

Service is Our Nature

500 SE Fourth Street • Grand Rapids, Minnesota 55744

ELECTRIC DEPARTMENT MONTHLY REPORT Dec 2024 Commission Meeting

Electric Load Graph Last Month

The NEMMPA gross peak occurred on 11/26, which MP was unable to capture. During the week of 11/25, MP identified several potential monthly peaks but faced challenges due to cloudy conditions, which limited solar generation and delayed battery recharging for consecutive dispatches. Based on historical data showing peaks often occur on Mondays following the weekend, MP dispatched the battery on Monday, 11/26. However, insufficient solar irradiance prevented the battery from fully charging in time for the potential peak on Tuesday (or possibly Wednesday), resulting in a missed peak on 11/26.

Winter conditions often bring consecutive cold days, increasing the likelihood of multiple potential peak events while reducing solar availability for recharging. GRPU and MP are actively exploring strategies to address this issue, including the use of partially charged batteries and exercising demand response.

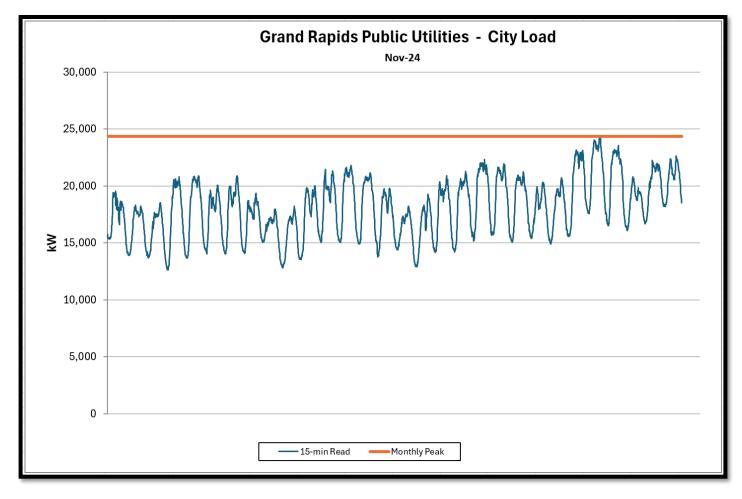


Figure 1: 24,364 kW GR Peak

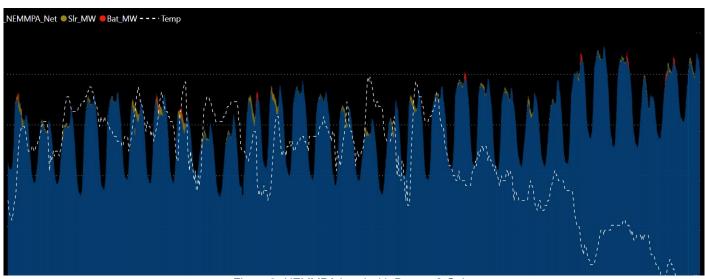


Figure 2: NEMMPA Load with Battery & Solar.

NEMMPA vs. non-NEMMPA Peak Last Month

The attached graph shows the aggregated NEMMPA peak versus non-NEMMPA peak.

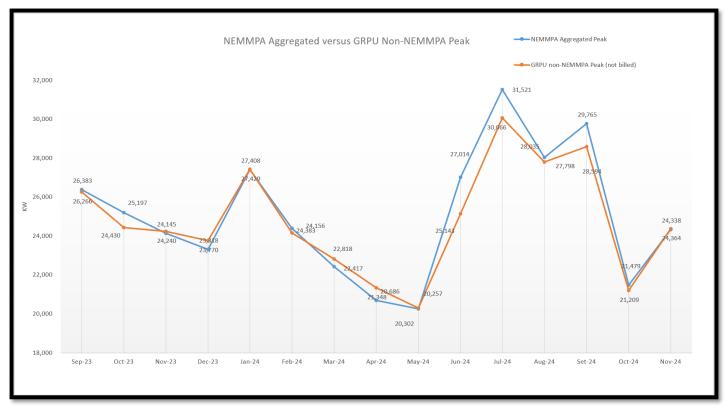


Figure 3: NEMMPA Peak -vs- non-NEMMPA

Effective Wholesale Electric Power Rate Last Month

The attached graph shows the effective wholesale electric rate.

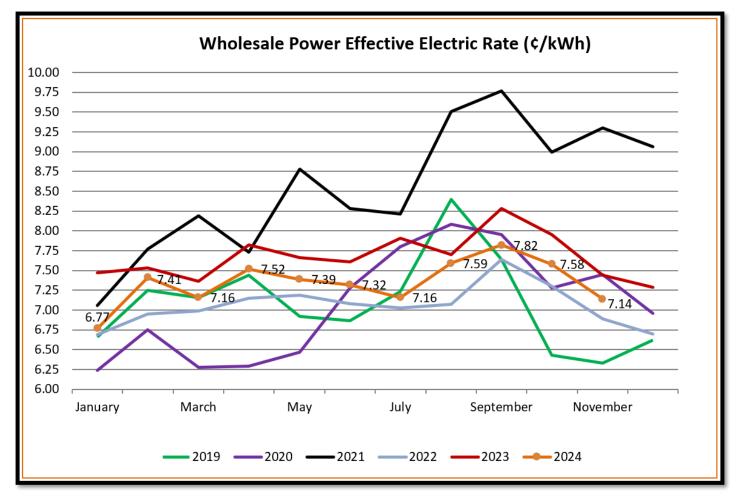


Figure 4: Wholesale Power Effective Elect Rate