

Resource Data Template User Guide

Last Updated: October 2026

Integrated Resource Planning and Energy Resource Modeling Sections

Energy Division, California Public Utilities Commission

1 Introduction

This user guide is intended to provide instructions to the users of the Resource Data Template (RDT). Energy Division Staff use the RDT to collect project and contract information to establish IRP compliance and support broader planning purposes. This user guide serves as a primary reference for understanding how to properly complete and submit the RDT. Please note that this user guide does not include actual dates for any compliance obligations (for example, the contract cutoff date corresponding to finalization of the resource table) or any other compliance due dates. Those dates and any other significant compliance obligation details, including the reporting period over which the Load-Serving Entities (LSEs) are required to submit data, are contained in the Filing Requirements Overview¹ document that is released separately. Additionally, Staff released a slide deck that explains the results of the Marginal ELCC studies and the Reliability Procurement Need calculations. Staff encourage LSEs to review the relevant sections of this document, along with the slide deck, for guidance on the reliability tab.

2 Differences from Previous Version

Latest Version	October 2026
Previous Version	May 2026

¹ See IRP Procurement Compliance Filing Materials webpage for the latest Filing Requirements Overview document: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/more-information-on-authorizing-procurement/irp-procurement-track/irp-procurement-filing-materials>

This version of the RDT introduces the following changes:

1. Updated ELCC values from the August 2026 study; “resources” table to include newer resources from the CAISO master generating capability list; and LSE names/acronyms.

2. Merged the Procurement Status Report (aka Summer/Monthly Reliability) data template into RDT.

To reduce the number of data templates that LSEs need to work with, this latest version of the RDT expands on the dropdown menu feature that allows users to select the submission type of their filing. The dropdown selection now updates the data template to display the relevant filing worksheets and worksheet columns.

Additionally, several new columns have been added to the “unique_contracts” tab as part of the reliability data template.

These columns are visible only when the “Monthly Summer Reliability Report” submission type is selected.

3. Added “monthly_reliability” tab for Procurement Status Report data template.

This new worksheet displays the data specific to the Procurement Status Report. Users *do not* need to update this worksheet, except to refresh the underlying data. Users should only review this worksheet to confirm that contract data is accurate and relevant. All changes should be made through the “unique_contracts” worksheet.

4. Formatting changes.

Minor formatting updates were made for a cleaner look.

3 Filing Submission Types and Required Worksheets

In the “certification_form” worksheet, users can select the submission type of the filing. The following worksheets are visible, regardless of submission type:

- README
- ReleaseNotes
- certification_form
- unique_contracts
- lse_names
- resources
- misc

The table below provides a description of each submission type, along with additional worksheets that will be visible.

Submission Type	Description	Additional Relevant Worksheets
Joint IRP and MTR Compliance Filing	This submission type is for both the Integrated Resource Plan (IRP) and Mid-Term Reliability (MTR) Compliance data requests.	• btm_pv_forecast • Reliability – Planning • Calcs • mtr_nqc_validation_tool • mtr_nqc_summary • CSPReportSheet • ReportSheet
IRP Biennial Filing	This submission type is for the Integrated Resource Plan data request, associated with D.18-02-018 and D.22-02-004. LSEs are expected to submit this filing every two years.	• btm_pv_forecast • Reliability – Planning • Calcs • CSPReportSheet • ReportSheet
Monthly Summer Reliability Report	This submission type is for the Procurement Status Report (aka Summer/Monthly Reliability) data request, issued as part of the Governor’s Emergency Proclamation on July 30, 2021 and the Emergency Reliability Proceeding, R.20-11-003. LSEs are expected to submit this filing on the second (2nd) Thursday of every month or quarter, depending on the LSE.	• monthly_reliability
MTR Compliance Filing	This submission type is for the Mid-Term Reliability (MTR) Compliance data request, associated with the procurement orders of D.21-06-035, D.23-02-040, and D.26-02-057. LSEs are expected to submit this filing twice a year in June and December.	• mtr_nqc_validation_tool • mtr_nqc_summary • CSPReportSheet • ReportSheet

4 Unique Contracts

The “unique_contracts” worksheet is where the user will spend the most time when filling out the data template. This is the only table in RDT for reporting on the LSE’s existing and planned energy and capacity contracts. This section describes the columns/fields to be completed for each unique contract row. Users are encouraged to fill out all columns, as applicable, and provide as many details as possible.

As the name of this sheet implies, each row of the “unique_contracts” worksheet should describe **one and only one contract per resource, per procurement category, and per technology**. When something fundamental about the contract changes, e.g., the resource’s nameplate is expanded or Net Qualifying Capacity (NQC) is changed, please enter the change(s) as separate contract(s) in separate line(s). For more details, please read the [Instructions for Specific Resources/Contracts](#) section below.

Important Note: Hybrid contracts should be listed on separate lines, with different lines for each technology.

For example, if a hybrid contract includes both solar and storage components, each technology should be entered as a separate row with different contract identifiers (e.g., suffixes indicating solar component “contractA_solar” and storage component “contractA_storage”). See [Instructions for Specific Resources/Contracts](#).

Please note that all values should be entered into as positive, non-negative entries, even when the contract is a sale. The following table provides detailed instructions for all the columns in the “unique_contracts” tab. A data type of “string” means the data entered is expected to be text. A data type of “numeric” means the data entered is expected to be a number (integer, decimal).

Important Note: For the `mtr_trancheN_NQC` columns, the NQC entered should be based upon the Effective Load Carrying Capability (ELCC) values established for MTR procurement, as well as the procedures regarding use of the ELCCs. The following materials on ELCCs contain guidance and can be found on the IRP Procurement Filing Materials webpage, under “Effective Load Carrying Capability (ELCC) Values”:

- August 2026 Staff Transmittal Memo
- 2026 ELCC Study for 2030-2031 Mid-Term Reliability Procurement
- Information-Only 2032 MTR ELCC Table
- June 2023 Staff Memo
- 2023 Staff Transmittal Memo
- Incremental ELCC Study for Mid-Term Reliability Procurement (January 2023 Update)

- 2021 Staff Transmittal Memo
- 2021 Incremental ELCC Study for Mid-Term Reliability Procurement by E3 and Astrapé

New columns in this RDT version will be highlighted in **cyan**.

Field Name	Instructions	Required Data Type
<code>lse_unique_contract_id</code>	Enter a unique identifier provided by the LSE to distinguish each contract with a given resource. This identifier should be consistent with what was submitted in prior RDT submissions. Newly submitted contracts should make the <code>lse_unique_contract_id</code> the same or like the Contract ID used the RA Showing Template to the extent possible. If the <code>lse_unique_contract_id</code> is changed for any reason, please list the previous <code>lse_unique_contract_id</code> and the reason for the change in the <code>notes</code> column. While hybrid resource can have separate Resource IDs these contracts should have the same <code>lse_unique_contract_id</code> (with a suffix differentiator to distinguish the components, e.g., “contractA_solar”, “contractA_battery”) if they are the part of same contract.	string
<code>resource</code>	Select the Resource ID that corresponds to the contracted resource from the dropdown list (sourced from “resources” worksheet). The resources used to populate this dropdown list are sourced from the CAISO Master Generating Capability List and the active resources in the CAISO New Resource Implementation (NRI) list around the time of the RDT version’s release. If the user is unable to locate a resource in the dropdown list, they should search for the generator name in the “resources” sheet to find the corresponding resource ID using	string

Field Name	Instructions	Required Data Type
	the <code>resource</code> column. The selected resource must come from the resource (RDT.resources.resource) list. This column should never be empty. If the resource is not yet “Active” in the NRI process, pick a generic name from the list (these start with an underscore “_”, such as “_NEW_GENERIC_GEOTHERMAL”). Please see Resources for more information.	
alternative_resource_name	Please select the alternative name of this project from the dropdown list. If the name is not in the dropdown list, provide the name and click “Yes” on the dialog box that pops up. If more than one name is applicable, please enter each, separate by commas. If there are not any alternative names, leave this column blank.	string
contract_status	Enter the status showing maturity of development process for this resource: Online, Development, Review, PlannedExisting, or PlannedNew, as defined in Contract Status. Please note that, as the project status may change between filings, it is important to reflect the current status of the project at the time of submission. Additionally, please ensure the <code>contract_status</code> column is updated to “Online” for all projects with commercial online dates (CODs) that occurred in the past at the time of submission. The contract status should be marked online as soon as the claimed resource has achieved COD even in advance of the contract commencing.	string
project_interconnection_position	If applicable, please select the CAISO Queue Position or Wholesale Distribution Access Tariff (WDAT) / Wholesale Distribution Tariff (WDT) identifier for each resource that has one. Enter new contract rows for each distinct queue/WDAT/WDT position. If the position is not in the dropdown list, then it can be updated from the CAISO public queue by performing an Excel Refresh All (Data > Refresh All) or by running the error	string

Field Name	Instructions	Required Data Type
	checking macro. Note that the numbers without any letters refer to CAISO queue numbers and the numbers with “WDT-###” or “###-WD” are WDAT positions. In the rare instance that resources that do not yet have a known CAISO queue positions or WDT/WDAT identifiers, LSEs should use a standardized title with the below formats. • CAISO resources format: ○ [resourcetype]_caiso_planned or [resourcetype]_wdat_planned • Non-CAISO resource format: ○ [resourcetype]_import_planned or [resourcetype]_import_existing where [resourcetype] should be replaced with an appropriate resource type (e.g., solar, wind). For these manual entries, an Excel dialog box will pop up stating that the entered value doesn’t match the data validation restrictions defined for the cell. Please select “Yes” to continue. Please validate your contracted project’s correct project name, Queue number, and/or Resource ID (this is available as soon as the project enters the “Active” phase of new resource implementation). There are two reports on the CAISO interconnection website (California ISO - Generator interconnection (caiso.com)) to help LSEs correctly identify their resource: (1) the CAISO interconnection queue, and (2) Generator Interconnection Resource ID Report that provides the CAISO resource ID for each resource that is entering the active phase of resource implementation. Additionally, the following lists are also available by TAC: - PG&E: Available under the “Public Queue Information Updates”, dropdown “PG&E Wholesale Distribution Queue” - SDG&E: SDG&E WDAT Interconnection Queue	

Field Name	Instructions	Required Data Type
	- SCE's WDAT queue: Search for "Interconnection Queue" link <u>Note</u>: Each CAISO queue position may correspond to multiple resource IDs. Likewise, LSEs may hold a single contract that encompasses one or more CAISO queue numbers. Therefore, a single contract may need to be reported as multiple rows to capture each of the resource IDs associated with the contract.	
interconnection_substation	If CAISO Queue Position or WDAT/WDT identifier is not known or is outside of the state, then please provide interconnection substation of the resource or planned CAISO scheduling point if an out-of-state resource. Otherwise, enter "NA".	string
marginal_addition	If the contracted resource includes a marginal addition to an existing resource, report the NQC value attributable to the marginal addition in September for the first year of contract delivery using the Resource Adequacy (RA) program credit. If the marginal addition comes online after the last program credit year, use the values from the last program credit year. If the project is not a marginal addition to an existing resource, enter "NA".	string
marginal_addition_to	If the contracted resource includes one or more marginal additions to an existing resource from list RDT.resources.resource, select the appropriate existing resource name from the dropdown list. The resource name must come from the list RDT.resources.resource. Otherwise, leave this column blank. For more instruction regarding marginal additions, see Instructions for Specific Resources/Contracts.	string
total_nameplate_capacity	If the RDT does not have a specific MAXGEN value for this resource (i.e., when the RDT.resources.MAXGEN is blank), provide the total nameplate capacity for the whole project (maximum MW it can deliver). <u>This is not the LSE's contracted portion of the</u>	numeric

Field Name	Instructions	Required Data Type
	<u>project (LSE's contract)</u>. The total_nameplate_capacity is always required for resources that have a supertype. <u>Note 1</u>: This column is for the whole project and not the LSE's contracted portion of the project (LSE's contract). <u>Note 2</u>: For hybrid/paired projects, this is the maximum rate (interconnection capacity) at which the resource can send energy to the grid. In most cases this will be less than the generator portion of the hybrid, plus the storage portion of the hybrid/paired resource. <u>Note 3</u>: If the LSE reports this column for the resources that have MAXGEN values in the RDT.resources.MAXGEN, RECAPT will overwrite the LSE's reported value with the one in RDT.resources.MAXGEN in the aggregation process.	
contracted_nameplate_capacity	Please provide the LSE's contracted nameplate capacity for the project. <u>Note 1</u>: This column is for LSE's contracted amount and not the whole project (resource). <u>Note 2</u>: If this is a hybrid/paired project, report the maximum rate (interconnection capacity) that the LSE can receive from this resource. In most cases, this will be less than the LSE's generator portion of the hybrid, plus the LSE's storage portion of the hybrid/paired resource. <u>Note 3</u>: The contracted nameplate capacity of the project may differ from the contracted NQC which is reported separately in the RDT.	numeric

Field Name	Instructions	Required Data Type																						
sep_contracted_mw_nqc	Please enter the contracted September NQC value that counts for Resource Adequacy (RA) program credit for the project's first year online. If the contract is energy only, enter 0 here. Do not leave this blank. If the contract does not exist yet or does not have a known NQC value, please estimate this value using the current methodologies as described in the CPUC’s RA Program. <u>Note</u>: The contracted NQC of the project may differ from the contracted nameplate capacity, which is reported separately in the RDT.	numeric																						
contract_gwh_annual	Enter the annual amount of energy contracted for, in GWh. If this is an RA only contract, enter zero here. Do not leave this blank. If the amount changes over the course of contract, please provide the average annual amount.	numeric																						
is_hybrid_paired	Select the appropriate combination from the dropdown list. <table><tr><td>1. NotHybrid</td><td>12. NewBiomassExistingStorage</td></tr><tr><td>2. ExistingBiomassExistingStorage</td><td>13. NewBiomassNewStorage</td></tr><tr><td>3. ExistingBiomassNewStorage</td><td>14. NewGeothermalExistingStorage</td></tr><tr><td>4. ExistingGeothermalExistingStorage</td><td>15. NewGeothermalNewStorage</td></tr><tr><td>5. ExistingGeothermalNewStorage</td><td>16. NewSolarExistingStorage</td></tr><tr><td>6. ExistingSolarExistingStorage</td><td>17. NewSolarNewStorage</td></tr><tr><td>7. ExistingSolarNewStorage</td><td>18. NewThermalExistingStorage</td></tr><tr><td>8. ExistingThermalExistingStorage</td><td>19. NewThermalNewStorage</td></tr><tr><td>9. ExistingThermalNewStorage</td><td>20. NewWindExistingStorage</td></tr><tr><td>10. ExistingWindExistingStorage</td><td>21. NewWindNewStorage</td></tr><tr><td>11. ExistingWindNewStorage</td><td></td></tr></table>	1. NotHybrid	12. NewBiomassExistingStorage	2. ExistingBiomassExistingStorage	13. NewBiomassNewStorage	3. ExistingBiomassNewStorage	14. NewGeothermalExistingStorage	4. ExistingGeothermalExistingStorage	15. NewGeothermalNewStorage	5. ExistingGeothermalNewStorage	16. NewSolarExistingStorage	6. ExistingSolarExistingStorage	17. NewSolarNewStorage	7. ExistingSolarNewStorage	18. NewThermalExistingStorage	8. ExistingThermalExistingStorage	19. NewThermalNewStorage	9. ExistingThermalNewStorage	20. NewWindExistingStorage	10. ExistingWindExistingStorage	21. NewWindNewStorage	11. ExistingWindNewStorage		string
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7. ExistingSolarNewStorage	18. NewThermalExistingStorage																							
8. ExistingThermalExistingStorage	19. NewThermalNewStorage																							
9. ExistingThermalNewStorage	20. NewWindExistingStorage																							
10. ExistingWindExistingStorage	21. NewWindNewStorage																							
11. ExistingWindNewStorage																								

Field Name	Instructions	Required Data Type
	<u>Note</u> : For IRP, “Paired” refers to generation and storage resources that share the same grid interconnection, while “Hybrid” refers to paired resources with constraints that require storage charging to occur using the paired generation resource rather than the grid.	
can_charge_from_grid	Select from the dropdown list: Yes, No. For non-hybrid/paired contracts, leave this column blank. Yes: When storage can charge from grid. No: When storage can ONLY charge from the associated generator. Selecting “No” in this column means the project is hybrid. <u>Note</u>: For IRP, “Paired” refers to generation and storage resources that share the same grid interconnection, while “Hybrid” refers to paired resources with constraints that require storage charging to occur using the paired generation resource rather than the grid.	string
total_generator_mw	For hybrid or paired projects (consisting of generator and storage components), report the nameplate capacity of the generator portion of the project, in MW (the whole project). For non-hybrid/non-paired contracts, leave this column blank. <u>Note 1</u>: This column is for the whole generator capacity and not the LSE’s contracted portion of that. <u>Note 2</u>: Instructions for Specific Resources/Contracts provides more details regarding how to report hybrid/paired projects.	numeric
contracted_generator_mw	For hybrid or paired projects (consisting of generator and storage components), please report the LSE’s contracted capacity of the generator portion of the project, in MW.	numeric

Field Name	Instructions	Required Data Type
	Please report the generator MW as “0” if the row corresponds to the storage portion of the contract. For non-hybrid/non-paired contracts, leave this column blank. <u>Note 1</u>: This column is for the LSE’s contracted amount from the generator and not the whole generator capacity. <u>Note 2</u>: Instructions for Specific Resources/Contracts provides more details regarding how to report hybrid/paired projects.	
total_storage_mw	For hybrid or paired projects (consisting of generator and storage components), please report the nameplate capacity of the storage portion of the project, in MW (the whole project). For non-hybrid/non-paired contracts, leave this column blank. <u>Note 1</u>: This column is for the whole storage capacity and not the LSE’s contracted portion of that. <u>Note 2</u>: Instructions for Specific Resources/Contracts provides more details regarding how to report hybrid/paired projects.	numeric
contracted_storage_mw	For hybrid or paired projects (consisting of generator and storage components), please report the LSE’s contracted capacity for the storage portion of the project, in MW. Please report the storage MW as “0” if the row corresponds to the generation portion of the contract. For non-hybrid/non-paired contracts, leave this column blank. <u>Note 1</u>: This column is for the LSE’s contracted amount from the storage and not the whole storage capacity. <u>Note 2</u>: Instructions for Specific Resources/Contracts provides more details regarding how to report hybrid/paired projects.	numeric

Field Name	Instructions	Required Data Type
solar_technology_sub_type	Select the appropriate solar technology subtype from the dropdown list: “Fixed”, “SolarThermal”, “1Axis”, “2Axis”. If the resource is a standalone solar or hybrid/paired with solar as the generator, report the technology subtype. Otherwise, leave this column blank.	string
storage_technology_sub_type	Select the appropriate storage technology subtype from the dropdown list: “Li”, “Flow”, “PSH”, “Other”. If the resource is a standalone storage or hybrid/paired with storage, report the technology subtype. Otherwise, leave this column blank.	string
total_storage_depth_mwh	If the resource is a standalone storage or a hybrid/paired (generator + storage) resource, report the storage total depth in MWh. Otherwise, leave this column blank. <u>Note</u> : This column is for the whole storage resource and not the LSE’s contracted portion of the project.	numeric
contracted_storage_depth_mwh	If the resource is a standalone storage or a hybrid/paired (generator + storage) resource, report the total storage depth in MWh that LSE has contracted for. Otherwise, leave this column blank. <u>Note</u> : This column is for the LSE’s contracted amount from the storage resource and not the whole storage resource.	numeric
viability_cod_reasonableness	Choose 1 - 4 below to report on project viability. This is only necessary for projects not online yet. 4 – Interconnection studies complete and agreement signed consistently with reported COD; permitting complete application. 3 – Interconnection Phase II study complete; permitting application approved supporting reported COD.	numeric

Field Name	Instructions	Required Data Type
	2 – Interconnection Phase II study in progress; permitting application in progress; LSE has plan that supports reported COD. 1 – Interconnection Phase II study not begun.	
viability_technical_feasibility	Choose 1 - 3 below to report on technical feasibility. This is only necessary for resources not online yet. 3 – Project-specific independent engineering assessment is complete and supports the delivery profile (capacity and/or production) AND project uses commercialized technology. 2 – Project will use a commercialized technology solution that is currently in use at a minimum of two operating facilities of similar or larger size. 1 – Project uses NEITHER commercialized technology NOR has project specific engineering assessment.	numeric
viability_financing_sitecontrol	Choose 0 - 5 below to report on financing. This is only necessary for resources not yet online. 5 – All Financing Secured. 4 – Partial Financing Secured. 3 – Seeking Financing. 2 – Project has site control but not yet seeking financing. 1 – Project does not yet have site control. 0 – No Financing Required.	numeric

Field Name	Instructions	Required Data Type																		
resource_mix	Please specify the technology mix of energy making up a contract in the following form: [techtype1, value1] [techtype2, value2] ... where “techtype” is one of the following values per bracket pair (case insensitive): <table> <tr> <td>thermal</td><td>battery</td><td>chp</td></tr> <tr> <td>solar</td><td>geothermal</td><td>nuclear</td></tr> <tr> <td>wind</td><td>biogas</td><td>dr</td></tr> <tr> <td>wind_low_cf</td><td>biomass</td><td>other</td></tr> <tr> <td>wind_hi_cf</td><td>ct</td><td>unknown</td></tr> <tr> <td>hydro</td><td>ccgt</td><td></td></tr> </table> The values should be equal to the MW of each technology, and the sum of values should be equal to the total MW of the LSE’s contract.	thermal	battery	chp	solar	geothermal	nuclear	wind	biogas	dr	wind_low_cf	biomass	other	wind_hi_cf	ct	unknown	hydro	ccgt		string
thermal	battery	chp																		
solar	geothermal	nuclear																		
wind	biogas	dr																		
wind_low_cf	biomass	other																		
wind_hi_cf	ct	unknown																		
hydro	ccgt																			
cam_d1911016_vamo_g hgfreepcia	Select the appropriate value from the dropdown list: “CAM”, “D.19-11-016”, “VAMO”, “GHG-free PCIA”. “CAM” – Refers to eligible resources that are currently subject to the cost allocation mechanism (CAM). “D.19-11-016” – Refers to eligible resources that are procured by IOUs on behalf of other LSEs for compliance with the D.19-11-016 procurement decision either because an LSE opted out of its D.19-11-016 procurement requirements or was not assigned a procurement obligation under D.19-11-016, and thus will have a certain amount of procurement occurring on their behalf. “VAMO” – Refers to the attributes of resources subject to the Voluntary Allocation and Market Offer (VAMO) mechanism, established in D.21-05-030, whereby IOUs offer LSEs	string																		

Field Name	Instructions	Required Data Type
	(PCIA-eligible) an allocation of the attributes of the IOU's PCIA-eligible RPS portfolio and attempt to sell any unallocated resources through an annual market offer process. "GHG-free PCIA" – Refers to allocation of the GHG-free energy attributes of non-RPS, PCIA-eligible, GHG-free energy (i.e., nuclear and large hydro) from IOUs to PCIA-eligible LSEs, which has thus far been approved for PG&E and SCE on an interim basis. <u>Note</u>: For more details, please see Instructions for Specific Resources/Contracts.	
buy_sell_own	Select the appropriate value from the dropdown list: "Buy", "Sell", "Own". "Buy": If an LSE is buying the capacity/energy from another LSE. If it is from a non-LSE supplier, leave this column blank. "Sell": If LSE is selling the capacity/energy to another entity (LSE or non-LSE). "Own": If LSE owns the project/resource. <u>Note</u>: For more details, please see Instructions for Specific Resources/Contracts.	string
counterparty	Select the appropriate value from the dropdown list, which includes LSE names and some generic options. Leave this column blank if not applicable. <u>Note</u>: For more details, please see Instructions for Specific Resources/Contracts.	string
generator_supplier	Enter the name of the supplier selling capacity. Please capitalize all names, do not include any special characters, and use underscores (" _ ") instead of spaces between words. This column is only required when the resource is "_SUPPLIERS_CHOICE". Otherwise, leave this column blank. <u>Note</u>: For more details, please see Instructions for Specific Resources/Contracts.	string

Field Name	Instructions	Required Data Type																														
developer_name	If the project is new construction, please select the name of the developer from the dropdown list. If the name is not listed, enter the name of the developer and press “Yes” on the dialog box that pops up. If the project is not new construction, please enter “NA”. The full list of developers can be found on the “misc” worksheet under the <code>caiso_interconnection_customers</code> column.	string																														
capacity_area	Select the appropriate value from the dropdown list. Options include CAISO local areas, PTO area in CAISO if not Local Area, or PTO of interconnection in WECC if not in CAISO.	string																														
capacity_sub_area	Select the appropriate value from the dropdown list. <table><tbody><tr><td>North Coast – Eagle Rock</td><td>Greater Fresno – Borden</td></tr><tr><td>North Coast – Fulton</td><td>Greater Fresno – Reedley</td></tr><tr><td>Sierra – Placer</td><td>Kern – Westpark</td></tr><tr><td>Sierra – Pease</td><td>Kern – Kern Power-Tevis</td></tr><tr><td>Sierra – Gold Hill-Drum</td><td>Kern – Kern Oil</td></tr><tr><td>Stockton – Lockeford</td><td>Kern – South Kern PP</td></tr><tr><td>Stockton – Tesla-Bellota</td><td>Big Creek/Ventura - Vesta</td></tr><tr><td>Greater Bay – Los Angeles</td><td>Big Creek/Ventura - Santa Clara</td></tr><tr><td>Greater Bay – San Jose</td><td>LA Basin – Eastern</td></tr><tr><td>Greater Bay – South Bay – Moss Landing</td><td>LA Basin – Western</td></tr><tr><td>Greater Bay – Oakland</td><td>LA Basin – El Nido</td></tr><tr><td>Greater Fresno – Panoche</td><td>San Diego/Imperial Valley – San Diego</td></tr><tr><td>Greater Fresno – Herndon</td><td>San Diego/Imperial Valley – El Cajon</td></tr><tr><td>Greater Fresno – Hanford</td><td>San Diego/Imperial Valley – Border</td></tr><tr><td>Greater Fresno – Coalinga</td><td>No_sub_area</td></tr></tbody></table>	North Coast – Eagle Rock	Greater Fresno – Borden	North Coast – Fulton	Greater Fresno – Reedley	Sierra – Placer	Kern – Westpark	Sierra – Pease	Kern – Kern Power-Tevis	Sierra – Gold Hill-Drum	Kern – Kern Oil	Stockton – Lockeford	Kern – South Kern PP	Stockton – Tesla-Bellota	Big Creek/Ventura - Vesta	Greater Bay – Los Angeles	Big Creek/Ventura - Santa Clara	Greater Bay – San Jose	LA Basin – Eastern	Greater Bay – South Bay – Moss Landing	LA Basin – Western	Greater Bay – Oakland	LA Basin – El Nido	Greater Fresno – Panoche	San Diego/Imperial Valley – San Diego	Greater Fresno – Herndon	San Diego/Imperial Valley – El Cajon	Greater Fresno – Hanford	San Diego/Imperial Valley – Border	Greater Fresno – Coalinga	No_sub_area	string
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Greater Bay – South Bay – Moss Landing	LA Basin – Western																															
Greater Bay – Oakland	LA Basin – El Nido																															
Greater Fresno – Panoche	San Diego/Imperial Valley – San Diego																															
Greater Fresno – Herndon	San Diego/Imperial Valley – El Cajon																															
Greater Fresno – Hanford	San Diego/Imperial Valley – Border																															
Greater Fresno – Coalinga	No_sub_area																															

Field Name	Instructions	Required Data Type
cpuc_approval_ref	Enter the Decision # or Advice Letter # by which the resource was approved by the CPUC, if applicable. If pending approval by the CPUC, enter "FILED". This column can be left blank for LSEs who do not have their contracts approved by the CPUC.	string
county	Select the county the project is located in from the dropdown list. If the project is not located in California, select the state it is located in. Dropdown list options are counties in CA and other states in the Western Energy Coordinating Council (WECC).	string
COD_year	Select or enter the year of the project's commercial operation date (COD) from the dropdown list. If the project is not yet online, enter the projected COD.	numeric
COD_month	Select or enter the month of the project's commercial operation date (COD) from the dropdown list. If the project is not yet online, enter the projected COD.	numeric
COD_day	Select or enter the day of the project's commercial operation date (COD) from the dropdown list. If the project is not yet online, enter the projected COD.	numeric
contract_start_date_year	Select or enter the year when energy/capacity deliveries are contracted to start or planned to start if the project is yet to be contracted.	numeric
contract_start_date_month	Select or enter the month when energy/capacity deliveries are contracted to start or planned to start if the project is yet to be contracted.	numeric
contract_start_date_day	Select or enter the day when energy/capacity deliveries are contracted to start or planned to start if the project is yet to be contracted.	numeric
contract_end_date_year	Select or enter the year when energy/capacity deliveries are contracted to end or planned to end if the project is yet to be contracted.	numeric

Field Name	Instructions	Required Data Type
contract_end_date_month	Select or enter the month when energy/capacity deliveries are contracted to end or planned to end if the project is yet to be contracted.	numeric
contract_end_date_day	Select or enter the day when energy/capacity deliveries are contracted to end or planned to end if the project is yet to be contracted.	numeric
contract_execution_date_year	Select or enter the year when the contract was executed. If the contract has not been executed, select or enter "NA". <u>Note:</u> If a contract has been amended, please use the original contract execution date.	numeric
contract_execution_date_month	Select or enter the month when the contract was executed. If the contract has not been executed, select or enter "NA". <u>Note:</u> If a contract has been amended, please use the original contract execution date.	numeric
contract_execution_date_day	Select or enter the day when the contract was executed. If the contract has not been executed, select or enter "NA". <u>Note:</u> If a contract has been amended, please use the original contract execution date.	numeric
contract_type	Select the contract type from the dropdown list: "RA", "RPS", "RA+RPS", "Other", "Unknown". If the contract type is not in the list, please use "Other" and provide more information in the <code>notes</code> column. Use "Unknown" if the contract product type is not known.	string
contract_price	Enter the price of the contract, corresponding to the contract type specified in the previous column (<code>contract_type</code>).	numeric

Field Name	Instructions	Required Data Type
contract_price_unit	Enter the units of the contract price specified in the previous column (contract_price). Examples: \$/kW-month, \$/MWh, or any other units corresponding to the contract price specified in the previous column.	string
tx_upgrades	Select the appropriate value from the dropdown list: “Yes”, “No”, “NA”. Please report if any upgrade(s) – Reliability Network Upgrade (IRNU or GRNU), Local Delivery Network Upgrade (LDNU), Area Delivery Network Upgrade (ADNU) – is(are) needed for this project. If the project is already online, select or enter “NA”. If the resource is generic or is pre-phase 1 and upgrade information is not yet known, select or enter “NA”.	string
tx_upgrade_date_year	Select or enter the year when the transmission upgrade is scheduled to come online.	numeric
tx_upgrade_date_month	Select or enter the month when the transmission upgrade is scheduled to come online.	numeric
tx_upgrade_date_day	Select or enter the day when the transmission upgrade is scheduled to come online.	numeric
tx_upgrade_description	Enter a brief identifying description of the transmission upgrade(s), including type of upgrade(s) and any additional information that LSEs want to provide about upgrade(s) needed for this project.	string
d2106035_procurement_cat	Select the appropriate value from the dropdown list: “general”, “ZE_gen_paired_dr”, “long_duration_storage”, “firm_ZE”, “NA”. This indicates whether the project is intended to be used to meet the various procurement requirements of D.21-06-035, D.23-02-040, and similar MTR obligations. If this project does not count toward MTR obligations, enter “NA” or leave blank. Ensure each row added has a unique lse_unique_contract_id and that the values in each row reflect only the applicable contracted attributes.	string

Field Name	Instructions	Required Data Type
	“general” – Refers to procurement that is not intended to meet any of the other procurement categories of D.21-06-035, D.23-02-040, and similar decisions, listed below. “ZE_gen_paired_dr” – Refers to the procurement categories: zero-emissions generation, generation paired with storage, or demand response resources, required by 2025, not necessarily in 2025. This is also sometimes referred to as the “Diablo Canyon Replacement” or DCR requirement and procurement. <u>Note 1:</u> Although DCR procurement may be counted towards the general annual requirements for compliance purposes, rows where a project is being counted towards the DCR requirement will not automatically be counted towards general obligations, i.e., a separate row will need to be entered. “long_duration_storage” – Refers to the long-duration storage resource procurement category due by 2031. “firm_ZE” – Refers to firm zero-emitting resource procurement category due by 2028. <u>Note 2:</u> An LLT resource does not need a separate row. Resources marked under LLT procurement category (long duration energy storage or clean firm) will automatically count towards the generic requirement. If a resource marked under the LLT category, also has excess NQC that can spill over to generic procurement, the excess may be applied on a different row.	
mtr_tranche1_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2023 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year.	numeric

Field Name	Instructions	Required Data Type
	CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “mtr_nqc_validation_tool” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE’s requirement. <u>Note:</u> Please enter any Long-Lead Time (LLT) procurement in the tranche where the LSE is using to meet it. Most, but not all, LLT procurement is expected to be in Tranche 6. <u>Note:</u> If a resource is being procured pursuant to the “Zero-emissions generation, generation paired with storage, or demand response resources” aka “Diablo Canyon Replacement” requirement, it likely may also serve an LSE’s annual requirement. Since the mtr_NQC_ZE_gen_paired_dr column is totaled separately, please ensure the appropriate NQC is included in the appropriate mtr_trancheN_NQC column.	
mtr_tranche2_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2024 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “mtr_nqc_validation_tool” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section.	numeric

Field Name	Instructions	Required Data Type
	<u>Note</u>: For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE's requirement. <u>Note</u>: Please enter any Long-Lead Time (LLT) procurement in the tranche where the LSE is using to meet it. Most, but not all, LLT procurement is expected to be in Tranche 6. <u>Note</u>: If a resource is being procured pursuant to the "Zero-emissions generation, generation paired with storage, or demand response resources" aka "Diablo Canyon Replacement" requirement, it likely may also serve an LSE's annual requirement. Since the <code>mtr_NQC_ZE_gen_paired_dr</code> column is totaled separately, please ensure the appropriate NQC is included in the appropriate <code>mtr_trancheN_NQC</code> column.	
<code>mtr_tranche3_NQC</code>	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2025 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the "mtr_nqc_validation_tool" worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note</u>: For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE's requirement.	numeric

Field Name	Instructions	Required Data Type
	<u>Note:</u> Please enter any Long-Lead Time (LLT) procurement in the tranche where the LSE is using to meet it. Most, but not all, LLT procurement is expected to be in Tranche 6. <u>Note:</u> If a resource is being procured pursuant to the “Zero-emissions generation, generation paired with storage, or demand response resources” aka “Diablo Canyon Replacement” requirement, it likely may also serve an LSE’s annual requirement. Since the <code>mtr_NQC_ZE_gen_paired_dr</code> column is totaled separately, please ensure the appropriate NQC is included in the appropriate <code>mtr_trancheN_NQC</code> column.	
mtr_tranche4_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2026 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “mtr_nqc_validation_tool” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE’s requirement. <u>Note:</u> Please enter any Long-Lead Time (LLT) procurement in the tranche where the LSE is using to meet it. Most, but not all, LLT procurement is expected to be in Tranche 6. <u>Note:</u> If a resource is being procured pursuant to the “Zero-emissions generation, generation paired with storage, or demand response resources” aka “Diablo Canyon	numeric

Field Name	Instructions	Required Data Type
	Replacement” requirement, it likely may also serve an LSE’s annual requirement. Since the <code>mtr_NQC_ZE_gen_paired_dr</code> column is totaled separately, please ensure the appropriate NQC is included in the appropriate <code>mtr_trancheN_NQC</code> column.	
<code>mtr_tranche5_NQC</code>	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2027 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “<code>mtr_nqc_validation_tool</code>” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE’s requirement. <u>Note:</u> Please enter any Long-Lead Time (LLT) procurement in the tranche where the LSE is using to meet it. Most, but not all, LLT procurement is expected to be in Tranche 6. <u>Note:</u> If a resource is being procured pursuant to the “Zero-emissions generation, generation paired with storage, or demand response resources” aka “Diablo Canyon Replacement” requirement, it likely may also serve an LSE’s annual requirement. Since the <code>mtr_NQC_ZE_gen_paired_dr</code> column is totaled separately, please ensure the appropriate NQC is included in the appropriate <code>mtr_trancheN_NQC</code> column.	numeric

Field Name	Instructions	Required Data Type
mtr_tranche6_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2028 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “mtr_nqc_validation_tool” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE’s requirement. <u>Note:</u> Please enter any Long-Lead Time (LLT) procurement in the tranche where the LSE is using to meet it. Most, but not all, LLT procurement is expected to be in Tranche 6. <u>Note:</u> If a resource is being procured pursuant to the “Zero-emissions generation, generation paired with storage, or demand response resources” aka “Diablo Canyon Replacement” requirement, it likely may also serve an LSE’s annual requirement. Since the mtr_NQC_ZE_gen_paired_dr column is totaled separately, please ensure the appropriate NQC is included in the appropriate mtr_trancheN_NQC column.	numeric

Field Name	Instructions	Required Data Type
mtr_NQC_ZE_gen_paired_dr	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its obligation for zero-emission generation, generation paired with storage, or demand response resources. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “mtr_nqc_validation_tool” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> The general procurement for each tranche should include any DCR procurement being used towards each tranche. <u>Note:</u> The NQC value entered in this column should be only the value being applied toward this procurement category. This column will not be added for annual NQC purposes. Please ensure the total procurement toward an annual obligation is also reported in one of the appropriate mtr_trancheN_NQC columns above.	numeric
mtr_tranche7_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2030 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the “mtr_nqc_validation_tool” worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at	numeric

Field Name	Instructions	Required Data Type
	that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE's requirement.	
mtr_tranche8_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2031 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the "mtr_nqc_validation_tool" worksheet. See instructions in MTR NQC Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note:</u> For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE's requirement.	numeric
mtr_tranche9_NQC	Please enter the NQC value (MW) that the LSE expects this project will contribute toward meeting its 2032 procurement order obligations for the selected tranche category. This column is not asking whether the contract will be delivered in this tranche year. CPUC Staff validate this value by verifying that it is equal to or less than the NQC value calculated in the "mtr_nqc_validation_tool" worksheet. See instructions in MTR NQC	numeric

Field Name	Instructions	Required Data Type
	Validation Tool and Summary. Please note that this column can be filled out after completing the steps in that section. <u>Note</u>: For most projects, an LSE should expect to fill in only one of these columns and leave the others blank (i.e., the initial NQC shown will be assumed to carry forward at that level). An LSE will use multiple columns if a single project or contract is being used to meet multiple tranches of the LSE's requirement.	
mtr_bridge_to	If the contract in this row serves as a compliance bridge for another contract, select the targeted lse_unique_contract_id from the dropdown list. If the bridge contract is being used for multiple other contracts, use multiple rows and add an incremental suffix to the bridge contract name, e.g., "bridgeA_1", "bridgeA_2", in the lse_unique_contract_id column.	string
contract_RA_compliant	If a contracted project experienced or is experiencing a delay and needs to rely on Month-Ahead (MA) RA compliance to be eligible for MTR tranches, select the appropriate value from the dropdown list.	string
engineering_assessment_included	If the contract is supplied with an engineering assessment study, please select "Yes" or "No" from the dropdown list. Otherwise, select "NA".	string
capacity_factor	Enter the capacity factor of the resource included in the contract. This is only applicable for contracts used towards the LLT procurement category.	numeric
contract_changed	If any aspect of a contract such as the start date, contracted capacity, or the amount of capacity claimed toward a specific tranche has changed since the previous compliance filing, please select "Yes" or "No" from the dropdown list.	string

Field Name	Instructions	Required Data Type
	If “Yes” is selected, indicate in the <code>notes</code> column whether it is a new contract (i.e., not reported previously) or an existing contract that has been modified from what was previously reported.	
<code>previous_COD_year</code>	Select the most appropriate value from the dropdown list. If a project is delayed beyond the compliance tranche deadline, please enter the <u>year</u> of the original COD as stated in the original contract. If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	numeric
<code>previous_COD_month</code>	Select the most appropriate value from the dropdown list. If a project is delayed beyond the compliance tranche deadline, please enter the <u>month</u> of the original COD as stated in the original contract. If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	numeric
<code>previous_COD_day</code>	Select the most appropriate value from the dropdown list. If a project is delayed beyond the compliance tranche deadline, please enter the <u>day</u> of the original COD as stated in the original contract. If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	numeric
<code>remediation_plan</code>	Please indicate whether a remediation plan for the project will be submitted with this report by selecting the appropriate value from the dropdown list: “Yes”, “No”, “NA”. This indicates one or more projects originally planned to meet the compliance/milestone requirements has failed to meet those requirements on time. If this project is not pursuant to an IRP Procurement Order, please choose “NA”.	string

Field Name	Instructions	Required Data Type
signed_contract	Please indicate ("Yes" or "No") whether an executed contract with the entity with contractual rights to the resource for a commercially viable technology exists. "No" indicates the project does not yet have an executed contract.	string
notice_to_proceed	Please indicate ("Yes" or "No") whether a "Notice to Proceed" or similar contractual evidence of construction commencement has been submitted to the CPUC with this report. If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	string
public_contract	Please indicate ("Yes" or "No") whether the contract is publicly announced. Please provide a description in the <code>notes</code> field. <u>Note</u> : If some contract information is public and other information is confidential, please make that clear here. This will help inform how much the Commission can disclose the contract in public documents. If an LSE needs to provide more context or needs to add more details, please add to the <code>notes</code> column.	string
buying_energy_capacity	Please report if this is an energy-only contract, capacity-only contract, or if the contract delivers both energy and capacity, by selecting the appropriate value from the dropdown list: "EnergyCapacity", "EnergyOnly", "CapacityOnly". <u>Note</u> : Remote resources should have firm transmission capacity in order to deliver capacity.	string
NQC_reporting_source	Select the appropriate value from the dropdown list if the reported NQC value(s) for this contract were specified in the contract itself or if these values are the result of an estimation. MTR-NQC values are assumed to be calculated. Dropdown list options: "In the contract", "Calculated".	string

Field Name	Instructions	Required Data Type
procurement_origin	Please report the origin for procuring this project. Some examples are: RPS, D1911016, D2106035, emergencyreliability, storagemandate, selfgenerationincentiveprogram, localcapacityrequirement. If it's more than one, please list them all and separate by comma.	string
planned_project_retention_priority	This column is for planned resources only. This column identifies projects that an LSE prefers to retain or remove from the portfolio. It will be used to capture LSE preferences should IRP staff need to adjust/remove LSE's planned projects from the portfolio for modeling purposes (e.g., 1373 resource allocation modeling or over reliability in the portfolio). Please select one of the following from the dropdown list for planned projects. "FALSE" – For planned resources that the LSE would view as more willing to have removed from the portfolio for modeling purposes. "TRUE" – Retained Resources; for resources that the LSE would prefer to maintain in the portfolio for modeling purposes.	string
csp_resource_category	For each contract, select the appropriate CSP category from the dropdown list. Please review Error! Reference source not found. below for more details. A resource is considered "existing" in the CSP calculator if it is a baseline resource or, in the case of "plannedexisting", is expected to be a baseline resource, in the RDT "resources" tab. Note that the units to be used in the proceeding csp_annual_YYYY columns are specified for each selectable resource type in the dropdown. These include: • NA • Large Hydro (GWh) • Solar Baseline California (GWh) • Solar New PG&E (GWh)	string

Field Name	Instructions	Required Data Type
	• Imported Hydro (GWh) • Asset Controlling Supplier (GWh) • Nuclear (GWh) • Biogas (GWh) • Biomass (GWh) • Geothermal (GWh) • Small Hydro (GWh) • Wind Baseline California (GWh) • Wind New PG&E (GWh) • Wind New SCE SDG&E (GWh) • Wind Pacific Northwest (GWh) • Wind Wyoming (GWh) • Wind New Mexico (GWh) • Wind Offshore Morro Bay (GWh) • Wind Offshore Humboldt (GWh) • Solar New SCE SDG&E (GWh) • Solar Distributed (GWh) • Hybrid_or_Paired_Solar_and_Battery (GWh) • Shed DR (MW) • Pumped Storage (MW) • Battery Storage (MWh Energy Capacity) • Storage Resource Custom Profile (MW) • RPS Resource Custom Profile (GWh) • GHG-free non-RPS Resource Custom Profile (GWh) • Coal (GWh)	
csp_annual_2028	Report on the project's delivery for the CSP's 2028 study years based on the specified unit. Please review Error! Reference source not found. below for more details.	numeric
csp_annual_2030	Report on the project's delivery for the CSP's 2030 study years based on the specified unit. Please review Error! Reference source not found. below for more details.	numeric
csp_annual_2035	Report on the project's delivery for the CSP's 2035 study years based on the specified unit. Please review Error! Reference source not found. below for more details.	numeric
csp_annual_2040	Report on the project's delivery for the CSP's 2040 study years based on the specified unit. Please review Error! Reference source not found. below for more details.	numeric

Field Name	Instructions	Required Data Type
csp_annual_2045	Report on the project's delivery for the CSP's 2045 study years based on the specified unit. Please review <i>Error! Reference source not found.</i> below for more details.	numeric
macro_supertype	This column is reserved for the RDT macro use. This column will be populated after users run the "Error Check Macro". See <i>Supertype</i> for more details.	string
fcds_status	Select the project's Full Capacity Deliverability Status from the dropdown list.	string
resource_type	Select the project's resource type from the dropdown list.	string
developer_contract_name	List the name of the contact person for the project's developer.	string
developer_contract_email	List the email of the contact person for the project's developer.	string
developer_contract_phone_number	List the phone number of the contact person for the project's developer in the format: ###-###-####.	string
city	List the project location city.	string
reliability_status_report	Indicate whether the contract is to be reported in the Procurement Status Report (aka Summer/Monthly Reliability data template). <u>Note</u> : Staff understand that contracts used to fulfill MTR Compliance may or may not be used to meet reliability.	string
notes	Enter any additional information that the LSE wants to provide and was not captured in the existing columns.	string

5 Resources

The RDT defines a list of valid resource names under the `resource` column in the “resources” worksheet (RDT.resources.resource). This list contains specified physical resources, unspecified resources that are delivered over a specific transmission branch group, or unspecified resources that are from a specific competitive renewable energy zone (CREZ)². There are also options for resources that have less specific information. For resources where the specific name is not included in the resource list, please use the generic branch name. Include the CAISO ID or other specific name in the `alternative_resource_name` column. The types of resource names in the resource list are:

- Baseline resources (either CAISO ID, ADS name, RPS name, name from the Mid-Term Reliability Baseline Generator List, or other name like DR program)
- Resources from the CAISO Generator Interconnection Resource ID Report, as of its release
- Branch Group names of the form “_BRANCH_GENERIC_branchname” where “branchname” is the name of the transmission branch name
- New candidate resource within specific IOU boundaries as proposed in the 2025 Inputs & Assumptions that match CAISO study areas
- Special case values (“unspecified”, “unbundledrec”, “sellerschoice”)

6 Contract Status

The `contract_status` column takes on one of the following accepted values: “Online”, “Development”, “Review”, “PlannedExisting”, and “PlannedNew”. These terms are defined in the table below.

<code>contract_status</code>	Definition
Online	Contract has been signed (or the LSE owns the resource) and the resource is online as of Cutoff Date. The Cutoff Date is defined in the IRP Filing Requirements Overview ³ .

² Please note that while CREZ is old terminology, it basically means transmission zones as per section 4.2.1 of the 2019 Inputs and Assumptions document.

³ Available on the IRP Procurement Filing Materials webpage: [IRP Procurement Track Compliance Filing Materials](#)

contract_status	Definition
Development	Contract has been signed and approved by CPUC and/or the LSE's highest decision making authority as applicable (or the LSE owns the resource), but the resource is still under development and not yet online (as of Cutoff Date).
Review	Contract has been selected and is under review by the LSE's highest decision-making authority (e.g., board of directors) as of the Cutoff Date. For LSE-owned resources, this means that the decision making authority is reviewing whether to authorize the LSE-owned resource. This includes contracts shortlisted due to an RFO (Request For Offer) or a similar procurement method. It can also include bilateral contracts not resulting from an RFO.
PlannedExisting	Contract is not yet signed (as of Cutoff Date), and resource has a valid Resource ID in the resources table (RDT.resources.resource).
PlannedNew	Contract is not yet signed (as of Cutoff Date), and resource does not have a valid Resource ID in the resources table (RDT.resources.resource).

7 Supertype

The `supertype` of a resource is a property for each physical or generic resource that is defined in the `resources` table (RDT.resources.supertype). The table below defines the various supertypes.

supertype	Definition
physical	A specific existing resource.
existinggeneric	Unspecified existing physical resource.
newresolve	New resource that can be mapped to a particular CREZ.
newgeneric	New resource that cannot be mapped to a particular CREZ or for which the LSE has not planned to procure a particular technology.
newloadmod	New load modifier resource.

supertype	Definition
specifiedimport	Specific existing resource with a CAISO ID that is imported from outside of the CAISO.
supplierschoice	LSE buys capacity/energy from a non-LSE entity that is able to provide a mix of resources that are not predetermined in a contract.
unbundledrec	A contract for Renewable Energy Credits, not unit specific energy, that is not actually delivered to CAISO. There is no energy or capacity product associated with this contract, and this is primarily for RPS compliance.
unspecifiedimport	Imports from outside of the CAISO, delivered over a particular intertie branch group. Resource mix not known.
unspecifiednonimport	A contract for a quantity of energy that is not unit specific, sourced from capacity within the CAISO.

In the “unique_contracts” worksheet, the `supertype` column is automatically populated when users run the error check macro. Users generally do not need to fill this column.

8 Key Relationships

For each entry in the “unique_contracts” worksheet of the RDT, there are several important relationships that must be maintained between certain columns within the input table. These relationships are checked by RECART, the error checking tool that Staff use on submitted RDTs.

- **supertype-to-contract_status:** For each `supertype`, the `contract_status` can take the certain allowed values indicated in the table below. Any other choice will be flagged as an error.

supertype	contract_status
physical	Online, Development, PlannedExisting
existinggeneric	Online, PlannedExisting
newresolve	Online, Development, Review, PlannedNew
newgeneric	Online, Development, Review, PlannedNew

newloadmod	Online, Development, Review, PlannedNew
specifiedimport	Online, PlannedExisting
supplierschoice	Online, PlannedExisting
unbundledrec	Online, PlannedExisting
unspecifiedimport	Online, PlannedExisting
unspecifiednonimport	Online, PlannedExisting

9 Instructions for Specific Resources/Contracts

- A. CAM resources:** LSEs do not need to input CAM or RA assigned DR allocations for IRP Procurement Compliance filings.
- B. GHG free PCIA resources:** LSEs do not need to enter GHG free PCIA resources for IRP Procurement Compliance filings.
- C. VAMO:** LSEs only need to enter VAMO resources to the extent that they impact or are part of an LSE's IRP procurement compliance requirements.

Please note that many of the above resource types (CAM, PCIA, VAMO, etc.) will be required in an LSE's full Integrated Resource Plan (IRP) filings to understand the LSE's full portfolio (and allow the functionality of the CSP and Reliability worksheets). The above instructions apply only to the biannual IRP procurement compliance filings.

- D. Inter LSE Transfers:** For other inter LSE transfers of IRP procurement compliance resources, LSEs need to report such transfers by selecting the resource being purchased or sold in the `resource` column's dropdown list and indicating whether the transfer is a purchase (buy) or a sale (sell) in the `buy_sell_own` column.
 1. Additionally, the LSE needs to select the counterparty from the dropdown list in the `counterparty` column. If the resource is being sold by the LSE to a non-LSE counterparty, select "non-LSE counterparty".
 2. If the transfer is a purchase (buy) from a non-LSE supplier, leave the `buy_sell_own` column blank.
 3. LSEs do not need to report buy/sell for each resource individually. However, these must be bundled by resource type.
- E. suppliers_choice:** This listing is only for when the LSE is purchasing from a non-LSE counterparty AND the resource being procured is not unit specific or the LSE does not know the specific mix of generation. If the counterparty is an LSE, then please follow directions for either unspecified import or unspecified non-import resources. In the event of a supplier's choice, the LSE is requested to select "_SUPPLIERS_CHOICE" from the dropdown list in the `resource` field and use the

`generator_supplier` field to name the non-LSE supplier with whom the LSE has a contract. Please also use the `resource_mix` column to describe the estimated mix of resource types in the contract and estimate the resource nameplate for the contract.

- F. Resources with changing operational characteristics over the course of the time horizon:** Some resources, like a hybrid resource that will charge from the grid in later years, may have operational characteristics that change over the course of the time horizon. In these cases, please enter them as two (or more) separate lines in the “unique_contracts” worksheet.
- G. Marginal additions:** Marginal additions refer to the resources that have their capacity expanded (e.g., adding batteries to an existing solar facility, adding additional solar to an existing solar facility, etc.) over the reporting time frame.
1. If this project is based on expanding an already existing resource in the “RDT.resources.resource” field (e.g., adding more solar capacity to one of the existing solar resources in the “resources” worksheet):
 - a. Select one of the generic resources from “RDT.resources.resource” with a specific type that reflects this resource.
 - b. Follow the instructions for the `marginal_addition` column.
 - c. Report the existing resource name in the `marginal_addition_to` column (i.e., the resource that has been expanded).
 - d. Report the rest of the columns for the expanded project.
 2. If this project is based on adding storage to an already existing generator, follow the “Hybrid/paired resource” instruction.
- H. Hybrid/paired resource:** A hybrid/paired resource consists of a generator and storage. For reporting such a contract in the RDT’s “unique_contracts” worksheet, please follow the below instructions:
1. Please use separate rows to enter the technologies for hybrid contracts and make sure to use separate resources IDs for each specific technology of the hybrid resource, e.g., “contractA_solar” and “contractA_storage” for a solar+storage hybrid resource.
 2. Select one of the generic resources from RDT.resources.resource with a specific type that reflects the generator portion of the hybrid/paired resource.
 3. Follow the instruction for `marginal_addition` column.
 4. If this resource has become hybrid/paired by adding storage to an already existing generator listed in the “RDT.resources.resource” field, report the existing resource name in the `marginal_addition_to` column.

5. In the `total_nameplate_capacity` column, report the maximum rate (interconnection capacity) that this hybrid/paired project can deliver. In most cases, this will be less than the generator portion of the hybrid, plus the storage portion of the hybrid.
6. In the `contracted_nameplate_capacity` column, report the maximum rate (interconnection capacity) that the LSE can receive from this hybrid/paired project. In most cases, this will be less than the LSE's generator portion of the hybrid, plus the LSE's storage portion of the hybrid.
7. Select the hybrid technology combinations from the dropdown list in the `is_hybrid_paired` column.
8. In the `can_charge_from_grid`, specify if the storage can charge from the grid or if it can only charge from the paired generator.
9. In the `total_generator_mw` column, report the nameplate of the generator portion of the resource, in MW (the whole project).
10. In the `contracted_generator_mw` column, report the LSE's contracted nameplate of the generator portion of the project, in MW.
11. In the `total_storage_mw` column, report the nameplate of the storage portion of the resource, in MW (the whole project).
12. In the `contracted_storage_mw` column, report the LSE's contracted nameplate of the storage portion of the project, in MW.
13. Specify solar – if the generator portion is solar – and storage technology types in `solar_technology_sub_type` and `storage_technology_sub_type`.
14. In the `total_storage_depth_mwh` column, report the storage total depth in MWh (the whole project).
15. In the `contracted_storage_depth_mwh` column, report the storage total depth in MWh that LSE has contracted for.

10 CSP Column Instructions

For each contract reported in the RDT's "unique_contracts" worksheet, LSEs need to specify what CSP category the contract falls under and also report the associated MW or GWh for the CSP's study years: 2028, 2030, 2035, 2040, and 2045. After filling out the RDT, the LSE should copy the numeric values from both tables in the "CSPReportSheet" worksheet in the RDT directly into the

“Supply Inputs” sheet of the CSP workbook using the “paste as values” option when copying and pasting in Excel. Resources, including dedicated imports, count towards an LSE’s CSP portfolio only if their power output is delivered to (1) a California Balancing Authority area, if RPS-eligible, or (2) the CAISO system if the resource is not RPS-eligible. The CSP sheet is not required for IRP Procurement Compliance filings.

A. This CSP portfolio includes:

- a. RPS-eligible delivered resources (whether within CAISO or a dedicated import; includes RPS Bucket 1 and any other RPS-eligible resources that meet the criteria to qualify as RPS Bucket 1, except for the contract execution date of the resource)
- b. Large hydro within CAISO
- c. Dedicated imports of Pacific Northwest hydro (under control of an Asset Controlling Supplier)
- d. Nuclear (whether within CAISO or a dedicated import)
- e. Coal (dedicated import)
- f. Shed demand response (load shedding at peak)
- g. Standalone Battery storage
- h. Pumped hydro storage
- i. Hybrid or paired solar and battery resources
- j. Generation with a defined hourly profile that:
 - i. Does not fit into one of the categories above, and
 - ii. Does not produce GHG emissions
- k. Standalone storage with a defined hourly profile that:
 - i. Does not fit into one of the categories above

B. The CSP portfolio excludes:

- a. Dispatchable gas resources (combined cycle, combustion turbine, etc.)
- b. Unspecified imports
- c. Gas-fired combined heat and power

For each contract in the “unique_contracts” worksheet, select the appropriate CSP category in the `csp_resource_category` column according to A and B above.

- The available CSP categories are:

Large Hydro (GWh);
 Imported Hydro (GWh);
 Asset Controlling Supplier (GWh);
 Nuclear (GWh);
 Biogas (GWh);
 Biomass (GWh);
 Geothermal (GWh);
 Small Hydro (GWh);
 Wind Existing California (GWh);
 Wind New PG&E (GWh);
 Wind New SCE SDG&E (GWh);
 Wind Pacific Northwest (GWh);
 Wind Wyoming (GWh);
 Wind New Mexico (GWh);
 Wind Offshore Morro Bay (GWh);

Wind Offshore Humboldt (GWh);
 Solar Existing California (GWh);
 Solar New PG&E (GWh);
 Solar New SCE SDG&E (GWh);
 Solar Distributed (GWh);
 Hybrid or paired solar and battery (GWh);
 Shed DR (MW);
 Pumped Storage (MW);
 Battery Storage (MWh Energy Capacity);
 Storage Resource Custom Profile (MW);
 RPS Resource Custom Profile (GWh);
 GHG-free non-RPS Resource Custom Profile (GWh);
 Coal (GWh)

- A resource is considered “existing” in the CSP calculator if it is a baseline resource or, in the case of planned existing, is expected to be a baseline resource, in the RDT “resources” tab.
- The CSP categories have different units based on resource type (as specified for each):
 - Installed capacity for shed demand response, pumped hydro, and storage resource custom profile (MW);
 - Installed discharge depth for standalone batteries (MWh Energy Capacity);
 - and annual energy for all other resources (GWh).
- After choosing the CSP category, LSEs must report the project’s delivery for the CSP’s study years based on the specified unit. Leave the study year fields blank if the CSP category is “NA”.
 - There are five columns in the “unique_contracts” worksheet to cover the CSP’s study years: `csp_annual_2028`, `csp_annual_2030`, `csp_annual_2035`, `csp_annual_2040`, `csp_annual_2045`.
- For resources that must be excluded from CSP portfolio based on A and B above (e.g., unspecified imports, Combined Cycle Gas Turbine Power Plant, etc.), please select “NA” for the CSP category. Please do not leave this field blank.

11 Reliability Worksheets Instructions

The purpose of the “Reliability – Planning” worksheet is to inform whether there are sufficient capacity contracts to meet each LSE’s reliability needs under different evaluation frameworks. The “Reliability – Planning” worksheet has the same structure as the “Reliability” worksheet from previous RDT releases and should be used by LSEs to check compliance towards filing requirements when developing resource plans for the 2024-2026 IRP. The information Reliability-Planning tab is included below.

Section Name	Instructions
Reliability Need	Total Reliability Need (TRN) is the total MW of equivalent perfect capacity necessary to meet the 0.1 LOLE standard. The Planning Reserve Margin (PRM) is the margin above the CAISO gross peak demand needed to reach the TRN, expressed as a percentage of the CAISO gross peak demand. The CAISO gross peak demand is updated to be consistent with the California Energy Demand Forecast from the 2024 Integrated Energy Policy Report (IEPR) Update. Reliability Procurement Need (RPN) is the total MW of equivalent perfect capacity needed during the critical hours to meet the 0.1 LOLE standard. In the “Reliability – Planning”, the RPN is calculated as the sum-product of the capacity and the marginal ELCC for all resource types in the least-cost CAISO portfolio calibrated to 0.1 LOLE. The capacity of existing resources except for solar, wind, storage and demand response is the September NQC of the resource; the capacity of new resources and all solar, wind, storage, and demand response resources is the nameplate capacity. The marginal ELCC percentages were modeled using the calibrated least-cost portfolios for the 2024-26 IRP. The RPN values were also calculated using these updated marginal ELCCs and therefore the values may differ from the estimated RPN values included in the RCPFP staff proposal published on April 29, 2025. Please enter LSE’s % share of load during critical hours distributed by the CPUC.

Section Name	Instructions
	The reliability worksheets have different reliability need calculations, reflecting their respective program designs.
BTM PV	Please enter the installed capacity values based on LSE's allocation that CPUC staff released.
ELCC (%)	No LSE inputs required. This section shows the marginal ELCC percentages for each resource type based on the calibrated least-cost portfolios for the 2024-26 IRP.
Contract ELCC (MW)	This section aggregates contract ELCCs calculated in the "Calcs" worksheet. Please follow the instructions in the "Calcs" worksheet so that all contracts are included in the reliability calculation. For more details on the logic used in the "Calcs" worksheet, please see paragraphs below. The "Reliability – Planning" worksheet includes all contracts, regardless of their contract status.
Load and Resource Table by Resource Type	Summary table and chart. No LSE input required.
Load and Resource Table by Contract Status	Summary table and chart. No LSE input required.

LSEs should be aware for their planning purposes that contracts with "EnergyCapacity" and "CapacityOnly" under the `buying_energy_capacity` column in the "unique_contracts" worksheet are considered capacity contracts. Contracts with "EnergyOnly" are not considered capacity contracts and will get zero ELCC vales in the reliability calculations, except for those with hybrid storage. For a capacity contract to contribute to the LSE's reliability needs in a specific year, the contract start date must be on or before June 1st of that year and the end date must be on or after October 1st of that year. Also, capacity contracts with "sell"

under the `buy_sell_own` column in the “unique_contracts” worksheet are subtracted from the total available capacity to meet the LSE’s reliability need. LSEs should enter positive numbers under columns related to contract capacities in the “unique_contracts” worksheet; the “Calcs” worksheet automatically subtracts “sell” contracts.

Contracts with “NotHybrid” under the `is_hybrid_paired` column in the “unique_contracts” worksheet are considered standalone contracts. Contracts with other entries are considered hybrid/paired contracts. The ELCC of a standalone contract is calculated by multiplying the `contracted_nameplate_capacity` with the ELCC % value of the corresponding ELCC type of the `resource`. For existing resources that are not solar, wind, battery, or DR, their `sep_contracted_mw_nqc` capacity will be multiplied with the ELCC % value to align with the methodology used to develop the ELCC values. For a standalone storage contract, its ELCC type is based on the storage duration, which is determined by `contracted_nameplate_capacity` and `contracted_storage_depth_mwh`. Storage durations that are not integers are rounded down to the nearest integer (for example, 4.5 hours is rounded down to 4 hours). Contracts with durations greater than or equal to 100 hours have the same ELCC % values as 100-hour storage. They are grouped under “100hr_batteries” in the summary tables and charts. The ELCC % for contracts with durations of less than 4 hours are calculated by multiplying the 4-hour storage ELCC % with a derate based on contract duration and the 4-hour duration. These contracts are grouped under “4hr_batteries” in the summary tables and charts. ELCCs for contracts with durations other than 4, 8, 12, 24, or 100 hours are linearly interpolated between the two nearest durations and grouped under the shorter duration in summary tables and charts for display purposes.

The ELCC of a hybrid/paired contract is the sum of the generator ELCC and the storage ELCC, subject to certain considerations as follows. The generator ELCC is calculated by multiplying the `contracted_generator_mw` with the ELCC % value of the corresponding ELCC type of the `resource`. The storage ELCC is calculated by multiplying the `contracted_storage_mw` with the ELCC % value of the corresponding ELCC type of the storage duration, which is determined by `contracted_storage_mw` and `contracted_storage_depth_mwh`. Storage ELCC calculations follow the same method as those for standalone storage contracts described above.

The storage ELCC of a hybrid contract (i.e., a contract with “NO” under `can_charge_from_grid`) may be subject to a cap on its capacity contribution if it is a solar-storage or wind-storage contract and does not meet a minimum threshold of generator to storage MW ratio. For solar-storage contracts, the minimum generator MW (as % of 4-hr storage MW) is 100%. For wind-storage contracts, the minimum is 200%. If a contract does not have enough generator capacity to meet the threshold, the storage capacity used in the ELCC calculation is derated to the maximum capacity that meets the threshold.

In addition to potential storage ELCC derates for hybrid contracts, the ELCCs of hybrid/paired contracts may be limited by their interconnection capacity. The sum of `contracted_nameplate_capacity` of the same hybrid/paired contract represents the interconnection capacity and thus limits the maximum ELCC of the contract. When the sum of the generator ELCC and the storage ELCC is greater than the interconnection capacity, the final ELCC of this contract is equal to the interconnection capacity.

Contract status is not directly used in any reliability calculation (i.e., the ELCC of a contract is not impacted by its contract status), but it is used for grouping in one of the summary tables to show LSE's capacity position.

12 Error Checking Macro Instructions

LSEs are required to run the error checking macro and ensure an error-free "ReportSheet" worksheet before final submission. This may entail running the macro several times. If warnings remain in the "ReportSheet", LSEs may still submit the RDT with the warnings if CPUC Staff are made aware by the LSE.

12.1 Recommendations

- **IMPORTANT:** Because Excel's undo feature does not revert changes made by macros, it is highly recommended that a backup version of RDT file is saved before running the macro. Once a macro is run, users cannot undo any of the changes!
- It is not recommended to have other Excel workbooks open when running the macro, as conflicts may arise.
- Most errors arise when a required field of data has been left blank. It is recommended that LSEs review each of the requirements for the different contract attributes when error-checking.
- If the macro takes a long time to complete (i.e., more than 1-2 minutes) or any errors are shown for rows that contain no contract data, check for any invisible characters have been inadvertently pasted/entered into the "unique_contracts" tab. LSEs are again reminded to paste data into the RDT "as values" only.
- The Visual Basic "rdt_v3_0_error_checker" module has intentionally been left unlocked so that LSEs may, separate from their official submissions, suggest corrections to the VBA code.

12.2 Instructions

1. Once contract data has been entered in the RDT, go to the "README" sheet and click on the button titled **Run error check macro**.

- a. If no errors are encountered with the macro itself, the “ReportSheet” sheet should be shown. If the macro encounters an error, a message box will be shown describing which sub procedure the error occurred in. Note that the logic for each sub procedure is outlined below.
 - b. The macro can be rerun as many times as needed following the above steps. Each time, it will automatically clear the ReportSheet of previous errors and recheck for errors.
2. Due to the diversity of submissions and nature of Visual Basic for Applications projects in Excel, some errors in the macro are likely to eventually be identified. If such an error occurs, LSEs are instructed to send staff an email with an attached RDT showing example inputs that recreate the error only.
3. Do not make any changes to the VBA code or formulas for official data submissions.

12.3 Macro Report Sheet

The following table lists the RDT “ReportSheet” fields and descriptions of the data entry errors that the macro may identify.

RDT ReportSheet Field	Description	Involved unique_contracts Field(s)
Duplicated Contract IDs	The macro has detected one or more duplications of an entered contract ID or a blank ID. Lists the duplicate contract ID(s).	1. lse_unique_contract_id
Entry with non-positive values	The macro has detected negative values in a numeric column. Returns column name and row. As noted in Unique Contracts , all numeric values should be input as positive numbers, even when the contract is a sale.	1. total_nameplate_capacity 2. contracted_nameplate_capacity 3. sep_contracted_mw_nqc 4. contract_gwh_annual 5. total_generator_mw 6. contracted_generator_mw 7. total_storage_mw 8. contracted_storage_mw 9. total_storage_depth_mwh 10. contracted_storage_depth_mwh 11. COD_year 12. COD_month 13. COD_day

RDT ReportSheet Field	Description	Involved unique_contracts Field(s)
		14. contract_start_date_year 15. contract_start_date_month 16. contract_start_date_day 17. contract_end_date_year 18. contract_end_date_month 19. contract_end_date_day 20. contract_execution_date_year 21. contract_execution_date_month 22. contract_execution_date_day 23. tx_upgrade_date_year 24. tx_upgrade_date_month 25. tx_upgrade_date_day 26. mtr_tranche1_NQC 27. mtr_tranche2_NQC 28. mtr_tranche3_NQC 29. mtr_tranche4_NQC 30. mtr_tranche5_NQC 31. mtr_tranche6_NQC 32. mtr_NQC_ZE_gen_paired_dr 33. mtr_tranche7_NQC 34. mtr_tranche8_NQC 35. mtr_tranche9_NQC 36. previous_COD_year 37. previous_COD_month 38. previous_COD_day 39. csp_annual_2028 40. csp_annual_2030 41. csp_annual_2035 42. csp_annual_2040 43. csp_annual_2045

RDT ReportSheet Field	Description	Involved unique_contracts Field(s)
Invalid resource error rows	The macro has detected values in the resource column that are not in the "resources" tab's resource field. Returns the row numbers of the contracts with invalid resource IDs.	1. resource
Rows missing required project viability associated data	The macro has detected a contract row that lacks one or more of the required values in the viability fields. Returns the row number(s) of the contract(s). As noted in the instruction, these fields are only necessary for projects not online yet.	1. viability_cod_reasonableness 2. viability_technical_feasibility 3. viability_financing_sitecontrol
Rows missing required hybrid associated data	The macro has detected a contract row lacks one or more of the required values in a hybrid-related fields. Returns the row number(s) of the contract(s).	1. can_charge_from_grid 2. contracted_generator_mw 3. contracted_nameplate_capacity 4. contracted_storage_depth_mwh 5. contracted_storage_mw 6. is_hybrid_paired 7. total_generator_mw 8. total_nameplate_capacity 9. total_storage_depth_mwh 10. total_storage_mw
Supertype Contract Status Error or Null Rows	The macro has detected that a contract row has an invalid entry in the contract_status field or lacks an entry in one or more of the other required fields. Returns the row number(s) of the contract(s).	specifiedimport 1. contract_status: online, plannedexisting physical 1. contract_status: online, development, plannedexisting unbundledrec 1. contract_status: online, plannedexisting

RDT ReportSheet Field	Description	Involved unique_contracts Field(s)
		newresolve: newgeneric, or newloadmod 1. contract_status: online, plannedexisting existinggeneric, unspecifiedimport, or unspecifiednonimport 1. contract_status: online, plannedexisting supplierschoice 1. contract_status: online, plannedexisting
Transaction counterparty error rows	The macro has detected that a contract row is marked as “buy” or “sell” but no counterparty was provided. Returns the row number(s) of the contract(s).	1. buy_sell_own 2. counterparty
Rows missing CSP GWh	The macro has detected that a contract row is marked as a CSP category but lacks any entries in the csp_annual_YYYY fields. Returns the row number(s) of the contract(s).	1. csp_resource_category 2. csp_annual_2028 3. csp_annual_2030 4. csp_annual_2035 5. csp_annual_2040 6. csp_annual_2045
Rows with invalid buying_energy_capacity and csp_resource_category	The macro has detected that a contract row meets the following conditions: 1. The csp_resource_category field is marked as a CSP category other than “NA” or blank. 2. The buying_energy_capacity field is marked as CapacityOnly. 3. The selected csp_resource_category category is not a form of storage.	1. csp_resource_category 2. buying_energy_capacity
Rows missing MTR NQC	The macro has detected that a contract row is marked as meeting MTR	1. mtr_tranche1_NQC 2. mtr_tranche2_NQC

RDT ReportSheet Field	Description	Involved unique_contracts Field(s)
	compliance but is missing entry(ies) in the <code>mtr_tranche#_NQC</code> fields. Returns the row number(s) of the contract(s).	3. <code>mtr_tranche3_NQC</code> 4. <code>mtr_tranche4_NQC_LDES</code> 5. <code>mtr_tranche5_NQC_firm_ZE</code> 6. <code>mtr_tranche6_NQC_LLT</code>
Warning-total capacity is equal to or greater than generator plus storage MWs for rows	This is a warning (not an error) that occurs for hybrid/paired contracts when: <code>total_nameplate_capacity >= total_generator_mw + total_storage_mw</code> Returns the row number(s) of the contract(s).	1. <code>total_nameplate_capacity</code> 2. <code>contracted_generator_mw</code> 3. <code>contracted_storage_mw</code>
Warning-contract with NQC equal to or greater than contracted capacity MWs:	This is a warning (not an error) that occurs when: <code>sep_contracted_mw_nqc >= contracted_nameplate_capacity</code> Returns the row number(s) of the contract(s).	1. <code>sep_contracted_mw_nqc</code> 2. <code>contracted_nameplate_capacity</code>

12.4 Macro Logic

1. `rdt_v3_error_checker`

- Checks that the required worksheets are in the workbook (i.e., no worksheets have been removed/renamed).
- Activates the other sub procedures.
- Error handling.

2. `get_unique_contracts_data`

- Creates dictionaries of the data entered into the “unique_contracts” worksheet.

3. get_resources_data

- a. Creates dictionaries of the data on the resources sheet for reference.

4. create_reports

- a. Checks if the “ReportSheet” worksheet exists.
 - i. If not, creates a sheet of the same name.
 - ii. If so, clear the contents from the tab.
- b. Adds and formats headers.

5. check_values

- a. Checks that all entered values in numeric fields are positive.

6. get_super_type

- a. Determines the supertype for each resource entered and pastes the value to `macro_supertype` field of the “unique_contracts” worksheet.

7. check_resources

- a. Flags any duplicated contract IDs.

8. check_duplicated_ids

- a. Creates dictionary of the contract IDs, creates an array of any IDs appearing more than once or left blank. Prints array.

9. check_viability

- a. Checks that any projects with `contract_status` “Development” or “PlannedNew” have values in all viability fields.

10. check_hybrid

- a. Checks that any field flagged as a hybrid contains an entry in the hybrid fields described in [Macro Report Sheet](#).
- b. Checks if total capacity is greater than or equal to total generator plus total storage. Prints warning for non-conforming row numbers in the “ReportSheet”.

11. check_super_status

- a. Checks that the `contract_status` field and other required fields of the contract comply with the supertype as described in [Key Relationships](#).

12. check_transaction

- a. If contract is marked as “buy” or “sell”, checks that counterparty was provided.

13. check_csp_year

- a. Reports any contracts that do not have entries in `csp_resource_category`.

14. check_d2106035_tranche

- a. Reports any D.21-06-035 contracts that lack entries into one of the `mtr_trancheN_NQC` columns.

12.5 Known Macro Issues/Errors

1. **An error occurred when processing the sub 'check_d2106035_tranche':Type mismatch:** If users run into an error related to the "check_d2106035_tranche" module, please make sure that empty cells under any of the `mtr_trancheN_NQC` columns are actually empty. Unintentional spaces may show up from copying and pasting, so make sure to press the backspace or delete keys in the selected empty cell.
2. **Query 'QUEUE_AND_ALIAS' (step 'AutoRemovedColumns1') is accessing data sources that have privacy levels which cannot be used together. Please rebuild this data combination.:** If users perform a workbook data refresh ("Data > Refresh All") action and run into an error related to the "QUEUE_AND_ALIAS" table, make sure to set CAISO data source privacy levels to "Public". Users may be prompted to do this immediately after opening the workbook.

13 MTR NQC Validation Tool and Summary

The purpose of the "mtr_nqc_validation_tool" and "mtr_nqc_summary" worksheets are to allow each LSE to describe how contracts are used to satisfy its MTR obligations. LSEs are also required to include and provide information in the RDT for any projects intended to meet D.21-06-035 (the Mid-Term Reliability (MTR) Procurement Decision) and D.23-02-040 (the Supplemental MTR Procurement Decision). LSEs should include information for all applicable columns in the RDT. Information on these resources should be filed in the same RDT and LSEs should follow all instructions above regarding milestone reporting and the table of contents cover pages (crosswalk table). Additional information about milestone reporting and crosswalk table can be found in the IRP Procurement Filing Requirements Overview found on the IRP Procurement Track webpage⁴. The following constitutes additional instructions to follow for D.21-06-035, D.23-02-040, and similar decision resources.

Each row in the "mtr_nqc_validation_tool" worksheet represents the contribution of the contract towards meeting the respective obligation in a given tranche. In other words, a separate row is required for each instance where a contract is used per MTR tranche.

⁴ IRP Procurement Track Compliance Filing Materials webpage: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/more-information-on-authorizing-procurement/irp-procurement-track/irp-procurement-filing-materials>

Users only need to manually fill out the **blue** columns in the “mtr_nqc_validation_tool” worksheet. Other columns will be automatically populated using built-in formulas.

Please see step by step instructions below:

Steps	Column Name	Instructions
1	n/a	<u>Sheet:</u> mtr_nqc_validation_tool LSEs must first complete the “unique_contracts” worksheet of their RDT as instructed in the Filing Requirements Overview document (found on the IRP Procurement Track Filing Materials webpage). Once the RDT values are entered on the “unique_contracts” worksheet, proceed to the “mtr_nqc_validation_tool” worksheet. <u>Note:</u> Any contracts that the LSE enters into the “unique_contracts” worksheet will carry over into the next two worksheets used to validate NQCs: “mtr_nqc_validation_tool” and “mtr_nqc_summary”. Any errors made in “unique_contracts” will flow to the NQC validation portions of the RDT. The remaining instructions are applicable only to D.21-06-035 and D.23-02-040 contracts. LSEs are instructed to not complete the steps listed below for contracts that are only being used for D.19-11-016 compliance. If an LSE is using excess D.19-11-016 capacity for compliance with D.21-06-035 and/or D.23-02-040, these additional worksheets should be completed for just the excess capacity portions. Open the mtr_nqc_validation_tool tab. LSEs are required to fill out only the blue cells. The remaining columns will automatically update. Please note that contracts used for Diablo Canyon Replacement requirements may require entry of several additional data fields (p50_annual_mwh_he_17, p50_annual_mwh_post_he_17, round_trip_efficiency, engineering_assessment_confirmation).

Steps	Column Name	Instructions
2	<code>lse_unique_contract_id</code>	<u>LSE Contract Selection:</u> <code>lse_unique_contract_id</code> column In the “mtr_nqc_validation_tool” tab, start by selecting the first applicable contract from the <code>lse_unique_contract_id</code> dropdown list. This dropdown list is sourced from the column of the same name in the “unique_contracts” worksheet. • Example 1: Select the contract “sample_1_non-hybrid” in <code>lse_unique_contract_id</code> column. • Example 2: Select the contract “sample_2_hybrid” in <code>lse_unique_contract_id</code> column. Based on the <code>lse_unique_contract_id</code>, the tool will auto-populate the non-blue columns with inputs from the “unique_contracts” worksheet. <u>Note:</u> Unspecified imports used as bridge resources do not need to be input into the tool but other bridge resources should be included.
3	<code>lse_selected_mtr_tranche</code>	<u>LSE Tranche Selection:</u> <code>lse_selected_mtr_tranche</code> column Select the appropriate tranche from the <code>lse_selected_mtr_tranche</code> dropdown list. The selected tranche for the contract specifies how the contract will count towards D.21-06-035, D.23-02-040, and similar decisions compliance year/Tranche. For more information about which Tranche to select, please see CPUC Staff guidance on ELCCs available on the IRP Procurement Track Filing Materials webpage. Non-hybrid Example: For the contract “sample_1_non-hybrid” the LSE is using this for Tranches 1 and 2. The LSE should select “tranche_1” for one row and “tranche_2” for the second row.
4	NON-HYBRID: <code>%_nameplate/tranche_non_hybrid</code> OR	<u>LSE Percent of Contract Allocation to Tranche:</u> <code>%_nameplate/tranche_non_hybrid</code> OR <code>%_nameplate/tranche_hybrid_gen</code> and <code>%_nameplate/tranche_hybrid_storage</code> column(s)

Steps	Column Name	Instructions
	HYBRID: %_nameplate/tranche_hybrid_gen And %_nameplate/tranche_hybrid_storage	In each row, enter the percentage of a specific contract nameplate value that will count for the compliance target for the selected tranche identified in step 3. If the contract is a <u>non-hybrid</u> resource, make entry in the %_nameplate/tranche_non_hybrid field. If the contract is a <u>hybrid/paired</u> resources, make entry in the %_nameplate/tranche_hybrid_gen and %_nameplate/tranche_hybrid_storage fields. If a contract is being used for Diablo Canyon Replacement (DCR) ensure that the entered percentages are proportional to amounts used for Diablo Canyon Replacement only. Failure to allocate the correct proportion can result in contracts being incorrectly flagged for insufficient charging and other issues of noncompliance. Non-hybrid example: Fill in the percentage of the resource that will be counted for the specified tranche in %_nameplate/tranche_non_hybrid. • <u>Example 1:</u> LSE_1 is using 75% of its “sample_1_non-hybrid” contract for tranche 2 of its MTR procurement obligation. LSE will type 75 in %_nameplate/tranche_non_hybrid in the row labeled “tranche_2” in step 3. • <u>Example 2:</u> LSE_1 is using 25% of its “sample_1_non-hybrid” contract for tranche 3 of its MTR procurement obligation. LSE will type 25 in %_nameplate/tranche_non_hybrid in the row labeled “tranche_3” in step 3. Hybrid example: If the resource is a hybrid, fill in the percentage of the generation component and the storage component that will be counted for the specified tranche in %_nameplate/tranche_hybrid_gen and %_nameplate/tranche_hybrid_storage, respectively. • <u>Example 1:</u> LSE_1 is using 50% of both the generation and storage components of its “sample_1_hybrid” contract for tranche 2 of its MTR procurement obligation. LSE will

Steps	Column Name	Instructions
		type 50 in %_nameplate/tranche_hybrid_gen and 50 in %_nameplate/tranche_hybrid_storage in the row labeled “tranche_2” in step 3. • Example 2: LSE_2 is using 100% of the generation and 25% storage component of its “sample_2_hybrid” contract for DCR tranche 1 of its MTR procurement obligation. LSE will type 100 in %_nameplate/tranche_hybrid_gen and 75 in %_nameplate/tranche_hybrid_storage in the row labeled “tranche_1” in step 3. • Example 3: LSE_2 is using 0% of the generation and 75% storage component of its “sample_2_hybrid” contract for tranche 1 general procurement of its MTR procurement obligation. LSE will type 0 in %_nameplate/tranche_hybrid_gen and 75 in %_nameplate/tranche_hybrid_storage in the row labeled “tranche_1” in step 3.
5	NON-HYBRID: elcc_non_hybrid OR HYBRID: elcc_hybrid_gen And elcc_hybrid_storage	LSE ELCC Selection: elcc_non_hybrid OR elcc_hybrid_gen and elcc_hybrid_storage column(s) In each row, select the ELCC value type from the dropdown list. If the contract is a <u>non-hybrid</u> resource, make an entry in the elcc_non_hybrid column. If the contract is a <u>hybrid/paired</u> resource, make entries in the elcc_hybrid_gen and elcc_hybrid_storage columns. Note: LSEs must select an ELCC from the dropdown list. All ELCCs values are available in the “misc” worksheet. Non-Hybrid example: If the resource is not a hybrid, fill in elcc_non_hybrid with the correct ELCC value type. • Example 1: LSE_1’s “sample_1_non-hybrid” contract is a standalone 4-hour storage project that the LSE is using for tranche 2 of its MTR procurement obligation. The LSE

Steps	Column Name	Instructions
		signed the contract <i>after</i> November 30, 2022 and selects the following ELCC: “storage_mtr_2_post_nov302022”. Hybrid example: If the resource is hybrid, fill in <code>elcc_hybrid_gen</code> and <code>elcc_hybrid_storage</code> with the correct ELCC value types. Example 1: LSE_1’s “sample_2_hybrid” contract is a solar and storage project that it is using for tranche 2 of its MTR procurement obligation. The LSE signed the contract <i>after</i> November 30, 2022. In <code>elcc_hybrid_gen</code>, the LSE selects “solar_2024_mtr_2_post_nov302022”, and in <code>elcc_hybrid_storage</code>, the LSE selects “storage_mtr_2_post_nov302022”.
6	<code>p50_annual_mwh_he_17</code>	DCR ONLY: P50 Engineering Assessment MWh, <code>p50_annual_mwh_he_17</code> For DCR contracts providing charging for storage only, enter the contract’s sum of MWhs prior to hour-ending (HE) 17:00 in the <code>p50_annual_mwh_he_17</code> column. These values should be taken from an engineering assessment. If an engineering assessment has not been completed yet, use an approximate value.
7	<code>p50_annual_mwh_post_he_17</code>	DCR ONLY: POST HE 17:00 MWh, <code>p50_annual_mwh_post_he_17</code> For DCR contracts with generation post hour-ending (HE) 17:00, enter the MWh value here.
8	<code>round_trip_efficiency</code>	DCR ONLY: Round Trip Efficiency (RTE), <code>round_trip_efficiency</code> For contracted storage and hybrid projects, enter the round-trip efficiency percentage.
9	<code>engineering_assessment_confirmation</code>	DCR ONLY: Engineering Assessment Status, <code>engineering_assessment_confirmation</code> For Diablo Canyon Replacement (DCR) resources, select “TRUE” in the <code>engineering_assessment_confirmation</code> field if an engineering assessment has been completed and submitted in the IRP compliance filings, or “FALSE” if an engineering assessment has not been completed and/or submitted in the IRP compliance filings. <u>Note:</u> This column does no longer needs to be filled in by the user. It will automatically populate based on the <code>engineering_assessment_included</code> column of the “unique_contracts” worksheet.

Steps	Column Name	Instructions
10	n/a	<u>LSE Error Review</u> LSE can check the NQC calculation inputs for error flags by reviewing the following columns. In the “mtr_nqc_validation_tool” tab: • ELCC resource type matches resource type of the contract: <code>elcc_match_resource_type_non_hybrid</code> and <code>elcc_match_resource_type_hybrid_gen</code> columns ○ These columns compare the LSE-selected ELCC to the resource type in <code>elcc_non_hybrid_resource</code> and <code>elcc_hybrid_gen_resource</code>. A “FALSE” indicates the LSE selected ELCC does not match the resource type. In the “mtr_nqc_summary” tab: • Nameplate Percent Allocation: <code>% nameplate/tranche non hybrid</code>, <code>% nameplate/tranche hybrid gen</code>, <code>% nameplate/tranche hybrid storage</code> ○ These columns sum the percent of the nameplate allocated in every row of a contract in the “mtr_nqc_validation_tool” tab, if this value is over 100%, the LSE has over-allocated the contract nameplate value across tranches.
11	<code>calculated_general_nqc_total</code> OR <code>dcr_total_nqc</code>	<u>Final NQC Value Comparison to “unique contracts” worksheet</u> LSEs should repeat steps 1-9 for every contract and every tranche in which the contract will be counted towards for their IRP procurement obligations. • The <code>calculated_general_nqc_total</code> and <code>dcr_total_nqc</code> values should then be compared to or input into the “unique_contracts” sheet columns for each contract for each tranche. • The <code>dcr_total_nqc</code> value should then be compared to or input into the <code>mtr_NQC_ZE_gen_paired_dr</code> column in the “unique_contracts” sheet.

Steps	Column Name	Instructions
		Once the LSE has input the NQC values into the “unique_contracts” sheet, return to the “mtr_nqc_summary” sheet and check the <code>reported<= NQC tool calculated</code> column: “FALSE” here indicates that the general procurement NQC values reported in the “unique_contracts” sheet sums to a total greater than what was calculated in the NQC validation tool. This could indicate an error in LSE reporting the NQC value in the “unique_contracts” worksheet. <u>Note:</u> The summary sheet will not include any resources that were not input into the “mtr_nqc_validation_tool” and will result in an undercounting of NQC in the summary table if LSE has additional resources intended to be used for compliance. LSEs will need to manually add in the NQC values not included in the “mtr_nqc_validation_tool”, such as unspecified imports, to accurately assess compliance. Similarly, inclusion of bridge resources in the “mtr_nqc_validation_tool” may make it seem like an LSE over-procured for a specific tranche in this summary table.
12	n/a	<u>(Optional) LSE MTR Compliance Summary Review: “mtr_nqc_summary” worksheet</u> Go to the “mtr_nqc_summary” worksheet. In cell B3 (“LSE”), select the abbreviation for your specific LSE from the dropdown list. LSEs should look at the summary table at the top of this sheet to see if the NQC reported in the RDT is a close match to the workbook’s calculated NQC. <u>Note:</u> ESPs will need to manually enter their procurement obligations in cells D3-J3. ESPs may overwrite the formulas here. The NQC calculation methodology is complex, and this workbook may not be able to perfectly capture every LSE’s situation. LSEs are permitted to submit this workbook with discrepancies between the calculated and reported NQC if the LSE has investigated the discrepancy and is confident in their reporting. Where there are significant discrepancies, Energy Division Staff will likely reach out to LSEs for an explanation. LSEs should investigate any discrepancies before submittal.

Steps	Column Name	Instructions
		If an LSE has a <u>pending</u> compliance trade, pursuant to D.23-02-040, they should include the NQC MW value in the corresponding Tranche where the LSE has filed an Advice Letter or plans to file one. If an LSE is taking on additional procurement in one tranche, it should enter a positive (+) number. If it removes part of its procurement obligation, it should enter a negative (-) number. • Example: If LSE A proposed to trade 5 MW of compliance with LSE B such that its Tranche 2 obligation would increase by 5 MW and its Tranche 5 obligation decrease by 5 MW, LSE A would enter 5 in cell E12 and -5 in cell H12. Please note LSEs must enter a numeric value and correctly make the number positive and negative.

Please note, the tool and the information included represent IRP staff's understanding of CPUC Decisions and expected MTR NQC methodology. It is possible that your reported NQC may differ from the tool's calculated NQC due to different methodology assumptions. CPUC Decisions are the official directions of the Commission and Energy Division staff may not modify Decisions. This tool will help Staff better comply with official Commission Decisions and any output should not be taken as final NQC values or compliance decisions.

This template includes a number of columns with TRUE/FALSE flags. These are intended to expedite staff review of these workbooks. LSEs do not need to clear all error flags prior to submission but may use them as an indicator of whether they are using this template correctly.

Do not paste data unless you are pasting "as values". Pasting in any other format will remove formulas and/or conditional formatting currently needed in this workbook.

For any questions about this process, please contact IRPDataRequest@cpuc.ca.gov.