of the newly formed Energy Efficiency working group to better define the filing status of these programs as the current CPUC time frame unfolds. Uncommitted effects are defined as the incremental impacts of post-2011 programs, impacts of future unfunded programs, and impacts from expansion of currently funded programs.

For publicly owned utilities, "committed" means the governing board for a municipal utility has authorized spending for at least a preliminary program plan from which impacts can be quantified.

Information about uncommitted programs designed to pursue the goals established for an LSE's energy efficiency or private supply activities by a regulatory agency should be submitted separately and not commingled with the impacts and descriptions of committed programs impacts.

The term "demand response" encompasses a variety of programs, including traditional direct control (interruptible) programs and new price-responsive demand programs. For this filing, a key distinction is whether the program is dispatchable. Dispatchable programs are defined here as programs with triggering conditions that the customer does not control and cannot anticipate, such as direct control, interruptible tariffs, or demand bidding programs. Programs with triggering conditions are dispatchable whether they are a day-of or day-ahead trigger, and whether the trigger is economic or physical.

LSEs should treat energy or peak load saved from dispatchable programs as a resource and not a reduction to the demand forecast. Nondispatchable programs are not activated using a predetermined threshold condition but allow the customer to make the economic choice whether to modify its usage in response to ongoing price signals. Impacts from committed *nondispatchable* programs should be included in the demand forecast, for example, load reductions at on-peak hours subtracted from the "base" forecast and load building or load shifting in off-peak hours added to the "base" forecast.

To summarize, parties submitting demand forecasts are required to include the energy and peak impacts of all committed conservation and nondispatchable demand response in these demand forecasts. The impacts of uncommitted conservation and nondispatchable demand response programs and committed and uncommitted dispatchable demand response programs are to be excluded from the demand forecasts but reported in Form 3 as appropriate.

- The demand forecast and aggregate forecast of demand response and uncommitted DSM impacts should be consistent with the data submitted in the electricity resource plan forms.

# SPECIFIC INSTRUCTIONS

UDCs are to complete Forms 1 through 6, and 8 only. ESPs complete Forms 7 and 8 only.

## Form 1 Historic and Forecast Electricity Demand

Several forms request data by sector. Definitions of the sectors used in the Energy Commission forecast models are listed in the Definitions section at the end of this document. However, UDCs that use other sectors or customer classes to develop their forecast should modify forms as needed to report the forecast using their own categories and document their sector or customer class definitions.

### *Form 1.1 Retail Sales of Electricity by Class or Sector*

Form 1.1 is for the entry of total retail sales of electricity to bundled customers, measured on the customer side of the meter in gigawatt hours (GWh). Each UDC should modify the sectors listed on Form 1.1 template to reflect the sectors or classes by which they forecast.

This form also asks for documentation of the amount of load assumed to be migrating to or from the UDC and load growth associated with previously unserved areas. If the forecast of departing load is based on historical trends, this form should report those historical data.

### *Form 1.2 Distribution Area Net Electricity or Generation Load*

Form 1.2 is for the entry of electricity deliveries in GWh by type of customer and the addition of losses to calculate utility system energy requirements. Each UDC should report deliveries for the following categories, as applicable:

- Sales to bundled customers (from Form 1.1)
- Deliveries to direct access customers
- Deliveries to customers of CCAs
- Deliveries to customers of other publicly owned departed or departing load (such as irrigation districts) in the UDC's distribution area.

Losses are to be calculated at generation busbar and should represent total transmission and distribution losses, as well as any other unaccounted-for losses in the system.

### *Form 1.3 Peak Demand by Sector (Bundled Customers)*

Form 1.3 accounts for coincident peak demand by sector as well as for losses. The coincident peak is the sector peak at the time of the distribution area peak. Reported losses should be calculated at the generation busbar and include distribution, transmission, and unaccounted-for energy. Peak demand for residential and commercial sectors should, if possible, be separated into base load or weather-sensitive peak demand.

UDCs should also show the amount of migrating load assumed in the forecast. IOUs should use this form to show the amount of load expected to be gained in newly developed areas, or lost to municipalized or "newly departed load." Publicly owned utilities (POUs) should identify expected load growth or loss from migrating load or newly developed areas included in their base forecast.

### ***Form 1.4 Distribution Area Peak Demand***

Form 1.4 is for the entry of peak demand and losses at the time of the distribution system peak by type of customer, where the categories provided are:

- Coincident peak demand and losses of bundled customers (from Form 1.3)
- Coincident peak demand and losses of direct access customers
- Coincident peak demand and losses of CCA entities
- Coincident peak demand and losses of other publicly owned departing or departed load (such as irrigation districts) that are still in the distribution area.

Losses entered should represent total transmission and distribution losses at generation, as well as any other unaccounted-for losses in the system.

### ***Form 1.5 Peak Demand Weather Scenarios***

This form records distribution area peak demand forecasts under high temperature conditions. The cases, referred to as 1-in-5, 1-in-10, 1-in-20, and 1-in-40, refer to peak demand under temperature conditions that have a 20 percent, 10 percent, 5 percent, and 2.5 percent chance of being met or exceeded, respectively. These conditions should be contrasted with the baseline weather condition of 1-in-2 temperatures that have a 50 percent chance of being met or exceeded.

### ***Form 1.6a-16b System Hourly Loads***

Form 1.6a reports actual system hourly loads and losses for 2007-2008 and forecasted hourly loads for 2010. If complete loads for 2008 are not yet available, filers are asked to submit at least through September 15, 2008. UDCs who have already submitted 2007 or 2008 loads to the Energy Commission through other data requests need not resubmit them.

MW in each hour reflects integrated end-user load and effects of committed demand-side programs and excludes private supply. IOUs are asked to report bundled and unbundled loads and losses separately. For historical years only, also provide the estimated amount of curtailed load resulting from triggering of demand response and interruptible programs. Finally, UDCs are asked for estimates of actual outages in hours with a significant amount of outages, such as during the heat storm of late July 2006. Outage estimates are of the most importance for summer peak periods.

Reporting entities are to report separate hourly loads for each distinct geographic footprint (distribution service area, transmission planning area, control area, where applicable).

Form 1.6b is for reporting hourly loads at a more disaggregate level of geography than 1.6a. The zones used should be climate zones or other geographic subareas used for transmission planning studies or rate making (if applicable to the respondent).

The template illustrates a preferred data layout; UDCs may submit equivalent data in other text, spreadsheet, or database formats (such as Access).



### ***Forms 1.7a–1.7c Private Supply Annual Peak and Energy***

Forms 1.7a and 1.7b allow for the reporting of local private supply by sector or customer class for both annual energy and annual peak demand coincident with the distribution area peak. Private supply includes self-generation, distributed generation on the customer side of the meter, "over-the-fence" sales from a cogeneration facility, or wheeling from a cogeneration facility to a final user. Energy and peak load forecasts should reflect how facilities are expected to operate, not simply installed capacity or potential energy. These forms represent the UDC's estimate of total private supply in the distribution area, including the effects of committed renewable and distributed generation programs reported on Form 3.3.

Policy decisions to pursue large goals of rooftop photovoltaic or other distributed generation on the customer-side of the meter, such as combined heat and power, implies greater needs for documentation of these influences on the demand forecast than in previous IEPR cycles. As with energy efficiency programs, committed and uncommitted program impacts should not be comingled, and uncommitted program impacts should not be included in the demand forecast. Such uncommitted impacts should be reported on Form 1.7c.

LSEs may provide additional forms if they wish to show other categories (for example, technology) of energy or peak demand in their filing.

## **Form 2 Forecast Input Assumptions**

Electricity demand forecasts are based in part on projections of economic and demographic variables. Document these projections on Forms 2.1 through 2.4. UDCs may provide these variables in their own format as long as the equivalent information is provided and the variables are clearly labeled. The deflator series used to convert variables from nominal to real values should be provided in these forms. If different deflators are used for different variables, each deflator series should be provided.

UDCs should document the methods used to develop the economic and demographic projections, including historical data sources, projected data sources, appropriateness of source for forecast and a discussion of the plausibility of those projections in the Form 4 methodology report.

### ***Forms 2.1 and 2.2 Economic and Demographic Variables***

Document economic and demographic variables used to develop the forecast as follows:

- Form 2.1: National, statewide, and/or regional projections, such as gross domestic and/or state product, personal income, per capita income, employment, population and aggregate measures of labor productivity.
- Form 2.2: Economic and demographic variables having narrower definitions and geographic limits, and that are used directly in an LSE's energy demand forecast models. Examples include employment and output by industry, local

population, and population by age groups, households and/or housing by housing type, taxable sales.

Only those variables actually used to develop the forecast need be reported. UDCs, particularly those with large geographic planning/service areas, should provide any sub-utility regional breakdowns of population and income projections used in the development of the economic, demographic, or energy forecasts. Sub-utility regions may be individual counties, groups of counties, and/or weather zones.

It must be emphasized that variables need to be precisely defined. For example, population estimates should be accompanied by an identification of the source of the estimates and whether the estimates are midyear or end of year and whether the estimates are for total population, civilian population, household population, or other subgroups.

### ***Form 2.3 Electricity Rate Forecast***

Form 2.3 allows for the reporting of projected electricity prices for the sectors or classes used to develop the forecast. The price forecasts should be reported using the same customer sectors or classes as Form 1.1. Prices should not include city taxes. Electricity prices are to be presented in 2007 cents per kilowatt hour (kWh). Provide the deflator series used to convert nominal to real prices or real to nominal prices. Where the electricity price projections are derived from a specific resource supply plan, those plans should be documented or referenced.

### ***Form 2.4 Customer Counts and Other Inputs***

Form 2.4 provides recorded and projected customers counts by major customer sector as used to develop the forecast. These customer counts should reflect end users with whom the UDC has a generation services relationship. For example, an investor-owned utility (IOU) should not report all customers in its service area, but only the bundled service customers. The most convenient consistent series is acceptable, but a narrative should explain the units reported (for example, number of customers or number of accounts), and whether the annual values are derived from a specific point in time, a specific month, an average of months across the year, or other methodology.

### **Load Migration Drivers and Other Assumptions**

Economic, demographic, and energy price projections may not exhaust all variables used by the participant to "drive" the energy demand forecast model(s). In particular, UDCs should identify the data used to project expected load migration. Some utilities may evaluate such factors as the amount and zoning of undeveloped land within the boundaries of the utility district; local residential, commercial, and industrial development policies; local population and income trends; annexation policies; and the general plan of the municipality. If other input assumptions affect the forecast, it is critical that they be documented. Provide narrative and spreadsheets as appropriate.

## **Form 3 Demand Side Management (DSM) Program Impacts**

This section of the forms and instructions summarizes the format requirements for reporting:

- Historical and forecasted energy and coincident peak impacts of conservation, load shifting, demand response, and distributed generation and renewable programs, both committed and uncommitted.
- Costs of DSM programs.

Peak impacts should represent the expected impact at the time of distribution area peak. Alternatively, UDCs may report average impacts during their peak period. Each UDC should document what the peak impacts represent and which hours they consider their peak period.

All reported impacts should reflect net savings, defined as the change in load attributed to the program adjusted for the effects of free drivers, free riders, state or federal conservation standards, changes in the level of energy service, and natural change effects.

These forms request data by market sector, such as residential, commercial, industrial, and agricultural. UDCs may modify the sectors used as needed to be consistent with the UDC analysis and forecasting methods.

Documentation of the methodology used to estimate impacts for each program should accompany these and are to be presented in Form 5.

### ***Form 3.1a and b, and 3.2 Energy Efficiency Costs and Impacts***

These forms record the costs and impacts of energy efficiency programs. Each program entry should specify whether the program is committed or uncommitted. Uncommitted program impacts should not be included in the demand forecast. Form 3.1 is for first-year impacts and total costs by program category and sector. Form 3.1b reports program costs for each program by cost category. The following categories are requested for program costs: Administrative, Incentives, Measurement and Evaluation, and Participant cost.

Form 3.2 is for reporting of cumulative impacts by program and sector through 2020. Cumulative savings refers to all savings that can be attributed to a program in a given year. Cumulative savings is equal to current first-year savings plus residual savings from previous-year impacts.

On Forms 3.1 and 3.2, IOUs should also provide the estimated total impacts associated with bundled customers only. To the extent IOUs wish to provide backup information about program impacts that covers both bundled and direct access customers, this is acceptable as long as there is a supplement explaining the adjustment to identify the portion of impacts that is expected for bundled service customers.

### ***Form 3.3 Renewable and Distributed Generation Programs***

Form 3.3 reports the costs and expected energy and coincident peak impacts of customer-side of the meter renewable and distributed generation programs, including engine, turbine, microturbine, photovoltaic, wind, and fuel cell technologies. This should include any program

that results in displaced utility sales to the end user through self generation or distributed generation, but not all distributed generation. Distributed generation that adds power to the grid should be reported in resource plans.

In particular, IOUs should report projected impacts of the Self Generation Incentive Program and the California Solar Initiative. Public utilities should include impacts of current solar and other renewable programs and planned programs to comply with Senate Bill 1 (Murray, 2006, Chapter 132, Statutes of 2006).

Energy and peak impacts should be reported as distributed generation facilities are expected to operate, not based on installed capacity or potential energy. Thus, there is an interaction with retail electricity rates, fuel prices, and how end users choose to operate these facilities.

### ***Form 3.4 Demand Response Program Costs and Impacts***

Form 3.4 should report costs and expected coincident peak impacts for each demand response and interruptible program. Programs should be identified as committed or uncommitted, and dispatchable or nondispatchable, as discussed in Item 4 in the section on Protocols for Submitted Demand Forecasts.

## **Form 4 Demand Forecast Methods and Models**

Each LSE shall document the electricity demand forecast methods and models used to develop the submitted forecast and shall include a discussion of the following topics.

### ***Demand Forecast Methodology***

Explain the conceptual basis of the forecast:

- The energy modeling approach.
- The definition of customer classes, including which rate classes are included in the categories for which forecasts are submitted.
- Economic and demographic data used.
- Data sources. Define the area for which the forecast is developed. Identify isolated loads and resale customers and describe how they are included or excluded.

Describe model capabilities in forecasting electricity demand components (such as end uses, fuel types, or structure types) and key forecast model structural equations (econometric relations, other behavioral equations, and identities). Algebraic variables and computer mnemonics should be defined. For sector models developed using aggregate econometric methods, provide data for the independent and all dependent variables for the entire estimation period. Report all standard statistical parameters for econometric models. LSEs may include existing forecast model reports as an appendix to this form if this report includes a brief summary.

Since the emphasis in the 2009 IEPR cycle for demand forecasts is on gaining improved knowledge about energy efficiency and other demand-side measures included in demand

forecasts, the methodology section should explicitly discuss how such impacts are incorporated into the final forecast for each sector. Methods might include:

- Direct inclusion of use of end-use models and appropriate inputs characterizing the impacts of standards or programs.
- Calculation of the difference from an unmitigated forecast without program savings in the historic or forecast period and a forecast with both historic and forecast program savings included.
- Separately computed savings for programs from other analytic techniques with some or all of these savings subtracted from a “raw model output” to produce the final forecast.
- Other techniques.

The description of how this is accomplished should be explicit for each sectoral energy model and for peak demand. Savings estimates used in the historic period to adjust historic sales by sector should be provided as well as estimates used for the forecast period.

Discuss how the submitted forecast is reasonable in light of economic, demographic, price, demand-side management, and state policy trends. Discuss the reasonableness of differences between historic and forecast growth patterns.

Describe the methods and data used to develop the historic and projected peak loads of sectors or customer classes reported in Form 1.3.

### ***Historic Forecast Performance***

Report and discuss the past performance of the forecasting method, including comparison of previous forecasts to actual annual weather-adjusted peak and energy demand.

### ***Estimates of Direct Access, Community Choice Aggregation, and Other Departed Load***

Distribution utilities should describe the methods, assumptions, and data used to forecast direct access, community choice aggregation, and other departed load reported in Forms 1.2 and 1.4. This should include a list of current and projected ESP and CCA entities in the distribution utility’s planning area.

POUs that anticipate load growth from newly acquired load should identify the areas in which they are acquiring load and describe the data sources used to account for that load growth. IOUs should describe the methods and data used to account for expected migrating municipal load in their forecasts. Data used to account for migrating or newly departed municipal load should be reported in Form 1 or 2 as appropriate.

### ***Local Private Supply Estimates***

Describe fully the methods, assumptions, and data sources used to develop both historic estimates and future projections of committed program impacts in Forms 1.7a and 1.7b. Report uncommitted program impacts in Form 1.7c. These are identified as potential impacts that might be achieved by one or more programs in pursuit of goals established by regulatory agencies., but which have not yet been funded or for which final program design details established. Because these are expected energy and on-peak effects, they require estimates of

how facilities will actually be operated. Indicate the degree to which conservation efforts, financial incentives, and interruptible programs and negotiated rates have been incorporated into the self-generation forecast. Separate reports may be attached as long as these demand forms include a brief summary.

### ***Weather Adjustment Procedures***

Describe the meteorological parameters used for adjusting the forecast to normal weather conditions and the sources of the meteorological data, including:

- Names and locations of the weather stations used.
- Weights used for each weather station.
- Temperature variables used, such as daily maximum, heating and cooling degree days, or apparent temperature values used.
- Base values of the temperature variables used and annual data used in the adjustment process.

UDCs should also describe the methods and assumptions used to develop the high temperature cases (1-in-5, 1-in-10, 1-in-20, and 1-in-40) reported in Form 1.5. Provide a narrative discussion of the baseline peak temperature assumptions, how the high temperature scenarios were developed, sources for the weather data, and the methods used to develop the temperature probability distributions.

### ***Forecast Calibration Procedures***

Most forecasts are calibrated to historic energy consumption and peak demand to "scale" the backcast to more closely coincide with historic data. Provide a comprehensive description of the method of forecast calibration.

The *Quarterly Fuel and Energy Report* (QFER) system is the principal source of data on historical sales of electricity by economic sector for the Energy Commission staff's demand forecast calibration procedure. In December 2008, Energy Commission staff will provide each participating LSE with a copy of its QFER sales data on file by sector code for 1990 through 2007 for review.

### ***Energy and Peak Loss Estimates***

Forms 1.2, 1.3, and 1.4 include estimates of losses. Describe fully the method and data sources used to develop historic and forecast energy and peak losses. If the method uses a loss factor, specify what that factor is and discuss if that factor varies by year or by customer sector.

### ***Hourly Loads by Subarea***

Provide definitions of the subareas for which hourly loads in Form 1.6b are provided. Attach a file with geographic identifiers, such as zip codes, that define the region covered by each zone. Also, describe the source of the data, if from metered load, or the methods used to develop the subarea loads, as applicable.

### *Economic and Demographic Projections*

UDCs are required to provide documentation of the methods used to develop the economic and demographic projections reported in Form 2 and a discussion of the plausibility of those projections. They may include an economic and demographic methodology report as an appendix to this form. Documentation should include historical data sources, projected data sources, and appropriateness of source for forecast.

## **Form 5 Committed Demand-Side Program Methodology**

### *Efficiency Program Costs and Impacts*

Work papers should be provided to document the estimated load impacts provided. Describe how the peak and energy impacts are calculated. Describe the basis or method used to estimate how first-year impacts might change over time. Document the net-to-gross ratios used to convert gross measure or program impacts into net impacts. Describe how the per-measure impact estimates are aggregated and how any interactive effects between the measures are estimated or accounted for. List any studies or sources relied on to support these assumptions.

Discuss and document the different funding sources used and how funds are allocated to programs.

### *Demand Response Program Costs and Impacts*

Discuss how the estimates of peak impacts for each program are derived. Describe assumptions about eligible population, participation rates, price elasticities, wholesale market conditions, and prices used to develop the projections. Describe the method used to develop estimates of nondispatchable program impacts and the extent to which the forecast is consistent with recent program performance. For dispatchable programs, describe what criteria will be used in deciding whether to dispatch and how they will be operated to reduce the peak. For example, will the dispatch signal be sent each year to all or most customers, or only during emergencies, or on days when peak load passes a critical value?

### *Renewable and Distributed Generation Program Costs and Impacts*

Discuss how the estimates of energy and peak impacts for each program are derived, for both uncommitted and committed programs. In particular, describe in detail the method and data used to project impacts of solar programs. Describe assumptions about eligible population, participation rates, price elasticities, fuel prices, wholesale market conditions, and prices used to develop the projections. Describe what criteria are used in deciding how to model customer decisions to use these facilities in peak shaving or baseload modes.

## **Form 6 Uncommitted Demand-Side Program Methodology**

### ***Efficiency Program Costs and Impacts***

Work papers should be provided to document the estimated load impacts provided for uncommitted energy efficiency programs. Describe how the peak and energy impacts are calculated. Describe the basis or method used to estimate how first-year impacts might change over time. Document the net-to-gross ratios used to convert gross measure or program impacts into net impacts. Describe how the per-measure impact estimates are aggregated and how any interactive effects between the measures are estimated or accounted for. List any studies or sources used to support these assumptions.

Discuss and document the different funding sources used and how funds are allocated to programs.

Discuss the current status of programs included in the uncommitted forecast. Describe the process that will lead to change in status from uncommitted to committed, and whether this status change is under the control of the LSE or imposed through regulatory requirements.

### ***Demand Response Program Costs and Impacts***

Discuss how the estimates of peak impacts for each uncommitted program were derived. Describe assumptions about eligible population, participation rates, price elasticities, wholesale market conditions, and prices used to develop the projections. Describe the method used to develop estimates of nondispatchable program impacts and the extent to which the forecast is consistent with recent program performance. For dispatchable programs, describe what criteria will be used in deciding whether to dispatch and how they will be operated to reduce the peak. For example, will the dispatch signal be sent each year to all or most customers, or only during emergencies, or on days when peak load passes a critical value?

Discuss and document the different funding sources used and how funds are allocated to programs.

Discuss the current status of programs included in the uncommitted forecast. Describe the process that will lead to change in status from uncommitted to committed, and whether this status change is under the control of the LSE or imposed through regulatory requirements.

### ***Renewable and Distributed Generation Program Costs and Impacts***

Discuss how the estimates of energy and peak impacts for each uncommitted program were derived, for both uncommitted and committed programs. In particular, describe in detail the method and data used to project impacts of solar programs. Describe assumptions about eligible population, participation rates, price elasticities, fuel prices, wholesale market conditions, and prices used to develop the projections. Describe what criteria are used in deciding how to model customer decisions to use these facilities in peak shaving or baseload modes.

Discuss and document the different funding sources used and how funds are allocated to programs.



Discuss the current status of programs included in the uncommitted forecast. Describe the process that will lead to change in status from uncommitted to committed, and whether this status change is under the control of the LSE or imposed through regulatory requirements.

## **Form 7 ESP Demand Forecast**

For each utility distribution area in which they serve load, each ESP should provide a projection of annual sales and peak demand for load currently under contract, for as many years as they have any contracted load. The variables to be reported, by utility distribution area, are:

- Annual Metered Sales: Projected annual sales for customers under contract, before any losses, in megawatt-hours (MWh).
- Annual Peak Demand in MW. This should include distribution losses, comparable to settlement data.
- Customer Counts – Residential and Nonresidential. Note whether the units reported are number of customers or number of accounts, and whether the annual values represent a specific point in time, a specific month, or an average of months across the year.

The submitted load forecast should correspond to the loads the ESP will report on the forthcoming resource plan data request. ESPs may also choose, but are not required, to provide a forecast of expected load if that approach will be more consistent with the submitted resource information. Forecasts should not include reserve margins.

## **Form 8 Retail Price and Rate Forms**

### *General Instructions*

- Provide all financial data in nominal (current-year) dollars for historic data through 2008. Forecast data (2009-2020) should be provided in real 2008 dollars.
- For many electric utilities, some categories of financial data will amount to millions of dollars each year. Round off all financial data to the nearest thousands of dollars. For example, \$15,000,000 would be reported as \$15,000.
- All forms request only annual data. Some electric utilities maintain their financial records using a fiscal-year accounting system (for example, July 1 to June 30), while others use the calendar year (January through December). Each utility or ESP may use either fiscal year or calendar year data to report (or project) annual data, depending on which accounting system they normally use to report financial data. For utilities or ESPs that report based on a fiscal-year, the “year” is the starting year of the fiscal year.

## ***Form 8.1a Revenue Requirements by Major Cost Categories/Unbundled Rate Component***

Form 8.1a contains three separate forms --Form 8.1a (IOU), Form 8.1a (POU), and Form 8.1a (ESP). Each reporting entity must complete the form corresponding to their filing status. Investor owned utilities are to complete Form 8.1a (IOU), publicly owned utilities are to complete Form 8.1a (POU), and energy service providers are to complete Form 8.1a (ESP).

### ***Form 8.1a (IOU)***

This form provides each IOU's major costs in the recent past and estimates of major costs over the next 10 years. For 2006 through 2008, IOUs are requested to report their CPUC-authorized revenue requirements, not actual costs.

Form 8.1a (IOU) identifies 10 major revenue-requirement categories, most of which are based on the rate components displayed in IOUs' electricity bills for retail customers. These categories are Generation, Transmission, Distribution, Nuclear Decommissioning, Public Purpose Programs, Department of Water Resources (DWR) Bond Charge, Fixed Transition Amount/Trust Transfer Account, Ongoing Competitive Transition Charge, Regulatory Asset for Energy Recovery Bond (PG&E Only), Taxes and Franchise Fees, and Other Costs Not Already Reported.

The following instructions explain which financial information to report or project under these categories.

### **Generation Revenue Requirements**

The IOUs must base their generation revenue requirements upon the same quantities and types of electricity supply that they reported to the Energy Commission in their electricity-resource-plan submittals. The generation section of Form 8.1a (IOU), therefore, does not ask the IOUs how much electricity they expect to generate or purchase each year.

The Energy Commission staff divided the generation section of Form 8.1a (IOU) into six subcategories: utility-owned/retained generation and five types of purchased power.

Utility-owned/retained generation means generation built or acquired by the IOU that is either placed in the rate base or treated as a cost-based asset for rate recovery purposes. The utility-owned/retained generation section is further subdivided into six types of power plants:

- Nuclear
- Conventional Hydroelectric
- Hydroelectric Pumped Storage
- Natural Gas-Fired Generation
- Coal
- Renewables Portfolio Standard (RPS) "Eligible" Renewables

Conventional hydroelectric generators and hydroelectric pumped storage facilities are defined here as facilities that do not qualify as eligible for California's RPS. This definition avoids double-counting costs for electricity-generating facilities that are both hydroelectric and "RPS

‘Eligible’ Renewables.” Natural gas-fired generation includes all utility-owned/retained steam generation units, combined-cycle power plants, combustion turbines, and distributed generation facilities.

RPS “Eligible” Renewables are electricity-generating facilities that use one or more types of renewable energy resources or fuels to operate and that meet the RPS eligibility criteria. IOUs can aggregate revenue requirement dollar amounts for all types of renewable energy facilities.

The IOUs are requested to provide the following cost-related data for each type of utility-owned/retained generating facility: Fuel and Non-Fuel. Fuel-related revenue requirements are the sum of natural gas purchases, gas pipeline transportation, and gas storage. Non-Fuel revenue requirements are the sum of operations and maintenance expenses, depreciation, return on investment, and all other costs.

For conventional hydroelectric generation, projected “fuel” costs are for water rights. “Fuel” costs for hydroelectric pumped storage are the energy costs associated with off-peak pumping.

For utility owned/retained generation that is natural gas-fired or coal-fired, please provide the average annual fuel price that was used to report and forecast generation-fuel revenue requirements. Report both of these fuel-price data series in dollars per million British Thermal Units.

The Energy Commission-provided Excel worksheet will subtotal each year’s projected costs for each type of utility-owned generation. In addition, it will subtotal the revenue requirement amounts for all types of utility-owned generation.

Form 8.1a (IOU) next asks each IOU to provide financial data on historical, authorized revenue requirements and projected expenses for four categories of purchased power:

- California Department of Water Resources (DWR) contracts
- Supply contracts
- Residual market transactions (that is, short-term and spot market purchases)
- Payments to the California Independent System Operator for market charges.

The Energy Commission staff requests a breakout for each of the following types of DWR contracts:

- Must-take
- Capacity-charge/Economic Dispatch
- Renewables.

The Energy Commission staff also requests an expense breakout for the following three categories of Supply Contracts:

- Qualifying Facilities (QFs)
- Non-QF Renewables
- All Other Bilateral Contracts.

To avoid double counting, QF contract expenses that are recovered through the Ongoing Competitive Transition Charge (CTC) should not be included in this section of Form 8.1a, because a row in the Excel worksheet has been included for “Ongoing CTC” costs, including contract costs. Also, authorized revenue requirements and projected expenses for “Non-QF Renewables” contracts should not include “DWR Renewables” contracts.

The “All Other Bilateral Contracts” category is for reporting authorized revenue requirements and projected expenses for the sum of all other bilateral supply contracts. Examples of the types of bilateral contracts to include are:

- Forward energy
- Capacity
- Tolling agreement
- Physical call or put option.

Form 8.1a (IOU) has three final categories of supply contracts:

- Residual market transactions
- Payments to the California Independent System Operator for Market Charges
- Other resources.

Under “Residual Market Transactions,” the Energy Commission staff requests that IOUs report their authorized revenue requirements and projected expenses for electricity supplies purchased through both short-term contracts (less than three months) and spot-market purchases (for example, forward spot).

Under “Payments to the California ISO for Market Charges,” please report authorized revenue requirements and projected expenses for the following:

- Ancillary Services, including spinning reserves, non-spinning reserves, replacement reserves, regulation up, and regulation down
- Market Uplifts, including emissions cost recovery, start up cost recovery
- Energy, including day-ahead, hour-ahead, and real-time.

Under “Other Resources,” please provide cost projections for future power supplies not already reported in Form 8.1a as “Utility-Owned Generation” or as a type of “Purchased Power,” because the ownership of these supplies is unknown by the IOU at this time.

### **Transmission Revenue Requirements**

This section of Form 8.1a (IOU) is for collecting financial data regarding each IOU’s Federal Energy Regulatory Commission (FERC)-jurisdictional transmission assets. Energy Commission staff requests annual transmission-related authorized revenue requirements and cost estimates using the following categories that are based on four FERC-approved rates:

- Base Transmission Revenue Requirement.
- Transmission Revenue Balancing Account Adjustment.
- Transmission Access Charge Balancing Account.

- Reliability Services.

“Base Transmission Revenue Requirement” includes transmission system operations and maintenance, depreciation, and return on investment. “Transmission Revenue Balancing Account Adjustment” is an income credit for the California ISO’s transmission line operations and includes wheeling, firm transmission rights, and congestion management charge revenues. The “Transmission Access Charge Balancing Account” enables IOUs to collect revenues to recover costs for using others’ transmission systems. And the “Reliability Services” rate compensates IOUs for costs to operate reliability must-run generators for local voltage support.

To complete the “Base Transmission Revenue Requirement” row of this form, the IOUs are requested to provide authorized revenue requirements and projected expenses for network improvements (for example, line extensions and reliability upgrades) and large transmission projects it has identified in its five-year transmission plan with the California ISO. Beyond the term of its five-year plan (for example, 2011 or 2012), the IOUs are requested to provide cost estimates only for transmission network improvements.

### **Distribution Revenue Requirements**

This section of Form 8.1a (IOU) reports authorized revenue requirements and projecting expenses for each IOU’s CPUC-jurisdictional distribution assets.

Energy Commission staff requests data on the following expense categories be aggregated and reported in the row labeled “base margin.”

- Operations and maintenance
- Depreciation and amortization
- Return on investment
- All other costs.

“Operations and maintenance” expenses include supervision and engineering labor; load dispatching; substation, transformer, overhead and underground line operations; streetlight and signal operations; customer installation; and miscellaneous expenses.

In the row labeled “Customer Service,” please report authorized revenue requirements and projected expenses for the following operating expenses:

- Meter reading and field service
- Customer records, billing, and collections
- Customer service and information
- Telephone center operations
- All other customer-service activities.

In addition, the Energy Commission staff requests that IOUs provide information about authorized revenue requirements and projected costs to implement each of the following programs:

- Self-Generation Incentive Program
- Demand Response Program

- Advanced Metering Infrastructure
- California Solar Initiative.

### **Nuclear Decommissioning**

IOUs with cost responsibility for decommissioning a nuclear power plant are requested to report authorized revenue requirements and estimated future costs in this section of Form 8.1a (IOU).

### **Public Purpose Programs**

This section of Form 8.1a (IOU) collects annual cost projections for implementing each of the following public purpose programs:

- Low-income programs (including subsidies for medical/life-support equipment users)
- Energy efficiency
- Public interest energy research and development
- Renewable energy.

The Energy Commission staff seeks annual cost estimates only for those public-purpose programs that are funded by ratepayers through the electricity Public Goods Charge or Public Purpose Program Charge.

Although cost recovery for “procurement energy efficiency” is through a “Procurement Energy Efficiency Balancing Account” (PEEBA) surcharge, IOUs include the revenue requirement for PEEBA in their Public Purpose Program revenue requirement. Authorized revenue requirements and projected expenses for “energy efficiency” programs, therefore, should include both categories of ratepayer-funded energy efficiency programs.

### **DWR Bond Charge**

The Energy Commission staff requests each IOU to provide its forecast of annual costs for DWR revenue bond charges.

### **Fixed Transition Amount/Trust Transfer Account**

This section of Form 8.1a (IOU) collects each IOU’s annual forecast of costs associated with repaying revenue bonds issued to reduce rates for residential and small commercial customers under California’s electric industry restructuring plan.

PG&E calls its rate reduction bond charge the “Fixed Transition Amount,” while SCE and SDG&E refer to it as the “Trust Transfer Account.”

### **Ongoing Competitive Transition Charge**

Each IOU is requested to project total annual costs to be collected through the ongoing competitive transition charge. Energy Commission staff is not requesting a detailed break-out between generation (for example, CTC-eligible QF costs) and other costs included in this charge.

### **Regulatory Asset for Energy Cost Recovery Bond (PG&E Only)**

Energy Commission staff requests that PG&E staff provide data on recent authorized revenue requirements and projected expenses for its energy cost recovery bonds.

### **Taxes and Franchise Fees**

Please provide an annual estimate of future revenue requirements for taxes and franchise fees. Taxes may include federal income, state corporation franchise, property, payroll, business, and Superfund taxes. Franchise fees are those levied by city and county governments.

If an IOU's revenue requirement for "Taxes and Franchise Fees" is collected in another rate component (for example, Distribution) and the dollar amount has been included already in Form 8.1a (IOU) within that rate component, then the IOU need not report its "Taxes and Franchise Fees" expense separately. It should leave the "Taxes and Franchise Fees" row blank and provide a note explaining which rate component includes the "Taxes and Franchise Fees" expense.

### **Other Costs Not Already Reported**

Although the Energy Commission staff attempted to identify all major revenue requirement categories in Form 8.1a (IOU), the IOUs are requested to include a forecast of any other costs not already reported. These "other" costs need not be named.

### **Total Revenue Requirements**

The Excel worksheet will add up all of the separate costs to produce total revenue requirements. The worksheet also duplicates the annual values for total revenue requirements onto the top rows of Form 8.1b (Bundled) and Form 8.1b (DA).

### ***Form 8.1a (POU) Budget Appropriations or Actual Costs and Cost Projections by Major Expense Categories***

This form gathers financial data needed for both trend analysis and for forecasting retail electricity prices of California's major POU's.

Through this form, Energy Commission staff seeks to learn each POU's recent historical and projected annual revenue requirements. The form identifies three major cost categories: operating expenses, capital outlay, and debt service, plus appropriations from POU revenues into reserve funds, city general funds, or other municipal accounts.

The following instructions define what financial information to report or project under each cost category. For 2006 through 2008, POU's are requested to report their approved-budget appropriations or actual costs, whichever data is more readily available to the POU.

### **Operations Expenses**

A POU's operating expenses are its costs to operate and maintain its power generation, transmission, and distribution systems and to provide billing and information services to its customers and others. POU's governing boards or city councils adopt annual or biennial "operating expense" budgets that appropriate electricity sales revenues (and other income) to pay these expenses. The same costs identified in POU's operating-expense budgets will be reported and projected in this section of the form.

Form 8.1a (POU) organizes operating expenses into two broad categories: operations and maintenance of power production, transmission, and distribution assets; and customer-related expenses.

### **Power Production**

POUs' power production expenses include costs for labor, materials, fuel, supplies, and services of operating and maintaining utility-owned power plants; and for power purchases. Form 8.1a (POU) divides power-production expenses into two categories:

- Utility-owned generation
- Power purchases.

### **Utility-Owned Generation**

Utility-owned generation expenses are costs for operating and maintaining electric generating facilities that were built or acquired by the POU. Power plants built and jointly owned by multiple POUs through joint powers agencies (JPAs) are not included in this section of Form 8.1a (POU). Similarly, if the POU financed power plant construction through a subsidiary financing authority at that financing authority now has a power purchase agreement with the POU, that power plant is not "utility-owned generation."

Through Form 8.1a (POU), the Energy Commission staff requests data on operating and maintenance expenses for utility-owned generation by the following types of fuel or resource:

- Nuclear
- Conventional hydroelectric
- Hydroelectric pumped storage
- Natural gas-fired generation
- Coal
- Generation from renewable resources.

POUs may leave blank those rows in Form 8.1a (POU) for which they do not own a specific type of generating facility.

Costs are divided into two subcategories:

- Fuel expenses
- Other operations and maintenance expenses.

In addition to the fuel commodity (for example, natural gas), fuel expenses include labor for purchasing and handling fuel, payments for natural gas pipeline use or coal transportation services, payments for fuel-storage facilities, insurance, sales commissions, and residual disposal expenses. For hydroelectric facilities, fuel expenses include water purchases, and payments for licenses or permits for water rights, and payments for riparian rights. For hydroelectric pumped storage facilities, fuel expenses include electricity costs for off-peak pumping.



For both natural gas-fired and coal-fired power plants, the Energy Commission staff also requests each POU to provide its fuel price forecasts in dollars per million British Thermal Units.

“Other Operations and Maintenance” expenses include labor costs for operating and maintaining the structures and equipment used for electricity generation, and for supplies and operating permits.

### **Power Purchases**

Power-purchase expenses are costs to the utility for electricity purchased for resale. They include net settlements for exchanges of electricity or power, such as economy energy and for transactions under pooling or interconnection agreements.

Form 8.1a (POU) requests historical and projected cost details for the following categories of purchased power:

- Federal power
- Contracts with joint powers agencies (JPAs)
- Contracts with POU’s subsidiaries
- Bilateral contracts.

The Energy Commission staff did not ask for cost information about short-term and spot-market power purchases because these purchases are assumed to be a small share of the POU’s supply portfolio and their future costs, unpredictable.

### **Federal Power**

POUs are requested to provide cost information for power purchased and to be purchased from the Western Area Power Administration (Western). If a POU also has a contract with the Bonneville Power Administration, those power-purchase costs should be added to its Western supply costs and report as one annual total.

### **Contracts with Joint Power Agencies**

California’s POUs have co-funded many power plant (and transmission line) projects through many JPAs, including the Northern California Power Agency and the Southern California Public Power Agency. JPAs own these electricity generating facilities, but the participating POUs are obligated to help pay for a project’s capital and operating costs and debt service through contracts (that is, power purchase agreements).

Because POUs may have many power purchase agreements with different JPAs, Form 8.1a (POU) asks for power-purchase costs by type of generating facility. The types of generating facilities listed in the form are:

- Nuclear
- Coal
- Conventional Hydroelectric
- Natural Gas-Fired
- Renewable Resources.

### **Contracts with POU Subsidiaries**

POUs may have financed power plant construction through subsidiaries (for example, SMUD Financing Authority) rather than the POU itself issuing a revenue bond or another type of debt instrument. The POU subsidiary owns the electricity generating facility, but the “parent” POU is obligated to help pay for a project’s capital and operating costs and debt service through a contract (that is, a power purchase agreement).

In Form 8.1a (POU), please provide annual costs for purchased power from these subsidiaries. If more than one power purchase agreement exists, please report an aggregated total.

### **Bilateral Contracts**

Bilateral contracts are legally enforceable agreements between a POU and a supplier (for example, a broker or power plant owner) for electricity deliveries in the future. The terms and conditions of these contracts are set by the two contracting parties, but include the timing and delivery point of specific amounts of energy or capacity and the price (or a price-determining formula). Examples of bilateral contracts include are:

- Forward energy
- Capacity
- Tolling agreement
- Physical call or put option.

In Form 8.1a (POU), please divide the sum of all bilateral contracts for power supplies into the following subcategories:

- Renewable resource contracts
- All other bilateral contracts.

### **Other Resources**

Under “Other Resources,” please provide cost projections for future power supplies not already reported in Form 8.1a as “Utility-Owned Generation” or as a type of “Purchased Power,” because the ownership of these supplies is unknown by the POU at this time.

### **Transmission Expenses**

Form 8.1a (POU) provides three subcategories for reporting transmission expenses:

- Operations and maintenance of utility-owned transmission system
- Payments JPAs for transmission investments/services
- Other transmission-related expenses.

Operations and maintenance expenses of the utility-owned transmission system include the POU’s cost of labor, materials, and other supplies and services for operating (for example, load dispatching) and maintaining utility-owned transmission facilities. Transmission facilities include substations, switching stations, towers, poles, and overhead and underground lines.

California’s POUs have co-funded transmission line projects through JPAs, including the Transmission Agency of Northern California and the Southern California Public Power Agency. JPAs own these transmission facilities, but the participating POUs are obligated to help pay for

a project's capital and operating costs and debt service through service agreements. POU's are requested to report their annual payments to JPAs for these transmission investments/services. These expenses represent a POU's share of operating expenses, capital costs, and long-term debt service for JPA-owned transmission projects as well as other services.

POUs may use "other transmission-related expenses" to document costs for transmitting POU electricity over transmission facilities owned by others, such as the Western Area Power Administration, IOUs, and other private-sector owners.

### **Distribution Expenses**

POUs' distribution expenses include the cost of labor, materials, and other supplies and services for operating and maintaining utility-owned distribution facilities. Distribution facilities include substations, line transformers, voltage regulators, poles, overhead and underground lines, utility-owned streetlights and signals, and meters.

Each POU is requested to provide an aggregate of all its distribution-related operations and maintenance expenses (recent historical and projected) in this line of Form 8.1a (POU).

### **Customer-Related Expenses**

POUs' customer-related expenses include the cost of labor, materials, and other supplies and services for the following activities:

- Meter reading
- Billing and collection
- Service connections and disconnections
- Advertising.

In Form 8.1a (POU), please provide an aggregated annual sum for all customer-related service expenses. Do not include customer service and information expenses incurred to implement the POU's public benefit programs.

### **General and Administrative Expenses**

Form 8.1a (POU) requests recent historical and forecasted financial data regarding each POU's general and administrative expenses. General and administrative expenses include salaries and wages for POU officers and employees who provide services not assignable to a specific utility function (for example, generation, transmission, distribution, customer service). Other general and administrative expenses include property and injury-related liability insurance, employee pensions and benefits, and regulatory commission expenses.

For POU's that are electric departments, general and administrative expenses also include fund transfers for services provided to the electric department by other city departments, such as Finance, Human Resources, Mayor, City Manager, City Council, City Clerk, Administrative Services, Planning and Building Services, and Information Technology.

### **Public Benefit Programs**

POU's are required by state law to fund the following types of public benefits programs with a use-based charge on local distribution service:

- Demand-side management to promote energy efficiency and energy conservation
- Renewable energy resources and technologies
- Research, development, and demonstration programs
- Low-income rate discounts and energy efficiency services.

POU's must also fund a solar initiative program that invests in solar energy system installations on residential and commercial buildings.

Form 8.1a (POU) requests each POU to provide recent historical data and a forecast of its operating expenses to implement each of three public benefit programs:

- Low income
- Energy efficiency (that is, demand-side management)
- California Solar Initiative
- All other public benefit programs.

The costs of implementing other public benefit programs should be aggregated and reported separately in Form 8.1a (POU) as "All other public benefit programs."

#### **Energy Efficiency Expenses From Procurement Budget**

Expenses for energy efficiency programs paid from the generation or procurement budgets should be reported here.

#### **Operating Expenses Not Already Reported**

Form 8.1a (POU) includes this row for POU's to report and forecast all other operating expenses, if any.

#### **Capital Improvement Plan Projects**

All POU's have long-range plans, usually four to six years, that identify capital projects and equipment purchases. Some capital projects are financed by issuing debt instruments, while others are financed from the POU's annual revenues. A POU's governing board or city council appropriates utility revenues for selected projects through a capital improvement budget.

Form 8.1a (POU) requests annual financial data for capital project expenditures funded by utility revenues rather than debt instruments. Capital project expenditures are divided into the following project categories:

- Generation
- Transmission System
- Distribution System
- Other.

### **Generation**

Capital expenditures for utility-owned generation include the cost for land and land rights, structures and improvements, the installed cost of all power plant equipment, and asset retirement costs. Hydroelectric capital expenditures also include the cost of dams, reservoirs, and waterways.

### **Transmission**

Capital expenditures for the utility-owned transmission system include land and land rights, structures and improvements, and the installed cost of station equipment, towers and fixtures, poles and fixtures, overhead conductors and devices, underground conduit, underground conductors and devices, roads and trails and asset retirement costs.

### **Distribution**

Capital expenditures for the utility-owned distribution system include land and land rights, structures and improvements, and the installed cost of station equipment, poles, towers and fixtures, overhead conductors and devices, underground conduit, underground conductors and devices, line transformers, meters, street lighting and signal systems, and asset retirement costs.

Form 8.1a (POU) requests an aggregate of financial data on all distribution system capital improvement projects, except deployment of advanced metering systems.

### **Distribution Cost Detail on Advanced Metering System Projects**

Form 8.1a (POU) requests a separate breakout of recent and projected capital expenses to deploy advanced metering systems. POU's would install advanced meters to accomplish one or more of the following objectives:

- Reduce the cost to serve customers (that is, reduce labor costs for on-site meter reading and "back office" customer service)
- Offer time-based electricity pricing and incentives
- Develop demand-response capability
- Conduct load research (for example, gather information on time of use and peak load-shed opportunities)
- Enhance customer-communication capability.

### **All Other Capital Improvement Projects**

Please report the sum of all other types of capital improvement project expenditures in this section of Form 8.1a. Examples of other capital improvement projects include the following:

- Office furniture and equipment
- Transportation and power-operated equipment
- Stores equipment (that is, equipment used for receiving, shipping, handling and storing materials and supplies)
- Tools, shop and garage equipment
- Communication equipment.

POU's should also use this section of Form 8.1a (POU) to report capital improvement expenses associated with their public benefit programs, if applicable. Please add a footnote at the bottom

of this form that explains that the reported amount includes capital costs for public benefit-related projects.

### **Debt Service**

Debt service is the sum of a POU's repayments of principal and interest due each year on its outstanding long-term debt (for example, revenue bonds) and commercial paper notes, and trustee fees and debt issuance costs.

### **Reserve Fund Contributions**

POUs make annual contributions to various reserve funds, such as rate stabilization funds, insurance and accident reserve funds, bond payment reserve funds, and credit support collateral reserve funds.

Please provide an aggregated total of all contributions to the POU's various reserve funds.

### **Transfers to City General Fund, Payments In Lieu Of Taxes, and Other Fees**

When a POU is an enterprise business within a municipal governmental, the city charter may direct the electric utility department to make annual contributions to the city's general fund. Such contributions may also be referred to as "Payments In Lieu of Taxes." POUs may also pay other municipal fees, such as "right of way" fees.

Please provide recent historical and an annual forecast of annual payments to the city general fund and other municipal fees.

For POUs that are electric departments, do not include in this portion of the form fund transfers to other city departments for general and administrative services. Please include such transfers in the general and administrative line of the Operating Expenses section.

### ***Form 8.1a (ESP)***

The Energy Commission staff requests each ESP to provide data on its historical and future power-supply costs to serve existing direct access customers. Two power-supply cost categories are provided:

- Bilateral contracts
- Residual market transactions.

The Energy Commission staff requests an annual estimate of historical and future costs for all supply contracts, regardless of resource type or ESP-ownership interest. Supply contracts defined as bilateral contracts are contracts for energy and/or capacity entered into before the delivery time. Bilateral contracts include capacity-only contracts to meet resource adequacy requirements.

Residual market transactions are short-term (less than three months) or spot-market purchases of electricity from suppliers other than the California ISO. The Energy Commission staff is not requesting an ESP cost forecast of payments to the California ISO for market charges.

### *Form 8.1b (Bundled)*

Form 8.1b (Bundled) determines how each respondent will allocate its revenue requirements among its bundled-customer classes.

Form 8.1b (Bundled) focuses on the rate components through which the respondent collects the majority of its revenue requirements: the generation component and the distribution component. Energy Commission staff requests each respondent provide a detailed break-out of its total forecasted revenue requirements for the generation and distribution rate components.

All other revenue requirement categories (for example, transmission, public purpose programs, and so forth) should be aggregated. Please combine all other revenue requirement categories (for example, transmission, nuclear decommissioning, public purpose programs, DWR bond charge, rate reduction bond charge, ongoing CTC charge) in “All Other Revenue Requirements” section of Form 8.1b (Bundled). Each respondent must sum up annual revenue requirements for all of these other categories and then show on Form 8.1b (Bundled) how much of this sum of “other revenue requirements” will be collected annually from each class of bundled customer, as defined below.

Form 8.1b (Bundled) identifies five classes of bundled customers:

- Residential/Domestic
- Commercial
- Industrial
- Agricultural
- All other customer classes (for example, street lighting).

The customer classes listed above match those used by Energy Commission staff to forecast electrical demand; however, they may not match how some utilities define their commercial and industrial customer classes. Some respondents define their commercial and industrial customers by size only (for example, “small,” “medium,” and “large”), based on average monthly consumption and have rate schedules for similar-sized commercial and industrial customers. For example, small commercial and small industrial customers can be on the same rate schedule.

Thus, completing Form 8.1b (Bundled) may be a challenge for respondents with size-based systems for classifying commercial and industrial customers because rate schedules (and forecasted sales revenue) are not linked directly to discrete classes of “commercial” and “industrial” customers.

The Energy Commission staff recognizes this problem and recommends the following temporary solution. To overcome potential differences in how the Energy Commission and individual respondents define “commercial” and “industrial” classes, the Energy Commission staff requests that those respondents with size-based rate schedules use the following approach to assign rate schedules to either the commercial or industrial classes:

- Use rate schedules for small and medium-sized customers as the proxy for all “commercial” customers.

- Use rate schedules for large-sized customers as the proxy for “industrial” customers.

### ***Form 8.1b (Direct Access)***

Respondents are requested to complete Form 8.1.b (Direct Access) by projecting the annual total of revenue requirements they intend to collect from direct access customers, if applicable. Respondents that do not have direct access customers need not fill out this form. Energy Commission staff is not requesting a detailed breakout of projected costs by revenue-requirement category for this type of electricity customer. For example, the Energy Commission staff is not asking for a separate revenue-requirements forecast for the Direct Access Cost Responsibility Surcharge.

It does, however, request that each respondent separate and report the portion of its annual revenue requirements it intends to collect from the two types of direct access customer: residential and non-residential (all types, that is, of non-residential customer).

### ***Form 8.2 Utility Residential Electricity Sales by Baseline Percentages***

Residential customers from some California utilities buy electricity under a tiered pricing structure. Higher prices apply to electricity consumed in higher tiers. Tiers are defined as percentages of a daily baseline amount, which may vary by geographic region (baseline territory). Respondents whose residential customers do not face a tiered rate structure need not fill out Form 8.2.

By state law, IOU residential rates for Tiers 1 and 2 are “frozen” at prices paid in February 2001. Thus, all IOU residential rate increases are borne by consumers whose monthly consumption exceeds 130 percent of baseline (that is, Tier 3 and above).

Data provided under Form 3 will enable Energy Commission staff to study electricity-sales distributions under the tiered pricing structure.

This data is to be provided for both “all-electric” and “basic-use” customers separately. The Energy Commission staff requests that each respondent complete both versions of Form 3 by providing residential electricity sales data for 2006, 2007, and 2008 by 10 percent increments of baseline quantity by month.



## DEFINITIONS

**Bundled Customers:** Customers who receive both distribution and generation services from the same LSE.

**Cogeneration:** An arrangement whereby a utility or customer-owned facility sequentially produces thermal energy for process heat or space conditioning use and electrical energy for private use, or for sale to an electric utility, or some combination thereof.

**Customer Sectors:** Customer sectors used by the Energy Commission are defined using the following North American Industrial Classification (NAICS) categories.

	NAICS
Residential: private households, including single and multiple family dwellings.	RE00-RE39, 001-003, 814
Commercial	115, 2331, 326212, 42, 44-45, 48841, 493, 512, 514, 518-519, 52-55, 561, 61, 62 (excluding 62191), 71, 72, 81 (excluding 81293 and 814), and 92 (excluding 92811)
Industrial	11331, 21 and 23 (excluding 22131); 31-33, 511, and 54171
Agricultural	111, 112, 113, 114
Water Pumping	22131
Transportation, Communication, Utility (TCU)	221, 48, 49, 513, 517, 562, 62191, and 92811
Street Lighting	9225, 9226

**Dollar Denomination:** Unless otherwise specified, any dollar denominated variable is to be measured in 2007 dollars.

**Distributed Generation:** Electricity production that is on-site or close to the load center and is interconnected to the utility distribution system. Large generation facilities (such as qualifying facilities) that interconnect to the utility at transmission voltages would not be considered distributed generation.

**Utility Distribution Company (UDC):** A utility that owns and/or operates an electricity distribution system that interconnects end user loads with a generator serving more than one end user load or the interconnected transmission grid.

**Electricity Consumption:** The amount of electricity used to provide energy services through both utility sales and local private supply of electricity.

**Load-Serving Entity (LSE):** An umbrella term encompassing all entities that provide generation services to end-use customers, whether or not it owns or operates a distribution system. Examples are traditional investor-owned utilities, municipal utilities, energy service providers permitted to operate under applicable law, community choice aggregators permitted to operate under AB 117, and all other entities that serve end-use loads.

**Local Private Supply:** Local private supply is supply from self-generation, customer-owned distributed generation, private sales "over-the-fence" from a cogeneration facility, or wheeling from a cogeneration facility to a final user.

**Self Generation:** Any generation of electricity by a final user for his own use, regardless of the technology used. The portion of cogeneration retained for the customer's own use is self-generation even if this is a small portion of overall facility output.

# ELECTRICITY DEMAND FORECAST FORMS

## California Energy Commission 2009 Integrated Energy Policy Report Docket Number 06-IEP-1C

The following spreadsheets are the California Energy Commission (Energy Commission) forms for collecting data and analyses relating to electricity demand. The Energy Commission's statutes and regulations specify that a broad array of information can be collected and analyzed to prepare the **Integrated Energy Policy Report**. Specifically, Public Resources Code (PRC) Section 25301 directs the Energy Commission to conduct regular assessments of all aspects of energy demand and supply to that it may develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. To carry out these assessments the Energy Commission may require submission of data from market participants in California:

To perform these assessments and forecasts, the Energy Commission may require submission of demand forecasts, resource plans, market assessments, and related outlooks from electric and natural gas utilities, transportation fuel and technology suppliers, and other market participants. PRC 25301(a)

### Submittal Format

Parties are requested to submit a diskette or compact disk containing:  
data from Forms 1, 2, 3, 6, 7, and 8, and  
reports on Forms 4 and 5 in Word or Acrobat.

Data with no confidentiality request should be sent to:

California Energy Commission  
Docket Office  
Attn: Docket 09-IEP-1C  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512

or email to: [Docket@energy.state.ca.us](mailto:Docket@energy.state.ca.us). Please include "Docket #09-IEP-1C Demand Forecast", in the subject line.

If you are requesting confidentiality, please review the detailed instructions.

To expedite the forecast comparison and review process, an Excel template with formats for each form in 1, 2, and 3 is provided. While it is preferred that filers use this template, participants may provide these results in their own format as long as the equivalent information is provided and the information is clearly labeled.

**Due Date:** **All** **Friday, February 13, 2009**

The data do not have to be distributed to the IEPR service list.

Technical questions relating to the electricity demand forecast should be directed to Chris Kavalec (916) 654-5184 or Tom Gorin (916) 654-4759 of the Demand Analysis Office or by email at [ckavalec@energy.state.ca.us](mailto:ckavalec@energy.state.ca.us) or [tgorin@energy.state.ca.us](mailto:tgorin@energy.state.ca.us).

**Please Enter the Following Information:**

**Participant Name:** Participant Name  
**Date Submitted:**  
**Contact Information:** Participant technical contact  
 Address  
 Telephone  
 Email

		Entity to File Form		
		IOU	POU	ESP
Form 1.1	RETAIL SALES OF ELECTRICITY BY CLASS OR SECTOR (GWh)	X	X	
Form 1.2	DISTRIBUTION AREA NET ELECTRICITY FOR GENERATION LOAD	X	X	
Form 1.3	LSE COINCIDENT PEAK DEMAND BY SECTOR (Bundled Customers)	X	X	
Form 1.4	DISTRIBUTION AREA COINCIDENT PEAK DEMAND	X	X	
Form 1.5	PEAK DEMAND WEATHER SCENARIOS	X	X	
Form 1.6a	RECORDED LSE HOURLY LOADS FOR 2007, 2008 and Forecast Loads for 2010	X	X	
Form 1.6b	HOURLY LOADS BY TRANSMISSION PLANNING SUBAREA OR CLIMATE ZONE (IOUS ONLY)	X	X	
Form 1.7a	LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS--ENERGY (GWh)--COMMITTED	X	X	
Form 1.7b	LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS--PEAK DEMAND (MW)--COMMITTED	X	X	
Form 1.7c	LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS--UNCOMMITTED	X	X	
Form 2.1	STATE OR NATIONAL ECONOMIC AND DEMOGRAPHIC INPUTS*	X	X	
Form 2.2	PLANNING AREA ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS*	X	X	
Form 2.3	ELECTRICITY RATE FORECAST	X	X	
Form 2.4	CUSTOMER COUNT & OTHER FORECASTING INPUTS	X	X	
Form 3.1a	EFFICIENCY PROGRAM FIRST YEAR COSTS AND IMPACTS	X	X	
Form 3.1b	EFFICIENCY PROGRAM COSTS BY COST CATEGORY (2007\$)	X	X	
Form 3.2	EFFICIENCY PROGRAM CUMULATIVE IMPACTS	X	X	
Form 3.3	RENEWABLE AND DISTRIBUTED GENERATION PROGRAM COSTS AND IMPACTS	X	X	
Form 3.4	DEMAND RESPONSE PROGRAM COSTS & IMPACTS	X	X	
Form 4	REPORT ON FORECAST METHODS AND MODELS	X	X	
Form 5	COMMITTED DEMAND-SIDE PROGRAM METHODOLOGY	X	X	
Form 6	UNCOMMITTED DEMAND-SIDE PROGRAM METHODOLOGY	X	X	
Form 7	ESP DEMAND FROECAST			X
Form 8.1a (IOU)	IOU REVENUE REQUIREMENTS BY MAJOR COST CATEGORIES/UNBUNDLED RATE COMPONENT	X		
Form 8.1a (POU)	BUDGET APPROPRIATIONS OR ACTUAL COSTS AND COST PROJECTIONS BY MAJOR EXPENSE CATEGORY		X	
Form 8.1a(ESP)	ESTIMATED POWER SUPPLY COST			X
Form 8.1b (Bundled)	REVENUE REQUIREMENTS BY BUNDLED CUSTOMER CLASS	X	X	
Form 8.1b (Direct Access)	REVENUE REQUIREMENTS FOR DIRECT ACCESS CUSTOMERS	X	X	
Form 8.2	MONTHLY RESIDENTIAL SALES BY PERCENTAGE OF BASELINE	X	X	
Form 8.3	PRICING FACTORS FOR PURCHASED POWER	X	X	X

## FORM 1.1

Participant Name

### RETAIL SALES OF ELECTRICITY BY CLASS OR SECTOR (GWh)

(Modify the categories below as needed to be consistent with forecast method)

YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	WATER PUMPING	STREET-LIGHTING	TCU	ELECTRIC VEHICLES	TOTAL
1990									0
1991									0
1992									0
1993									0
1994									0
1995									0
1996									0
1997									0
1998									0
1999									0
2000									0
2001									0
2002									0
2003									0
2004									0
2005									0
2006									0
2007									0
2008									0
2009									0
2010									0
2011									0
2012									0
2013									0
2014									0
2015									0
2016									0
2017									0
2018									0
2019									0
2020									0

### MIGRATING LOAD INCLUDED IN

Migrating/ Newly Served Load included in Forecast		
Name of LSE / IOU	Name of LSE / IOU	Newly Served Load

**AVERAGE ANNUAL GROWTH RATE (%)**

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2005-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 1.2**  
Participant Name

**DISTRIBUTION AREA NET ELECTRICITY FOR GENERATION LOAD  
(GWh)**

YEAR	SALES TO BUNDLED CUSTOMERS (from 1.1)	DIRECT ACCESS	COMMUNITY CHOICE AGGREGATORS	Other Departed Load remaining in distribution system	OTHER (Define as needed)	TOTAL SALES	LOSSES	TOTAL DISTRIBUTION SYSTEM ENERGY REQUIREMENTS	Total Uncommitted Impacts from Form 3.2	Forecast Net of Uncommitted Impacts
1990	0					0		0		0
1991	0					0		0		0
1992	0					0		0		0
1993	0					0		0		0
1994	0					0		0		0
1995	0					0		0		0
1996	0					0		0		0
1997	0					0		0		0
1998	0					0		0		0
1999	0					0		0		0
2000	0					0		0		0
2001	0					0		0		0
2002	0					0		0		0
2003	0					0		0		0
2004	0					0		0		0
2005	0					0		0	0	0
2006	0					0		0	0	0
2007	0					0		0	0	0
2008	0					0		0	0	0
2009	0					0		0	0	0
2010	0					0		0	0	0
2011	0					0		0	0	0
2012	0					0		0	0	0
2013	0					0		0	0	0
2014	0					0		0	0	0
2015	0					0		0	0	0
2016	0					0		0	0	0
2017	0					0		0	0	0
2018	0					0		0	0	0
2019	0					0		0	0	0
2020	0					0		0	0	0

AVERAGE ANNUAL GROWTH RATE (%)										
1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 1.3**  
Participant Name

**LSE COINCIDENT PEAK DEMAND BY SECTOR (Bundled Customers)**

(MW)

(Modify categories below to be consistent with sectors or classes reported on Form 1.1)

YEAR	RESIDENTIAL		COMMERCIAL		INDUSTRIAL	AGRICULTURE	WATER PUMPING	TCU & STREETLIGHTING	ELECTRIC VEHICLES	LOSSES	TOTAL PEAK
	BASE LOAD	WEATHER SENSITIVE	BASE LOAD	WEATHER SENSITIVE							
1990											0
1991											0
1992											0
1993											0
1994											0
1995											0
1996											0
1997											0
1998											0
1999											0
2000											0
2001											0
2002											0
2003											0
2004											0
2005											0
2006											0
2007											0
2008											0
2009											0
2010											0
2011											0
2012											0
2013											0
2014											0
2015											0
2016											0
2017											0
2018											0
2019											0
2020											0

AVERAGE ANNUAL GROWTH RATE (%)											
1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**MIGRATING LOAD INCLUDED IN FORECAST (MW)**

Migrating/ Newly Served Load included in Forecast		
Name of LSE / IOU	Name of LSE / IOU	Newly Served Load

0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%





**FORM 1.5**  
Participant Name

**PEAK DEMAND WEATHER SCENARIOS**  
**DISTRIBUTION AREA COINCIDENT PEAK DEMAND**  
**(MW)**  
**(Report all available cases)**

YEAR	UTILITY SYSTEM ENERGY REQUIREMENTS				
	1-in-2 Temperatures	1-in-5 Temperatures	1-in-10 Temperatures	1-in-20 Temperatures	1-in-40 Temperatures
1990					
1991					
1992					
1993					
1994					
1995					
1996					
1997					
1998					
1999					
2000					
2001					
2002					
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014					
2015					
2016					
2017					
2018					
2019					
2020					

AVERAGE ANNUAL GROWTH RATE (%)					
1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%





**FORM 1.7a**

Participant Name

Committed/Existing  
**LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS**  
 ENERGY (GWh)

(Modify categories below to be consistent with sectors or classes reported on Form 1.1)

YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	OTHER	TOTAL
1990						0
1991						0
1992						0
1993						0
1994						0
1995						0
1996						0
1997						0
1998						0
1999						0
2000						0
2001						0
2002						0
2003						0
2004						0
2005						0
2006						0
2007						0
2008						0
2009						0
2010						0
2011						0
2012						0
2013						0
2014						0
2015						0
2016						0
2017						0
2018						0
2019						0
2020						0

AVERAGE ANNUAL GROWTH RATE (%)

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 1.7b**

Participant Name

Committed/Existing  
**LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS**  
 COINCIDENT PEAK DEMAND (MW)

YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	OTHER	TOTAL
1990						0
1991						0
1992						0
1993						0
1994						0
1995						0
1996						0
1997						0
1998						0
1999						0
2000						0
2001						0
2002						0
2003						0
2004						0
2005						0
2006						0
2007						0
2008						0
2009						0
2010						0
2011						0
2012						0
2013						0
2014						0
2015						0
2016						0
2017						0
2018						0
2019						0
2020						0

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 1.7c**

Participant Name

Participant Name

**Uncommitted  
LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS  
ENERGY (GWh)**

**Uncommitted  
LOCAL PRIVATE SUPPLY BY SECTOR OR CLASS  
COINCIDENT PEAK DEMAND (MW)**

(Modify categories below to be consistent with sectors or classes reported on Form 1.1)

YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	OTHER	TOTAL
1990						0
1991						0
1992						0
1993						0
1994						0
1995						0
1996						0
1997						0
1998						0
1999						0
2000						0
2001						0
2002						0
2003						0
2004						0
2005						0
2006						0
2007						0
2008						0
2009						0
2010						0
2011						0
2012						0
2013						0
2014						0
2015						0
2016						0
2017						0
2018						0
2019						0
2020						0

YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	OTHER	TOTAL
1990						0
1991						0
1992						0
1993						0
1994						0
1995						0
1996						0
1997						0
1998						0
1999						0
2000						0
2001						0
2002						0
2003						0
2004						0
2005						0
2006						0
2007						0
2008						0
2009						0
2010						0
2011						0
2012						0
2013						0
2014						0
2015						0
2016						0
2017						0
2018						0
2019						0
2020						0

AVERAGE ANNUAL GROWTH RATE (%)

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 2.1**  
Participant Name

**STATE OR NATIONAL ECONOMIC AND DEMOGRAPHIC INPUTS\***

(Modify categories below as needed to report actual drivers used for forecast)

YEAR	GDP IMPLICIT PRICE DEFLATOR (2007=100)	POPULATION (000s)	HOUSEHOLDS	GSP (Millions 2007\$)	TOTAL NON-AGRICULTURAL EMPLOYMENT (1,000s)	PERSONAL INCOME	TAXABLE SALES
1990							
1991							
1992							
1993							
1994							
1995							
1996							
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
2018							
2019							
2020							

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 2.2**  
Participant Name

**PLANNING AREA ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS\***  
Projections for Service Area

(Modify categories below as needed to report actual drivers used for forecast)

	GDP IMPLICIT PRICE DEFLATOR (2007=100)	POPULATION (000s)	HOUSEHOLD S	GSP (Millions 2007\$)	TOTAL NON- AGRICULTURAL EMPLOYMENT (1,000s)	PERSONAL INCOME	TAXABLE SALES	FLOORSPACE MM SQFT)
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018								
2019								
2020								

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 2.3**

Participant Name

**ELECTRICITY RATE FORECAST**  
(2007 cents/kWh)

(Modify categories below to be consistent with sectors or classes reported on Form 1.1)

YEAR	DEFLATOR SERIES USED (define)	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	WATER PUMPING	STREET-LIGHTING	TCU
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018								
2019								
2020								

AVERAGE ANNUAL GROWTH RATE (%)								
1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



**FORM 2.4**  
Participant Name

**CUSTOMER COUNT & OTHER FORECASTING INPUTS**

(Modify categories below to be consistent with sectors or classes reported on Form 1.1)

YEAR	CUSTOMER COUNT					OTHER INPUTS
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	AGRICULTURAL	OTHER	
1990						
1991						
1992						
1993						
1994						
1995						
1996						
1997						
1998						
1999						
2000						
2001						
2002						
2003						
2004						
2005						
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						

1990-2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**FORM 3.1a**

Participant Name

**EFFICIENCY PROGRAM FIRST YEAR COSTS AND IMPACTS**

-Costs are total first-year program costs

Sector	Program Name	Committed / Uncommitted	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
		MW																					
		GWh																					
		MMBTU																					
		2007\$																					
		MW																					
		GWh																					
		MMBTU																					
		2007\$																					
		MW																					
		GWh																					
		MMBTU																					
		2007\$																					
		MW																					
		GWh																					
		MMBTU																					
		2007\$																					
		MW																					
		GWh																					
		MMBTU																					
		2007\$																					
		MW																					
		GWh																					
		MMBTU																					
		2007\$																					

\* Please use the current CPUC reporting categories from the instructions. Municipal utilities may use additional program categories as needed.

Totals		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Committed	MW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	GWh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	MMBTU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	2007\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	MW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	GWh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	MMBTU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	2007\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



**FORM 3.2**

Participant Name

**EFFICIENCY PROGRAM CUMULATIVE IMPACTS**

Sector	Program Name	Committed / Uncommitted	Units	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					
			MMBTU																					
			MW																					
			GWh																					

Totals		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
Committed	MW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Committed	GWh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	MMBTU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	2007\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	MW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	GWh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	MMBTU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	2007\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**FORM 3.3**

Participant Name

**RENEWABLE AND DISTRIBUTED GENERATION PROGRAM COSTS AND IMPACTS**

Sector	PROGRAM NAME	Committed / Uncommitted		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					
			MW																					
			GWh																					
			MMBTU																					
			2007\$																					

Totals			2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Committed	MW		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	GWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	MMBTU		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed	2007\$		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	MW		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	GWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	MMBTU		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncommitted	2007\$		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**FORM 3.4**

Participant Name

**DEMAND RESPONSE PROGRAM COSTS & IMPACTS**

PROGRAM NAME	DISPATCHABLE/ NONDISPATCHABLE	Demand Response/ Interruptible	Committed / Uncommitted		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						
				MW																						
				GWh																						
				2007\$																						

**FORM 7**

Participant Name

**ESP Report of Loads and Resources under Contract**

PG&E				
YEAR	Retail Sales (mWh)	Peak Demand (MW)	Customer Counts	
			Residential	Nonresidential
2004				
2005				
2006				
2007				
2008				
2009				
2010				
2011				
2012				
2013				
2014				
2015				
2016				
2017				
2018				
2018				
2019				
2020				

SCE			
Retail Sales (mWh)	Peak Demand (MW)	Customer Counts	
		Residential	Nonresidential

SDG&E			
Retail Sales (mWh)	Peak Demand (MW)	Customer Counts	
		Residential	Nonresidential

**AVERAGE ANNUAL GROWTH RATE (%)**

2007-2012	0.0%	0.0%	0.0%	0.0%
2012-2020	0.0%	0.0%	0.0%	0.0%
2007-2020	0.0%	0.0%	0.0%	0.0%

0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%

0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%





	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>Form 8.1a (POU)</b>															
2	Budget Appropriations or Actual Costs and Cost Projections by Major Expense Category															
3	2006 to 2008 (in Nominal Dollars X 1,000) 2009 to 2020 (in Real 2008 Dollars X 1,000)															
4		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
5	<b>OPERATIONS EXPENSES</b>															
6	<b>POWER PRODUCTION</b>															
7	<b>Utility-owned Generation</b>															
8	<b>Nuclear:</b>															
9		Fuel expenses														
10		Other Operations and Maintenance expenses														
11	<b>Conventional Hydroelectric:</b>															
12		Fuel expenses														
13		Other Operations and Maintenance expenses														
14	<b>Hydroelectric Pumped Storage:</b>															
15		Fuel expenses														
16		Other Operations and Maintenance expenses														
17	<b>Natural-Gas Fired Generation:</b>															
18		Fuel expenses														
19		Other Operations and Maintenance expenses														
20		Natural Gas Price Forecast														
21	<b>Coal:</b>															
22		Fuel expenses														
23		Other Operations and Maintenance expenses														
24		Coal Price Forecast														
25	<b>Generation from Renewable Resources:</b>															
26		Fuel expenses														
27		Other Operations and Maintenance expenses														
28	<b>Power Purchases</b>															
29	<b>Federal power</b>															
30	<b>Contracts with joint powers agencies:</b>															
31		Nuclear														
32		Coal														
33		Conventional Hydroelectric														
34		Natural Gas-Fired														
35		Renewable Resources														
36	<b>Contract with POU's Subsidiaries:</b>															
37	<b>Bilateral Contracts:</b>															
38		Renewable resource contracts														
39		All Other Bilateral Contracts														
40	<b>Other Resources</b>															
41	<b>TRANSMISSION EXPENSES:</b>															
42		Operations and maintenance of utility-owned transmission system														
43		Payments to JPAs for Transmission Investments/Services														
44		Other transmission-related expenses														
45	<b>DISTRIBUTION EXPENSES</b>															
46	<b>CUSTOMER-RELATED EXPENSES</b>															
47	<b>GENERAL AND ADMINISTRATIVE EXPENSES</b>															
48	<b>PUBLIC BENEFIT PROGRAMS:</b>															
49		Low income														
50		Energy efficiency														
51		California Solar Initiative														
52		All other public benefit programs														
53	<b>ENERGY EFFICIENCY EXPENSES FROM PROCUREMENT BUDGET</b>															
54	<b>OPERATING EXPENSES NOT ALREADY REPORTED</b>															
55	<b>CAPITAL IMPROVEMENT PROJECTS:</b>															
56	<b>GENERATION (PRODUCTION PLANT)</b>															
57	<b>TRANSMISSION PLANT</b>															
58	<b>DISTRIBUTION PLANT, except Advanced Metering System projects</b>															
59		Cost detail on Advanced Metering System projects														
60	<b>ALL OTHER CAPITAL IMPROVEMENT PROJECTS</b>															
61	<b>DEBT SERVICE</b>															
62	<b>RESERVE FUND CONTRIBUTIONS</b>															
63	<b>TRANSFERS TO CITY GENERAL FUND, PAYMENTS IN LIEU OF TAXES, &amp; OTHER</b>															
64																
65	<b>TOTAL REVENUE REQUIREMENTS</b>															

	A	B	C	D	E	F	G	H	I
1	<b>Form 8.1a(ESP)</b>								
2	<b>Estimated Power-Supply Costs</b>								
3	<b>2006 to 2008 (in Nominal Dollars X 1,000) 2009 to 2020 (in Real 2008 Dollars X 1,000)</b>								
4		2006	2007	2008	2009	2010	2011	2012	2013
5									
6	<b>Bilateral Contracts</b>								
7	<b>Residual Market Transactions</b>								
8									
9	<b>TOTAL ESTIMATED POWER-SUPPLY COSTS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>Form 8.1b (Bundled)</b>															
2	Revenue Requirements Allocation															
3	by Bundled Customer Class															
4	2006 to 2008 (in Nominal Dollars X 1,000)															
5	2009 to 2020 (in Real 2008 Dollars X 1,000)															
6																
7	<b>Total Revenue Requirements (From Form 1.a (IOU))</b>															
8	<b>Total Generation Revenue Requirement:</b>															
9	Residential/Domestic															
10	Commercial															
11	Industrial															
12	Agricultural															
13	All Other Customer Classes															
14	<b>GENERATION SUBTOTAL</b>															
15	<b>Total Distribution Revenue Requirement:</b>															
16	Residential/Domestic															
17	Commercial															
18	Industrial															
19	Agricultural															
20	All Other Customer Classes															
21	<b>DISTRIBUTION SUBTOTAL</b>															
22	<b>All Other Revenue Requirements:</b>															
23	Residential/Domestic															
24	Commercial															
25	Industrial															
26	Agricultural															
27	All Other Customer Classes															
28	<b>"ALL OTHER" SUBTOTAL</b>															
29	<b>Total Revenue Requirements</b>															

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>Form 8.1b (Direct Access)</b>															
2	<b>Revenue Requirements Allocation for Direct Access Service Customers</b>															
3	<b>2006 to 2008 (in Nominal Dollars X 1,000) 2009 to 2020 (in Real 2008 Dollars X 1,000)</b>															
4		<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
5	<b>Total Revenue Requirements</b>															
6	<b>Total Revenue Requirements for Direct Access Service Customers:</b>															
7	<b>Residential</b>															
8	<b>Non-Residential</b>															

Form 8.2 Monthly Residential Electricity Sales by Baseline Percentages in 2006, 2007, 2008																									
2006		Basic Electric Accounts (elec and nat gas)																							
Baseline Territory	Percent of Baseline Use	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
		kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust
	0 TO 10%																								
	10% TO 20%																								
	20% TO 30%																								
	30% TO 40%																								
	40% TO 50%																								
	50% TO 60%																								
	60% TO 70%																								
	70% TO 80%																								
	80% TO 90%																								
	90% TO 100%																								
	100% TO 110%																								
	110% TO 120%																								
	120% TO 130%																								
	130% TO 140%																								
	140% TO 150%																								
	150% TO 160%																								
	160% TO 170%																								
	170% TO 180%																								
	180% TO 190%																								
	190% TO 200%																								
	200% TO 210%																								
	210% TO 220%																								
	220% TO 230%																								
	230% TO 240%																								
	240% TO 250%																								
	250% TO 260%																								
	260% TO 270%																								
	270% TO 280%																								
	280% TO 290%																								
	290% TO 300%																								
	300% +																								
	Total																								
2006		All Electric Accounts																							
Baseline Territory	Percent of Baseline Use	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
		kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust	kWh	Cust
	0 TO 10%																								
	10% TO 20%																								
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# APPENDIX

## HOW TO REQUEST CONFIDENTIALITY

The Executive Director of the Energy Commission has responsibility for determining what information submitted with an application for confidentiality will be deemed confidential. Parties who seek such a designation for data they submit must make a separate, written request that identifies the specific information and provides a discussion of why the information should be protected from release, the length of time such protection is sought, and whether the information can be released in aggregated form. Certain categories of data provided to the Energy Commission, when submitted with a request for confidentiality, will be automatically designated as confidential and do not require an application. The types of data that are eligible and the process for obtaining this confidential designation are specified in California Code of Regulations, Title 20, Section 2505(a)(5). Note that the Energy Commission has its own regulations distinct from those governing the CPUC, and CPUC determinations on confidentiality are not applicable to data submitted to the Energy Commission.

Data that are not included in these categories but that the filer believes are entitled to confidential treatment should be submitted with an application for confidential designation so that the Executive Director can review the information and make a determination about its confidential status. To do this, please carefully read and follow the instructions below.

The application must include three attributes:

- 1) A hard copy of the application for confidentiality must be submitted to the Executive Director:  
  
Melissa Jones, Executive Director  
California Energy Commission  
1516 Ninth Street MS-39  
Sacramento, CA 95814-5504
- 2) The information being provided to the Energy Commission must be included as an attachment (either hard copy or electronic), marked as Docket #09-IEP-1C, and the confidential data categories must be clearly and properly labeled.
- 3) A “penalty of perjury certification” must be included. Suggested standard language is as follows:

I certify under penalty of perjury that the information contained in this application for confidential designation is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to make the application and certification on behalf of (ABC Utility or Corporation).

Applications deemed incomplete in these three respects will not be docketed by Energy Commission staff. Applications deemed incomplete will be returned, and the data will be placed in a confidential “suspense” file. The filer will be notified by mail and e-mailed about deficiencies in the application. The applicant has 14 calendar days to correct defects in the application and return an amended application to the Energy Commission. After 14 days, all information associated with an incomplete application for confidentiality (based on the three attributes listed above) will be deemed public and docketed accordingly. In addition, an application may be deemed incomplete and returned to the applicant if it does not contain the following information:

- 1) Identification of the information being submitted, including title, date, size (for example, pages, sheets, MB), and docket number;
- 2) Description of the data for which confidentiality is being requested (for example, particular contract categories, specific narratives, and time periods);
- 3) A clear description of the length of time for which confidentiality is being sought, with an appropriate justification, for each confidential data category request;
- 4) Applicable provisions of the California Public Records Act (Government Code Section 6250 *et seq.*), and/or other laws, for each confidential data category request;
- 5) A statement attesting that a) the specific records to be withheld from public disclosure are exempt under provisions of the Government Code, or b) the public interest in non-disclosure of these particular facts clearly outweighs the public interest in disclosure; and
- 6) A statement that describes how each category of confidential data may be aggregated with other data for public disclosure.

Parties should be aware that some confidential data may be disclosed after aggregation according to CCR, Title 20, 2507(d). Both historic and forecast energy sales data may be disclosed if reported at the following levels:

- For individual ESPs, data may be aggregated at the statewide level by major customer sector;
- For the sum of all ESPs, data aggregated at the service area, planning area, or statewide levels by major customer sector;
- For the total sales of the sum of all electric retailers, data may be aggregated at the county level by major generator, utility, and electric service provider groups as these groups are defined by the U.S. Census Bureau in their North American Industry Classification System (NAICS) tables.

Other aggregations may be considered on a case-by-case basis, but no disclosure of data aggregated in this manner will be released without notice and consultation by the Executive Director.

The Executive Director signs confidentiality determination letters. The applicant has 14 calendar days to appeal this decision.

An applicant can request confidentiality at any time. The Energy Commission strongly encourages filers to provide data and any confidentiality requests concurrently.

More specific questions about confidentiality may be directed to Kerry Willis at [kwillis@energy.state.ca.us](mailto:kwillis@energy.state.ca.us) or (916) 654-3967.