July 19, 2011

**VIA ELECTRONIC MAIL**

Mr. Michael Cohen
Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102

**Re: ISO Response to the DRA Data Request LTPP2010-CAISO-003**

Dear Mr. Cohen:

Enclosed please find the ISO response to the DRA Data Requests propounded in the Long Term Procurement Proceeding, CPUC Docket R.10-05-006.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Anna A. McKenna
Acting Assistant General Counsel
California Independent System Operator

cc: Service List R.10-05-006

**BEFORE**
**THE PUBLIC UTILITIES COMMISSION**
**OF THE STATE OF CALIFORNIA**

| | | |
|---|---|---|
| **Order Instituting Rulemaking to Integrate** | **)** | |
| **And Refine Procurement Policies and** | **)** | **R.10-05-006** |
| **Consider Long-Term Procurement Plans** | **)** | |

**RESPONSE OF**
**THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**
**TO DATA REQUEST No. LTPP2010-CAISO-003**
**BY THE DIVISION OF RATEPAYER ADVOCATES,**
**CALIFORNIA PUBLIC UTILITIES COMMISSION**

Below are responses by the California Independent System Operator Corporation to Data Request No. LTPP 2010-CAISO-003, the Division of Ratepayer Advocates, California Public Utilities Commission.

**RESPONSES**

1. With respect to CAISO Testimony 43: 9-24, please provide a detailed description of when, where, and for what duration, the load following down violations occurred in the Trajectory and Environmentally constrained scenarios. Please include the magnitude of shortfall for any and all hours, and the times at which the 506 MW and 539 MW shortfalls are needed.

**ISO RESPONSE TO No. 1:**

The need run process consists of two steps. First, a linear programming (LP) simulation (*i.e.*, the same setup as the need run but without unit commitment decision) for the full year of 2020 is conducted to identify the months in which the highest load following-down shortfall may occur. The LP run, however, cannot accurately determine the magnitude of the shortage. Second, a need run (i.e., with unit commitment decision and monthly maximum regulation and load following requirements for each hour) is conducted only for the months identified in the LP run to determine the actual load following-down shortage. The purpose of taking this approach is to avoid unnecessarily long simulation times.

For the Trajectory and Environment cases, the need run was done for only February and March. The hourly shortage data are presented in the "LFD Shortage" sheet in the attached spreadsheet file ("DRA Data Request_Data Sheets.xlsx").

2. Please indicate if the presence of additional Helms pumping capability, as considered in the CAISO sensitivity run described at CAISO Testimony 48: 25-30, would have any effect on the load following down violations seen in the Trajectory and Environmentally constrained scenarios. Please explain as necessary.

**ISO RESPONSE TO No. 2:**

The additional Helms pumping capacity would have no effect on the highest load following-down shortage in the two cases since the highest shortages occur in February and March, respectively. During these two months the Helms pumping capability is not changed. The additional pumping capability might have some effect on the load following-down shortage in the summer months, if there is any. With the additional pumping capability Helms may be able to absorb more energy in situation of over-generation so that some generators may have more room for downward ramping. Since no need run was done for the two cases and for the sensitivity, the actual effect is unknown.

3. Regarding CAISO Testimony 43: 26-30, please provide a detailed description of when, where, and for what duration, the load following up violations occurred in the All Gas scenario. Please include the magnitude of violation for any and all hours, and the time at which the 1400 MW of need is required.

**ISO RESPONSE TO No. 3:**

In the need run generic resources will be committed whenever necessary to cover the shortage in upward ancillary service and load following. The relevant results of the need run are the generation and upward ancillary service and load following provided by the generic resources. The need for generic capacity is calculated based on these results.

The upward ancillary service and load following provided by the generic resources are not the same in magnitude as the violation of the requirements without the generic resources. Each generic resource has a 50 MW minimum capacity. When it is committed, its generation (from 50 MW up to 100 MW) will displace generation by other existing resources and may change upward ancillary service and load following provision by these existing resources. The ISO did not conduct a need run without generic resource. Therefore, the actual magnitude of upward ancillary service and load following shortage without the generic resources already added to address the shortage is unknown.

The LP run (see answer to question No. 1) identified July as the month with the highest volume of upward ancillary service and load following provided by generic resources for the "All Gas" case. The need run was done for July only. The capacity needed to meet the requirements of upward ancillary service and load following was then calculated based on the results of the need run. The data and calculation of capacity need for the All Gas case is presented in "Contribution by Generic Units" and "All-Gas Capacity Need" sheets in the spreadsheet file "DRA Data Request_Data Sheets.xlsx".

4. Regarding CAISO Testimony 43: 26-30, please provide a detailed description of when, where, and for what duration, the load following up violations occurred in the High Load Trajectory scenario. Please include the magnitude of violation for any and all hours, and the time(s) t which the 4600 MW of need is required.

**ISO RESPONSE TO No. 4:**

See discussion in answer to question No. 3 and data in "Contribution by Generic Units" and "Hi-Load Capacity Need" sheets in the attached document "DRA Data Request_Data Sheets.xlsx".

5. The CAISO and Bonneville Power Administration are currently evaluating the potential for intra-hour scheduling on the COI (California-Oregon intertie) as a pilot project (http://www.oatioasis.com/WASN/WASNdocs/COI_Utilization_Report_S.Anners.pdf, May 4, 2011). Please discuss how such scheduling, if it were come to fruition in the marketplace, would affect the availability of resources currently modeled for 2020 in the 4 priority cases and the All Gas and High Load Trajectory scenarios.

**ISO RESPONSE TO No. 5:**

In the model 15% of the out-of-state renewable is treated as dynamic import and another 15% has 15-minute schedules. That is based on the expectation that intra-hour scheduling will be available by 2020. Comparing an intra-hour scheduled transfer of renewable resource to a static hourly schedule, an intra-hour schedule would transfer some of variability of the renewable resource. In comparison to a static hourly scheduled transfer, this may increase the amount of variability the ISO may need to balance for. However, it may decrease the amount of change that occurs once an hour because the changes would occur in small quantities more frequently during the hour. The ISO is responsible for maintaining supply and demand imbalance for its balancing authority area. If the percentage of intra-hour scheduling renewable import increases (assuming the total of intra-hourly and hourly import does not change), the requirement for regulation and load following will also increase. That may eventually reduce the capacity available to meet energy load.

6. Please confirm that in all of the 4 priority scenarios, and in the High Load Trajectory scenario, resources available to provide load following down, load following up, regulation down, and regulation up ancillary services for the CAISO balancing area exclude any resources external to the CAISO balancing area. If this is not the case, please provide all documentation for resources that do provide such ancillary service availability.

**ISO RESPONSE TO No. 6:**

In the model there are a few resources providing ancillary service and load following to the ISO located outside the CAISO balancing area. There resources are: HOOVER, APEX_2_MIRDYN, MRCHNT_2_MELDYN, MSQUIT 5 SERDYN, and SUTTER 2 PL1X3. This is because these resources are dynamically scheduling with the ISO and are capable of providing ancillary service currently.

7. If not already provided or posted, please provide, either via CD or website posting, the Plexos output files (by month) for each of the 4 priority scenarios and the All Gas and High Load Trajectory scenario.

**ISO RESPONSE TO No. 7:**

The files are available on the ISO FTP site (contact Susan Montana at SMontana@caiso.com for information of the FTP site).

8. Regarding CAISO Testimony 4: 7-8, please list and provide documentation of the specific "other identified updates and methodological refinements."

**ISO RESPONSE TO No. 8:**

The updates and refinements are described in section "IMPROVEMENTS TO SIMULATION EFFICIENCY" and "ADDITIONAL CHANGES TO MODEL ASSUMPTIONS" in Exhibit 1 of the testimony. There is no other document.

9. With respect to CAISO Testimony 8: 11-12, please describe the reconciliation conducted by E3.

**ISO RESPONSE TO No. 9:**

E3 reviewed the Step 2 model assumptions (generation resources, load forecast and distribution, and import limits, etc.) against the CPUC scoping memo and associated calculators and helped update the model accordingly.

10. Regarding CAISO Testimony 30: 3, the testimony references slides 34 and 35. Please confirm that the correct slide reference # is actually 59.

**ISO RESPONSE TO No. 10:**

Correct, it is slide 59.

11. Regarding CAISO Testimony 30: 10-12, the testimony references 5-minute ahead forecast error. The data on slide 59 references RT T-7.5 minute. Please clarify if the real-time load forecast in the model is based on 5-minute or 7.5 minute ahead load, and explain as necessary.

**ISO RESPONSE TO No. 11:**

Load forecast is done for each 5-minute interval at 7.5 minutes before the start of the interval (T-7.5 minute).

12. Regarding CAISO Testimony 30: 14-18, please confirm that the text reference to reduced wind forecast error with T-1 vs. vintage data (T-2) is represented by data shown on slide 61.

**ISO RESPONSE TO No. 12:**

Correct, the reference is on slide 61.

13. Regarding CAISO Testimony 46: 11-18, please confirm that the production costs referenced in the text are production costs for all WECC load, and not just California load, as seems to be implied by the information on slide 14.

**ISO RESPONSE TO No. 13:**

Correct, it is for all WECC load. The ISO Testimony on p. 46:11-18 should be corrected to read:

The total production cost of the four priority scenarios are all within 0.3% of each other, with WECC wide production costs ranging from $18.85 billion for Environmentally Constrained scenario to $18.89 billion for the Cost Constrained scenario. The production costs to meet to ~~California~~ WECC load in the All Gas scenario were $ 20.79 billion. The production costs to meet ~~California~~ WECC load in the Trajectory High Load scenario were $19.63 billion. This information can be found on Slide 14 of Exhibit 1.

14. Please provide, in spreadsheet format, the date-time-stamped hourly import or export values across each of the modeled CAISO interfaces for all 4 priority scenarios and for the All Gas and High Load Trajectory scenarios, and indicate if these values exclude or include dynamically-scheduled transactions.

**ISO RESPONSE TO No. 14:**

The data are available on the ISO FTP site, in the sheet "D_Hourly CA Import-Export Flow" in files named as "Simulation Results Pack-XXXXXX.xlsx" (where XXXXXX is the case name), etc for all the cases. The flows include dynamically scheduled transactions.

15. Please provide, in spreadsheet format, the date-time-stamped hourly import or export values associated with any dynamically-scheduled transactions across each of the modeled CAISO interfaces for all 4 priority scenarios and for the All Gas and High Load Trajectory scenarios.

**ISO RESPONSE TO No. 15:**

Dynamically scheduled transactions are not reported separately from other import in the simulation results. The data are not available.

16. Regarding CAISO Testimony 48:12-23, please discuss the significance of the difference in GT annual starts between California and the rest of WECC. In particular, please describe qualitatively how this difference could change if CAISO interties with the rest of WECC were available to be scheduled intra-hourly, and if ancillary service market structures were in place that allowed for intra-hourly ancillary service transactions. Would the number of California GT annual starts tend to be lower under greater CAISO external intertie scheduling, and would the annual GT starts in the rest of WECC tend to be higher? Please discuss.

**ISO RESPONSE TO No. 16:**

The simulation results show higher number of starts for GT in California than WECC wide (100.9 start/year-unit vs. 54.7 for Trajectory case). The difference indicates that GT in California is started more frequently to cover the variation in renewable generation. In the model that is mainly presented as meeting the regulation and load following requirements. On the other hand GT in the rest of the WECC GT does not provide ancillary service or load following. It is started solely to meet load during p high load periods. The number of start is therefore lower.

As discussed in Question 5, the model already assumes intra-hour scheduling on interties. However, outside resources are not allowed to provide ancillary service (except a few dynamic resources as discussed in answer to Question 6). If outside resource were allowed to provide intra-hour ancillary service, the use of California GT resources to provide ancillary service would decrease. The number of start of California GT would also decrease. At the same time the number of start of GT in the rest of WECC would increase. However the number of start of California GT should not be lower than that in the rest of WECC considering the wheeling charges and transmission congestion getting into California.

However, if there was a shift of external resources using hourly scheduling or unbundled REC for accounting for RPS to intra-hour scheduling, California may observe increase supply variability that would have otherwise had to be balanced externally. Under this scenario the California may observe increase number starts of GT to accommodate the increase intra-hour schedule changes.

ATTACHMENT A

| Case | Year | Month | Day | period_of_day | name | Value |
|---|---|---|---|---|---|---|
| Trajectory | 2020 | 2 | 1 | 18 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 2 | 2 | 5 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 2 | 2 | 12 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 2 | 4 | 17 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 2 | 16 | 17 | LoadFollowingDown | 2 |
| Trajectory | 2020 | 2 | 16 | 18 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 2 | 17 | 17 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 2 | 20 | 17 | LoadFollowingDown | 257 |
| Trajectory | 2020 | 2 | 20 | 18 | LoadFollowingDown | 21 |
| Trajectory | 2020 | 2 | 25 | 17 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 3 | 2 | 15 | LoadFollowingDown | 2 |
| Trajectory | 2020 | 3 | 5 | 5 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 3 | 5 | 8 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 5 | 10 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 5 | 15 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 5 | 18 | LoadFollowingDown | 244 |
| Trajectory | 2020 | 3 | 6 | 12 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 3 | 10 | 18 | LoadFollowingDown | 16 |
| Trajectory | 2020 | 3 | 12 | 18 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 17 | 18 | LoadFollowingDown | 26 |
| Trajectory | 2020 | 3 | 18 | 18 | LoadFollowingDown | 69 |
| Trajectory | 2020 | 3 | 19 | 3 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 19 | 6 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 3 | 19 | 10 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 19 | 11 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 21 | 18 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 3 | 27 | 11 | LoadFollowingDown | 1 |
| Trajectory | 2020 | 3 | 27 | 18 | LoadFollowingDown | 57 |
| Trajectory | 2020 | 3 | 29 | 9 | LoadFollowingDown | 0 |
| Trajectory | 2020 | 3 | 30 | 18 | LoadFollowingDown | 506 |
| Envir | 2020 | 2 | 1 | 7 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 2 | 18 | LoadFollowingDown | 72 |
| Envir | 2020 | 2 | 3 | 4 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 4 | 15 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 5 | 9 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 6 | 14 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 6 | 17 | LoadFollowingDown | 50 |
| Envir | 2020 | 2 | 6 | 18 | LoadFollowingDown | 386 |
| Envir | 2020 | 2 | 7 | 7 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 9 | 7 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 11 | 18 | LoadFollowingDown | 120 |
| Envir | 2020 | 2 | 11 | 22 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 12 | 18 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 13 | 18 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 15 | 9 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 15 | 14 | LoadFollowingDown | 0 |

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|---|---|---|---|---|---|---|
| Envir | 2020 | 2 | 15 | 18 | LoadFollowingDown | 241 |
| Envir | 2020 | 2 | 20 | 17 | LoadFollowingDown | 381 |
| Envir | 2020 | 2 | 20 | 18 | LoadFollowingDown | 539 |
| Envir | 2020 | 2 | 21 | 2 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 21 | 15 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 21 | 17 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 22 | 15 | LoadFollowingDown | 0 |
| Envir | 2020 | 2 | 22 | 18 | LoadFollowingDown | 15 |
| Envir | 2020 | 2 | 25 | 17 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 26 | 18 | LoadFollowingDown | 44 |
| Envir | 2020 | 2 | 27 | 18 | LoadFollowingDown | 1 |
| Envir | 2020 | 2 | 29 | 11 | LoadFollowingDown | 0 |
| Envir | 2020 | 3 | 1 | 17 | LoadFollowingDown | 86 |
| Envir | 2020 | 3 | 1 | 18 | LoadFollowingDown | 420 |
| Envir | 2020 | 3 | 6 | 13 | LoadFollowingDown | 1 |
| Envir | 2020 | 3 | 16 | 18 | LoadFollowingDown | 0 |
| Envir | 2020 | 3 | 18 | 15 | LoadFollowingDown | 1 |
| Envir | 2020 | 3 | 27 | 18 | LoadFollowingDown | 1 |
| Envir | 2020 | 3 | 30 | 7 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 7 | 17 | 23 | LoadFollowingDown | 4 |
| HiLoad | 2020 | 7 | 6 | 4 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 7 | 2 | 22 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 20 | 18 | LoadFollowingDown | 709 |
| HiLoad | 2020 | 2 | 20 | 17 | LoadFollowingDown | 693 |
| HiLoad | 2020 | 2 | 6 | 18 | LoadFollowingDown | 546 |
| HiLoad | 2020 | 2 | 15 | 18 | LoadFollowingDown | 420 |
| HiLoad | 2020 | 2 | 6 | 17 | LoadFollowingDown | 346 |
| HiLoad | 2020 | 2 | 15 | 17 | LoadFollowingDown | 247 |
| HiLoad | 2020 | 2 | 11 | 18 | LoadFollowingDown | 233 |
| HiLoad | 2020 | 2 | 26 | 17 | LoadFollowingDown | 211 |
| HiLoad | 2020 | 2 | 2 | 18 | LoadFollowingDown | 200 |
| HiLoad | 2020 | 2 | 12 | 18 | LoadFollowingDown | 157 |
| HiLoad | 2020 | 2 | 26 | 18 | LoadFollowingDown | 148 |
| HiLoad | 2020 | 2 | 22 | 18 | LoadFollowingDown | 145 |
| HiLoad | 2020 | 2 | 3 | 18 | LoadFollowingDown | 142 |
| HiLoad | 2020 | 2 | 19 | 18 | LoadFollowingDown | 85 |
| HiLoad | 2020 | 2 | 25 | 18 | LoadFollowingDown | 82 |
| HiLoad | 2020 | 2 | 1 | 18 | LoadFollowingDown | 72 |
| HiLoad | 2020 | 2 | 22 | 17 | LoadFollowingDown | 7 |
| HiLoad | 2020 | 2 | 8 | 4 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 26 | 13 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 22 | 9 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 13 | 18 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 8 | 7 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 24 | 4 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 2 | 1 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 2 | 1 | 9 | LoadFollowingDown | 1 |

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|---|---|---|---|---|---|---|
| HiLoad | 2020 | 2 | 5 | 13 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 22 | 6 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 5 | 24 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 17 | 18 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 4 | 18 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 1 | 11 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 2 | 2 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 2 | 23 | 23 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 3 | 30 | 18 | LoadFollowingDown | 856 |
| HiLoad | 2020 | 3 | 5 | 18 | LoadFollowingDown | 607 |
| HiLoad | 2020 | 3 | 18 | 18 | LoadFollowingDown | 423 |
| HiLoad | 2020 | 3 | 27 | 18 | LoadFollowingDown | 397 |
| HiLoad | 2020 | 3 | 17 | 18 | LoadFollowingDown | 386 |
| HiLoad | 2020 | 3 | 10 | 18 | LoadFollowingDown | 331 |
| HiLoad | 2020 | 3 | 19 | 18 | LoadFollowingDown | 311 |
| HiLoad | 2020 | 3 | 1 | 18 | LoadFollowingDown | 299 |
| HiLoad | 2020 | 3 | 24 | 18 | LoadFollowingDown | 180 |
| HiLoad | 2020 | 3 | 14 | 18 | LoadFollowingDown | 41 |
| HiLoad | 2020 | 3 | 5 | 19 | LoadFollowingDown | 41 |
| HiLoad | 2020 | 3 | 22 | 18 | LoadFollowingDown | 25 |
| HiLoad | 2020 | 3 | 9 | 17 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 3 | 22 | 12 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 3 | 20 | 4 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 3 | 27 | 12 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 3 | 14 | 11 | LoadFollowingDown | 1 |
| HiLoad | 2020 | 3 | 22 | 7 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 3 | 23 | 10 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 3 | 25 | 18 | LoadFollowingDown | 0 |
| HiLoad | 2020 | 3 | 15 | 18 | LoadFollowingDown | 0 |

Contribution by Generic Units

| Case | Generic Unit | Year | Month | Day | Hour | Property | Value |
|---|---|---|---|---|---|---|---|
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | Generation | 150 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | NonSpin Reserve | 173.19 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | Units Generating | 3 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 14 | Generation | 192.934 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 14 | NonSpin Reserve | 113.56 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 14 | Spining Reserve | 7.07 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 14 | Units Generating | 2 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | Generation | 500 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | Spining Reserve | 500.00 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | Units Generating | 10 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 15 | Generation | 200 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 15 | NonSpin Reserve | 46.96 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 15 | Units Generating | 2 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | Generation | 500 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | Spining Reserve | 500.00 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | Units Generating | 10 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 16 | Generation | 200 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 16 | NonSpin Reserve | 112.83 |
| AllGas | SCE Generic LMS100 | 2020 | 7 | 22 | 16 | Units Generating | 2 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | Generation | 500 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | Spining Reserve | 500.00 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | Units Generating | 10 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | Generation | 100 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | NonSpin Reserve | 120.00 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | Spining Reserve | 12.94 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | Units Generating | 2 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | Generation | 50 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | NonSpin Reserve | 60.00 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | Spining Reserve | 31.54 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | Units Generating | 1 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | Generation | 100 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | Spining Reserve | 80.95 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | Units Generating | 2 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 29 | 16 | Generation | 50 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 29 | 16 | NonSpin Reserve | 22.33 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 29 | 16 | Units Generating | 1 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 30 | 14 | Generation | 50 |
| AllGas | SDGE Generic LMS100 | 2020 | 7 | 30 | 14 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 13 | 16 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 13 | 16 | LoadFollowingUp | 3.24 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 13 | 16 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 13 | 17 | Generation | 205.501 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 13 | 17 | Units Generating | 3 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 14 | 15 | Generation | 162.806 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 14 | 15 | Units Generating | 2 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 14 | 16 | Generation | 70.9844 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 14 | 16 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 14 | 17 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 14 | 17 | NonSpin Reserve | 0.24 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 14 | 17 | Spining Reserve | 5.24 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 14 | 17 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 15 | 16 | Generation | 109.652 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 15 | 16 | Units Generating | 2 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 15 | 17 | Generation | 274.976 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 15 | 17 | Units Generating | 3 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 14 | Generation | 50 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 14 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 15 | Generation | 309.379 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 15 | Units Generating | 4 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 16 | Generation | 319.986 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 16 | Units Generating | 4 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 17 | Generation | 437.32 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 16 | 17 | Units Generating | 5 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 13 | Generation | 189.104 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 13 | Units Generating | 2 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 14 | Generation | 414.697 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 14 | Units Generating | 5 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 15 | Generation | 576.351 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 15 | Units Generating | 6 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 16 | Generation | 116.913 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 16 | Units Generating | 2 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 16 | Generation | 250 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 16 | NonSpin Reserve | 300.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 16 | Spining Reserve | 250.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 16 | Units Generating | 5 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 17 | Generation | 520.702 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 17 | 17 | Units Generating | 6 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 17 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 17 | LoadFollowingUp | 50.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 17 | NonSpin Reserve | 56.67 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 17 | 17 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 17 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 17 | NonSpin Reserve | 60.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 17 | Spining Reserve | 48.61 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 17 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 18 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 18 | Spining Reserve | 19.20 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 18 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 19 | Generation | 250 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 19 | NonSpin Reserve | 300.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 19 | Spining Reserve | 215.91 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 19 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 20 | Generation | 200 |

Contribution by Generic Units

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|---|---|---|---|---|---|---|---|
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 20 | NonSpin Reserve | 240.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 20 | Spining Reserve | 69.22 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 20 | 20 | Units Generating | 4 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 13 | Generation | 89.3119 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 13 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 14 | Generation | 250 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 14 | NonSpin Reserve | 268.89 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 14 | Spining Reserve | 155.24 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 14 | Units Generating | 5 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 15 | Generation | 370.605 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 15 | Units Generating | 4 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 15 | Generation | 250 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 15 | NonSpin Reserve | 300.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 15 | Spining Reserve | 250.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 15 | Units Generating | 5 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 21 | 16 | Generation | 150 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 21 | 16 | NonSpin Reserve | 180.00 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 21 | 16 | Spining Reserve | 138.37 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 21 | 16 | Units Generating | 3 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 16 | Generation | 1000 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 16 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 16 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 16 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 16 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 17 | Generation | 283.713 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 21 | 17 | Units Generating | 3 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 17 | Generation | 250 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 17 | NonSpin Reserve | 300.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 17 | Spining Reserve | 250.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 17 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 18 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 18 | LoadFollowingUp | 44.37 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 18 | NonSpin Reserve | 60.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 21 | 18 | Units Generating | 1 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 13 | Generation | 50 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 13 | Spining Reserve | 13.04 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 13 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 13 | Generation | 835.578 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 13 | LoadFollowingUp | 164.42 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 13 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | RegulationUp | 216.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | Spining Reserve | 284.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 13 | Units Generating | 10 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 14 | Generation | 950 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 14 | NonSpin Reserve | 179.02 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 14 | Spining Reserve | 820.75 |

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|---|---|---|---|---|---|---|---|
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 14 | Units Generating | 19 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 14 | Generation | 1000 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 14 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | LoadFollowingUp | 11.25 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | RegulationUp | 216.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | Spining Reserve | 272.75 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 14 | Units Generating | 10 |
| HiLoad | PG&E_BAY Generic LMS100 | 2020 | 7 | 22 | 15 | Generation | 150 |
| HiLoad | PG&E_BAY Generic LMS100 | 2020 | 7 | 22 | 15 | NonSpin Reserve | 219.70 |
| HiLoad | PG&E_BAY Generic LMS100 | 2020 | 7 | 22 | 15 | Spining Reserve | 65.64 |
| HiLoad | PG&E_BAY Generic LMS100 | 2020 | 7 | 22 | 15 | Units Generating | 3 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 15 | Generation | 1000 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 15 | NonSpin Reserve | 233.74 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 15 | RegulationUp | 338.95 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 15 | Spining Reserve | 427.31 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 15 | Units Generating | 20 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 15 | Generation | 1000 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 15 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | LoadFollowingUp | 224.23 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | Spining Reserve | 275.77 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 15 | Units Generating | 10 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 16 | Generation | 1000 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 16 | NonSpin Reserve | 3.53 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 16 | Spining Reserve | 993.07 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 16 | Units Generating | 20 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 16 | Generation | 1000 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 16 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | LoadFollowingUp | 21.56 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | NonSpin Reserve | 478.44 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 16 | Units Generating | 10 |
| HiLoad | PG&E_BAY Generic LMS100 | 2020 | 7 | 22 | 17 | Generation | 50 |
| HiLoad | PG&E_BAY Generic LMS100 | 2020 | 7 | 22 | 17 | Units Generating | 1 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 17 | Generation | 1000 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 17 | NonSpin Reserve | 305.75 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 17 | RegulationUp | 216.00 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 17 | Spining Reserve | 446.36 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 22 | 17 | Units Generating | 20 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 17 | Generation | 916.698 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 17 | LoadFollowingUp | 83.30 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 17 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | LoadFollowingUp | 104.35 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | Spining Reserve | 395.65 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 17 | Units Generating | 10 |

Contribution by Generic Units

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|---|---|---|---|---|---|---|---|
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 18 | Generation | 100 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 18 | NonSpin Reserve | 34.66 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 22 | 18 | Units Generating | 1 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 18 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 18 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 18 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 19 | Generation | 400 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 19 | NonSpin Reserve | 120.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 19 | Spining Reserve | 373.27 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 19 | Units Generating | 8 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 20 | Generation | 300 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 20 | NonSpin Reserve | 240.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 20 | Spining Reserve | 270.74 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 22 | 20 | Units Generating | 6 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 23 | 15 | Generation | 50.3001 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 23 | 15 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 13 | Generation | 632.682 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 13 | Units Generating | 7 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 14 | Generation | 823.398 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 14 | Units Generating | 9 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 15 | Generation | 975.692 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 15 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 15 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 15 | LoadFollowingUp | 50.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 15 | NonSpin Reserve | 48.02 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 15 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 16 | Generation | 993.785 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 16 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 17 | Generation | 935.362 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 17 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 17 | Generation | 100 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 17 | LoadFollowingUp | 100.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 17 | NonSpin Reserve | 120.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 24 | 17 | Units Generating | 2 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 18 | Generation | 511.718 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 24 | 18 | Units Generating | 6 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 13 | Generation | 396.891 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 13 | Units Generating | 4 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 14 | Generation | 200 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 14 | NonSpin Reserve | 0.19 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 14 | Units Generating | 2 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 14 | Generation | 250 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 14 | NonSpin Reserve | 300.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 14 | Spining Reserve | 250.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 14 | Units Generating | 5 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 15 | Generation | 881.264 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 15 | Units Generating | 9 |

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|---|---|---|---|---|---|---|---|
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 15 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 15 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 15 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 16 | Generation | 766.398 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 16 | Units Generating | 8 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | NonSpin Reserve | 126.13 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | Spining Reserve | 373.87 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 16 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 17 | Generation | 474.111 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 27 | 17 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 17 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 17 | NonSpin Reserve | 18.25 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 17 | RegulationUp | 81.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 17 | Spining Reserve | 400.75 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 17 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 18 | Generation | 50 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 27 | 18 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 14 | Generation | 310.849 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 14 | Units Generating | 4 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 14 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 14 | RegulationUp | 83.05 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 14 | Spining Reserve | 416.95 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 14 | Units Generating | 10 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 28 | 15 | Generation | 50 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 28 | 15 | NonSpin Reserve | 35.16 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 28 | 15 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 15 | Generation | 838.873 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 15 | Spining Reserve | 161.13 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 15 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 15 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 15 | LoadFollowingUp | 36.79 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 15 | Spining Reserve | 463.21 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 15 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 16 | Generation | 500 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 16 | NonSpin Reserve | 280.89 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 16 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | LoadFollowingUp | 11.67 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | Spining Reserve | 488.33 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 16 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 17 | Generation | 500 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 17 | NonSpin Reserve | 149.93 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 17 | Spining Reserve | 346.25 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 17 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 17 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 17 | Spining Reserve | 500.00 |

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|---|---|---|---|---|---|---|---|
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 17 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 18 | Generation | 100 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 18 | Spining Reserve | 93.21 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 18 | Units Generating | 2 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 18 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 18 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 18 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 19 | Generation | 350 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 19 | NonSpin Reserve | 180.00 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 19 | Spining Reserve | 346.58 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 19 | Units Generating | 7 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 19 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 19 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 19 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 20 | Generation | 250 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 20 | NonSpin Reserve | 300.00 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 20 | Spining Reserve | 132.84 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 28 | 20 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 20 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 20 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 28 | 20 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 14 | Generation | 400 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 14 | NonSpin Reserve | 10.99 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 14 | Units Generating | 4 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 14 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 14 | NonSpin Reserve | 137.98 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 14 | Spining Reserve | 362.02 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 14 | Units Generating | 10 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 15 | Generation | 450 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 15 | NonSpin Reserve | 540.00 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 15 | Spining Reserve | 334.46 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 15 | Units Generating | 9 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 15 | Generation | 983.13 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 15 | LoadFollowingUp | 16.87 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 15 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 15 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 15 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 15 | Units Generating | 10 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 16 | Generation | 500 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 16 | NonSpin Reserve | 514.65 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 16 | Spining Reserve | 382.61 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 16 | Units Generating | 10 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 16 | Generation | 1000 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 16 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 16 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 16 | Spining Reserve | 500.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 16 | Units Generating | 10 |

Contribution by Generic Units

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|---|---|---|---|---|---|---|---|
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 17 | Generation | 450 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 17 | NonSpin Reserve | 540.00 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 17 | Spining Reserve | 396.77 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 17 | Units Generating | 9 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 17 | Generation | 759.53 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 17 | Spining Reserve | 240.47 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 17 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 17 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 17 | LoadFollowingUp | 365.09 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 17 | Spining Reserve | 134.91 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 17 | Units Generating | 10 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 18 | Generation | 50 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 18 | NonSpin Reserve | 60.00 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 18 | Spining Reserve | 22.84 |
| HiLoad | PG&E_VLY Generic LMS100 | 2020 | 7 | 29 | 18 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 18 | Generation | 500 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 18 | Spining Reserve | 500.00 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 29 | 18 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 18 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 18 | LoadFollowingUp | 185.39 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 18 | Spining Reserve | 314.61 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 18 | Units Generating | 10 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 19 | Generation | 300 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 19 | NonSpin Reserve | 240.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 19 | Spining Reserve | 280.62 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 19 | Units Generating | 6 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 20 | Generation | 150 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 20 | NonSpin Reserve | 180.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 20 | Spining Reserve | 84.27 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 29 | 20 | Units Generating | 3 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 11 | Generation | 186.382 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 11 | Units Generating | 2 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 13 | Generation | 67.5155 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 13 | Units Generating | 1 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 14 | Generation | 350.657 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 14 | Units Generating | 4 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 15 | Generation | 416.098 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 15 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 15 | Generation | 350 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 15 | NonSpin Reserve | 180.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 15 | RegulationUp | 162.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 15 | Spining Reserve | 188.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 15 | Units Generating | 7 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 16 | Generation | 307.101 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 16 | Units Generating | 4 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 16 | Generation | 200 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 16 | NonSpin Reserve | 240.00 |

Contribution by Generic Units

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 16 | Spining Reserve | 200.00 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 16 | Units Generating | 4 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 17 | Generation | 443.314 |
| HiLoad | SCE Generic LMS100 | 2020 | 7 | 30 | 17 | Units Generating | 5 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 17 | Generation | 500 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 17 | Spining Reserve | 495.77 |
| HiLoad | SDGE Generic LMS100 | 2020 | 7 | 30 | 17 | Units Generating | 10 |

Hi-Load Capacity Need

Case HiLoad
Month 7

| Day | Hour | Generic Unit | Units Committed | Generation | RegulationUp | Spining Reserve | LoadFollowingUp | NonSpin Reserve | OnLineAS - NSpn | OnlineNspn | OfflineNspn | Unit Need | Capacity Need |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **13** | 16 | SDGE Generic LMS100 | 1 | 50 | 0 | 0 | 3.2 | 0 | 3.2 | 0 | 0 | 1 | 100 |
| | **16 Total** | | **1** | **50** | **0** | **0** | **3.2** | **0** | **3.2** | **0** | **0** | **1** | **100** |
| | 17 | SCE Generic LMS100 | 3 | 206 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 300 |
| | **17 Total** | | **3** | **206** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **3** | **300** |
| **14** | 15 | SCE Generic LMS100 | 2 | 163 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 200 |
| | **15 Total** | | **2** | **163** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **200** |
| | 16 | SCE Generic LMS100 | 1 | 71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | **16 Total** | | **1** | **71** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **100** |
| | 17 | SDGE Generic LMS100 | 1 | 50 | 0 | 5.2 | 0 | 0.2 | 5.2 | 0.2 | 0 | 1 | 100 |
| | **17 Total** | | **1** | **50** | **0** | **5.2** | **0** | **0.2** | **5.2** | **0.2** | **0** | **1** | **100** |
| **17** | 13 | SCE Generic LMS100 | 2 | 189 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 200 |
| | **13 Total** | | **2** | **189** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **200** |
| | 14 | SCE Generic LMS100 | 5 | 415 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 500 |
| | **14 Total** | | **5** | **415** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **5** | **500** |
| | 15 | SCE Generic LMS100 | 6 | 576 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 600 |
| | **15 Total** | | **6** | **576** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **6** | **600** |
| | 16 | SCE Generic LMS100 | 2 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 200 |
| | | SDGE Generic LMS100 | 5 | 250 | 0 | 250.0 | 0 | 300.0 | 250.0 | 0 | 300.0 | 10 | 1,000 |
| | **16 Total** | | **7** | **367** | **0** | **250.0** | **0** | **300.0** | **250.0** | **0** | **300.0** | **12.0** | **1,200** |
| | 17 | SCE Generic LMS100 | 6 | 521 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 600 |
| | | SDGE Generic LMS100 | 1 | 50 | 0 | 0 | 50.0 | 56.7 | 50.0 | 0 | 56.7 | 2 | 200 |
| | **17 Total** | | **7** | **571** | **0** | **0** | **50.0** | **56.7** | **50.0** | **0** | **56.7** | **8** | **800** |
| **20** | 17 | SDGE Generic LMS100 | 1 | 50 | 0 | 48.6 | 0 | 60.0 | 48.6 | 1.4 | 58.6 | 2 | 200 |
| | **17 Total** | | **1** | **50** | **0** | **48.6** | **0** | **60.0** | **48.6** | **1.4** | **58.6** | **2** | **200** |
| | 18 | SDGE Generic LMS100 | 1 | 50 | 0 | 19.2 | 0 | 0 | 19.2 | 0 | 0 | 1 | 100 |
| | **18 Total** | | **1** | **50** | **0** | **19.2** | **0** | **0** | **19.2** | **0** | **0** | **1** | **100** |
| | 19 | SDGE Generic LMS100 | 5 | 250 | 0 | 215.9 | 0 | 300.0 | 215.9 | 34.1 | 265.9 | 10 | 1,000 |
| | **19 Total** | | **5** | **250** | **0** | **215.9** | **0** | **300.0** | **215.9** | **34.1** | **265.9** | **10** | **1,000** |
| | 20 | SDGE Generic LMS100 | 4 | 200 | 0 | 69.2 | 0 | 240.0 | 69.2 | 130.8 | 109.2 | 6 | 600 |
| | **20 Total** | | **4** | **200** | **0** | **69.2** | **0** | **240.0** | **69.2** | **130.8** | **109.2** | **6** | **600** |

Hi-Load Capacity Need

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **21** | 13 | SCE Generic LMS100 | 1 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | **13 Total** | | **1** | **89** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **100** |
| | 14 | SDGE Generic LMS100 | 5 | 250 | 0 | 155.2 | 0 | 268.9 | 155.2 | 94.8 | 174.1 | 8 | 800 |
| | **14 Total** | | **5** | **250** | **0** | **155.2** | **0** | **268.9** | **155.2** | **94.8** | **174.1** | **8** | **800** |
| | 15 | SCE Generic LMS100 | 4 | 371 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 400 |
| | | SDGE Generic LMS100 | 5 | 250 | 0 | 250.0 | 0 | 300.0 | 250.0 | 0 | 300.0 | 10 | 1,000 |
| | **15 Total** | | **9** | **621** | **0** | **250.0** | **0** | **300.0** | **250.0** | **0** | **300.0** | **14** | **1,400** |
| | 16 | PG&E_VLY Generic LMS | 3 | 150 | 0 | 138.4 | 0 | 180.0 | 138.4 | 11.6 | 168.4 | 6 | 600 |
| | | SCE Generic LMS100 | 10 | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **16 Total** | | **23** | **1,650** | **0** | **638.4** | **0** | **180.0** | **638.4** | **11.6** | **168.4** | **26** | **2,600** |
| | 17 | SCE Generic LMS100 | 3 | 284 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 300 |
| | | SDGE Generic LMS100 | 5 | 250 | 0 | 250.0 | 0 | 300.0 | 250.0 | 0 | 300.0 | 10 | 1,000 |
| | **17 Total** | | **8** | **534** | **0** | **250.0** | **0** | **300.0** | **250.0** | **0** | **300.0** | **13** | **1,300** |
| | 18 | SDGE Generic LMS100 | 1 | 50 | 0 | 0 | 44.4 | 60.0 | 44.4 | 5.6 | 54.4 | 2 | 200 |
| | **18 Total** | | **1** | **50** | **0** | **0** | **44.4** | **60.0** | **44.4** | **5.6** | **54.4** | **2** | **200** |
| **22** | 13 | PG&E_VLY Generic LMS | 1 | 50 | 0 | 13.0 | 0 | 0 | 13.0 | 0 | 0 | 1 | 100 |
| | | SCE Generic LMS100 | 10 | 836 | 0 | 0 | 164.4 | 0 | 164.4 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 216.0 | 284.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **13 Total** | | **21** | **1,386** | **216.0** | **297.0** | **164.4** | **0** | **677.5** | **0** | **0** | **21** | **2,100** |
| | 14 | PG&E_VLY Generic LMS | 19 | 950 | 0 | 820.7 | 0 | 179.0 | 820.7 | 129.3 | 49.8 | 20 | 2,000 |
| | | SCE Generic LMS100 | 10 | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 216.0 | 272.8 | 11.2 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **14 Total** | | **39** | **2,450** | **216.0** | **1,093.5** | **11.2** | **179.0** | **1,320.7** | **129.3** | **49.8** | **40** | **4,000** |
| | 15 | PG&E_BAY Generic LMS | 3 | 150 | 0 | 65.6 | 0 | 219.7 | 65.6 | 84.4 | 135.3 | 6 | 600 |
| | | PG&E_VLY Generic LMS | 20 | 1,000 | 339.0 | 427.3 | 0 | 233.7 | 766.3 | 233.7 | 0 | 20 | 2,000 |
| | | SCE Generic LMS100 | 10 | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 275.8 | 224.2 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **15 Total** | | **43** | **2,650** | **339.0** | **768.7** | **224.2** | **453.4** | **1,331.9** | **318.1** | **135.3** | **46** | **4,600** |
| | 16 | PG&E_VLY Generic LMS | 20 | 1,000 | 0 | 993.1 | 0 | 3.5 | 993.1 | 3.5 | 0 | 20 | 2,000 |
| | | SCE Generic LMS100 | 10 | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 0 | 21.6 | 478.4 | 21.6 | 478.4 | 0 | 10 | 1,000 |
| | **16 Total** | | **40** | **2,500** | **0** | **993.1** | **21.6** | **482.0** | **1,014.6** | **482.0** | **0** | **40** | **4,000** |
| | 17 | PG&E_BAY Generic LMS | 1 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | | PG&E_VLY Generic LMS | 20 | 1,000 | 216.0 | 446.4 | 0 | 305.7 | 662.4 | 305.7 | 0 | 20 | 2,000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SCE Generic LMS100 | 10 | 917 | 0 | 0 | 83.3 | 0 | 83.3 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 395.7 | 104.3 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **17 Total** | | **41** | **2,467** | **216.0** | **842.0** | **187.6** | **305.7** | **1,245.7** | **305.7** | **0** | **41** | **4,100** |
| | 18 | SCE Generic LMS100 | 1 | 100 | 0 | 0 | 0 | 34.7 | 0 | 0 | 34.7 | 2 | 200 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **18 Total** | | **11** | **600** | **0** | **500.0** | **0** | **34.7** | **500.0** | **0** | **34.7** | **12** | **1,200** |
| | 19 | SDGE Generic LMS100 | 8 | 400 | 0 | 373.3 | 0 | 120.0 | 373.3 | 26.7 | 93.3 | 10 | 1,000 |
| | **19 Total** | | **8** | **400** | **0** | **373.3** | **0** | **120.0** | **373.3** | **26.7** | **93.3** | **10** | **1,000** |
| | 20 | SDGE Generic LMS100 | 6 | 300 | 0 | 270.7 | 0 | 240.0 | 270.7 | 29.3 | 210.7 | 10 | 1,000 |
| | **20 Total** | | **6** | **300** | **0** | **270.7** | **0** | **240.0** | **270.7** | **29.3** | **210.7** | **10** | **1,000** |
| **24** | 13 | SCE Generic LMS100 | 7 | 633 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 700 |
| | **13 Total** | | **7** | **633** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **7** | **700** |
| | 14 | SCE Generic LMS100 | 9 | 823 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 900 |
| | **14 Total** | | **9** | **823** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **9** | **900** |
| | 15 | SCE Generic LMS100 | 10 | 976 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 1 | 50 | 0 | 0 | 50.0 | 48.0 | 50.0 | 0 | 48.0 | 2 | 200 |
| | **15 Total** | | **11** | **1,026** | **0** | **0** | **50.0** | **48.0** | **50.0** | **0** | **48.0** | **12** | **1,200** |
| | 16 | SCE Generic LMS100 | 10 | 994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | **16 Total** | | **10** | **994** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **10** | **1,000** |
| | 17 | SCE Generic LMS100 | 10 | 935 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 2 | 100 | 0 | 0 | 100.0 | 120.0 | 100.0 | 0 | 120.0 | 4 | 400 |
| | **17 Total** | | **12** | **1,035** | **0** | **0** | **100.0** | **120.0** | **100.0** | **0** | **120.0** | **14** | **1,400** |
| | 18 | SCE Generic LMS100 | 6 | 512 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 600 |
| | **18 Total** | | **6** | **512** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **6** | **600** |
| **27** | 13 | SCE Generic LMS100 | 4 | 397 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 400 |
| | **13 Total** | | **4** | **397** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **4** | **400** |
| | 14 | SCE Generic LMS100 | 2 | 200 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0.2 | 3 | 300 |
| | | SDGE Generic LMS100 | 5 | 250 | 0 | 250.0 | 0 | 300.0 | 250.0 | 0 | 300.0 | 10 | 1,000 |
| | **14 Total** | | **7** | **450** | **0** | **250.0** | **0** | **300.2** | **250.0** | **0** | **300.2** | **13** | **1,300** |
| | 15 | SCE Generic LMS100 | 9 | 881 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 900 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **15 Total** | | **19** | **1,381** | **0** | **500.0** | **0** | **0** | **500.0** | **0** | **0** | **19** | **1,900** |
| | 16 | SCE Generic LMS100 | 8 | 766 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 800 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 373.9 | 0 | 126.1 | 373.9 | 126.1 | 0 | 10 | 1,000 |
| | **16 Total** | | **18** | **1,266** | **0** | **373.9** | **0** | **126.1** | **373.9** | **126.1** | **0** | **18** | **1,800** |

Hi-Load Capacity Need

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 17 | SCE Generic LMS100 | 5 | 474 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 500 |
| | | SDGE Generic LMS100 | 10 | 500 | 81.0 | 400.8 | 0 | 18.2 | 481.8 | 18.2 | 0 | 10 | 1,000 |
| | **17 Total** | | **15** | **974** | **81.0** | **400.8** | **0** | **18.2** | **481.8** | **18.2** | **0** | **15** | **1,500** |
| | 18 | SDGE Generic LMS100 | 1 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | **18 Total** | | **1** | **50** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **100** |
| **28** | 14 | SCE Generic LMS100 | 4 | 311 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 400 |
| | | SDGE Generic LMS100 | 10 | 500 | 83.0 | 417.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **14 Total** | | **14** | **811** | **83.0** | **417.0** | **0** | **0** | **500.0** | **0** | **0** | **14** | **1,400** |
| | 15 | PG&E_VLY Generic LMS | 1 | 50 | 0 | 0 | 0 | 35.2 | 0 | 35.2 | 0 | 1 | 100 |
| | | SCE Generic LMS100 | 10 | 839 | 0 | 161.1 | 0 | 0 | 161.1 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 463.2 | 36.8 | 0 | 500.0 | 0.0 | 0.0 | 11 | 1,100 |
| | **15 Total** | | **21** | **1,389** | **0** | **624.3** | **36.8** | **35.2** | **661.1** | **35.2** | **0.0** | **22** | **2,200** |
| | 16 | SCE Generic LMS100 | 5 | 500 | 0 | 0 | 0 | 280.9 | 0 | 0 | 280.9 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 488.3 | 11.7 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **16 Total** | | **15** | **1,000** | **0** | **488.3** | **11.7** | **280.9** | **500.0** | **0** | **280.9** | **20** | **2,000** |
| | 17 | SCE Generic LMS100 | 10 | 500 | 0 | 346.2 | 0 | 149.9 | 346.2 | 149.9 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **17 Total** | | **20** | **1,000** | **0** | **846.2** | **0** | **149.9** | **846.2** | **149.9** | **0** | **20** | **2,000** |
| | 18 | SCE Generic LMS100 | 2 | 100 | 0 | 93.2 | 0 | 0 | 93.2 | 0 | 0 | 2 | 200 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **18 Total** | | **12** | **600** | **0** | **593.2** | **0** | **0** | **593.2** | **0** | **0** | **12** | **1,200** |
| | 19 | SCE Generic LMS100 | 7 | 350 | 0 | 346.6 | 0 | 180.0 | 346.6 | 3.4 | 176.6 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **19 Total** | | **17** | **850** | **0** | **846.6** | **0** | **180.0** | **846.6** | **3.4** | **176.6** | **20** | **2,000** |
| | 20 | SCE Generic LMS100 | 5 | 250 | 0 | 132.8 | 0 | 300.0 | 132.8 | 117.2 | 182.8 | 9 | 900 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **20 Total** | | **15** | **750** | **0** | **632.8** | **0** | **300.0** | **632.8** | **117.2** | **182.8** | **19** | **1,900** |
| **29** | 14 | SCE Generic LMS100 | 4 | 400 | 0 | 0 | 0 | 11.0 | 0 | 0 | 11.0 | 5 | 500 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 362.0 | 0 | 138.0 | 362.0 | 138.0 | 0 | 10 | 1,000 |
| | **14 Total** | | **14** | **900** | **0** | **362.0** | **0** | **149.0** | **362.0** | **138.0** | **11.0** | **15** | **1,500** |
| | 15 | PG&E_VLY Generic LMS | 9 | 450 | 0 | 334.5 | 0 | 540.0 | 334.5 | 115.5 | 424.5 | 17 | 1,700 |
| | | SCE Generic LMS100 | 10 | 983 | 0 | 0 | 16.9 | 0 | 16.9 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **15 Total** | | **29** | **1,933** | **0** | **834.5** | **16.9** | **540.0** | **851.3** | **115.5** | **424.5** | **37** | **3,700** |
| | 16 | PG&E_VLY Generic LMS | 10 | 500 | 0 | 382.6 | 0 | 514.7 | 382.6 | 117.4 | 397.3 | 17 | 1,700 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SCE Generic LMS100 | 10 | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **16 Total** | | **30** | **2,000** | **0** | **882.6** | **0** | **514.7** | **882.6** | **117.4** | **397.3** | **37** | **3,700** |
| | 17 | PG&E_VLY Generic LMS | 9 | 450 | 0 | 396.8 | 0 | 540.0 | 396.8 | 53.2 | 486.8 | 18 | 1,800 |
| | | SCE Generic LMS100 | 10 | 760 | 0 | 240.5 | 0 | 0 | 240.5 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 134.9 | 365.1 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **17 Total** | | **29** | **1,710** | **0** | **772.2** | **365.1** | **540.0** | **1,137.2** | **53.2** | **486.8** | **38** | **3,800** |
| | 18 | PG&E_VLY Generic LMS | 1 | 50 | 0 | 22.8 | 0 | 60.0 | 22.8 | 27.2 | 32.8 | 2 | 200 |
| | | SCE Generic LMS100 | 10 | 500 | 0 | 500.0 | 0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 314.6 | 185.4 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **18 Total** | | **21** | **1,050** | **0** | **837.4** | **185.4** | **60.0** | **1,022.8** | **27.2** | **32.8** | **22** | **2,200** |
| | 19 | SDGE Generic LMS100 | 6 | 300 | 0 | 280.6 | 0 | 240.0 | 280.6 | 19.4 | 220.6 | 10 | 1,000 |
| | **19 Total** | | **6** | **300** | **0** | **280.6** | **0** | **240.0** | **280.6** | **19.4** | **220.6** | **10** | **1,000** |
| | 20 | SDGE Generic LMS100 | 3 | 150 | 0 | 84.3 | 0 | 180.0 | 84.3 | 65.7 | 114.3 | 5 | 500 |
| | **20 Total** | | **3** | **150** | **0** | **84.3** | **0** | **180.0** | **84.3** | **65.7** | **114.3** | **5** | **500** |
| **30** | 13 | SCE Generic LMS100 | 1 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | **13 Total** | | **1** | **68** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **100** |
| | 14 | SCE Generic LMS100 | 4 | 351 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 400 |
| | **14 Total** | | **4** | **351** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **4** | **400** |
| | 15 | SCE Generic LMS100 | 5 | 416 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 500 |
| | | SDGE Generic LMS100 | 7 | 350 | 162.0 | 188.0 | 0 | 180.0 | 350.0 | 0 | 180.0 | 10 | 1,000 |
| | **15 Total** | | **12** | **766** | **162.0** | **188.0** | **0** | **180.0** | **350.0** | **0** | **180.0** | **15** | **1,500** |
| | 16 | SCE Generic LMS100 | 4 | 307 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 400 |
| | | SDGE Generic LMS100 | 4 | 200 | 0 | 200.0 | 0 | 240.0 | 200.0 | 0 | 240.0 | 8 | 800 |
| | **16 Total** | | **8** | **507** | **0** | **200.0** | **0** | **240.0** | **200.0** | **0** | **240.0** | **12** | **1,200** |
| | 17 | SCE Generic LMS100 | 5 | 443 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 500 |
| | | SDGE Generic LMS100 | 10 | 500 | 0 | 495.8 | 0 | 0 | 495.8 | 0 | 0 | 10 | 1,000 |
| | **17 Total** | | **15** | **943** | **0** | **495.8** | **0** | **0** | **495.8** | **0** | **0** | **15** | **1,500** |

All-Gas Capacity Need

Case AllGas
Month 7

| Day | Hour | Generic Unit | Units Committed | Generation | Spining Reserve | NonSpin Reserve | OnLineAS - NSpn | OnlineNspn | OfflineNspn | Unit Need | Capacity Need |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **22** | 13 | SDGE Generic LMS100 | 3 | 150 | 0 | 173.2 | 0 | 150.0 | 23.2 | 4 | 400 |
| | **13 Total** | | **3** | **150** | **0** | **173.2** | **0** | **150.0** | **23.2** | **4** | **400** |
| | 14 | SCE Generic LMS100 | 2 | 193 | 7.1 | 113.6 | 7.1 | 0 | 113.6 | 4 | 400 |
| | | SDGE Generic LMS100 | 10 | 500 | 500.0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **14 Total** | | **12** | **693** | **507.1** | **113.6** | **507.1** | **0** | **113.6** | **14** | **1,400** |
| | 15 | SCE Generic LMS100 | 2 | 200 | 0 | 47.0 | 0 | 0 | 47.0 | 3 | 300 |
| | | SDGE Generic LMS100 | 10 | 500 | 500.0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **15 Total** | | **12** | **700** | **500.0** | **47.0** | **500.0** | **0** | **47.0** | **13** | **1,300** |
| | 16 | SCE Generic LMS100 | 2 | 200 | 0 | 112.8 | 0 | 0 | 112.8 | 4 | 400 |
| | | SDGE Generic LMS100 | 10 | 500 | 500.0 | 0 | 500.0 | 0 | 0 | 10 | 1,000 |
| | **16 Total** | | **12** | **700** | **500.0** | **112.8** | **500.0** | **0** | **112.8** | **14** | **1,400** |
| | 17 | SDGE Generic LMS100 | 2 | 100 | 12.9 | 120.0 | 12.9 | 87.1 | 32.9 | 3 | 300 |
| | **17 Total** | | **2** | **100** | **12.9** | **120.0** | **12.9** | **87.1** | **32.9** | **3** | **300** |
| **27** | 16 | SDGE Generic LMS100 | 1 | 50 | 31.5 | 60.0 | 31.5 | 18.5 | 41.5 | 2 | 200 |
| | **16 Total** | | **1** | **50** | **31.5** | **60.0** | **31.5** | **18.5** | **41.5** | **2** | **200** |
| **28** | 16 | SDGE Generic LMS100 | 2 | 100 | 81.0 | 0 | 81.0 | 0 | 0 | 2 | 200 |
| | **16 Total** | | **2** | **100** | **81.0** | **0** | **81.0** | **0** | **0** | **2** | **200** |
| **29** | 16 | SDGE Generic LMS100 | 1 | 50 | 0 | 22.3 | 0 | 22.3 | 0 | 1 | 100 |
| | **16 Total** | | **1** | **50** | **0** | **22.3** | **0** | **22.3** | **0** | **1** | **100** |
| **30** | 14 | SDGE Generic LMS100 | 1 | 50 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | **14 Total** | | **1** | **50** | **0** | **0** | **0** | **0** | **0** | **1** | **100** |