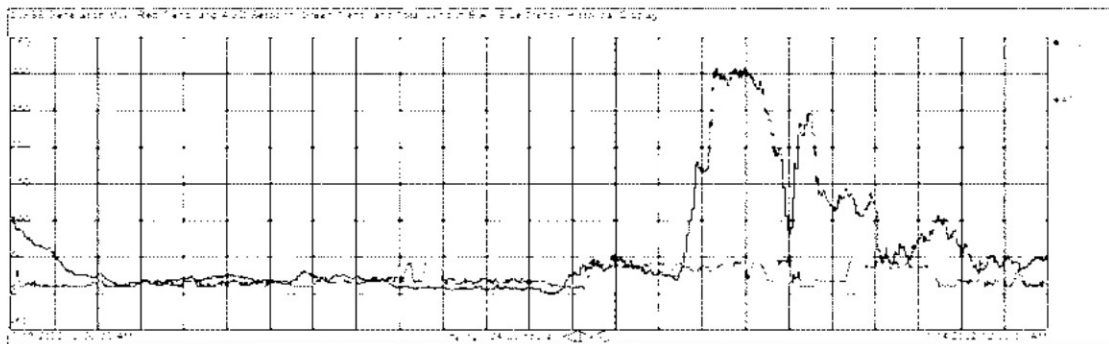


difference between their nameplate and accredited capacities – values determined outside of NorthWestern by regional planning agencies.

58. Battery storage (4 hour duration) is also a tool utilities, especially in the Southwest, are using. This resource works well for helping address daily 4 *hours* of peak demand. Montana's system has a 4 *day* problem wherein the storage would only work for 4/96ths hours. To replicate how storage operates in state like California, NorthWestern would to have 24 times the quantity of storage to serve these events, which is cost prohibitive.

59. To illustrate that point, I have included two charts below. The first chart shows the amount of electricity generation, in MW, over a 24-hour period on July 13, 2022 from (1) all the wind generation resources within the NorthWestern Balancing Authority, which is depicted in blue, and (2) the generation from NorthWestern's Dave Gates Generating Station, depicted in red. The y-axis, with the values in ascending order on the left side, represents MWs of generation. The x-axis represents hours of the day.



60. Focusing on the wind, the chart shows that after about 2:00 am there was little to no electricity from wind generation on the system until the afternoon. Then, following a slight increase in the early afternoon, wind generation jumped from less than 50 MWs to more than 300 MWs between 3:30 and 4:30 pm. It then declined to less than 100 MWs at 5pm before ramping up again once more between 6:00 and 7:00 pm and then declining. As this example