

# ATTACHMENT A

## Standard LSE Plan

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[NAME OF FILING ENTITY]

2018 INTEGRATED RESOURCE PLAN

[DATE]

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**How to use this template:**

- Instructions are provided in italics under each section. Delete all instructions before submitting the form, but preserve the numbered section headings.
- Complete each section. If the section is not applicable to the LSE, simply indicate “Not applicable” and provide a brief explanation.
- Definitions are provided in the Glossary of Terms at the end of this template.

## 1. Executive Summary

Use this section to provide an overview of the process used by the LSE to develop its plan and summarize the LSE’s findings, including a brief overview of the LSE’s Preferred Portfolio and Action Plan.

## 2. Study Design

Use this section to describe how the LSE approached the process of developing its LSE Plan.

### **Load Assignments for Each LSE**

For projecting load across the IRP Planning Horizon (i.e., until 2030, for the purposes of IRP 2017-18), LSEs shall use the “mid Baseline mid AAEE mid AAPV” version of Form 1.1c of the CEC’s adopted 2017 IEPR forecast, unless a new load projection is assigned to the LSE in an Administrative Law Judge (ALJ) ruling.

An ESP may re-purpose its load forecast previously filed with the Commission ~~(e.g., in the RPS or RA proceeding)~~, provided the load forecast is consistent with the one submitted by the ESP to the CEC in its 2017 IEPR Confidential Form 7.1 (Loads and Resources under Contract). Smaller ESPs—specifically, those ESPs with annual peak loads under 200 MW and which are not required to file IEPR Confidential Form 7.1—should utilize their most recent load forecast submission for resource adequacy purposes and extend that annual energy requirement (in GWh) out to 2030. ESP load forecasts should be filed under seal, and the Commission staff will aggregate the ESP submittals to protect confidentiality.

~~If necessary to project load beyond the final year of the IEPR planning horizon (e.g., from 2027 to 2030), LSEs shall use a compound annual rate of growth calculated over the last five years of the IEPR forecast years.~~

### **Required and Optional Portfolios**

Each LSE must produce at least one portfolio, deemed the “Conforming Portfolio,” that uses the assigned load forecast and is demonstrated to be consistent with the Reference System Portfolio according to the following criteria:

- Use of either the GHG Planning Prices in Table A- or the LSE-Specific 2030 GHG Emissions Benchmark in Table B assigned to the LSE in an ALJ ruling.

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- Use of inputs and assumptions (e.g., baseline generating fleet, candidate resource cost assumptions, financial assumptions, etc.) matching those used in developing the Reference System Portfolio, with the following exceptions based on updated information:
  - LSEs shall use-align with the load assignment indicated above, namely the “mid Baseline mid AAEE mid AAPV” version of Form 1.1c of the CEC’s adopted 2017 IEPR demand forecast, unless superseded by Administrative Law Judge ruling, as closely as possible.
  - LSE load modifier assumptions shall be consistent with the 2017 IEPR demand forecast projections of both PV and non-PV self-generation, and load-modifying demand response included in the “mid Baseline mid AAEE mid AAPV” case.
  - LSEs shall use the 2017 IEPR burner-tip natural gas price projections, which are based on the April 2018 Updated Model.<sup>1</sup>

LSEs may also study and report “Alternative Portfolios” developed from additional scenarios using different assumptions (including differing load and load modifier assumptions) from the Reference System Plan. Alternative Portfolios may assume that other LSEs do not procure in a manner consistent with the Reference System Plan. For example, an IOU may choose to prepare a portfolio that plans for CCA load departure not reflected in its assigned IEPR load forecast. IOUs doing so shall adjust their 2030 GHG Emissions Benchmark (if applicable; ~~refer to Table B below~~) downward proportionally with the departing load.

For all Alternative Portfolios developed, any deviations from the Conforming Portfolio must be explained and justified. If the LSE uses different load and load modifier assumptions as part of any Alternate Portfolios, the LSE should report that information using the standard IEPR filing form templates associated with that information, as described in detail in Section 5: Data. ~~The LSE must document and explain differences from what the LSE filed with the CEC in 2017 for its 2017 IEPR process.~~

Among the Conforming Portfolio and Alternative Portfolio(s) developed by the LSE, the LSE will identify one as its “Preferred Portfolio.”

#### **GHG Planning Price**

LSEs electing to use the GHG Planning Price—rather than the LSE-specific GHG Emissions Benchmark—in developing their portfolio(s) must use the values presented in Table A below. The GHG Planning Price is equivalent to the marginal cost of GHG abatement associated with the 42 MMT Scenario for the years 2018 to 2026 (i.e., a curve that slopes upward from ~\$15/ton to ~\$23/ton), followed by a straight-line increase from ~\$23/ton in 2026 to \$150/ton in 2030. The straight-line increase is intended to fill the gap for the years for which RESOLVE does not produce GHG abatement cost values (i.e., 2027, 2028, and 2029).

<sup>1</sup> Available at: [www.energy.ca.gov/assessments/ng\\_burner\\_tip.html](http://www.energy.ca.gov/assessments/ng_burner_tip.html).

**TABLE A**

<b>GHG Planning Price (\$ per metric ton of CO<sub>2</sub>e) for use in IRP</b>	
2018	\$15.17
2019	\$16.05
2020	\$16.94
2021	\$17.88
2022	\$18.86
2023	\$19.91
2024	\$21.02
2025	\$22.19
2026	\$23.44
2027	\$55.08
2028	\$86.72
2029	\$118.36
2030	\$150.00

**GHG Emissions Benchmark**

LSEs electing to use the LSE-specific GHG Emissions Benchmark—rather than the GHG Planning Price—in developing their portfolio(s) must use the 2030 value assigned to the LSE in the most recent ALJ ruling presented in Table B below.

If the total emissions attributable to the LSE’s Preferred Portfolio exceed its GHG Emissions Benchmark for 2030, the LSE must explain the difference and describe additional measures it would take over the following 1-3 years to close the gap, along with the estimated cost of those measures.

Each ESP is required to calculate its own confidential GHG Emissions Benchmark based on its 2030 load share within the host EDU’s territory, consistent with instructions provided in D.18-02-018. For example, if an ESP’s 2030 load comprises 10% of the total direct access load within PG&E’s territory, its benchmark would be approximately 0.185 MMT.

For ESPs that serve load in more than one IOU service territory, those ESPs should add up the separate GHG Emissions Benchmarks calculated based on its share of direct access load for each IOU service territory to result in a single benchmark.

**TABLE B**

<b>LSE</b>	<b>2030 GHG Emissions Benchmark (MMT)±</b>



~~emissions responsibility will also be applied to other emissions such as localized pollutants. This approach will be described in detail in a subsequent ruling in the IRP proceeding with an opportunity for parties to submit comments on the record, and finalized in an ALJ ruling. LSEs should use the Clean Net Short Methodology and calculator tool for GHG accounting to follow.~~

#### **a. Objectives**

*Provide a description of the LSE's objectives for the analytical work it is documenting in the IRP.*

#### **b. Methodology**

##### **i. Modeling Tool(s)**

*Name all modeling software used by LSE to develop its IRP, if any, and include the vendor and version number. Provide an explanation of differences between the LSE's modeling tool and RESOLVE, and an explanation of how those differences should be considered during evaluation of the LSE's portfolio(s).*

##### **ii. Modeling Approach**

*Describe the LSE's overall approach to developing the scenarios it evaluated, and explain why each scenario was considered. Also describe any calculations, including post-processing calculations, used to generate metrics for portfolio analysis.*

##### **iii. Assumptions**

*Describe any inputs or assumptions used by the LSE that differ from the corresponding assumption used by the Commission to prepare the Reference System Plan. Each differing assumption must include a rationale for use of this assumption and any intermediate calculations used to develop the assumption and source data with citations. Include a side-by-side comparison of the original assumption data from the Reference System Plan and the LSE's differing assumption data. Report data according to the requirements in the Data section below.*

### **3. Study Results**

*Use this section to present the results of the analytical work described in Section 2: Study Design.*

## a. Portfolio Results

Provide a list of all portfolios developed. Each portfolio's content must be itemized in the Data Template Excel workbooks referenced below. A portfolio clearly identifies:

- New resources that the LSE plans to invest in. This does not include future contracts with existing resources.
- Existing resources that the LSE owns or contracts with. This (includes projects not yet online but with a contract includes future contracts with existing resources). Existing resources are those on the 3/15/2018 NQC List,<sup>2</sup> or projects not yet online but that have secured a contract and may therefore be identified in the Commission's RPS Contracts Database or an Application filed at the Commission, as of January 1, 2018.

Each LSE must produce a Conforming Portfolio. Alternative Portfolios are also permitted, provided that any deviations from the Conforming Portfolio are explained and justified. The LSE will identify one portfolio as its Preferred Portfolio.

## b. Preferred and Conforming Portfolios

Describe the portfolio the LSE prefers to use for planning purposes (i.e., Preferred Portfolio) and for which LSE seeks Commission approval or certification. Explain the reasons for the LSE's preference and how its Preferred Plan is consistent with each relevant statutory and administrative requirement (refer to PU Code Section 454.52(a)(1)). In providing its rationale, the LSE should assume that other LSEs procure in a manner consistent with the Reference System Plan.

If an LSE chooses the Conforming Portfolio as its Preferred Portfolio, the reporting requirements for those portfolios are one and the same.

However, if an LSE chooses an Alternative Portfolio as its Preferred Portfolio, because an LSE is required to explain and justify any deviations between its Preferred Portfolio and its Conforming Portfolio, the LSE is expected to provide all information requested in Sections 3, 4, and 5 for both portfolios. In other words, the LSE should present the results for two portfolios, provide evidence showing how both portfolios minimize localized air pollutants and how it will affect the costs for its customers, and provide an action plan associated with both portfolios.

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<sup>2</sup> <http://cpuc.ca.gov/irp/filingtemplates/>

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### **i. Local Air Pollutant Minimization**

*Describe and provide quantitative evidence to support how the LSE's Preferred Portfolio minimizes localized air pollutants and other GHG emissions with early priority on disadvantaged communities.*

*In order to identify "disadvantaged communities" that are located within its service territory, each LSE must use CalEnviroScreen 3.0 to identify the top 25% of impacted census tracts on a statewide basis and the top 5% of census tracts without an overall score but with highest pollution burden. LSEs must specify:*

- *Customers served in disadvantaged communities along with total disadvantaged population number served as a percentage of total number of customers served*
- *What current and planned LSE activities/programs, if any, impact disadvantaged communities or contribute to economic development within disadvantaged communities (e.g. list all individual programs carried out in/for disadvantaged communities, along with description of program)*
- *Estimates of annual emissions of nitrogen oxides and particulate matter<sup>3</sup> (NOx and PM2.5, at a minimum), including emissions from normal plant operations and from plant cycling. As stated above, the Commission delegates to staff and the assigned ALJ to define a GHG accounting methodology apportioning responsibility to individual LSEs. The method ~~shall~~ may also be used to estimate localized pollutants such as nitrogen oxides and particulate matter.*

### **ii. Cost and Rate Analysis**

*Describe and provide quantitative information to reflect how the LSE anticipates that its Preferred Portfolio will affect the costs for its customers. For this analysis, assume other LSEs procure resources in a manner consistent with the Reference System Plan.*

#### **Requirements for IOUs Only**

*Data must be provided showing the forecasted revenue requirement and system average rate for bundled customers for all portfolios developed by the IOU. The costs should be forecasted consistently with the categories covered by each IOU in its general rate case. The data should reflect the LSE's IOU's assigned load forecast (for the conforming portfolio), and revenue requirements for each portfolio should be broken down by the following categories:*

- *Transmission*

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<sup>3</sup> LSEs are encouraged to use factors from the CEC Cost of Generation (2015) and the USEPA AP-42, the EPA's compilation of air emission factors.

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- Distribution (e.g. includes costs from distribution upgrades driven by customer-generation)
- DSM Programs (e.g. includes costs of energy-efficiency, demand response, and other programs)
- Generation (e.g. includes costs of utility-owned generation, bilateral contracts, renewables contracts, and storage contracts, net of revenue from EDU allowances)
- Other (e.g. includes nuclear decommissioning, DWR bonds, public purpose programs, and other miscellaneous)

*In presenting revenue requirement data, IOUs should clearly distinguish between current (baseline) projected revenue requirement broken down by the categories above, and the incremental projected revenue requirement broken down by the same categories, for each new resource portfolio that the IOU is showing results for in its Plan. IOUs should assume no procurement on behalf of non-bundled customers would be needed unless specifically required by the Commission. Report all assumptions used such as cost escalation rate, inflation rate, levelization period, discount rate, taxes, financing, etc. For the conforming portfolio, assumptions should align with those used in the RESOLVE model to the extent possible.*

**Requirements for All LSEs**

*In addition to the above specifications for the IOUs, all LSEs should consider cost and rate impacts on their customers when planning and submitting their individual IRPs, and, at a minimum, include a narrative description of their approach in support of this requirement.*

*Additionally, LSE Plans should account for any resources subject to the cost allocation mechanism (CAM) in their portfolios. In estimating the resource adequacy benefits of resources subject to the CAM in its Conforming Portfolio, each LSE should refer to the most recent year-ahead CAM resource list available on the Commission's Resource Adequacy Compliance Materials webpage;<sup>4</sup> The year-ahead CAM list itemizes the resource adequacy value benefiting all LSEs within a given IOU service territory, by month and year. In developing its IRP portfolios, LSEs should assume its future resource adequacy obligations are reduced by its proportional share of the resource adequacy value itemized in the year-ahead CAM list. An LSE's proportional share is determined by its year-ahead share of peak load out of total coincident peak load for the IOU service territory the LSE is located in, as assigned in the Commission's annual resource adequacy process. The LSE's proportional share is assumed static through the IRP planning horizon for the purpose of projecting its share of CAM resource adequacy value, but will be updated each IRP cycle based on the current proportional share assignment from the Commission's annual resource adequacy process. ~~and apply those values to the year 2030. Specifically, each LSE should calculate its expected peak load share ratio for~~*

<sup>4</sup> Refer to the Commission's Resource Adequacy Compliance Materials, available at: <http://cpuc.ca.gov/General.aspx?id=6311>.

~~its transmission access charge area in 2030, using the latest IEPR forecast adopted, and multiply that load share ratio by the amount of megawatts for each CAM authorized resource included in its portfolio. Each LSE should use the August value from the CAM list in this calculation. LSEs should not make assumptions or predictions on what resources may be procured on behalf of all load and subject to the CAM in the future.~~

### c. Deviations from Current Resource Plans

Describe and quantify any differences in the quantities and/or budgets for procurement between the LSE's Preferred Plan and any currently filed or authorized resource plans, including, but not limited to: Bundled Plans, RPS Plans, Energy Efficiency Business Plans, Distributed Resource Plans, and specific procurement-related applications.

### d. Local Needs Analysis

LSEs that serve load within a CAISO-defined local capacity area must report the LSE's own assessment of how it will meet the local capacity needs projected in the most recent CAISO Transmission Plan.<sup>5</sup> In doing so, LSEs should use the Local Capacity Technical Analysis (LCT) reports for years 2018 and 2022 associated with the CAISO board-approved 2017-18 Transmission Plan when developing the local needs analysis of their Conforming Portfolios. LSEs may use the 2017 IEPR-based final LCT reports for 2019 and 2023 (expected to be available by the end of May 2018 at the latest) to develop a local needs analysis in their Alternative Portfolios.<sup>6</sup> LSEs should use the Commission's resource adequacy program's definition of local capacity areas for the purposes of the local needs analysis. These areas are: Greater Bay Area, Big Creek Ventura, CAISO System, LA Basin, San Diego IV, and Other PG&E.

## 4. Action Plan

This section will present all the actions that the LSE proposes to take in the next 1-3 years to implement its LSE Plan.

<sup>5</sup> CAISO has ten primary local capacity areas (i.e. transmission-constrained load pockets): Humboldt, North Coast North Bay, Sierra, Stockton, Greater Bay, Greater Fresno, Kern, LA Basin, Big Creek Ventura, San Diego Imperial Valley.

<sup>6</sup> LCT reports are available at: [www.caiso.com/informed/Pages/StakeholderProcesses/LocalCapacityRequirementsProcess.aspx](http://www.caiso.com/informed/Pages/StakeholderProcesses/LocalCapacityRequirementsProcess.aspx).

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## a. Proposed Activities

Describe any near-term activities the LSE proposes to undertake across resource types in order to implement its LSE Plan, including any information on proposed and procurement-related activities as required by the Commission decision on IRP. Clearly describe how each proposed activity relates to the study results presented in Section 3: Study Results. As stated in Section 3.b., if the LSE chooses a portfolio other than its Conforming Portfolio as its Preferred Portfolio, it should use this section to describe Proposed Activities for both portfolios. To the extent that any proposed activities would apply to both portfolios, the LSE may indicate as such rather than duplicate information.

Additionally, use this section to describe planned activities to conduct outreach and seek input from any disadvantaged communities that could be impacted by procurement resulting from the implementation of the LSE's Plan. Include the criteria used to evaluate any proposed procurement located in disadvantaged communities (e.g., use of any scoring bonuses or any other mechanisms LSE has implemented to ensure its preferred portfolio complies statutory requirements related to procurement of projects in disadvantaged communities, as described in Sections 454.5(b)(9)(D)(i-ii), and 399.13(a)(7)(A-B)).

## b. Barrier Analysis

Identify any market, regulatory, financial, or other barriers or risks associated with the LSE acquiring the resources identified in the Preferred Portfolio. Include an analysis of any risks associated with potential retirement of existing resources on which the LSE intends to rely in the future.

## c. Proposed Commission Direction

If applicable, describe any direction that the LSE seeks from the Commission, including any new spending authorizations, changes to existing authorizations, or changes to existing programmatic goals or budgets. Clearly relate any requested direction to the study results, proposed activities, and barrier analysis presented above.

## 5. Data

LSE IRP Plans require reporting of various data types. Baseline resource portfolio data shall be reported in the "Baseline Resource Data Template," ~~provided by the Commission.~~<sup>7</sup> and New-new resource portfolio data shall be reported in the "New Resource Data Template." The most recent versions of both data templates are provided by the Commission on the IRP Filing Materials and Templates webpage.<sup>8</sup> Other

<sup>7</sup> Available at: <http://www.cpuc.ca.gov/irp/filingtemplates/>.

<sup>8</sup> Available at: <http://www.cpuc.ca.gov/irp/filingtemplates/>.

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~~data information~~ that is not asked for in these data templates but is asked for in the reporting requirements described in the preceding sections shall follow the guidelines below in section 5.3c.

Staff expects that each LSE will have only one Baseline Resource Data Template workbook reporting baseline data, i.e. no difference in baseline between the LSE's "Conforming Portfolio" or any "Alternative Portfolios." In contrast, an LSE may have multiple New Resource Data Template workbooks reporting new resource data, i.e. one workbook for the "Conforming Portfolio" and one workbook for each "Alternative Portfolio." However, staff anticipates some LSEs may have situations where they have differing baselines in the "Conforming Portfolio" vs. any "Alternative Portfolios." To allow for this possibility, the filename for the Baseline Resource Data Template shall include an identifier field to identify it as Conforming or Alternative, as described below.

All cost data should be reported using 2016 dollars. Convert nominal dollars using the IEPR dollar deflator series posted to the IRP Filing Materials and Templates webpage.<sup>9</sup>

#### a. Baseline Resource Data Template

Follow the instructions within the template to report all resources under obligation to serve LSE load whether through an existing contractual or ownership relationship. This includes ~~both online units with a CAISO Resource ID, resources on the 3/15/2018 NQC List, or projects not yet online but that have secured a contract and may therefore be identified in the Commission's RPS Contracts Database or an Application filed at the Commission, as of January 1, 2018. as well as projects that are not yet online but have secured a contract and may therefore be identified in the Commission's RPS Contracts Database or an Application filed at the Commission.~~ For situations where the LSE is reporting a current or future contract with unknown existing resource(s), report this information in this workbook, NOT the New Resource Data Template. Existing Feed In Tariff contracts (which do not have a CAISO Resource ID) are also reported in this workbook. Existing shares of CAM system capacity as assigned in CPUC's Resource Adequacy program and projected to future years are also reported in this workbook.

This template also asks for existing fixed cost and revenue requirement projections, if applicable to the reporting entity.

Save the file in the format of "Data\_LSEname\_BaseRsrc\_Identifier\_yyyymmdd.xlsx" where the field "LSEname" is replaced with the LSE name (e.g. "MCE" or "PGE" only letters allowed, no spaces or other characters), the field "Identifier" is replaced with Conforming, Alternative1, Alternative2, etc., and "yyymmdd" is replaced with the date the file is submitted to the Commission. Spaces are not allowed in the file name. Special characters are not allowed, except for underscore ("\_") and dash ("-").

<sup>9</sup> Available at: <http://www.cpuc.ca.gov/irp/filingtemplates/>.

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## **b. New Resource Data Template**

For EACH portfolio considered by the LSE (e.g. Conforming, Alternative1, Alternative2) follow the instructions within the template to report new resources, including the projected total fixed costs of these new resources, that the LSE plans to invest in to serve its load over the IRP planning horizon. The fixed cost reporting includes any new transmission triggered by the new resources and the LSE's share of those costs. IOUs shall also include a projection of the incremental revenue requirement (i.e., incremental to what is reported in the Baseline Resource Data Template). New resources are analogous to "candidate" resources as defined in the RESOLVE model. To the extent possible, each resource should be mapped to a RESOLVE candidate resource type. If the LSE's selected new resource does not match with any pre-defined RESOLVE candidate resource type, it may select "Other\_New" and provide a description.

Note that the Conforming Portfolio will be based on the load assignments and the 2017 IEPR demand forecast as specified earlier in this template (unless superseded by ALJ ruling). If an LSE proposes no changes to this load and load modifier assumption as part of its LSE Plan, then no load information must be reported. If LSEs use different load and load modifier assumptions as part of any Alternative Portfolios, the LSE should report that information using the standard IEPR filing form templates associated with that information, included as tabs within the New Resource Data Template. The LSE should clearly identify the data that differs from the forms it submitted to the CEC in 2017 as part of the 2017 IEPR process. The table below indicates which standard IEPR filing forms apply to which entity.

Form #	Form Description	IOU	CCA	ESP
Form 1.1a	RETAIL SALES OF ELECTRICITY BY CLASS OR SECTOR (GWh) Bundled & Direct Access	X		
Form 1.1b	RETAIL SALES OF ELECTRICITY BY CLASS OR SECTOR (GWh) Bundled Customers	X		
Form 1.2	DISTRIBUTION AREA NET ELECTRICITY FOR GENERATION LOAD (GWh)	X		
Form 1.3	LSE COINCIDENT PEAK DEMAND BY SECTOR (Bundled Customers)	X		
Form 1.4	DISTRIBUTION AREA COINCIDENT PEAK DEMAND	X		
Form 3.2	ENERGY EFFICIENCY - CUMULATIVE INCREMENTAL IMPACTS	X		
Form 3.3	DISTRIBUTED GENERATION - CUMULATIVE INCREMENTAL IMPACTS	X		
Form 3.4	DEMAND RESPONSE - CUMULATIVE INCREMENTAL IMPACTS	X		
Form 4	REPORT ON FORECAST METHODS AND MODELS	X	X	
Form 6	UNCOMMITTED DEMAND-SIDE PROGRAM METHODOLOGY	X		
Form 7.1	ESP DEMAND FORECAST			X
Form 7.2	CCA DEMAND FORECAST		X	

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Each LSE should save a separate file for each portfolio in the format of "Data\_LSEname\_NewRsrc\_Identifier\_yyyymmdd.xlsx" where the field "LSEname" is replaced with the LSE name (e.g. "MCE" or "PGE" only letters allowed, no spaces or other characters), the field "Identifier" is replaced with Conforming, FE, Alternate1, Alternate2, etc., and "yyymmdd" is replaced with the date the file is submitted to the Commission. Spaces are not allowed in the file name. Special characters are not allowed, except for underscore ("\_") and dash ("-").

### c. Other Data Reporting Guidelines

The LSE will need to report supplemental or supporting data such as annual emissions estimates that is requested within the Standard LSE Plan Template instruction above but is not part of the Excel Workbook Baseline Resource or New Resource Data Templates. LSEs should report such data or any other supporting data in one or more Excel-compatible workbooks.

Save a separate file for each portfolio in the format of "Supporting\_LSEname\_Identifier\_yyyymmdd.xlsx" where the field "LSEname" is replaced with the LSE name (only letters allowed, no spaces or other characters-g. "MCE" or "PGE"), the field "Identifier" is replaced with Conforming, Alternative1, Alternative2, etc., and "yyymmdd" is

*replaced with the date the file is submitted to the Commission. Spaces are not allowed in the file name. Special characters are not allowed, except for underscore (“\_”) and dash (“-”).*

## **6. Lessons Learned**

*Document any suggested changes to the IRP process for consideration by the Commission. Explain how the change would facilitate the ability of the Commission and LSEs to achieve state policy goals.*



## Glossary of Terms

**Alternative Portfolio** – LSEs are permitted to submit “Alternative Portfolios” developed from scenarios using different assumptions from those used in the Reference System Plan. Any deviations from the Conforming Portfolio must be explained and justified.

**Conforming Portfolio** – Each LSE must produce a “Conforming Portfolio” that is demonstrated to be consistent with the Reference System Portfolio according to the following criteria: (1) use of either the GHG Planning Prices or the LSE-Specific 2030 GHG Emissions Benchmark, ~~and~~ (2) use of input assumptions matching those used in developing the Reference System Portfolio, and (3) consistent with the 2017 IEPR “mid Baseline mid AAE mid AAPV” forecast, unless superseded by Administrative Law Judge ruling.:

**Data Template** – Data provided by the LSE should be reported in the “Baseline Resource Data Template” and the “New Resource Data Template” provided by the Commission. “Baseline” means existing resources and costs. ~~“Existing” includes, including resources already contracted but not yet online resources on the 3/15/2018 NQC List, or projects not yet online but that have secured a contract and may therefore be identified in the Commission’s RPS Contracts Database or an Application filed at the Commission, as of January 1, 2018.~~ “New” means any new (incremental to the baseline) resources and costs associated with a particular LSE portfolio.

**Disadvantaged Communities** – For the purposes of IRP, and consistent with the results of the California Communities Environmental Health Screening Tool Version 3 (CalEnviroScreen 3.0), “disadvantaged communities” refer to the 25% highest scoring census tracts in the state along with the 22 census tracts that score in the highest 5% of CalEnviroScreen’s pollution burden, but which do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data.

**GHG Emissions Benchmark** – Each LSE filing a Standard LSE Plan must use either the GHG Emissions Benchmark or GHG Planning Price in developing its Conforming Portfolio. The LSE-specific benchmarks ~~and calculation method are have been~~ provided in ~~Table Ban ALJ ruling~~. If the total emissions attributable to the LSE’s preferred portfolio exceed its GHG Emissions Benchmark for 2030, the LSE must explain the difference and describe additional measures it would take over the following 1 - 3 years to close the gap, along with the cost of those measures.

**GHG Planning Price** – The GHG Planning Price is equivalent to the marginal cost of GHG abatement associated with the 42 MMT Scenario for the years 2018 to 2026 (i.e., a curve that slopes upward from ~\$15/ton to ~\$23/ton), followed by a straight-line increase from ~\$23/ton in 2026 to \$150/ton in 2030, as shown in Table A. Each LSE must use either the GHG Planning Price or GHG Emissions Benchmark in developing its Conforming Portfolio.

**IRP Planning Horizon** – The IRP Planning Horizon will typically cover 20 years. However, for the purposes of this IRP 2017-18 cycle, the IRP Planning Horizon will cover only up to the year 2030.

**Long term** – 10 or more years (unless otherwise specified)

**Portfolio** – A portfolio is a set of supply and/or demand resources with certain attributes that together serve a particular level of load.

**Preferred Portfolio** – Among all the portfolios developed by the LSE, the LSE will identify one as the most suitable to its own needs, deemed its “Preferred Portfolio.” Any deviations from the Conforming Portfolio must be justified and explained.

**Reference System Plan** – The Reference System Plan refers to the Commission-approved integrated resource plan that includes an optimal portfolio (Reference System Portfolio) of future resources for serving load in the CAISO balancing authority area and meeting multiple state goals, including meeting GHG reduction and reliability targets at least cost.

**Reference System Portfolio** – The Reference System Plan refers to the Commission-approved portfolio that is responsive to statutory requirements per Pub. Util. Code 454.51; it is part of the Reference System Plan.

**Scenario** – A scenario is a portfolio together with a set of assumptions about future conditions.

**Short term** – 1 to 3 years (unless otherwise specified)

**Standard LSE Plan** – A Standard LSE Plan is the type of integrated resource plan that an LSE is required to file if its assigned load forecast is  $\geq 700$  GWh in any of the first five years of the IRP planning horizon.

**Standard LSE Plan Template** – Each LSE required to file a Standard LSE Plan must use the Standard LSE Plan Template according to the instructions provided herein.

(End of Attachment A)