# Summary of Compliance with Integrated Resource Planning (IRP) Order D.19-11-016 and Mid Term Reliability (MTR) D.21-06-035 Procurement

December 2023 Data Filings

Energy Division Staff Recommendations

www.cpuc.ca.gov/irp

California Public Utilities Commission

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# Executive Summary

- All Load Serving Entities (LSEs) subject to D.19-11-016 and Mid Term Reliability D.21-06-035 procurement obligations submitted timely compliance information as required in D.20-12-044.
  - CPUC Staff have validated that collectively LSEs have procured 3,747 MW NQC of total procurement toward D.19-11-016, 447 MW NQC above the 3,300 MW NQC obligation.
  - CPUC Staff have validated that collectively LSEs have brought online MWs beyond the 2,000 MW NQC necessary to be online for MTR Tranche 1.
  - Most LSEs have started conducting procurement towards later MTR Tranches.
  - LSE-specific compliance is not contained in this public report. While an LSE type may have procured sufficiently as a collective, individual LSEs may still have deficiencies.

# Note about Net Qualifying Capacity

- All tables are reported in Net Qualifying Capacity (NQC) values
  - NQC measures the amount of reliable power a resource can provide to the grid
- NQC= (nameplate capacity) x (effective load carrying capability)
  - Nameplate = Theoretical maximum amount of power produced by a power generating resource in perfect conditions
  - Effective Load Carrying Capability = Percentage that represents the realistic contribution for reliable energy produced for the grid based on resource type, peak load demand, and season
  - Calculation methodologies are specified in D.21-06-035 (MTR)

# IRP Procurement Orders and Compliance Review Schedule

## Table 1. CPUC Procurement Orders (MW NQC)

| CPUC Orders | Total | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|---|
| **D.19-11-016** Applies to 25 LSEs since 18/43 LSEs opted out. | **3,300 MW** | 1,650 MW by Aug 1 | 825 MW by Aug 1 | 825 MW by Aug 1 | n/a | n/a | n/a | n/a | n/a |
| **D.21-06-035 (MTR)** Applies to all CPUC-jurisdictional LSEs. No opt-outs allowed. | **11,500 MW** | n/a | n/a | 2,000 MW by Aug 1 | 6,000 MW by June 1 | 1,500 MW[1] by June 1 | n/a[2] | n/a | 2,000 MW by June 1 |
| **D.23-02-040 (Supplemental MTR)** Applies to all CPUC-jurisdictional LSEs. No opt-outs allowed. | **4,000 MW** | n/a | n/a | n/a | n/a | n/a | 2,000 MW by June 1 | 2,000 MW by June 1 | n/a |
| **Cumulative Procurement Ordered** | **18,800 MW** | 1,650 MW | 2,475 MW | 5,300 MW | 11,300 MW | 12,800 MW | 14,800 MW | 16,800 MW | 18,800 MW |

## Table 2. CPUC Review of LSE Contracting Progress

| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|
| **CPUC Reviews LSE Compliance Filings and CPUC could order Backstop Procurement** | February 2021 | February 2022 | February 2023 & December 2023 | December 2024 | December 2025 | December 2026 | December 2027 | December 2028 |
| **CPUC Reviews LSE Compliance Filings only** | August 2021 | August 2022 | August 2023[3] | June 2024 | June 2025 | June 2026 | June 2027 | June 2028 |

(1) D.21-06-035 required 2,500 of the 9,000 MW required between 2023-2025 be "Diablo-Canyon Replacement".
(2) D.21-06-035 required 2,000 MW of Long-Lead Time Procurement by 2026, with an option to extend to 2028: 1,000 MW of long-duration storage and 1,000 MW of firm zero-emitting. D.23-02-040 automatically extends the procurement obligation to 2028.
(3) In August 2023, the Commission can order back stop for the for remaining D.19-11-016 procurement obligations.

# Milestone Requirements*

- **Milestone 1:** a signed contract with a resource developer for provision of commercial technology, an interconnection agreement with a demonstrated path toward deliverability by the required online date, signed land leases or title deeds demonstrating project site control, and a project timeline. This milestone may also show intended procurement from demand response resources, as well as allowable imports.
- **Milestone 2:** a showing of a "notice to proceed" or similar contractual evidence of construction commencement for new construction projects, as well as executed contracts for demand response, imports, or sales of excess resources between LSEs.
- **Milestone 3:** evidence of a project being online and capable of delivering energy, or in the case of demand response, load reduction.

*As established in D.20-12-044

# Criteria for Ordering Backstop Procurement

D. 20-12-044 directed that Integrated Resource Planning (IRP) Procurement Compliance staff (hereafter referred to as "staff") are to evaluate the need for backstop procurement to be required by the CPUC based on progress towards Milestones 1 and 2 for the year in which the capacity is required to come online by June 1.

**Resource-Specific Considerations:**
Whether there is complete contract failure or delay

- Length of delay estimated
- Whether a project has failed to meet multiple milestones
- Whether the delay is related to interconnection or transmission
- Project stage of development
- Quality of LSE or developer remediation plan (including diagnosis for the delay/failure and achievable mitigation steps, backed up by evidence)

**LSE-Specific Considerations:**

- Pattern of success in meeting previous milestones
- Quality of mitigation or remediation plan
- Thoroughness of documentation

# D.19-11-016 Background

# Background on D.19-11-016

- The CPUC ordered Load Serving Entities (LSEs) to procure 3,300 MW NQC of new resources by August 1, 2023, in November 2019 via an order in the Integrated Resource Planning (IRP) proceeding, D.19-11-016.
- The CPUC established reporting requirements on this LSE procurement and outlined procedures for the need for backstop procurement in D.20-12-044.
- The LSEs submitted compliance filings in December 2023 in compliance with these orders – this is the data we are currently analyzing for this report.
- The procurement obligations for D.19-11-016 are divided into three tranches, one each for years 2021, 2022, and 2023.
- LSEs were required to report on procurement efforts twice per year, in February and August.
- While August 2023 should have been the last filing for D.19-11-016, we are requesting LSEs to continue reporting on any delayed D.19-11-016 projects until they come online.

# Procurement Obligations (MW NQC) and Opt-Outs by LSE

| Opt-Out Status | Tranche 1 Requirement (8/1/2021) | Tranche 2 Requirement (8/1/2022) | Tranche 3 Requirement (8/1/2023) | Adjusted Obligation |
|---|---|---|---|---|
| No (22 CCAs & ESPs) | 496 MW | 248 | 248 | 992 |
| Yes (7 CCAs & ESPs) | | | | |
| Formed too late (6 CCAs) | | | | |
| Stopped serving load (5 CCAs and ESPs) | | | | |
| 3 IOUs | 1,154 | 577 | 577 | 2,308 |
| **Grand Total - 43 LSEs** | **1,650** | **825** | **825** | **3,300** |

- **D.19-11-016 established a procurement obligation on all LSEs; however, it allowed LSEs to opt-out of the obligation.**
  - **No Opt-Out:** 22 CCAs and ESPs did not opt-out of IRP Procurement Obligations.
  - **Yes Opt-Out:** 7 CCAs and ESPs opted-out (knowing that the 3 IOUs would then be obligated to procure on their behalf and the costs charged to the opt-outs).
  - **Did not receive obligation:** 11 CCAs and ESPs did not receive an obligation because they were formed after D.19-11-016 or stopped serving load.
  - **IOUs:** IOUs received procurement obligations for their own load and the 7 opt-out LSEs.

# Requirements by Tranche by LSE

- Each LSE has a unique procurement obligation for each tranche.
- 25 LSEs submitted information related to all their procurement obligations.
- The adjusted obligation column shows the IOUs procurement obligations for their own load and the 18 LSEs that did not receive an obligation or opted out.

| Opt out status | LSE type | LSE | Total D.19-11-016 Obligation |
|---|---|---|---|
| No | CCA | Apple Valley Choice Energy | 3.8 |
| | CCA | Clean Power Alliance of Southern California | 196.9 |
| | CCA | Clean Power San Francisco | 57.0 |
| | CCA | East Bay Community Energy | 99.6 |
| | CCA | Lancaster Clean Energy | 9.4 |
| | CCA | Marin Clean Energy | 87.5 |
| | CCA | Monterey Bay Community Power Authority | 57.4 |
| | CCA | Peninsula Clean Energy Authority | 55.0 |
| | CCA | Pico Rivera Innovative Municipal Energy | 2.6 |
| | CCA | Pioneer Community Energy | 18.5 |
| | CCA | Rancho Mirage Energy Authority | 4.8 |
| | CCA | Redwood Coast Energy Authority | 10.7 |
| | CCA | San Jacinto Power | 2.8 |
| | CCA | San Jose Clean Energy | 77.6 |
| | CCA | Silicon Valley Clean Energy | 67.2 |
| | CCA | Sonoma Clean Power Authority | 43.3 |
| | CCA | Valley Clean Energy Alliance | 12.6 |
| | ESP | Direct Energy Business, LLC | [redacted] |
| | ESP | Shell Energy North America | [redacted] |
| | ESP | University of California Regents | [redacted] |
| | ESP | Calpine Energy Solutions, LLC | [redacted] |
| | ESP | Calpine Power America-CA, LLC | [redacted] |
| Yes | CCA | Clean Energy Alliance* | |
| | CCA | King City Community Power | |
| | ESP | 3 Phases Renewables, Inc. | |
| | ESP | Commercial Energy of California | |
| | ESP | Constellation NewEnergy, Inc. | |
| | ESP | EDF Industrial Power Services (CA), LLC | |
| | ESP | Pilot Power Group, Inc. | |
| Formed too late | CCA | Baldwin Park, City of | |
| | CCA | Desert Community Energy | |
| | CCA | Pomona, City of | |
| | CCA | San Diego Community Power | |
| | CCA | Santa Barbara Clean Energy | |
| | CCA | Western Community Energy | |
| Stopped serving load | CCA | American PowerNet Management | |
| | CCA | City of Solana Beach | |
| | CCA | Commerce Energy, Inc. (1092) | |
| | CCA | Commerce, City of | |
| | ESP | Tiger Natural Gas, Inc. | |
| IOU | IOU | PG&E | 765.1 |
| | IOU | SCE | 1,241.30 |
| | IOU | SDG&E | 301.3 |
| Grand Total | | | 3,300 |

*CEA did not originally opt out, but merged with COSB and is now receiving COSB's opt-out credits.
*MW reported in NQC values

# Progress Towards D.19-11-016 Procurement Requirements Reported by LSEs in Their December 1, 2023, Compliance Filings

Aggregation of Procurement Reported to CPUC by LSE Type and Tranche

# Notes about Tables

- These tables only include procurement pursuant to D.19-11-016.
- D.21-06-035 Mid-Term Reliability (MTR) procurement is shown separately, but the combination of these tables still does not constitute all procurement activity, since LSEs also procure for other purposes (i.e., to meet RPS requirements, storage mandates, Resource Adequacy, individual portfolio needs, etc.)
- These tables are current as of the 12/1/2023 filing date, including subsequent communications with staff, but they have not been updated based on Summer Reliability procurement reports.
- All data displayed online reflects LSE-reported information as of 12/1/2023, and all subsequent dates represent forecasts.

# D.19-11-016 Final Compliance Verification

- To validate the final compliance of LSEs' for D.19-11-016, staff completed a rigorous check of each projects' milestones for completeness and compliance.
  - Staff contacted LSEs regarding missing documentation that would impact staffs' ability to verify a project.
  - Final validation was completed for all tranches of D.19-11-016.
  - Differing from the past report outs, the data in these tables do not include projects that staff were unable to validate, which results in a lower MW report out than past filings.

# D.19-11-016 Staff Verified Procurement Reported by LSE Type

| LSE Type | Total D.19-11-016 Obligation | IRP Staff Verified Online by 12/1/2023 | D.19-11-016 Total Excess or Shortfall |
|---|---|---|---|
| IOU | 2,308 | 2,404 | 96 |
| CCA | 807 | 1,138 | 331 |
| ESP | 186 | 205 | 19 |
| **Grand Total** | 3,300 | 3,747 | 447 |

- Staff have validated that collectively LSEs have procured 3,747 MW NQC of total procurement toward D.19-11-016, 447 MW NQC above the 3,300 MW NQC obligation.
  - Individual LSE Compliance with D.19-11-016 is confidential in many cases and not included in this public report. While an LSE type may have procured sufficiently as a collective, individual LSEs may still have deficiencies. However, several LSEs that were deficient as of the August 1, 2023 filing have now reached compliance.

# D.19-11-016 Staff Verified Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 3 | 0 |
| CCA | 17 | 16 | 1 |
| ESP | 5 | 5 | 0 |
| **Grand Total** | 25 | 24 | 1 |

- Staff have validated that 24 out of the 25 LSEs have met their compliance obligations for D.19-11-016.
  - Individual LSE Compliance with D.19-11-016 is confidential in many cases and not included in this public report.

# D.19-11-016 Staff Verified Procurement Reported by Resource Type

| Resource Type | IRP Staff Verified Online by 12/1/2023 |
|---|---|
| Battery | 1,702 |
| Biomass | 3 |
| Geothermal Storage | 60 |
| DR | 49 |
| Solar | 161 |
| Hybrid | 1,283 |
| Thermal | 322 |
| Wind | 167 |
| Grand Total | 3,747 |

- The vast majority of procurement is either hybrid resources (solar+battery) or standalone batteries.

# D.19-11-016 Takeaways

- Staff have validated that collectively LSEs have procured 3,747 MW NQC of total procurement toward D.19-11-016, 447 MW NQC above of the 3,300 MW NQC obligation.
  - The IOUs have remediated their deficiency towards their D.19-11-016 obligation.
  - LSE-specific compliance is not contained in this public report. While an LSE type may have procured sufficiently as a collective, individual LSEs may still have deficiencies.

# Mid-Term Reliability Background

## D.21-06-035 (MTR) and D.23-02-040 (Supplemental MTR)

# MTR Background

- The CPUC ordered Load Serving Entities (LSEs) to procure 11,500 MW NQC of new resources between August 2023 and June 2026 via an order in the Integrated Resource Planning (IRP) proceeding, D.21-06-035.
- LSEs submitted compliance filings in December 2023 in compliance with this order. LSEs will continue to file twice per year (LSEs also filed February and August 2023, so there were 3 filings in 2023 only).
- The procurement obligations for D.21-06-035 are both annual and delineated by procurement category.
- All procurement must be clean, and specifically, at least:
  - 2,500 MW NQC must be from zero-emitting generation, generation paired with storage, or demand response resources for Diablo Canyon Replacement (DCR).
  - 1,000 MW NQC must be from firm zero-emitting clean resources (Firm ZE).
  - An additional 1,000 MW NQC must be from long-duration energy storage (LDES).
- MTR differs from the D.19-11-016 obligations in the significant respect that:
  - There was no ability to Opt-Out of procurement obligations (the CCAs and ESPs that opted out for D.19-11-016 will face obligations for this procurement order).
  - There are penalty for non-compliance provisions for an LSE's failure to procure (in addition to potential backstop procurement).

# MTR Background (cont.)

- In March 2023, the CPUC issued D.23-02-004 which ordered 4,000 MW NQC of new procurement (supplemental MTR) in 2026 and 2027, in addition to the 11,500 MW NQC ordered in D.21-06-035 (MTR):
  - D.23-02-004 requires the procurement to be clean and otherwise follow all the rules and requirements of D. 21-06-035.
  - LSE obligation allocation were updated from the MTR order to be based on percent of load share at the time of the decision.
  - This Decision also recognizes the difficulties in procuring long lead-time resources by 2026, as required by D. 21-06-035, and automatically extends those deadlines to 2028.
  - This Decision also makes changes to existing compliance rules set in previous IRP Proceeding Decisions, including (but not limited to):
    - Creating a process for resources included on the baseline of either D.19-11-016 or D. 21-06-035 that have not yet come online to be removed from the baseline and allowed to count as new procurement if the LSE agrees to bring online an equal amount of NQC procurement in the year 2025.
    - Allowing additional flexibility for projects that would serve as "bridge" resources when an LSE wants to insure against the risk of project delay.
    - Other clarifications or adjustments on topics including penalties, compliance, and specific procurement categories.

# Baseline Swap and Compliance Trade Requests

- On August 11, 2023, staff posted an updated instructions and templates for IRP procurement baseline swap processes.
  - The document is available on the IRP Procurement  Track Website here.
  - Staff have processed a number of baseline swap requests that have come in via advice letters and compliance filings.
- Separately, staff have also approved compliance trades between LSEs.
- CPUC Staff will publish updates on an ongoing basis to the MTR Baseline List and the MTR/Supplemental MTR obligations list for all changes that are not confidential.

# MTR Requirements Summary

| Mid-Term Reliability (MTR) and Supplemental MTR Procurement Requirements by Tranche and Category (NQC MW) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Procurement Category** | **2023** | **2024** | **2025** | **2026 (Supplemental MTR)** | **2027 (Supplemental MTR)** | **2028** | **Total** |
| **a** | **Total MTR Required Procurement by Year** | **2,000** | **6,000** | **1,500** | **2,000** | **2,000** | **2,000** | **15,500** |
| b | Diablo Canyon Replacement (DCR) | ← 2,500 → | | | | | | 2,500 |
| c | Other/ General Procurement[2] | ← 7,000 → | | | 2,000 | 2,000 | | 11,000 |
| d | Long Lead-Time - Long-Duration Storage | | | | | | 1,000 | 1,000 |
| e | Long Lead-Time - Firm Zero-Emitting | | | | | | 1,000 | 1,000 |
| **= b + c + d + e** | **Total MTR Procurement** | **9,500** | | | **2,000** | **2,000** | **2,000** | **15,500** |

For the purpose of this presentation the following procurement obligation years are labeled as:

2023: Tranche 1
2024: Tranche 2
2025: Tranche 3
2026 (Supplemental MTR): Tranche 4
2027 (Supplemental MTR): Tranche 5
2028: Long Duration Storage: Tranche 6 LDES
2028: Firm Zero-Emitting: Tranche 6 Firm ZE

[1] The 2,500 MW shown in row "b" represents the portion of procurement shown in row "a" for 2023-2025 that is for the Diablo Canyon Replacement procurement obligation.
[2] The 7,000 MW shown in row "c" represents the portion of procurement shown in row "a" for 2023-2025 that is for the other/general procurement obligation.

# MTR Requirements by Tranche by LSE

| LSE Type | LSE | MTR (D.21-06-035) | | | | | | Supplemental MTR (D.23-02-04) | | | Total MTR and Supplemental MTR By 2028 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2023 | 2024 | 2025 | 2028 (LLT)* | DCR Minimum zero-emitting capacity by 2025 | MTR Total | 2026 | 2027 | Supplemental MTR Total | |
| CCA | AVCE | 3 | 8 | 2 | 3 | 3 | 16 | 3 | 3 | 6 | 22 |
| | CCCE | 51 | 152 | 38 | 51 | 63 | 292 | 55 | 55 | 110 | 402 |
| | CEA | 7 | 20 | 5 | 7 | 8 | 39 | 14 | 14 | 28 | 67 |
| | CPASC | 118 | 354 | 89 | 118 | 148 | 679 | 117 | 117 | 234 | 913 |
| | CPSF | 31 | 93 | 23 | 31 | 39 | 178 | 31 | 31 | 62 | 240 |
| | DCE | 6 | 18 | 4 | 6 | 7 | 34 | 4 | 4 | 8 | 42 |
| | EBCE | 73 | 218 | 55 | 73 | 91 | 419 | 68 | 68 | 136 | 555 |
| | KCCP | 0.3 | 1 | 0.3 | 0.3 | 0.4 | 2 | 0.4 | 0.4 | 0.8 | 3 |
| | LCE | 6 | 19 | 5 | 6 | 8 | 36 | 7 | 7 | 14 | 50 |
| | MCE | 58 | 173 | 43 | 58 | 72 | 332 | 61 | 61 | 122 | 454 |
| | OCPA | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 38 | 76 | 76 |
| | PALMDALE | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 12 | 12 |
| | PCEA | 38 | 113 | 28 | 38 | 47 | 217 | 35 | 35 | 70 | 287 |
| | PIONEER | 12 | 37 | 9 | 12 | 15 | 70 | 19 | 19 | 38 | 108 |
| | POMONA | 5 | 14 | 3 | 5 | 6 | 27 | 4 | 4 | 8 | 35 |
| | PRIME | 2 | 7 | 2 | 2 | 3 | 13 | 2 | 2 | 4 | 17 |
| | RCEA | 7 | 20 | 5 | 7 | 8 | 39 | 7 | 7 | 14 | 53 |
| | RMEA | 3 | 9 | 2 | 3 | 4 | 17 | 3 | 3 | 6 | 23 |
| | SBCE | 2 | 7 | 2 | 2 | 3 | 13 | 4 | 4 | 8 | 21 |
| | SDCP | 80 | 237 | 60 | 60 | 99 | 456 | 80 | 80 | 160 | 616 |
| | SJCE | 43 | 129 | 32 | 43 | 54 | 247 | 40 | 40 | 80 | 327 |
| | SJP | 2 | 5 | 1 | 2 | 2 | 10 | 2 | 2 | 4 | 14 |
| | SOMA | 25 | 74 | 18 | 25 | 31 | 142 | 23 | 23 | 46 | 188 |
| | SVCE | 41 | 124 | 31 | 41 | 52 | 237 | 40 | 40 | 80 | 317 |
| | VCEA | 8 | 23 | 6 | 8 | 10 | 45 | 8 | 8 | 16 | 61 |
| ESP | 3PR | | | | | | | | | | |
| | CES | | | | | | | | | | |
| | CNE | | | | | | | | | | |
| | CPA | | | | | | | | | | |
| | DEB | | | | | | | | | | |
| | EIPS | | | | | | | | | | |
| | NES | | | | | | | | | | |
| | PPG | | | | | | | | | | |
| | SENA | | | | | | | | | | |
| | UCOP | | | | | | | | | | |
| IOU | PGE | 400 | 1,201 | 300 | 400 | 500 | 2301 | 388 | 388 | 776 | 3,077 |
| | SCE | 705 | 2,114 | 529 | 705 | 880 | 4,053 | 684 | 684 | 1,367 | 5,420 |
| | SDGE | 83 | 248 | 62 | 83 | 103 | 475 | 72 | 72 | 144 | 619 |
| **Total** | | **2,000** | **6,000** | **1,500** | **2,000** | **2,500** | **11,500** | **2,000** | **2,000** | **4,000** | **15,500** |

*The LLT resource requirements are divided into half from long-duration storage and half from firm, zero- emitting generation resources. LSEs with an odd-numbered procurement obligation may choose how to round their obligation in whatever way results in the total capacity in this column of the table being delivered. Per D.23-02-04 LLT resources obligation date has been moved to 2028.

# Progress Towards MTR Tranche 1 Procurement Reported by LSEs in Their December 1, 2023, Compliance Filings

Aggregation of Procurement Reported to CPUC by LSE Type and Tranche

# Notes about Tables

- The following data is reported in NQC and uses calculation methodologies specified in the MTR decision.
  - The tables also include some manual data fixes by staff.
- The data shows LSEs' compliance towards Tranche 1 that has been verified by staff review of milestone documentation, as of December 2023 compliance reporting. Some compliance was achieved after June 1, 2023 (the initial compliance obligation period).
- The data tables for general procurement towards Tranche 1-5 (2023-2027) is inclusive of Diablo Canyon Replacement Procurement.

# MTR Tranche 1 (2023) Procurement Reported by LSE Type

| LSE Type | MTR Tranche 1 Obligation | IRP Staff Verified Online by 12/1/2023 | MTR Tranche 1 Excess or Shortfall as of 12/1/2023 |
|---|---|---|---|
| IOU | 1,188 | 1,785 | 597 |
| CCA | 621 | 1,135 | 515 |
| ESP | 193 | 487 | 294 |
| **Total** | **2,000** | **3,407** | **1,407** |

- Staff have validated that collectively LSEs have procured 3,407 MW NQC of procurement by 12/1/2023, which may include some deficiencies on a per-LSE basis.
- Note this includes LSE procurement that has come on early but is expected to count for later MTR tranches. These overages will be included towards the cumulative procurement.

# MTR Tranche 1 (2023) Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 3 | 0 |
| CCA | 23 | 22 | 1 |
| ESP | 10 | 5 | 5 |
| **Total** | **36** | **30** | **6** |

- Staff have validated that 30 out of the 36 LSEs have met their compliance obligations for MTR Tranche 1.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.

# MTR Tranche 1 (2023) Procurement Reported by Deficiency Type

| Cause of Deficiency | Number of LSEs | MW NQC Unprocured |
|---|---|---|
| No procurement | 4 | 17.3 |
| Under procurement | 0 | 0 |
| Project delay | 1 | 2.0 |
| Contract termination | 0 | 0 |
| Double counting a resource claimed by another entity | 1 | 44.0 |
| Missing documentation | 0 | 0 |
| **Total** | **6** | **63.3** |

- Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.

# MTR Staff Verified Procurement Reported by Resource Type

| Resource Type | IRP Staff Verified Online by 12/1/2023 |
|---|---|
| Battery | 1,264 |
| Geothermal | 13 |
| DR | 10 |
| Solar | 35 |
| Hybrid | 1,492 |
| Unspecified Import | 387 |
| Wind | 206 |
| Grand Total | 3,407 |

- The vast majority of procurement is either hybrid resources (solar+battery) or standalone batteries.

# MTR Tranche 1 Procurement Takeaways

- As of the 12/1/2023 IRP Compliance Filing data, CPUC Staff have validated that collectively LSEs have brought online MWs beyond the 2,000 MW NQC necessary to be online for Tranche 1.
- This data is inclusive of LSE procurement that has come online early for later MTR tranches, inflating the value beyond procurement just for Tranche 1 compliance.
- Individual LSE Compliance with MTR Tranche 1 is confidential in many cases and not included in this public report. Similarly, while an LSE type may have collectively procured sufficient resources, individual LSEs within that LSE type may still have deficiencies.

# Forecasted Progress Towards 2024-2027 MTR Tranche 2, 3, 4, and 5 Procurement Reported by LSEs in Their December 1, 2023, Compliance Filings

Aggregation of Procurement Reported to CPUC

# Notes about Tables

- The following data is reported in NQC and uses calculation methodologies specified in the MTR decision.
  - The tables also include some manual data fixes by staff.
- The data tables for general procurement towards Tranche 1-5 (2023-2027) is inclusive of Diablo Canyon Replacement Procurement.
- Data includes information submitted as of the December 2023 IRP compliance reporting.
- Data is generally shown per LSE Type (IOU, CCA, ESP) for the sake of reporting but the compliance obligations all rest with individual LSEs.
- Data included in the tables are self-reported. Actual project online dates may not exactly align with LSE-reported tranches:
  - Based on MTR ELCC methodology and LSE progress towards earlier Tranches, an LSE may report a project towards a later tranche even if it has an earlier online and thus use the later tranches ELCC values.
  - Some LSEs reported in a tranche earlier than the online date if the projects COD was delayed pasted the tranche due date, but the LSE still intended for it to be counted towards an earlier tranche. These projects will be assessed by CPUC Staff on a case-by-case basis.

# 2024 Forecasted MTR Tranche 2 Procurement Reported by LSE Type

| LSE Type | Cumulative MTR Tranche 2 Obligation | Collective Forecasted MTR 2024 Online by 6/1/2024 | Collective Forecasted MTR Tranche 2 Excess or Shortfall |
|---|---|---|---|
| IOU | 4,750 | 3,311 | -1,439 |
| CCA | 2,476 | 2,210 | -266 |
| ESP | 773 | 704 | -69 |
| **Total** | **8,000** | **6,225** | **-1,775** |

- As of the 12/1/2023 Compliance filings, collectively LSEs forecast a deficiency of 1,775 MW NQC for 2024 MTR Tranche 2.
- Note Column 3 and 4 figures include sum of excess and deficiencies.

[Note: these are LSE reported MWs and not validated by staff.]

# 2024 Forecasted MTR Tranche 2 Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured as of December 2023 | Number of LSEs Not in Compliance as of December 2023 |
|---|---|---|---|
| IOU | 3 | 0 | 3 |
| CCA | 23 | 8 | 15 |
| ESP | 10 | 3 | 7 |
| **Total** | **36** | **11** | **25** |

- Only 11 out of the 36 LSEs are forecasted to meet their compliance obligations for MTR Tranche 2.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.
- Progress towards MTR Tranche 2 is pending the necessary compliance documentation verification review filed by 6/1/2024. Additional reporting will occur in December 2024.

# MTR Tranche 2 (2024) Procurement Reported by Deficiency Type

| Cause of Deficiency | Number of LSEs | MW NQC Unprocured |
|---|---|---|
| No procurement | 4 | 67.0 |
| Under procurement | 9 | 1,266.3 |
| Project delay | 9 | 80.5 |
| Contract termination | 1 | 99.6 |
| Missing Documentation | 1 | 463.0 |
| Double counting a resource claimed by another entity | 1 | 44.0 |
| **Total** | **20** | **2,020.4** |

- Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.

# 2025 Forecasted MTR Tranche 3 Procurement Reported by LSE Type

| LSE Type | Cumulative MTR Tranche 3 Obligation | Forecasted MTR 2025 Online by 6/1/2025 | Forecasted MTR Tranche 3 Excess or Shortfall |
|---|---|---|---|
| IOU | 5,642 | 5,001 | -642 |
| CCA | 2,939 | 2,968 | 29 |
| ESP | 919 | 746 | -172 |
| **Total** | **9,500** | **8,715** | **-785** |

- As of the 12/1/2023 Compliance filings, collectively LSEs forecast a deficiency of 785 MW NQC for 2025 MTR Tranche 3.

[Note: these are LSE reported MWs and not validated by staff.]

# 2025 Forecasted MTR Tranche 3 Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 0 | 3 |
| CCA | 23 | 8 | 15 |
| ESP | 10 | 3 | 7 |
| **Total** | **36** | **11** | **25** |

- 11 out of the 36 LSEs are forecasted to meet their compliance obligations for MTR Tranche 3.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.
- Progress towards MTR Tranche 3 is still underway and pending the necessary compliance documentation verification to be filed by 6/1/2025.

# 2026 Forecasted MTR Tranche 4 Procurement Reported by LSE Type

| LSE Type | Cumulative MTR Tranche 4 Obligation | Collective Forecasted MTR 2025 Online by 6/1/2026 | Collective Forecasted MTR Tranche 4 Excess or Shortfall |
|---|---|---|---|
| IOU | 6,785 | 5,969 | -816 |
| CCA | 3,610 | 3,495 | -116 |
| ESP | 1,104 | 775 | -329 |
| **Total** | **11,500** | **10,239** | **-1,261** |

- As of the 12/1/2023 Compliance filings, collectively LSEs forecast a deficiency of 1,261 MW NQC for 2026 MTR Tranche 4. Note Column 3 and 4 figures include sum of excess and deficiencies.

[Note: These are LSE reported MWs and not validated by staff.]

# 2026 Forecasted MTR Tranche 4 Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 2 | 1 |
| CCA | 23 | 5 | 18 |
| ESP | 10 | 2 | 8 |
| **Total** | **36** | **9** | **27** |

- 9 out of the 36 LSEs are forecasted to meet their compliance obligations for MTR Tranche 4.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.
- Progress towards MTR Tranche 4 is still underway and pending the necessary compliance documentation verification to be filed by 6/1/2026.

# 2027 Forecasted MTR Tranche 5 Procurement Reported by LSE Type

| LSE Type | Cumulative MTR Tranche 5 Obligation | Forecasted MTR 2025 Online by 6/1/2027 | Forecasted MTR Tranche 5 Excess or Shortfall |
|---|---|---|---|
| IOU | 7,929 | 6,034 | -1,895 |
| CCA | 4,282 | 4,036 | -246 |
| ESP | 1,289 | 775 | -514 |
| **Total** | **13,500** | **10,845** | **-2,655** |

- As of the 12/1/2023 Compliance filings, collectively LSEs forecast a deficiency of 2,655 MW NQC for 2027 MTR Tranche 5.
- Note Column 3 and 4 figures include sum of excess and deficiencies.

[Note: These are LSE reported MWs and not validated by staff.]

# 2027 Forecasted MTR Tranche 5 Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 0 | 3 |
| CCA | 23 | 6 | 17 |
| ESP | 10 | 2 | 8 |
| **Total** | **36** | **8** | **28** |

- 8 out of the 36 LSEs are forecasted to meet their compliance obligations for MTR Tranche 5.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.
- Progress towards MTR Tranche 5 is still underway and pending the necessary compliance documentation verification to be filed by 6/1/2027.

# Forecasted Progress Towards Diablo Canyon Replacement Procurement Reported by LSEs in the December 1, 2023, Compliance Filings

Aggregation of Procurement Reported to CPUC

# 2025 Forecasted Diablo Canyon Replacement Procurement Reported by LSE Type

| LSE Type | Cumulative MTR Tranche 3 Obligation | Collective Forecasted MTR 2025 Online by 6/1/2025 | Collective Forecasted MTR Tranche 3 Excess or Shortfall |
|---|---|---|---|
| IOU | 1,483 | 3,351 | 1,868 |
| CCA | 773 | 1,098 | 325 |
| ESP | 242 | 233 | -9 |
| **Total** | **2,500** | **4,682** | **2,182** |

- As of the 12/1/2023 Compliance filings, collectively LSEs are forecast to exceed Diablo Canyon Replacement obligations by 2,182 MW NQC.
- LSEs' progress towards Diablo Canyon Replacement is pending the necessary compliance documentation verification to be filed by 6/1/2025.
- Note Column 3 and 4 figures include sum of excess and deficiencies.

[Note: These are LSE reported MWs that have not yet been validated by staff and only track capacity not energy procurement, which is also required for Diablo Canyon Replacement.]

# 2025 Forecasted Diablo Canyon Replacement Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 1 | 2 |
| CCA | 23 | 9 | 14 |
| ESP | 10 | 3 | 7 |
| **Total** | **36** | **13** | **23** |

- 13 out of the 36 LSEs are forecasted to meet their compliance obligations for Diablo Canyon Replacement.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.
- Progress towards Diablo Canyon Replacement is still underway and pending the necessary compliance documentation verification to be filed by 6/1/2025.

# Forecasted Progress Towards MTR LLT Procurement Reported by LSEs in the December 1, 2023, Compliance Filings

Aggregation of Procurement Reported to CPUC

# Forecasted LLT Procurement Reported by Resource Type

| LSE Type | D.21 2028 LDES | | | D.21 2028 FIRM ZE | | | LLT Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Obligation | Claimed | Excess/ Shortfall | Obligation | Claimed | Excess/ Shortfall | Obligation | Claimed | Excess/ Shortfall |
| CCA | 310 | 494 | 184 | 310 | 283 | -27 | 621 | 777 | 156 |
| ESP | 97 | 0 | -97 | 97 | 0 | -97 | 193 | 0 | -193 |
| IOU | 594 | 0 | -594 | 594 | 297 | -297 | 1,188 | 297 | -891 |
| **Grand Total** | 1,000 | 494 | -506 | 1,000 | 580 | -420 | 2,000 | 1,074 | -926 |

- Collectively LSEs reported to **under procure** for both LLT resource categories.
  - CCAs are the only LSEs to have reported sufficient procurement for their cumulative LLT obligation, but compliance may vary per LSE.
  - ESPs have not reported any procurement towards LLT.

# Forecasted LLT Procurement Reported by LSE Type

| LSE Type | Total Number of LSEs | Number of LSEs in Compliance or Over-Procured | Number of LSEs Not in Compliance |
|---|---|---|---|
| IOU | 3 | 0 | 3 |
| CCA | 23 | 7 | 16 |
| ESP | 10 | 0 | 10 |
| **Total** | **36** | **7** | **29** |

- 7 out of the 36 LSEs are forecasted to meet their compliance obligations for LLT procurement.
  - Individual LSE Compliance with MTR is confidential in many cases and not included in this public report.
- Progress towards LLT procurement is still underway and pending the necessary compliance documentation verification to be filed by 6/1/2028.

# Forecasted LLT Procurement Reported by Resource Type

| LLT Category | Resource Type | Forecasted Online |
|---|---|---|
| Firm ZE | biomass | 12 |
| | geothermal | 568 |
| Firm ZE Total | | 580 |
| LDES | battery | 488 |
| | solar storage | 6 |
| LDES Total | | 494 |
| Grand Total | | 1,074 |

[Note: Firm ZE= firm zero-emitting clean resources; LDES= long-duration energy storage]

# Summary of MTR Procurement Reported by LSEs in the December 1, 2023, Compliance Filings

Aggregation of Procurement Reported to CPUC by LSE Type and Tranche

# Forecasted MTR Procurement Progress

- As of the 12/1/2023 Compliance filings, collectively LSEs forecast procurement as shown:

| Tranche | IOU | CCA | ESP | Excess/Shortfall |
|---|---|---|---|---|
| **2023 Tranche 1** | Sufficient procurement progress | Sufficient procurement progress | Sufficient procurement progress | **1,407** |
| **2024 Tranche 2** | Deficient procurement progress | Deficient procurement progress | Deficient procurement progress | **-1,775** |
| **2025 Tranche 3** | Deficient procurement progress | Sufficient procurement progress | Deficient procurement progress | **-785** |
| **2025 Diablo Canyon Replacement** | Sufficient procurement progress | Sufficient procurement progress | Deficient procurement progress | **2,182** |
| **2026 Tranche 4** | Deficient procurement progress | Deficient procurement progress | Deficient procurement progress | **-1,261** |
| **2027 Tranche 5** | Deficient procurement progress | Deficient procurement progress | Deficient procurement progress | **-2,655** |
| **2028 LLT** | Deficient procurement progress | Sufficient procurement progress | Deficient procurement progress | **-926** |

[Note: Forecasted progress as shown above reflects the collective procurement total under each LSE type. Individual LSEs in a particular sufficient category may still have deficiencies being covered by over procurement from other LSEs.]

# MTR Obligations vs. Forecasted MTR Procurement

**Data as of 12/1/2023, All Figures in MW NQC (red means forecasted deficient relative to obligation)**

| Tranche | Total Obligation | Total Cumulative Obligation | Total Cumulative Procurement Forecasted Online by June of Compliance Year | Excess/Shortfall |
|---|---|---|---|---|
| **2023 Tranche 1 (verified online)** | 2,000 MW | 2,000 MW | 3,407 MW | **1,407 MW** |
| **2024 Tranche 2** | 6,000 MW | 8,000 MW | 6,225 MW | **-1,775 MW** |
| **2025 Tranche 3** | 1,500 MW | 9,500 MW | 8,715 MW | **-785 MW** |
| ***2025 Diablo Canyon Replacement (included in Tranche 3)*** | *2,500 MW* | *n/a* | *n/a* | ***2,182 MW*** |
| **2026 Tranche 4** | 2,000 MW | 11,500 MW | 10,239 MW | **-1,261 MW** |
| **2027 Tranche 5** | 2,000 MW | 13,500 MW | 10,845 MW | **-2,655 MW** |
| **LLT Firm ZE by 2028** | 1,000 MW | 14,500 MW | 11,425 MW | **-3,075 MW** |
| **LLT LDES by 2028** | 1,000 MW | 15,500 MW | 11,919 MW | **-3,581 MW** |
| **Total MTR** | 15,500 MW | 15,500 MW | 11,919 MW | **-3,581 MW** |

# Links to Other Key References on New Resource Development

Integrated Resource Planning, IRP Procurement Oversight

# References to Related Information

(1) Overview of CPUC IRP Procurement Orders – IRP Procurement Track (ca.gov)

(2) Overview of CPUC Jurisdictional LSE Procurement in Compliance with IRP Procurement Orders

- Procurement in Compliance with D.19-11-016 and Mid Term Reliability (D.21-06-035) per August 1, 2023, 4/22/2024
- Procurement in Compliance with D.19-11-016 and Mid Term Reliability (D.21-06-035) per February 1, 2023, 11/2/2023
- Procurement in Compliance with D.19-11-016 per August 1, 2022 Fillings, 2/13/2023
- Procurement in Compliance with D.19-11-016 per February 1, 2022 Filings, 7/22/2022
- Procurement in Compliance with D.19-11-016 per February 1, 2021 Filings, 8/23/2021

3. CPUC Tracking Energy Development
   - August 2024 Resource Tracking Data
   - July 2024 Resource Tracking Data
   - June 2024 Resource Tracking Data