

KaLex 2023 Peak Use Reduction Exercise Evaluation

15 August 2023

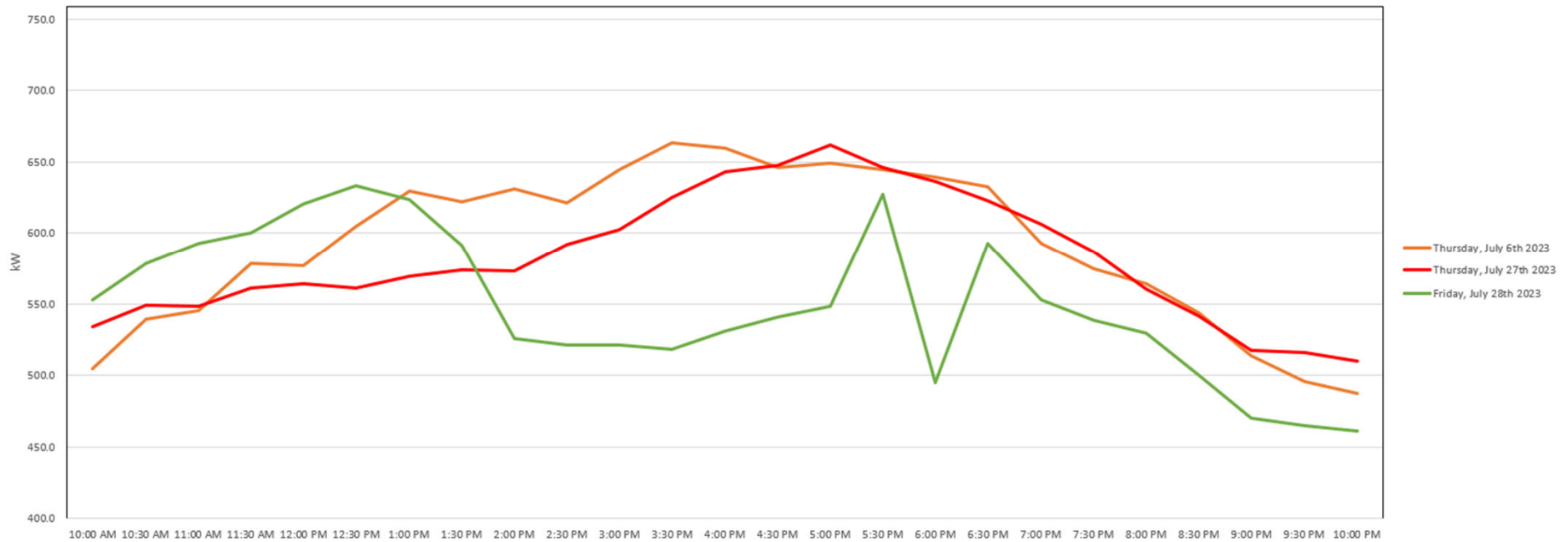
Facilities Committee / Sustainability Committee /
Facilities Dept

Background

- KaLex conducted a Peak Use Reduction Exercise on July 28th from 2pm to 5:30pm
- A combination of centrally-managed efforts were combined with voluntary resident support efforts across KaLex
- Data points for two comparable days and the exercise day show the efforts were a significant success, likely a combination of the across-the-board efficiency efforts plus the specific actions taken that day

| | 10:00 AM | 10:30 AM | 11:00 AM | 11:30 AM | 12:00 PM | 12:30 PM | 1:00 PM | 1:30 PM | 2:00 PM | 2:30 PM | 3:00 PM | 3:30 PM | 4:00 PM | 4:30 PM | 5:00 PM | 5:30 PM | 6:00 PM | 6:30 PM | 7:00 PM | 7:30 PM | 8:00 PM | 8:30 PM | 9:00 PM | 9:30 PM | 10:00 PM |
|--------------------------------------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Thursday, July 6 th 2023 | 504.9 | 539.5 | 545.4 | 578.3 | 577.3 | 604.8 | 629.6 | 622.1 | 631.3 | 621.0 | 644.2 | 663.1 | 659.9 | 646.4 | 649.1 | 644.2 | 639.4 | 632.3 | 592.9 | 574.6 | 564.3 | 543.8 | 513.5 | 495.7 | 487.1 |
| Thursday, July 27 th 2023 | 534.1 | 549.2 | 548.1 | 561.1 | 563.8 | 561.1 | 569.7 | 574.0 | 573.5 | 591.8 | 602.1 | 624.8 | 643.1 | 647.5 | 661.5 | 646.4 | 636.1 | 622.6 | 606.4 | 587.0 | 560.5 | 541.6 | 517.3 | 516.2 | 509.8 |
| Friday, July 28 th 2023 | 553.0 | 578.3 | 592.4 | 599.9 | 620.5 | 633.4 | 623.2 | 591.3 | 526.0 | 521.6 | 521.6 | 518.4 | 530.8 | 541.1 | 548.6 | 626.9 | 495.2 | 592.4 | 553.0 | 538.9 | 529.7 | 500.6 | 470.3 | 464.9 | 461.2 |

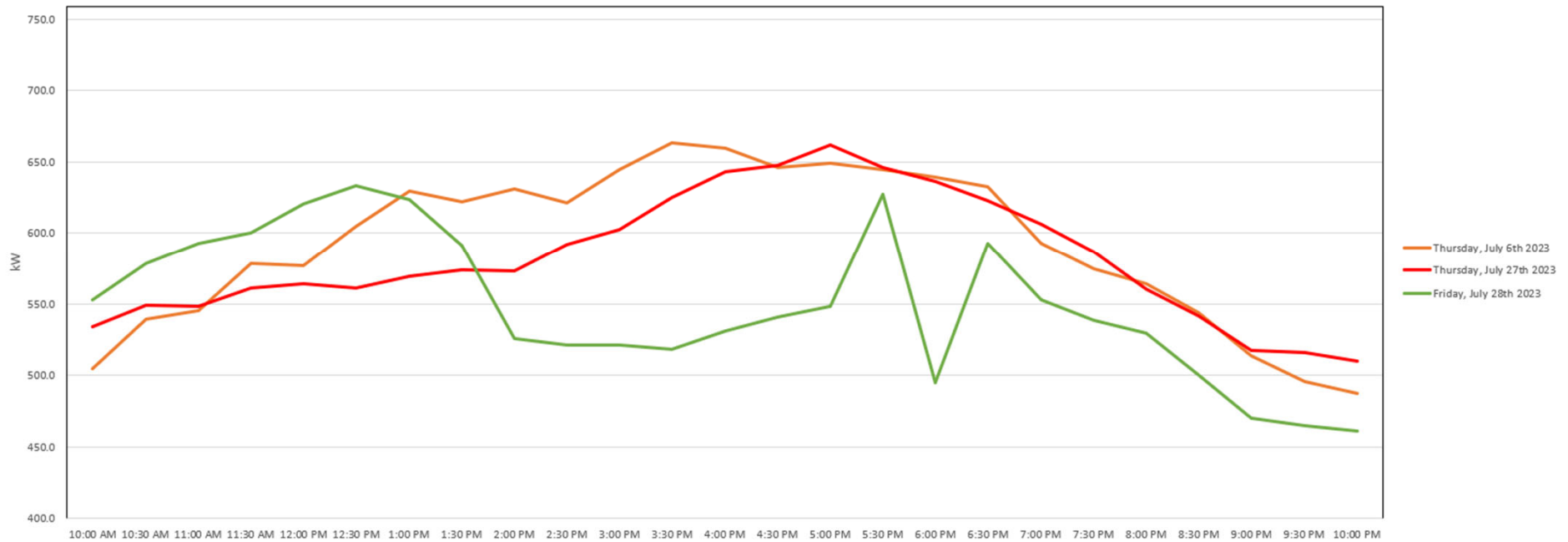
Electrical Demand Peaks, July 2023



Orange line, Thursday July 6th, high Dominion logged temp of 94°
 Red line, Thursday July 27th, high Dominion logged temp of 97°
 Green line, Friday July 28th, high Dominion logged temp of 98°

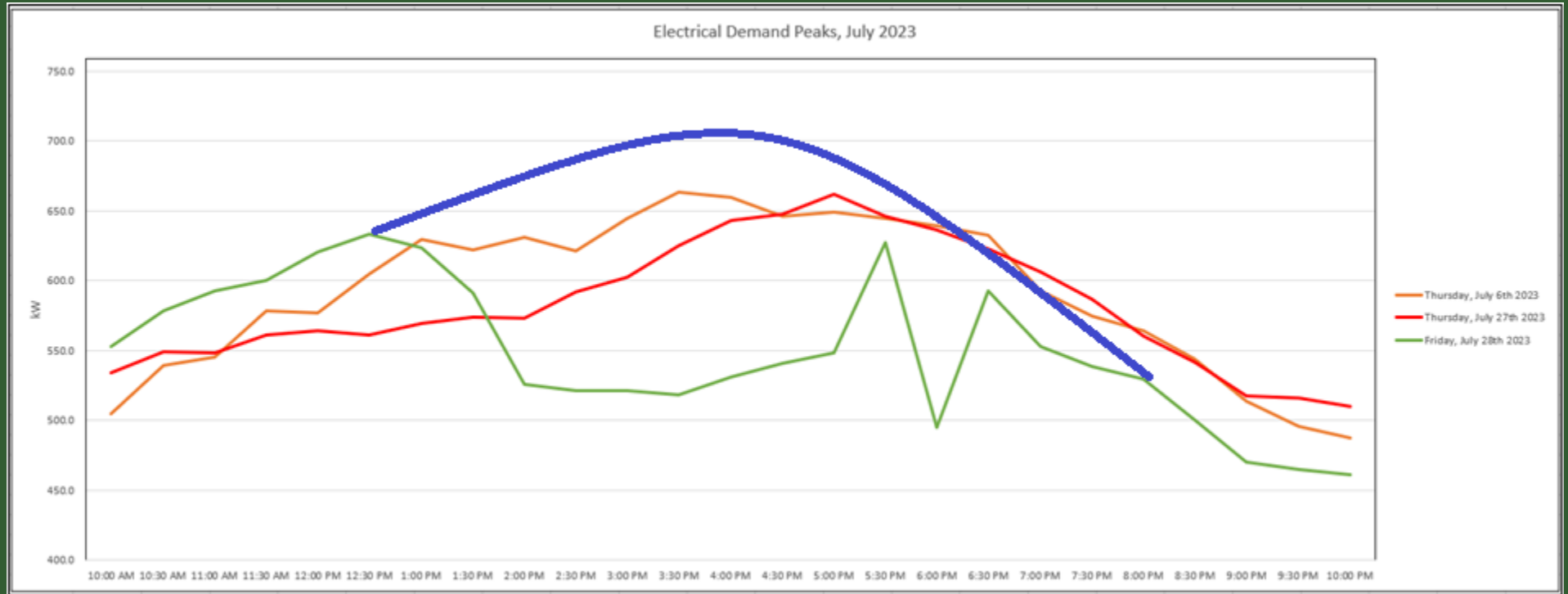
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Electrical Demand Peaks, July 2023



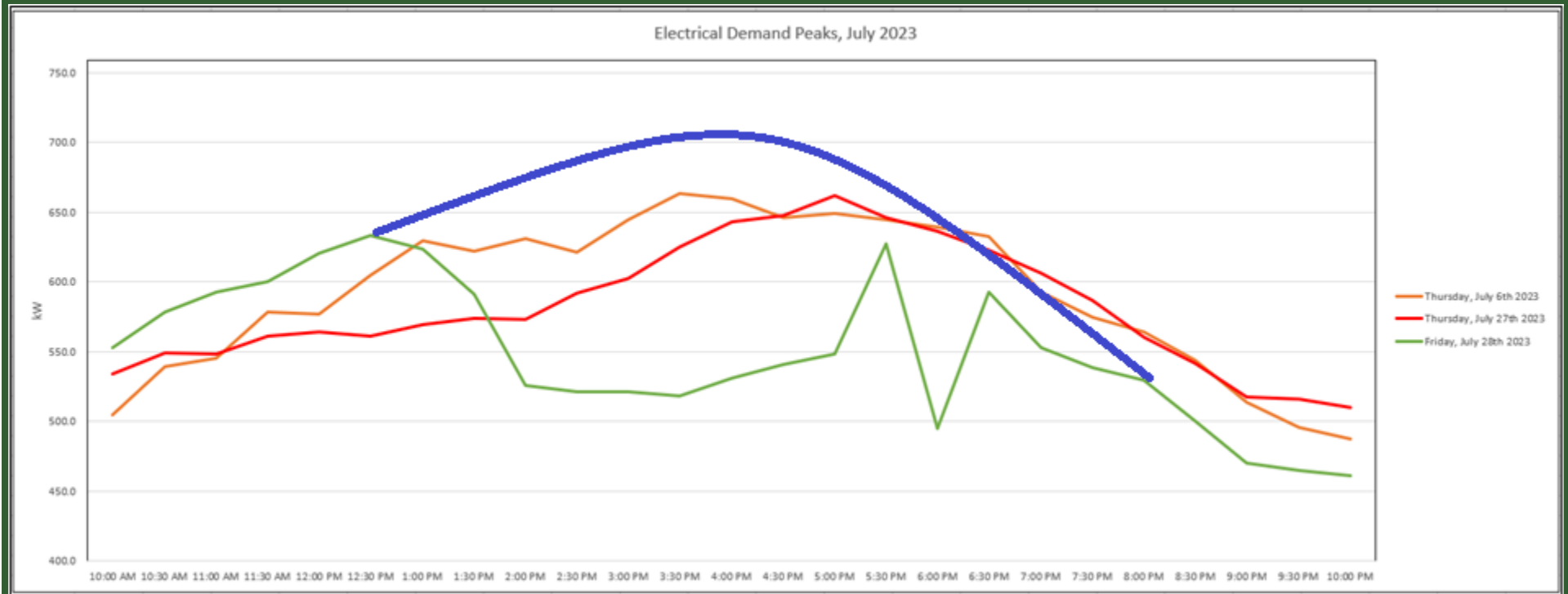
Thursday July 6th, peak demand draw at 3:30pm of 663.1 kW
 Thursday July 27th, peak demand draw at 5:00pm of 661.5 kW
 Friday July 28th, peak demand draw at 12:30pm of 633.4 kW

| | 10:00 AM | 10:30 AM | 11:00 AM | 11:30 AM | 12:00 PM | 12:30 PM | 1:00 PM | 1:30 PM | 2:00 PM | 2:30 PM | 3:00 PM | 3:30 PM | 4:00 PM | 4:30 PM | 5:00 PM | 5:30 PM | 6:00 PM | 6:30 PM | 7:00 PM | 7:30 PM | 8:00 PM | 8:30 PM | 9:00 PM | 9:30 PM | 10:00 PM |
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The removal of the peak of the daily demand curve from the exercise day is readily apparent. We likely would have experienced something like the blue line without the exercise, peaking around 700 kW.

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We currently pay a max billable demand charge based on 739 kW. We will revert back to a max billable demand of 705 kW in January 2024, and demonstrated the capability to “hold the line” at or below this level if necessary.

Next Steps

- KaLex will continue to monitor grid alerts and weather data to call further peak reduction events if necessary.
- Our energy efficiency improvements will continue to lower our energy use and demand across the board, yielding savings in both overall consumption and peak demand charges.

