Resource Data Template Version 3 User Guide

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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 Resource Data Template (RDT) version 3 (RDTv3). 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 RDTv3. 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 a separate document: June 2, 2025 IRP Filing Requirement Overview.

2. Differences from Previous Version

This version of the RDT (RDTv3) introduces the following changes.

1. **unique_contracts** sheet:
    - Updated csp_annual_yyyy columns.
    - Added Planned Project Retention Priority Column
2. CSPReportSheet
    - Added “online and in-development" reporting table

3. Instructions for the unique_contracts sheet columns

The RDTv3 consists of fourteen sheets: “README”, “ReleaseNotes”, “ certification_form”, “unique_contracts”, “mtr_nqc_validation_tool”, “mtr_nqc_summary”, “ReportSheet”, “lse_names”, “resources”, “misc”, “reliability”, “Calcs”, “ReportSheet”, “CSP Report Sheet”, “RCPPP Option I” RCPPP Option II” and “btm_pv_forecast”. Some of these sheets may be hidden for clarity. The "unique_contracts" sheet is the only table in RDTv3 for reporting the LSE’s existing and planned energy and capacity contracts.

- As the name of this sheet implies each row of the "unique_contracts" sheet should describe **one and only one contract** per resource, per compliance target**.** When something fundamental about the contract changes (e.g., the resource’s nameplate is expanded), please enter them as separate contracts (in separate lines). For more details, please read Section 8 Instructions for specific resources/contracts below.

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, each technology should be entered separately. 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.

Field Name	Instructions	Required data type
lse_unique_contract_id	A unique identifier provided by the LSE to distinguish each contract with a given resource. The LSE unique contract should be consistent to what was submitted in prior RDT submissions. Newly submitted contracts should make the *lse_unique_contract_id* the same or like the Contract ID used the RA Showing Template to the extent possible. If the lse_unique_contract_id is changed for any reason, please indicate the change in the “notes” column what the previously filed *lse_unique_contract_id* was and the reason for the change.	string

resource	LSEs must select the “resource” that corresponds to their specific contracted resource from the dropdown list provided in RDTv3 (RDTv3.resources.resource). 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 an LSE is unable to locate a resource in the dropdown list, they should search for the generator name on the “resources” sheet and find the corresponding resource ID using the “resource” column. The selected resource must come from the resource RDTv3.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. Please see “4. Resources” for more information.	string
alternative_resource_name	Please select the name of this project from the dropdown list. If the name is not among options in the dropdown list, provide the name and click “Yes” on the popup. 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	Status showing maturity of development process for this resource: online, development, review, planned existing, or planned new, as defined in	string

	Section 5. Please note that as the status may change between the time the RDT is submitted, it is important to reflect the current status of the project at the time of submission Additionally, please ensure column c "contract_status" 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.	
project_interconnection_position	Whenever 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 shown in the dropdown, then it can be updated from the CAISO public queue by performing an Excel Refresh All, or by running the error checking macro. Note that the numbers without any letters refer to CAISO queue numbers and the numbers with WD- or ###-WDAT are WDAT positions. For 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*	string

	Note : for these entries, an Excel pop-up window will appear 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 projects correct project name and 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: SCE's WDAT queue : (Search for "Interconnection Queue" link) Note: *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	string

	or planned CAISO scheduling point if an out-of-state resource. Otherwise, enter “NA”.	
marginal_addition	If the contracted resource includes a marginal addition to an existing resource, report 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 RDTv3.resources.resource, report the existing resource name here. The resource name must come from the list RDTv3.resources.resource. Otherwise, leave this column blank. For more instruction regarding marginal additions please see Section 8 below, Instructions for Specific Resources/Contracts.	string
total_nameplate_capacity	If the RDTv3 does not have specific MAXGEN for this resource (when the RDTv3.resources.MAXGEN is blank), provide the total nameplate capacity for the whole project (maximum MW it can deliver). *This is not the LSE’s contracted portion of the project (LSE’s contract).* This means total_nameplate_capacity is always required for resources that have a	numeric

	supertype of existinggeneric, newresolve, newgeneric, newloadmod, supplierschoice, unspecifiedimport, unspecifiednonimport, unbundledrec. *<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) resource that 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.* *<u>Note 3:</u> If LSE reports this column for the resources that have MAXGEN values in the RDTv3.resources.MAXGEN, RECART will overwrite the LSE's reported value with the one in the RDTv3.resources.MAXGEN in the aggregation process.*	
contracted_nameplate_capacity	Please provide LSE's contracted nameplate capacity of 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.	numeric

	<u>Note 3:</u> The contracted nameplate capacity of the project may differ from the contracted Net Qualifying Capacity (NQC), which is reported separately in the RDT.	
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 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. If the contract is energy only, enter 0 here. Do not leave this blank. *Note 1: 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	Dropdown list; "null" and possible hybrid and paired technology combinations. 1. null 2. NotHybrid 3. ExistingBiomassExistingStorage 4. ExistingBiomassNewStorage 5. ExistingGeothermalExistingStorage 6. ExistingGeothermalNewStorage 7. ExistingSolarExistingStorage 8. ExistingSolarNewStorage 9. ExistingThermalExistingStorage 10. ExistingThermalNewStorage 11. ExistingWindExistingStorage 12. ExistingWindNewStorage 13. NewBiomassExistingStorage 14. NewBiomassNewStorage 15. NewGeothermalExistingStorage 16. NewGeothermalNewStorage 17. NewSolarExistingStorage 18. NewSolarNewStorage 19. NewThermalExistingStorage 20. NewThermalNewStorage 21. NewWindExistingStorage 22. NewWindNewStorage *Note: For the purpose of IRP, "Paired" refers to generation and storage resources that share the same grid interconnection and "Hybrid" resources*	string

	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	Dropdown list: yes, no. Use "Yes" when storage can charge from grid. Use "No" when storage can ONLY charge from the associated generator. For non-hybrid/paired contracts, leave this column blank. *Note: For the purpose of IRP, "Paired" refers to generation and storage resources that share the same grid interconnection and "Hybrid" resources refers to as paired resources with constraints that require storage charging to occur using the paired generation resource rather than the grid. Selecting "No" in this column means the project is hybrid.*	string
total_generator_mw	A hybrid/paired resource consists of a generator and storage. This is the nameplate of the generator portion of the resource, in MW (the whole project). Only report this for hybrid or paired projects. For non-hybrid/paired contract, leave this column blank. *<u>Note 1:</u> This column is for the whole generator capacity and not the LSE's portion of that.*	numeric

	<u>Note 2:</u> Section 8 provides more details regarding how to report hybrid/paired projects.	
contracted_generator_mw	A hybrid/paired resource consists of a generator and storage. Please provide LSE's contracted nameplate of the generator portion of the project, in MW. Only report this for hybrid or paired projects. For non-hybrid/paired contract, 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> Section 8 provides more details regarding how to report hybrid projects.*	numeric
total_storage_mw	A hybrid/paired resource consists of a generator and storage. This is the nameplate of the storage portion of the project, in MW (the whole project). Only report this for hybrid or paired projects. For non-hybrid/paired contract, leave this column blank.	numeric

	<u>Note 1:</u> This column is for the whole storage capacity and not the LSE's portion of that. *<u>Note 2:</u> Section 8 on* Instructions for specific resources/contracts below. *provides more details regarding how to report hybrid projects.*	
contracted_storage_mw	A hybrid/paired resource consists of a generator and storage. Please provide LSE's contracted nameplate for the storage portion of the project, in MW. Only report this for hybrid or paired projects. For non-hybrid/paired contract, 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> Section 8 on* Instructions for specific resources/contracts below. *provides more details regarding how to report hybrid projects.*	numeric
solar_technology_sub_type	Select the technology as appropriate from the dropdown list. If the resource is a standalone solar, or a hybrid/paired with solar as the generator, report	string

	the technology type. Dropdown list: Fixed, SolarThermal, 2Axis, 1Axis. Otherwise, leave this column blank.	
storage_technology_sub_type	If the resource is a standalone storage, or a hybrid/paired with storage, report the technology sub type. Dropdown list: Li, Flow, PSH, Other. 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 here. Otherwise, leave this column blank. *<u>Note:</u> This column is for the whole storage resource and not the LSE's 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 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 application complete. 3 - Interconnection Phase II study complete; permitting application approved supporting reported COD. 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.	numeric
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.	numeric

	2 – Project has site control but not Yet Seeking Financing. 1 – Project does not yet have site control. 0 – No Financing Required.	
resource_mix	Please fill this column only for resources where the following is true. Otherwise, leave this column blank. - The resource has supertype = unspecifiedimport, unspecifiednonimport, supplierschoice - The resource has resolve_final_group = caiso_unkown (this is for newgeneric and newresolve) _EXISTING_GENERIC_UNKNOWN, _NEW_GENERIC_UNKNOWN "supertype" and "resolve_final_group" are specified for each resource in the RDTv3.resources.resource. Please specify technology mix of energy making up a contract in the following form: [techtype1, value1] [techtype2, value2]… For techtype please use only the following values (case insensitive): thermal, solar, wind, wind_low_cf, wind_hi_cf, hydro, battery, geothermal, biogas, biomass, ct, ccgt, chp, nuclear, dr, other, unknown. 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.	string
cam_d1911016_vamo_ghgfreepcia	Dropdown list: CAM, D.19-11-016, VAMO, GHG-free PCIA	string

	"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 mechanism, established in D.21-05-030, whereby IOUs offer LSEs (PCIA-eligible), an allocation of the attributes of an 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. Note: For more details, please see Section 8, on Instructions for specific resources/contracts below.	

buy_sell_own	Select from the Dropdown list: Buy, Sell, Own Own: If LSE owns the project/resource. Buy: If 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) Note: For more details, please see Section 8 Instructions for specific resources/contracts below.	string
counterparty	Dropdown list including LSE names and some generic options. Leave this column blank if not applicable. Note: For more details, please see Section 8 Instructions for specific resources/contracts below.	string
generator_supplier	Name of supplier selling capacity. No dropdown. Please capitalize all names, include no special characters, and underscore instead of spaces between words. This column is only required when the resource is "_SUPPLIERS_CHOICE." Otherwise, leave this column blank.	string

	Note: For more details, please see Section 8, Instructions for specific resources/contracts below.	
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 popup. If the project is not new construction, please enter "NA". The full list of developers can be found on the "misc" sheet in the *caiso_interconnection_customer*s column.	string
capacity_area	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	Dropdown list: North Coast – Eagle Rock North Coast – Fulton Sierra – Placer Sierra – Pease Sierra – Gold Hill-Drum Stockton – Lockeford Stockton – Tesla-Bellota	string

	Greater Bay – Los Angeles Greater Bay – San Jose Greater Bay – South Bay – Moss Landing Greater Bay – Oakland Greater Fresno – Panoche Greater Fresno – Herndon Greater Fresno – Hanford Greater Fresno – Coalinga Greater Fresno – Borden Greater Fresno – Reedley Kern – Westpark Kern – Kern Power-Tevis Kern – Kern Oil Kern – South Kern PP Big Creek/Ventura - Vesta Big Creek/Ventura - Santa Clara LA Basin – Eastern LA Basin – Western LA Basin – El Nido San Diego/Imperial Valley – San Diego San Diego/Imperial Valley – El Cajon San Diego/Imperial Valley – Border No_sub_area	
cpuc_approval_ref	Insert 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 drop-down list. If the project is not located in California, select the state it is located in. Dropdown list; counties in CA, other states in Western Energy Coordinating Council (WECC).	string
COD_year	Enter the commercial operation date of the project (year). If the project is not yet online, enter the projected COD. Please select from the drop-down list.	numeric
COD_month	Enter the commercial operation date of the project (month) If the project is not yet online, enter the projected COD. Please select from the drop-down list.	numeric
COD_day	Enter the commercial operation date of the project (day) If the project is not yet online, enter the projected COD. Please select from the drop-down list.	numeric
contract_start_date_year	Enter the date (year) when energy/capacity deliveries are contracted to start, or planned to start if the project is yet contracted. Please select from the drop-down list.	numeric
contract_start_date_month	Enter the date (month) when energy/capacity deliveries are contracted to start, or planned to start if the project is yet contracted. Please select from the drop-down list.	numeric
contract_start_date_day	Enter the date (day) when energy/capacity deliveries are contracted to start, or planned to start if the project is yet contracted. Please select from the drop-down list.	numeric
contract_end_date_year	Enter the date (year) when energy/capacity deliveries are contracted to end, or planned to end if the project is yet contracted. Please select from the drop-down list.	numeric

contract_end_date_month	Enter the date (month) when energy/capacity deliveries are contracted to end, or planned to end if the project is yet contracted. Please select from the drop-down list.	numeric
contract_end_date_day	Enter the date (day) when energy/capacity deliveries are contracted to end, or planned to end if the project is yet contracted. Please select from the drop-down list.	numeric
contract_execution_date_year	Enter the date (year) when the contract was executed. If the contract has not been executed, enter "NA". Please select from the drop-down list. Note: If a contract has been amended, please use the original contract execution date.	numeric
contract_execution_date_month	Enter the date (month) when the contract was executed. If the contract has not been executed, enter "NA". Please select from the drop-down list. Note: If a contract has been amended, please use the original contract execution date.	numeric
contract_execution_date_day	Enter the date (day) when the contract was executed. If the contract has not been executed, enter "NA". Please select from the drop-down list. Note: If a contract has been amended, please use the original contract execution date.	numeric
tx_upgrades	Please report if any upgrade(s) [Reliability Network Upgrade (IRNU or GRNU), a Local delivery Network Upgrades (LDNUs) or an Area Delivery	string

	Network Upgrades (ADNU)] is needed for this project. if the project is already online, enter "NA". If the resource is generic or is pre-phase 1 and upgrade information is not yet known, enter "NA" Please select from the drop-down list.	
tx_upgrade_date_year	Enter the date (year) when the transmission upgrade is scheduled to come online. Please select from the drop-down list.	numeric
tx_upgrade_date_month	Enter the date (month) when the transmission upgrade is scheduled to come online. Please select from the drop-down list.	numeric
tx_upgrade_date_day	Enter the date (day) when the transmission upgrade is scheduled to come online. Please select from the drop-down list.	numeric
tx_upgrade_description	Brief identifying description of 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	Please indicate by using the drop-down list below whether this project is planned to be used to meet procurement requirements of D.21-06-035/D.23-02-040 (MTR obligations). If this project does not count toward MTR obligations, enter "NA" or leave blank. Select only procurement categories applicable to this project. Ensure each row added has a unique *lse_unique_contract_id* and that the values in each row reflect only the applicable contracted attributes. "general" refers to procurement that is not planned to meet any of the other procurement categories of D.21-06-035/D.23-02-040.	string

	"ZE_gen_paired_dr" refers to the procurement category: 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. Note: Although DCR procurement may be counted towards the general annual requirements for compliance purposes, tows 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 2028. "firm_ZE" refers to firm zero-emitting resource procurement category due by 2028. Dropdown list: NA firm_ZE general long_duration_storage ZE_gen_paired_dr	
mtr_tranche1_NQC	Please enter the NQC value that the LSE expects this project will contribute toward meeting its 2023 D.21-06-035/ D.23-02-040 (MTR) for the selected category. 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" tab. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Please note, this column can be filled	numeric

	out after completing the steps in Section 12 MTR NQC Validation Tool and Summary. The NQC entered should be based upon the (Effective Load Carrying Capacity) ELCCs 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 Track webpage, under "Additional Procurement Guidance": • 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 <u>Note:</u> This column is not asking whether the contract will be delivering in 2023. This is ONLY asking whether this contract is contributing to meeting an LSE's 2023 obligation for that procurement requirement category, and if so, what the NQC will be. For most projects, an LSE should expect to fill in only one of these columns and leave the other 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 Procurement in whatever tranche the LSE is using to meet it. Most, but not all, Long Lead Time Procurement are in tranche 6.	

	Note: 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 also may 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_tranche_NQC column.	
mtr_tranche2_NQC	Please enter the NQC value that the LSE expects this project will contribute toward meeting its 2024 D.21-06-035/ D.23-02-040 (MTR) obligations for the selected category. 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" tab. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Please note, this column can be filled out after completing the steps in Section 12 MTR NQC Validation Tool and Summary. The NQC entered should be based upon the ELCCs 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 Track webpage, under "Additional Procurement Guidance": • June 2023 Staff Memo • 2023 Staff Transmittal Memo	numeric

	• 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 Note: This column does not ask whether the contract will be delivered in 2024. This is ONLY asking whether this contract is contributing to meeting an LSE's 2024 obligation for that procurement requirement category, and if so, what the NQC will be. For most projects, an LSE should expect to fill in only one of these columns and leave the other 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. Note: Please enter any Long-Lead Time Procurement in whatever tranche the LSE is using to meet it. Most, but not all, Long Lead Time Procurement are in tranche 6. Note: 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 also may 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_tranche_NQC column.	

mtr_tranche3_NQC	Please enter the NQC value that the LSE expects this project will contribute toward meeting its 2025 D.21-06-035/ D.23-02-040 (MTR) obligations for the selected category. 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" tab. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Please note, this column can be filled out after completing the steps in Section 12 MTR NQC Validation Tool and Summary below. The NQC entered should be based upon the ELCCs 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 Track webpage, under "Additional Procurement Guidance": • 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 <u>Note:</u> This column does not ask whether the contract will be delivered in 2025. This is ONLY asking whether this contract is contributing to meeting an LSE's 2025 obligation for that procurement requirement category, and if so, what the NQC will be. For most projects, an LSE should expect to fill in only one of these columns and leave the other blank (i.e., the initial NQC	numeric

	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. Note: Please enter any Long-Lead Time Procurement in whatever tranche the LSE is using to meet it. Most, but not all, Long Lead Time Procurement are in tranche 6. Note: 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 also may 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_tranche_NQC column.	
mtr_tranche4_NQC	Please enter the NQC value that the LSE expects this project will contribute toward meeting its 2026 D.21-06-035/ D.23-02-040 (MTR) obligations for the selected category. 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" tab. Note: The general procurement for each tranche should include any DCR procurement being used towards each tranche. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Please note, this column can be filled out after completing the steps in Section 12 MTR NQC Validation Tool and Summary below. The NQC entered should be based upon the ELCCs established for MTR procurement, as well as the procedures regarding use of the ELCCs. The	numeric

	following materials on ELCCs contain guidance and can be found on the IRP Procurement Track webpage, under "Additional Procurement Guidance": • 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 Note: This column does not ask whether the contract will be delivered in 2026. This is ONLY asking whether this contract is contributing to meeting an LSE's 2026 obligation for that procurement requirement category, and if so, what the NQC will be. For most projects, an LSE should expect to fill in only one of these columns and leave the other 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. Note: Please enter any Long-Lead Time Procurement in whatever tranche the LSE is using to meet it. Most, but not all, Long Lead Time Procurement are in tranche 6. Note: 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 also may 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_tranche_NQC column.	
mtr_tranche5_NQC	Please enter the NQC value that the LSE expects this project will contribute toward meeting its 2027 D.21-06-035/ D.23-02-040 (MTR) obligations for the selected category. 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" tab. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Please note, this column can be filled out after completing the steps in Section 12 MTR NQC Validation Tool and Summary below. The NQC entered should be based upon the ELCCs 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 Track webpage, under "Additional Procurement Guidance": • 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	numeric

	Note: This column does not ask whether the contract will be delivered in 2027. This is ONLY asking whether this contract is contributing to meeting an LSE's 2027 obligation for that procurement requirement category, and if so, what the NQC will be. For most projects, an LSE should expect to fill in only one of these columns and leave the other 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. Note: Please enter any Long-Lead Time Procurement in whatever tranche the LSE is using to meet it. Most, but not all, Long Lead Time Procurement are in tranche 6. Note: 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 also may 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_tranche_NQC column.	
mtr_tranche6_NQC	Please enter the NQC value that the LSE expects this project will contribute toward meeting its 2028 D.21-06-035/ D.23-02-040 (MTR) obligations for the selected category. 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" tab. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Please note, this column can be filled	numeric

	out after completing the steps in Section 12 MTR NQC Validation Tool and Summary below. The NQC entered should be based upon the ELCCs 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 Track webpage, under "Additional Procurement Guidance": • 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 Note: This column does not ask whether the contract will be delivered in 2028. This is ONLY asking whether this contract is contributing to meeting an LSE's 2028 obligation for that procurement requirement category, and if so, what the NQC will be. For most projects, an LSE should expect to fill in only one of these columns and leave the other 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. Note: Please enter any Long-Lead Time Procurement in whatever tranche the LSE is using to meet it. Most, but not all, Long Lead Time Procurement are in tranche 6.	

	Note: 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 also may 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_tranche_NQC column.	
mtr_NQC_ZE_gen_paired_dr	Please enter the NQC value LSE expect this project will contribute to meeting their obligation for zero-emission generation, generation paired with storage, or demand response resources. CPUC staff will validate this value by verifying that it is equal to or less than the NQC value calculated in the "mtr_nqc_validation_tool" tab. Note: The general procurement for each tranche should include any DCR procurement being used towards each tranche. See instructions for the "mtr_nqc_validation_tool" sheet in Section 12: MTR NQC Validation Tool and Summary. Note this column can be filled out after completing the steps in Section 12 MTR NQC Validation Tool and Summary below. The NQC entered should be based upon the ELCCs 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 Track webpage, under "Additional Procurement Guidance": • June 2023 Staff Memo • 2023 Staff Transmittal Memo	numeric

	• 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 Note: 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_tranche_NQC columns above.	
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.	string
mtr_contract_changed	TRUE: Any aspect of this contract (start date, contracted capacity, amount of capacity claimed toward a certain tranche, etc.) has changed since the last compliance filing (December 2024) FALSE: No aspect of this contract has changed since the last compliance filing (December 2024)	
previous_COD_year	Select the most appropriate from the drop-down list. If this project was included in a previous CPUC filing, please indicate the previously submitted COD (year), otherwise, enter "NA". If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	numeric

previous_COD_month	Select the most appropriate from the drop-down list. If this project was included in a previous CPUC filing, please indicate the previously submitted COD (year), otherwise, enter “NA”. If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	numeric
previous_COD_day	Select the most appropriate from the drop-down list. If this project was included in a previous CPUC filing, please indicate the previously submitted COD (year), otherwise, enter “NA”. If this project is not pursuant to an IRP Procurement Order, please leave this column blank.	numeric
remediation_plan	Please indicate whether you are submitting a remediation plan with this report. 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”. Please select from the drop-down list: “Yes”, “No”, “NA”.	string
signed_contract	Indicate 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. Please select from the drop-down list: “Yes”, “No”	string
notice_to_proceed	Indicate 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. Please select from the drop-down list: “Yes”, “No”	string

public_contract	Is this contract publicly announced? Please provide a description. Note: 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 about the contract in public documents. If an LSE need to provide more context or need to add more details, please add to the note column.	string
buying_energy_capacity	Please report if this is an energy only contract, capacity only contract, or it delivers both energy and capacity. Please select from the drop-down list: drop-down options of EnergyCapacity, EnergyOnly, CapacityOnly.	string
NQC_reporting_source	Select if the reported NQC values(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. Please select from the drop-down list: "In the contract" or "Calculated"	string
procurement_origin	Please report the origin for procuring this project. Some examples are: RPS, D1911016, D2106035, emergencyreliability, storagemandate, selfgenerationincentiveprogram, localcapacityrequirement Note: If it's more than one, please list each.	string
AB1373_planned_project_retention priority	This column is for planned resources only. This column will identifies projects that an LSE would prefer 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 drop downs for planned projects. 0- Non-Retained Resources - Select "FALSE" for planned resources that the LSE would view as more willing to have removed from the portfolio for modeling purposes. Select "TRUE"- Retained Resources - for resources that the LSE would prefer to maintain in the portfolio for modeling purposes.	
csp_resource_category	For each contract, select the appropriate CSP category from the drop-down list. Please review Section 9,CSP Column Instructions below for more details. 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. 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) • Imported Hydro (GWh) • Asset Controlling Supplier (GWh) • Nuclear (GWh) • Biogas (GWh) • Biomass (GWh) • Geothermal (GWh)	string

	• 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 Baseline 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) Note: Please review Section 9 CSP Column Instructions below for more details.	
csp_annual_2028	Report on the project's delivery for the CSP's 2028 study years based on the specified unit. Please review Section 9 CSP Column Instructions 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 Section 9 CSP Column Instructions 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 Section 9 CSP Column Instructions 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 Section 9 CSP Column Instructions for more details.	numeric
csp_annual_2045	Report the project's delivery for the CSP's 2045 study years based on the specified unit. Please review Section 9 CSP Column Instructions for more details.	numeric
macro_supertype	This is a column reserved for RDTv3 macro use. Please do not enter any data into this column. This column will be automatically populated with supertype value by RDTv3 macro based on supertype value (RDTv3.resources.resource_supertype) corresponding to resource name.	
notes	Any additional information that LSEs want to provide and was not captured in the existing columns.	string

4. Resources

RDTv3 defines a list of valid resource names. This list is defined as the Cutoff Date defined in Section 5 Contract Status below. In RDTv3 this list is located in RDTv3.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)[1]. 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 the release.
- Branch Group names of the form "GENERIC_BRANCH_branchname" where "branchname" is the name of the transmission branch name.
- CREZ names of the form "GENERIC_CREZ_crezname" where "crezname" is the name of the CREZ.
- Unbundled recs from a particular CREZ of the form "UNBUNDLED_crezname."
- Special case values ("unspecified", "unbundledrec", "sellerschoice").

5. Contract Status

The "contract_status" column takes one of the following values: "Online", "Development", "Review", "Plannedexisting", and "Plannednew". These are the only accepted values for "contract_status" (case insensitive). The meanings of these terms are defined in the table below.

contract_status	Meaning
Online	Contract has been signed (or LSE owns the resource) and the resource is online as of Cutoff Date. The Cutoff Date is defined in the 2023 IRP Filing Requirements Overview.
Development	Contract has been signed and approved by CPUC and/or LSE's highest decision-making authority as applicable (or LSE owns the resource), but resource is still under development and not yet online (as of Cutoff Date).

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

Review	Contract has been selected and is under review by LSE's highest decision-making authority (e.g. board of directors) as of final resource table Cutoff Date. For LSE-owned resources, this means that the decision-making authority is reviewing whether to authorize an LSE-owned resource. This includes contracts shortlisted as a result of an RFO or a similar procurement method. It can also include bilateral contracts not resulting from a Request For Offer RFO.
Plannedexisting	Contract is not yet (as of Cutoff Date) signed, and resource has a valid Resource ID in the resources table (RDTv3.resources.resource).
Plannednew	Contract is not yet (as of Cutoff Date) signed, and resource does not have a valid Resource ID in the resources table (RDTv3.resources.resource).

6. Supertype

Supertype is a property that is defined for each physical or generic resource defined in the resources table (RDTv3.resources.supertype). The table below defines meanings for the various supertypes.

supertype	**Meaning**
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.
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.

7. Key Relationships

For each entry in the RDT, there are several important relationships that must be maintained between certain columns within the input table.

- **supertype-to-contract_status:** For every value of supertype, "contract_status" can take the 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

8. 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 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 LSE's full Integrated Resource Plan filings to understand the LSE's full portfolio (and allow the functionality of CSP and Reliability tabs). 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 enter them by selecting the resource being either purchased or sold in the resource column selected from the drop-down list, indicating whether it is a purchase (buy) or a sale (sell) in the "buy_sell_own" column.

1. LSE needs to select the counterparty from the drop-down list in the "counterparty" column. If the resource is being sold by the LSE to a non-LSE counterparty, select "non-LSE counterparty" from the drop-down list.
2. It is a 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" in the dropdown in the resource sheet 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. Also 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" table.

G. Marginal additions: Marginal additions refer to the resources that their capacity has been 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 "RDTv3.resources.resource" (e.g. adding more solar capacity to one of the existing solar resources in the resource tab):

- Select one of the generic resources from "RDTv3.resources.resource" with a specific type that reflects this resource.
- Follow the instructions for the *marginal_addition* column.
- Report the existing resource name in the "*marginal_addition_to*" column (the resource that has been expanded).
- 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 RDTv3's "unique_contracts" tab, please follow the below instructions:

1. Please use sperate rows for entering the technologies for hybrid contracts, make sure to use the separate resources ids for each specific technology of the hybrid resource.
2. Select one of the generic resources from RDTv3.resources.resource with a specific type that reflects the generator portion of the hybrid/paired resource.
3.
4. Follow the instruction for "*marginal_addition"* column.
5. If this resource has become hybrid/paired by adding storage to an already existing generator listed in the "RDTv3.resources.resource", report the existing resource name in the "marginal_addition_to" column.

6. 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.
7. 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.
8. Select the hybrid technology combinations from the drop-down list in the " *is_hybrid_paired*" column.
9. 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.
10. In the "*total_generator_mw*" column, report the nameplate of the generator portion of the resource, in MW (the whole project).
11. In the "*contracted_generator_mw*" column, report LSE's contracted nameplate of the generator portion of the project, in MW.
12. In the "*total_storage_mw*" column, report the nameplate of the storage portion of the resource, in MW (the whole project).
13. In the "*contracted_storage_mw*" column, report LSE's contracted nameplate of the storage portion of the project, in MW.
14. specify solar - if the generator portion is solar - and storage technology types in "*solar_technology_sub_type*" and "*storage_technology_sub_type*".
15. In the "*total_storage_depth_mwh*" column, report the storage total depth in MWh (the whole project).
16. In the "*contracted_storage_depth_mwh*" column, report the storage total depth in MWh that LSE has contracted for.

9. CSP Column Instructions

For each contract reported in the RDTv3's "unique_contracts" tab, 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 on the "CSPReportSheet" sheet from the RDTv3 directly into the "Supply Inputs" sheet of the CSP workbook using the “paste values” option 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" tab, 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, LSE must report the projects 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 four columns in the "unique_contracts" sheet 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.

10. Reliability Worksheet Instructions

The purpose of the "Reliability" worksheet is to inform whether there are sufficient capacity contracts to meet each LSE’s reliability needs. The Reliability worksheet is not required for *IRP procurement compliance filings*. The worksheet is organized as follows:

Section Name	Instructions
MMT	Dropdown list of GHG scenarios for 2035: 30MMT and 25MMT. Please select the appropriate scenario for each RDT.
Reliability Need	Please enter LSE's % share of the CAISO managed coincident peak that staff released on 7/1/22. Note: Since marginal ELCCs are used in the RDT, the total reliability need is adjusted to represent the marginal need.
BTM PV	Please enter the installed capacity values based on LSE's allocation that staff released on 7/1/22.
ELCC (%)	No LSE inputs required. This section pulls in marginal ELCCs (%) from the "misc" worksheet based on the MMT scenario selected. Staff will provide these ELCCs (%) in the final release.
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.
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. For a capacity contract to contributes 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 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 (for example, 4.5 hours) are rounded down to the nearest integer (4 hours in this example). Contracts with durations greater than or equal to 9 hours have the same ELCC % values as 8-hour storage. They are grouped under "8hr_batteries" in the summary tables and charts. The ELCC % for contracts with durations 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.

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 durations that are not integers (for example, 4.5 hours) are rounded down to the nearest integer (4 hours in this example). Contracts with durations greater than or equal to 9 hours have the same ELCC % values as 8-hour storage. The ELCC % for contracts with durations 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.

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 "contracted_nameplate_capacity" represents the interconnection capacity of a hybrid/paired contract and thus limits the maximum ELCC of the contract. When the sum of the generator ELCC and the storage ELCC is greater than the "contracted_nameplate_capacity", the final ELCC of this contract is equal to the "contracted_nameplate_capacity".

For contracts with an "elcc_type" of "unspecified_import" (see the "resources" worksheet for "elcc_type"), LSEs should enter the contracted firm MW in the "contracted_nameplate_capacity" column in the "unique_contracts" worksheet since "unspecified_import" has 100% ELCC.

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

11. Error Checking Macro Instructions

NOTE: LSEs are required to run the macro resulting in an error-free ReportSheet before their final submission and ensure that the Report Sheet is error free.

11.1 Recommendations:

- Because Excel's undo feature does not revert changes made by macros, it is highly recommended that a backup version of RDTv3 file is saved before running the macro.
- It is not recommended to have other Excel documents open when running the macro, as conflicts can 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 to 2 minutes) or any errors are shown for rows that contain no contract data, check for any invisible characters have been inadvertently pasted/entered on 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 project has intentionally been left unlocked so that LSE may, separate from their official submissions, suggest corrections to the code.

Instructions:

1. Once contract data has been entered in the RDTv3, 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 to 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 RDTv3 showing example inputs that recreate the error only.
3. Do not make any changes to the VBA code or formulas for official data submissions.

11.2 Macro Report tab:

The following table describes the RDTv3 ReportSheet fields and a description of the entry errors it will identify:

RDT ReportSheet field	Description	Involved unique_contracts Fields
Duplicated Contract IDs	The macro has detected one or more duplications of an entered contract ID or a blank ID. Returns Contract IDs.	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 section 3, all the values should be entered 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 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_LDES 30. mtr_tranche4_NQC_firm_ZE 31. previous_COD_year 32. previous_COD_month 33. previous_COD_day 34. csp_annual_2028

		35. csp_annual_2030 36. csp_annual_2035 37. csp_annual_2040 38. csp_annual_2045
Invalid resource error rows	The macro has detected values in the resource column that are not in the resources tab's resource field. Returns row numbers.	1. resource
Rows missing required project viability associated data	The macro has detected a contract row lacks one or more of the required values in the viability fields. Returns row numbers. 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 row numbers.	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 row numbers.	**specifiedimport** 1. contract_status: online, plannedexisting **physical** 1. contract_status: online, development, plannedexisting **unbundledrec**

		1. contract_status: online, plannedexisting 2. **newresolve, newgeneric, or newloadmod** 1. contract_status: online, plannedexisting, **2. existinggeneric, unspecifiedimport, unspecifiednonimport** 1. contract_status: online, plannedexisting **2. supplierschoice** 1. contract_status: online, plannedexisting 2.
Transaction counterparty error rows	The macro has detected that a contract row is marked as "buy" or "sell" but no counterparty was provided. Returns row numbers.	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 row numbers.	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. the csp_resource_category 2. buying_energy_capacity
Rows missing MTR NQC	The macro has detected that a contract row is marked as meeting	1. d2106035_tranche 2. mtr_tranche1_NQC

	MTR compliance, but lacks any entries in the mtr_tranche#_NQC fields. Returns row numbers.	3. mtr_tranche2_NQC 4. mtr_tranche3_NQC 5. mtr_tranche4_NQC_LDES 6. mtr_tranche4_NQC_firm_ZE
Warning-total capacity is equal to or greater than generator plus storage MWs for rows	This is a warning (not an error) occurs when for hybrid/paired contracts when: **total_nameplate_capacity** >= **total_generator_mw** + **total_storage_mw** Returns row numbers.	1. total_nameplate_capacity 2. contracted_generator_mw 3. contracted_storage_mw
Warning-contract with NQC equal to or greater than contracted capacity MWs:	This is a warning (not an error) occurs when: **sep_contracted_mw_nqc >= contracted_nameplate_capacity** Returns row numbers.	1. sep_contracted_mw_nqc 2. contracted_nameplate_capacity

11.4 Macro Logic

1. rdt_v3_error_checker
    a. Checks that the required worksheets are in the workbook (no worksheets have been removed/renamed).
    b. Activates the other sub procedures
    c. Error handling
2. get_unique_contracts_data
    a. Creates dictionaries of the data entered into the unique_contracts tab.
3. get_resources_data
    a. Creates dictionaries of the data on the resources sheet for reference.

4. create_reports
    a. Checks if ReportSheet exists.
        i. If not, creates a sheet with the 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 to macro_supertype field.
7. check_resources
    a. Flags any duplicated contract IDs.
8. check_duplicated_ids
    a. Creates dictionary of the used 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_staus “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 11.2.
    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 the supertype as described in Section 7 Key Relationships
12. check_transaction
    a. If contract marked as “buy” or “sell”, checks that counterparty was provided.
13. check_csp_year
    a. Reports any contracts that do now have entries in csp_resource_category.
14. check_d2106035_tranche
    a. Reports any d2106035 contracts that lack entries into one of the mtr_yyyy_nqc columns.

12. MTR NQC Validation Tool and Summary

The purpose of the addition of the *mtr_nqc_validation_tool* and *mtr_nqc_summary* tabs 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 RDTv3 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 RDTv3. 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. The following constitutes additional instructions to follow for D.21-06-035 and D.23-02-040 resources.

Each row in the *mtr_nqc_validation_tool* represents the contribution of the contract towards meeting 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.

Please see step by step instructions below:

Steps	Column Name	Instructions
1	n/a	**Sheet: mtr_nqc_validation_tool** Once the RDT values are entered on the "**unique_contracts**" tab, go to the "**mtr_nqc_validation_tool**" tab Note: LSE must first complete the RDT on "unique_contracts" sheet of their RDT as instructed in the LSE filing requirements document. Please note: the contracts that LSEs enter on their RDT will carry over to the next two tabs used to validate NQCs "mtr_nqc_validation_tool" and "**mtr_nqc_summary**." Any errors made to the RDT 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, just the excess capacity portions should be completed). Open the **mtr_nqc_validation_tool tab**

		LSEs are required only to fill out blue cells. Other colors will be automatically updated. 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)*.
2	***lse_unique_contract_id***	**LSE Contract Selection: *lse_unique_contract_id column*** In the "mtr_nqc_validation_tool" tab, start by selecting the first applicable contract from the *lse_unique_contract_id* dropdown menu. This drop-down list will populate from the "unique_contracts" tab • Example 1: select the contract "sample_1_non-hybrid" in *lse_unique_contract_id column* • Example 2: select the contract "sample_2_hybrid" in *lse_unique_contract_id column* Based on the lse_unique_contract_id the tool will auto-populate the non-blue columns based on inputs from the "unique_contracts" tab. Note: Unspecified imports used as bridge resources do not need to be inputted into the tool, but other bridge resources should be included.
3	***lse_selected_mtr_tranche***	**LSE Tranche Selection: *lse_selected_mtr_tranche* column** Select the appropriate tranche from the *LSE_Selected_Tranche* dropdown menu. The selected tranche for the contract specifies how the contract will count towards D.21-06-035 and D.23-02-040 compliance year/Tranche. For more information about which Tranche to select, please see CPUC Staff guidance on ELCCs available on the IRP Procurement Track website.

		Non-hybrid example: • Example 1: 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 r
4	***mtr_compliance_target***	**Compliance Target Selection: *mtr_compliance_target* Column** Select the appropriate MTR compliance obligation that the contract is pursuant to from the *LSE_Selected_Tranche* dropdown menu. Options include: • General • Diablo Canyon Replacement • Long Lead Time
5	***NON- HYBRID: %_nameplate/ tranche_non_ hybrid*** ***OR*** ***HYBRID: %_nameplate/ tranche_hybri d_gen*** ***And*** ***%_nameplate/ tranche_hybri d_storage***	**LSE Percent of Contract Allocation to Tranche: *%_nameplate/tranche_non_hybrid, %_nameplate/tranche_hybrid_gen, %_nameplate/tranche_hybrid_storage*** In each row, select what 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 non-hybrid resource, make entry in the *%_nameplate/tranche_non_hybrid* field. If the contract is a hybrid/paired 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 you will be counting for the specified tranche in the *%_nameplate/tranche_non_hybrid.*

		○ *Example 1: LSE_1 is using 75% of "sample_1_non-hybrid" for tranche 2 of its MTR procurement obligation. LSE will type 75 in Column %_nameplate/tranche_non_hybrid in the row labeled tranche_2 in step 3.* ○ *Example 2: LSE_1 is using 25% of "sample_1_non-hybrid" for tranche 3 of its MTR procurement obligation. LSE will type 25 in Column %_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 you will be counting for the specified tranche in *%_nameplate/tranche_hybrid_gen* and *%_nameplate/tranche_hybrid_storage,* respectively. ○ *Example 2: LSE_1 is using 50% of both the generation and storage components of "sample_1_hybrid" for tranche 2 of its MTR procurement obligation. LSE will type 50 in Column %_nameplate/tranche_hybrid_gen and 50 in %_nameplate/tranche_hybrid_storage in the row labeled tranche_2 in step 3.* ○ *Example 3: LSE_2 is using 100% of the generation and 25% storage component of "sample_2_hybrid" for DCR_tranche_1 of its MTR procurement obligation. LSE will type 100 in column %_nameplate/tranche_hybrid_gen and 75 in column %_nameplate/tranche_hybrid_storage in the row labeled DCR_tranche_1 in step 3.* ○ *Example 3: LSE_2 is using 0% of the generation and 75% storage component of "sample_2_hybrid" for tranche 1 general procurement of its MTR procurement obligation. LSE will type 0 in column %_nameplate/tranche_hybrid_gen and 75 in column %_nameplate/tranche_hybrid_storage* in the row labeled *tranche_1 in step 3.*

6	***NON- HYBRID: elcc_non_hybrid*** ***OR*** ***HYBRID:*** ***elcc_hybrid_gen*** **And** ***elcc_hybrid_storage***	**<u>LSE ELCC Selection:</u> elcc_non_hybrid, OR, elcc_hybrid_gen and elcc_hybrid_storage columns** In each row, select from the drop-down the ELCC value. If the contract is a <u>non-hybrid</u> resource, make entry in the *elcc_non_hybrid* column. If the contract is a <u>hybrid/paired</u> resources, make entry in the *elcc_hybrid_gen* and *elcc_hybrid_storage* columns. Note: LSEs **<u>must</u>** select an ELCC from the drop-down list. ELCCs values are available in the "misc" tab. **Non-Hybrid example:** If the resource **is** not a hybrid, fill in Column elcc_non_hybrid with the correct ELCC value. • *Example 1: "sample_1_non-hybrid" is a standalone 4-hour storage project that an LSE is using for tranche 2 of its MTR procurement obligation. The LSE signed the contract **after** November 30, 2022 and selects the following ELCC: mtr_2_post_nov302022.* **Hybrid example:** If the resource **is not** a hybrid, fill in Columns *elcc_hybrid_gen* and *elcc_hybrid_storage* with the correct ELCC value. • *Example 2: "sample_2_hybrid" is solar+storage project that an LSE is using for tranche 2 of its MTR procurement obligation. The LSE signed the contract **after** November 30, 2022. In column elcc_hybrid_gen*, the LSE selects "solar_2024-mtr_2_post_nov302022," and in Column elcc_hybrid_storage the LSE selects "mtr_2_post_nov302022".
7	***p50_annual_mwh_he_17***	**DCR ONLY: P50 Engineering Assessment MWH *p50_annual_mwh_he_17 column*** For DCR contracts providing charging for storage only, enter the contract's sum of MWhs prior to hour-ending (HE) 17:00 in the *p50_annual_mwh_he_17* column. **These values should be taken from an engineering assessment.** If an engineering assessment has not been completed yet, use an approximate value.

8	***p50_annual_mwh_post_he_17***	**DCR ONLY: POST HE 17:00 MWh *p50_annual_mwh_post_he_17 column*** For DCR contracts with generation post hour-ending (HE) 17:00, enter the MWH value here.
9	***round_trip_efficiency***	**DCR ONLY: Round Trip Efficiency (RTE): *round_trip_efficiency*** For contracted storage and hybrid projects, enter the round-trip efficiency percentage.
10	***engineering_assessment_confirmation***	**DCR ONLY: Engineering Assessment Status *engineering_assessment_confirmation*** For Diablo Canyon Replacement Resources, in the *engineering_assessment_confirmation* field select "TRUE" 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.
11		**LSE Error Review** LSE can self-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:** *elcc_match_resource_type_non_hybrid* and elcc_*match_resource_type_hybrid_gen* columns o These columns compare the LSE selected ELCC to the resource type in *elcc_non_hybrid_resource* and elcc_*hybrid_gen_resource.* A 'False' indicates the LSE selected ELCC does not match the resource type. In the "mtr_nqc_summary " tab: – **Nameplate Percent Allocation:** % nameplate/tranche non hybrid, % nameplate/tranche hybrid gen, % nameplate/tranche hybrid storage o 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.

12	calculated_general_nqc_total OR *dcr_total_nqc*	**Final NQC Value Comparison to "Unique_contracts" tab** 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 *calculated_general_nqc_total* value and *dcr_total_nqc* value should then be compared to or inputted to the "unique_contracts" sheet columns for each contract for each tranche. • The *dcr_total_nqc* value should then be compared to or inputted to the "unique_contracts" sheet column *mtr_NQC_ZE_gen_paired_dr* in the "unique_contracts" tab. Once the LSE has inputted the NQC values in the "unique_contracts" tab, return to the "mtr_nqc_summary" sheet and check the *reported<= NQC tool calculated 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 tab. Note: The summary sheet will not include any resources 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 an LSE appear over-procured for a specific tranche in this summary table.
13		**(Optional) LSE MTR Compliance Summary Review: "mtr_nqc_summary" tab** Go to the " mtr_nqc_summary " tab. In cell B3, select the abbreviation for your specific LSE from the dropdown. Note: ESPs will need to manually enter their procurement obligations in cells D3-J3; please overwrite the formulas here. 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.

		Please note: 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. If an LSE has a pending 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 an LSE proposed to trade 5 MW of compliance with an LSE such that its Tranche 2 obligation would increase by 5 MW and its Tranche 5 obligation decrease by 5 MW, it 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 outputs 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. For questions about this process, please contact irpdatarequest@cpuc.ca.gov
1		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.