This needs to be reproducible. Assigning eGRID 2018 (historical year 2016) generators to the nearest 'preserved' bus in the 240 bus network would be a quick way to do this, though it could inadvertently create transmission issues. And, we'd still need a shapefile (with labels) of the 240 buses to do that, which we don't have yet. Based on initial observations of the existing WECC model topology so far, that most proximal assignment rule doesn't hold all the time

Right now the approach is as follows: code has been developed that only looks for examples in the 240-bus generator dataset where a unique combination of state/balancing authority/utility service area maps to a single generation hub (node ending in '\_20'). This is able to match about 1300 non-CAISO generators from the eGRID database. The remaining non-CAISO generators are in the process of being matched manually. To do that, we look for matching generators (by name) in the full WECC PCM 2026 test case, and then identify that generator's node in the full PCM model. Then, I look for a generator with that same node (or the node that is closest in numerical value) in the 240-bus WECC database. This is possible because the 240-bus database lists the 240-bus node and the full PCM node for all thermal generators.

After an initial mapping is completed, we could evaluate the assignment of capacity by fuel type in in the 240-Bus WECC and the updated, eGRID 2016 version. Then we can adjust the capacity values so that they are proportional.

Current mapping is shown below (black and white dots are generators that have not been mapped).

C:\Users\jkern\Documents\GitHub\IM3_WECC\found.tiff