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California Energy Commission

DRAFT REPORT

Forms and Instructions for Electric Transmission-Related Data

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California Energy Commission

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ABSTRACT

The staff of the California Energy Commission’s Supply Analysis Office prepared these forms and instructions to collect specific data from electric transmission system owners on their bulk transmission network and on specific projects identified in their transmission expansion plans. A final version of these forms and instructions will be issued in mid-2022 following their adoption by the Energy Commission. Responses to these data requests will be used to prepare analyses and recommendations for the *2023 Integrated Energy Policy Report* and the *2023 Strategic Transmission Investment Plan*.

Keywords: Electric transmission, transmission corridor, data request, transmission forms and instructions, California electric transmission system owners, *2023 Integrated Energy Policy Report*, *2023 Strategic Transmission Investment Plan*

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EXECUTIVE SUMMARY

This report describes information for electricity planning that is needed by the California Energy Commission (CEC) to prepare the *2023 Integrated Energy Policy Report*. This report also provides the instructions that define the transmission related information that must be submitted by transmission owners and load-serving entities, using common terms and conventions.

California Public Resources Code Sections 25300–25323 direct the CEC to regularly assess all aspects of energy demand and supply while, Public Resources Code (PRC) Section 25324 requires the CEC adopt a strategic plan for California’s electric grid. These assessments will be included in the *2023 Integrated Energy Policy Report* or in supporting reports and will provide a foundation for policy recommendations to the Governor, Legislature, and other agencies. The broad strategic purpose of these policies is to conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The forms and instructions described in this report will be considered for adoption at the CEC’s July 2022 business meeting.

To carry out these energy assessments, the CEC is authorized to require California market participants to submit historical data, forecast data, and assessments. California Public Resources Code Sections 25216 and 25216.5 provide broad authority for the CEC to collect data and information “on all forms of energy supply, demand, conservation, public safety, research, and related subjects.”

These electricity planning assessments will provide a foundation for recommendations in the *2023 Integrated Energy Policy Report*. Resource plans from the investor-owned utilities may serve simultaneously as system resource plans to be considered by the California Public Utilities Commission to align procurement plans with local area reliability needs. Resource plans by load-serving entities, individually and collectively, are expected to inform controlled grid studies by the California Independent System Operator and other regional balancing authorities.

CHAPTER 1:

General Instructions for Transmission Submittals

Introduction

The California Energy Commission (CEC) is requesting that all electric transmission system owners file specific data on their bulk transmission network and on specific projects identified in their transmission expansion plans. These data will provide a foundation for the analyses and recommendations of the *2023 Integrated Energy Policy Report (IEPR)*, and support transmission analysis and potential corridor identification needs required by Public Resources Code (PRC) Section 25324. These assessments serve as the foundation for policy recommendations to the Governor, Legislature, and other agencies.

The broad strategic purposes of policies adopted in the CEC's *IEPR* are to conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The CEC is directed by PRC Section 25301 to conduct regular assessments of all aspects of energy demand and supply. To carry out these regular assessments of expected and needed electricity supplies, "the Commission shall conduct... (an) assessment of the availability, reliability, and efficiency of the electricity and natural gas infrastructure and systems including, but not limited to...western regional and California electricity and transmission system capacity and use." (PRC Section 25303[a][3]).

In addition, the CEC is directed by PRC Section 25324 to "adopt a strategic plan for the state's electric transmission grid..." State law directs the CEC to identify in the *strategic plan* recommended actions for implementing transmission investments that accomplish one or more of these objectives:

- Ensure reliability.
- Relieve transmission congestion.
- Meet future growth in load and generation, including generation from renewable energy resources.

These objectives identify basic needs to be addressed by transmission investments when alternative strategies (such as local generation, distributed generation or demand-side management) are inadequate to meet the stated objectives.

We are requesting additional information on transmission required to deliver energy from contracted resources, generators or Power Purchase Agreements needed by the Load Serving Entities to meet Renewable Portfolio Standards and the state's Senate Bill 100 (SB 100) goals. For resources both in and out of California, we are requesting the identification of the generating resource and general information on any transmission required to deliver energy from the resource. This information will assist CEC staff in identifying transmission lines that have value to multiple Load-Serving Entities (LSEs) in California.

If respondents have questions about the information being requested or find a part of these instructions to be ambiguous, CEC staff will work with the transmission system owners to

clarify what information is being requested. General questions about the forms or instructions should be directed to Mark Hesters at mark.hesters@energy.state.ca.us or (916) 931-8942.

Who Must File

All electric transmission system owners are required to file a general description of their transmission system and specific information on limits to importing electricity into their bulk transmission grid, limitations on moving power within their bulk grid, and transmission constraints that may limit their ability to meet state renewable energy procurement goals. LSE's are required to file information on their Power Purchase Agreements (PPAs) or contracts that require transmission upgrades. Agencies may submit data for their members. For example, the Transmission Agency of Northern California may file on behalf of several electric transmission system owners. All electric transmission system owners that are planning strategic bulk transmission project upgrades or are the lead agency for such projects are required to provide the project information requested on the transmission forms or report specifications.

Please note: Where the information is available through another forum, electric transmission system owners are asked to identify a contact person (name, phone number, and e-mail address) and a web link, where appropriate.

Due Date

In adopting these forms and instructions, the CEC specifically requires the relevant parties to file the specified transmission-related data by Friday, October 21, 2022. The data does not have to be distributed to the IEPR service list.

Electric transmission system owners or 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.

At a later date, the IEPR Committee may direct electric transmission system owners to file additional data needed to assess particular scenarios, topical issues, or policy proposals under consideration.

Filing Transmission data with the Energy Commission

LSEs are required to submit transmission information electronically using the CEC's e-filing system. A user's guide to the e-filing system is posted at the [E-Filing and E-Commenting page](https://www.energy.ca.gov/proceedings/e-filing-and-e-commenting), (<https://www.energy.ca.gov/proceedings/e-filing-and-e-commenting>). After logging in as a registered user, select the proceeding (22-IEPR-03) for the 2022 Integrated Energy Policy Report Update (2022 IEPR) Electricity Forecast.

Include the Transmission Owner or LSE's name in all file names. Attachments and cover letters should be submitted as separate files and clearly identified. Cover letters that identify documents that are part of the filing are unnecessary.

Files are required in these formats:

- Narratives and cover letters in Microsoft Word® or Adobe Acrobat®

Requesting Confidentiality

If requesting confidentiality for any parts of a filing, read and follow the instructions in Appendix A.

For confidentiality applications that require document signatures, the words “Original signed by” and the signee’s typed name can serve in lieu of a wet signature. Yellow fill should be used to highlight cells for which the LSE is requesting confidentiality. CEC staff will use color coding to track requests and to protect data determined to be confidential.

If you are requesting confidentiality for any part of your submittal, please read and carefully follow the instructions in Appendix A “Confidentiality Applications.”

CHAPTER 2:

Specific Instructions for Electric Transmission Submittals

Since the majority of this information will be narrative text, transmission owners are asked to submit this information in Word or Adobe PDF electronic format. For merchant transmission projects, the interconnecting utility/utilities should file the required information. Owners of merchant transmission projects are encouraged to respond to the appropriate portions of these data requests, but they are not required to respond.

All electric transmission system owners are required to file specific data on their bulk transmission network and on specific projects identified in their transmission plans. These data include descriptions of the transmission facilities or paths limiting power imports into their bulk transmission network, descriptions of the transmission facilities or paths limiting the transfer of power within their bulk transmission network, and transmission limits that constrain the electric transmission system owners' ability to meet legislated renewable resource procurement requirements..

Where the information is available through another forum, electric transmission system owners are asked to identify a contact person (name, phone number, and e-mail address) and a Web link, where appropriate.

Bulk Electric System Description and Needs

Each electric transmission system owner shall submit a description of its bulk electric system and its latest transmission expansion plan. The electric system description and plan shall include the following four items:

1. The electric transmission system owner's most recent transmission expansion plan. This plan should describe in detail all of the transmission facilities over 100 kV that the transmission owner needs to:
 - a. Meet applicable reliability and planning standards.
 - b. Reduce congestion.
 - c. Interconnect new generation.
 - d. Meet state policy goals such as the Renewables Portfolio Standard, SB 100 and state climate goals, or aging power plant /once-through cooling retirements.
2. A description of the transfer capabilities for transmission lines or transmission paths delivering electric power into the electric transmission system owner's grid.
 - a. The description shall include the size (for example, megavolt ampere [MVA] or megawatt [MW]) and length of the lines or lines included in the path and the substations to which the line connects.

- b. A description of any planned upgrades to the facilities that are used to import power into the electric transmission system owner’s grid that are expected to be operational between January 2022 and December 2031, including:
 - i. Descriptions of the upgrades including costs, benefits, maps, and the MW impact of the upgrades on transfer capabilities.
 - ii. Descriptions of the alternatives considered in developing the upgrades.
 - c. Any maintenance or construction that could impact transfer capabilities or the ability to move power over a path between January 2023 and December 2026.
 - d. A description of any planned transmission facilities that would create a new transmission path or transmission line to import electric power into the electric transmission system owner’s bulk electric network that are expected to be operational between January 2022 and December 2045, including:
 - i. Descriptions of the facilities, including costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.
 - ii. Descriptions of the alternatives, including non-wires alternatives, considered in developing the upgrades.
 - e. A more general description of any planned upgrades to the transmission network that imports electric power into the electric transmission system owner’s bulk transmission grid that are expected to be operational after December 2031.
3. A description of the transfer capabilities for the bulk transmission lines or bulk transmission paths limiting the delivery of electric power within the electric transmission system owner’s grid.
- a. The description shall include the size (MVA, MW) and length of the line or lines included in the path and the substations to which the line connects.
 - b. A description of any upgrades to the facilities that are used to import power into the electric transmission system owner’s grid that are expected to be operational between January 2022 and December 2045, including:
 - i. Descriptions of the facility’s or upgrade’s costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.
 - ii. Descriptions of the alternatives, such as non-wires alternatives, considered in developing the upgrades.
 - c. Any maintenance or construction that could impact transfer capabilities within the electric transmission system owner’s bulk transmission grid between January 2023 and December 2026.
 - d. A description of any planned transmission facilities that would create a new means to transfer electric power within the electric transmission system owner’s bulk transmission network that are expected to be operational between January 2022 and December 2045, including:

- i. Descriptions of the facility's or upgrade's costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.
 - ii. Descriptions of the alternatives, such as non-wires alternatives, considered in developing the upgrades.
 - e. A more general description of any planned upgrades to the transmission network that transports electric power within the electric transmission system owner's bulk transmission network that are expected to be operational after December 2031.
- 4. A description of the bulk transmission facilities needed for meeting state mandated electricity policy goals such as SB100 and state climate goals, renewable energy requirements, replacement or retirement of aging power plants, complying with the State Water Resources Control Board policies for phasing out power plants that use once-through cooling or eliminating or reducing local capacity requirements.
 - a. The description shall include the size (MVA, MW) and length of the lines or lines included in the path and the substations to which the line connects.
 - b. A description of any upgrades to the facilities in the electric transmission system owner's grid that are expected to be operating between January 20223 and December 2031, including:
 - i. Descriptions of the upgrades including costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.
 - ii. Descriptions of the alternatives, such as non-wires alternatives considered in developing the upgrades.
 - c. A general description of any planned upgrades expected to begin operating after December 2031.
- 5. Identify the Power Purchase Agreements, contracts, and resources that require transmission in order to serve California loads. For example, if an LSE has a contract with a wind generator in Wyoming but the contract can only be fulfilled if a specific transmission line is completed, such the TransWest Express project.
 - a. For each generator/contract/PPA provide the name of the resource, the size of the resource in MW and expected KWH and the name and owner of the required transmission facilities. The name of the resource should be consistent with the Supply Forms.

ACRONYMS

ACRONYM

DEFINITION

CEC
California ISO

California Energy Commission
California Independent System
Operator

CPUC

California Public Utilities Commission

CCR

California Code of Regulations

GWh

Gigawatt-hour

IEPR

Integrated Energy Policy Report

KW

Kilowatt

KWh

Kilowatt-hour

LSE

Load serving entity

MW

Megawatt

MVA

Megavolt ampere

PPAs

Power purchase agreements

SB 100

Senate Bill 100

APPENDIX A:

Confidentiality Applications

Information submitted to the CEC can be deemed confidential without the need for a new application under California Code of Regulations (CCR), Title 20, Sections 2505(a)(1)(G) and 2505(a)(4) if you file a certification under penalty of perjury that the new information is substantially similar to the information previously granted confidentiality.

Repeated Applications for Confidentiality

Your current application will serve as your certification and the designation of confidentiality will be under the same terms as the prior designation. The information will remain confidential under the same terms as the prior designation for the same or comparable period of time identified by the applicant in the application.

How to Request Confidentiality

The executive director of the CEC 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. The term of confidentiality is granted on a case-by-case basis. Certain categories of data provided to the CEC, 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 CCR, Title 20, section 2505(a) (5). The CEC has its own regulations distinct from those governing the California Public Utilities Commission (CPUC). CPUC determinations on confidentiality are not applicable to data submitted to the CEC. Parties should be aware that some confidential data may be disclosed after aggregation according to CCR, Title 20, section 2507(d) or (e). Both historical and forecast energy sales data may be disclosed if reported at the following levels:

- For individual LSEs, data may be aggregated at the statewide level by major customer sector.
- For the sum of all LSEs, data may be 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 United States Census Bureau in their North American Industry Classification System Department of Water Resources tables.

Data not included in these categories, but believed to be confidential by the filer, should be submitted when due along with an application for confidential designation so the executive director can make a determination. To do this, follow the "General Instructions" at the beginning of this document. Due dates are listed there.

What a New or Repeated Confidentiality Application Must Have

Applications for confidentiality and the confidential documents must be uploaded directly to Dockets through the CEC’s e-filing system. Paper copies or CDs do not need to be submitted. Links to the e-filing system are provided on each proceeding’s web page under “Submit e-filing.” Registration is necessary the first time documents are uploaded. Once registration is complete, submit a confidential filing by selecting “Quick Actions” from the Dashboard then selecting “Submit Confidential e-filing” from the drop-down tab. **Upload the application first and then any confidential materials.** The application will then be reviewed by the executive director in consultation with the chief counsel.

Table A-1 shows three *IEPR* subdockets that are applicable to plans and demand forecasts.

Table A-1 2022 IEPR Subdockets

22-IEPR-01	General/Scope
22-IEPR-02	California Planning Library
22-IEPR-03	Electricity Forecast

Source: <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2022-integrated-energy-policy-report-update>.

A signed “penalty of perjury certification” must be included in the application. Suggested 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).

For e-filings containing a signature, including submissions into electronic databases requiring a signature as attestation of information, the signature may be in electronic form and represented as a scanned signature graphic, or “Original Signed By,” an “/S/” or similar notation followed by a typewritten name.

What a New or Repeated Confidentiality Application Must Include, in General

A complete application for confidentiality contains the following:

- Identification of the information being submitted, including docket number, title, date, and size (for example, pages, sheets, megabytes).
- Description of the data or information for which confidentiality is being requested (for example, particular electricity supply contract categories for particular years).
- On forms submitted with prospectively confidential data, identification of specific cells using yellow fills that are consistent with the confidentiality application.
- A clear description of the period for which confidentiality is being sought for each information category (for example, until December 31, 2022).
- An appropriate justification for each confidential data category request, including applicable provisions of the California Public Records Act (Government Code Section 6250 et seq.) or other laws.
- 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 nondisclosure of these particular facts clearly outweighs the public interest in disclosure.

What Happens If a New or Repeated Application Is Incomplete?

Applications that have been docketed will be reviewed by CEC staff within 30 calendar days of receipt for clarity, completeness, content, and context. If the application is incomplete or ambiguous in one or more respects, or if the data are incomplete or questionable, staff will contact the filer to resolve uncertainties or obtain additional information.

Applications deemed incomplete may result in a delay in processing until the deficiency is corrected. The filer will be notified by staff about deficient attributes and has 14 calendar days to submit an amended application to the CEC.

Determinations and Additional Information for New Applications

The CEC executive director signs confidentiality determination letters in response to new applications for confidentiality. The applicant has 14 calendar days to appeal the decision. An applicant can request confidentiality at any time, but once information is publicly released, confidentiality cannot be granted. Information that is public elsewhere cannot be granted confidentiality. The CEC strongly encourages filers to provide data and confidentiality requests concurrently.

More specific questions about confidentiality may be directed to Jared Babula at Jared.Babula@energy.ca.gov or (916) 879-3028.

APPENDIX B:

Garamendi Principles

In 1988, recognizing both the growing importance of transmission with the interconnection of independent power producers and the escalating conflicts between transmission-owning and transmission-dependent utilities, the California Legislature passed Senate Bill (SB) 2431 (Garamendi, Chapter 1457, Statutes of 1988), which contained the following findings concerning the role of transmission in California's future development:

- (a) The Legislature finds and declares that establishing a high-voltage electricity transmission system capable of facilitating bulk power transactions for both firm and nonfirm energy demand, accommodating the development of alternative power supplies within the state, ensuring access to regions outside the state having surplus power available, and reliably and efficiently supplying existing and projected load growth, are vital to the future economic and social well-being of California.
- (b) The Legislature further finds and declares that the construction of new high-voltage transmission lines within new rights-of-way may impose financial hardships and adverse environmental impacts on the state and its residents, so that it is in the interests of the state, through existing licensing processes, to accomplish all of the following:
 1. Encourage the use of existing rights-of-way by upgrading existing transmission facilities where technically and economically justifiable.
 2. When construction of new transmission lines is required, encourage expansion of existing rights-of-way, when technically and economically feasible.
 3. Provide for the creation of new rights-of-way when justified by environmental, technical, or economic reasons, as determined by the appropriate licensing agency.
 4. Where there is a need to construct additional transmission, seek agreement among all interested utilities on the efficient use of that capacity.

In directing the CEC to conduct an investigation and prepare a report outlining recommended policies and actions, SB 2431 plainly stated that the purpose of the report was to facilitate effective, long-term transmission line corridor planning.¹ One of the major findings of the report was that utilities should take appropriate mitigation measures to reduce the environmental impacts of approved projects.² The report also identified the absence of coordinated transmission and land-use planning as a major impediment to transmission development in California and called for a process to identify environmentally sensitive areas, acceptable areas, and areas where urban encroachment into transmission rights-of-way could

¹ California Energy Commission, *Transmission System and Right of Way Planning for the 1990's and Beyond*, March 1992, Publication P700-91-005, p. 1.

² *Ibid* at p. 7.

pose problems.³ The basic principles and policies expressed in this effort formed a sound foundation for assessing and designating transmission corridors then and are still persuasive today, nearly 20 years after they were first articulated.

³ Ibid at p. 15.