

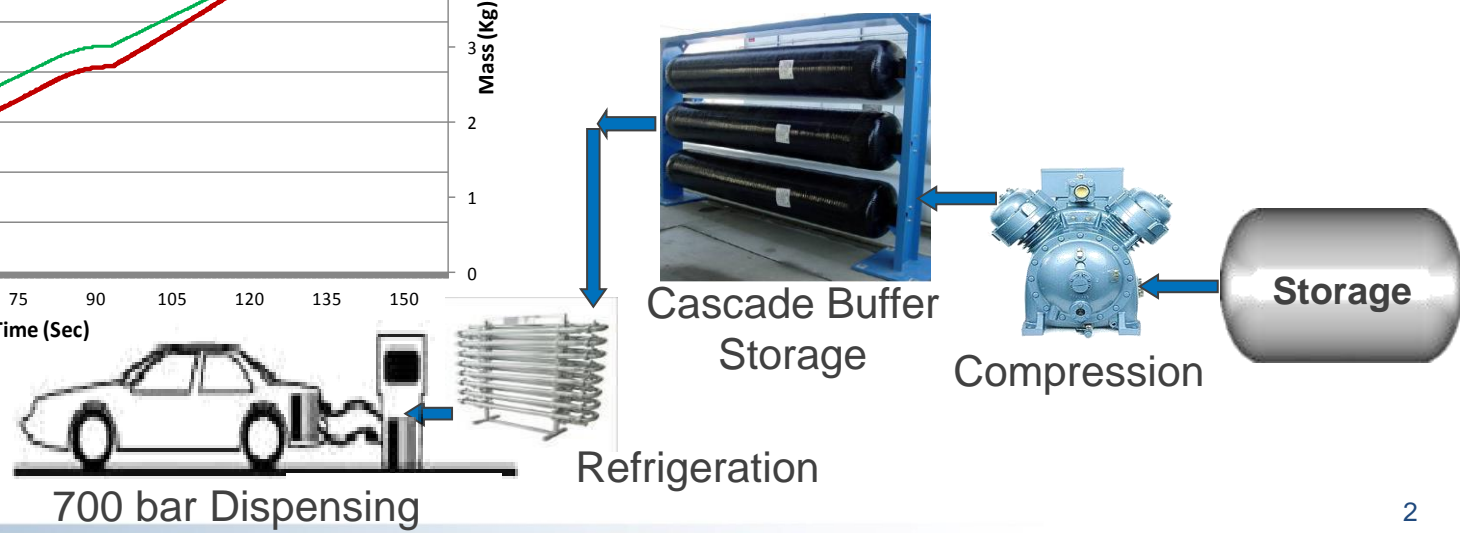
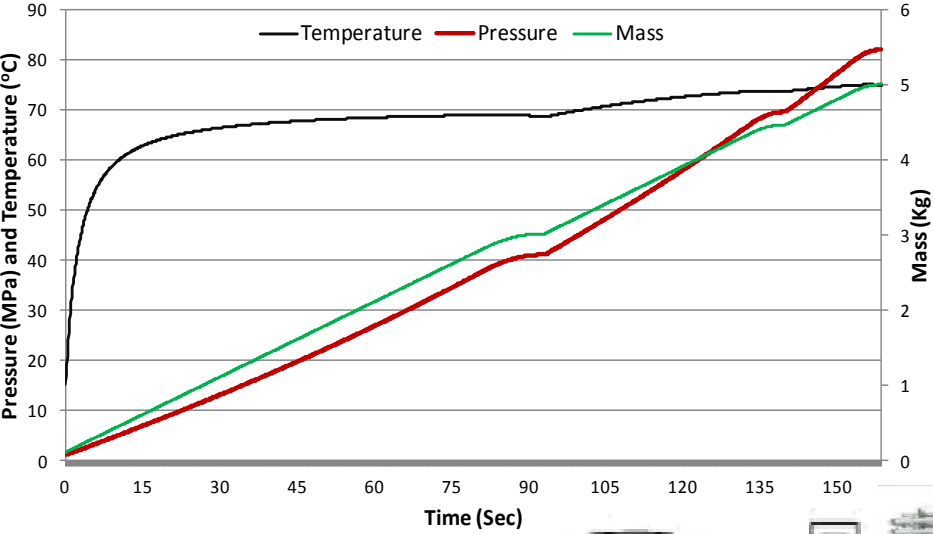
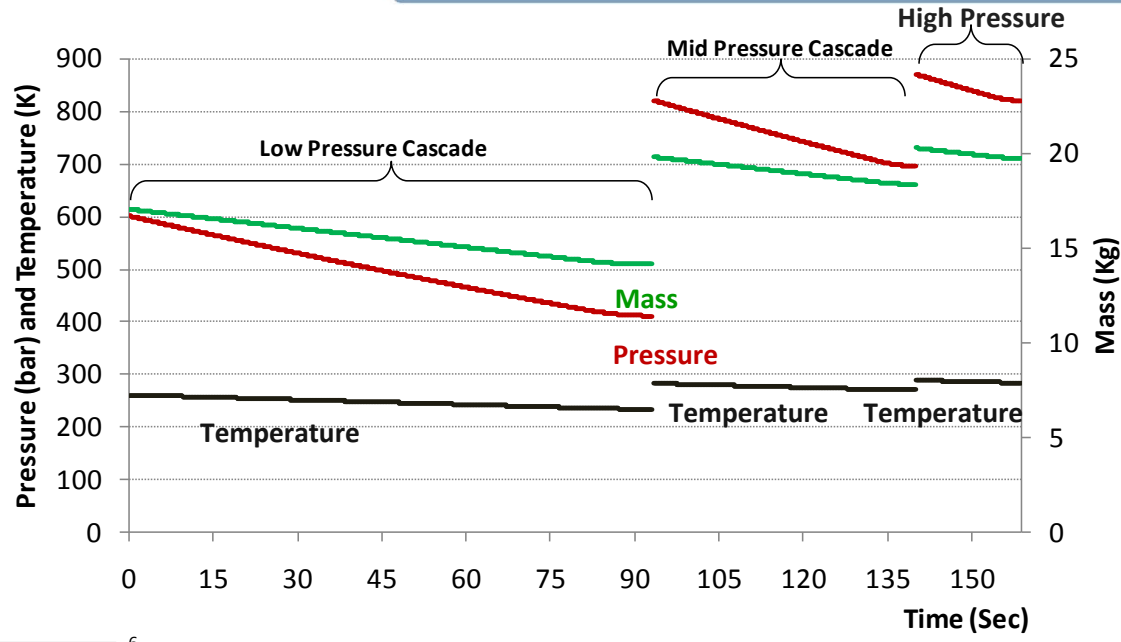
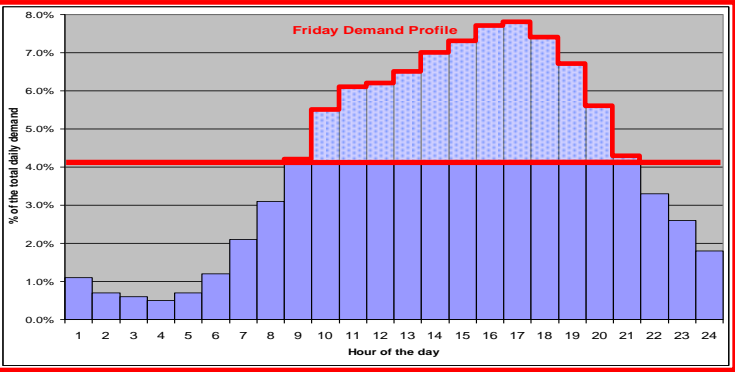
Optimization of Storage Volume vs. Compression Capacity

Amgad Elgowainy

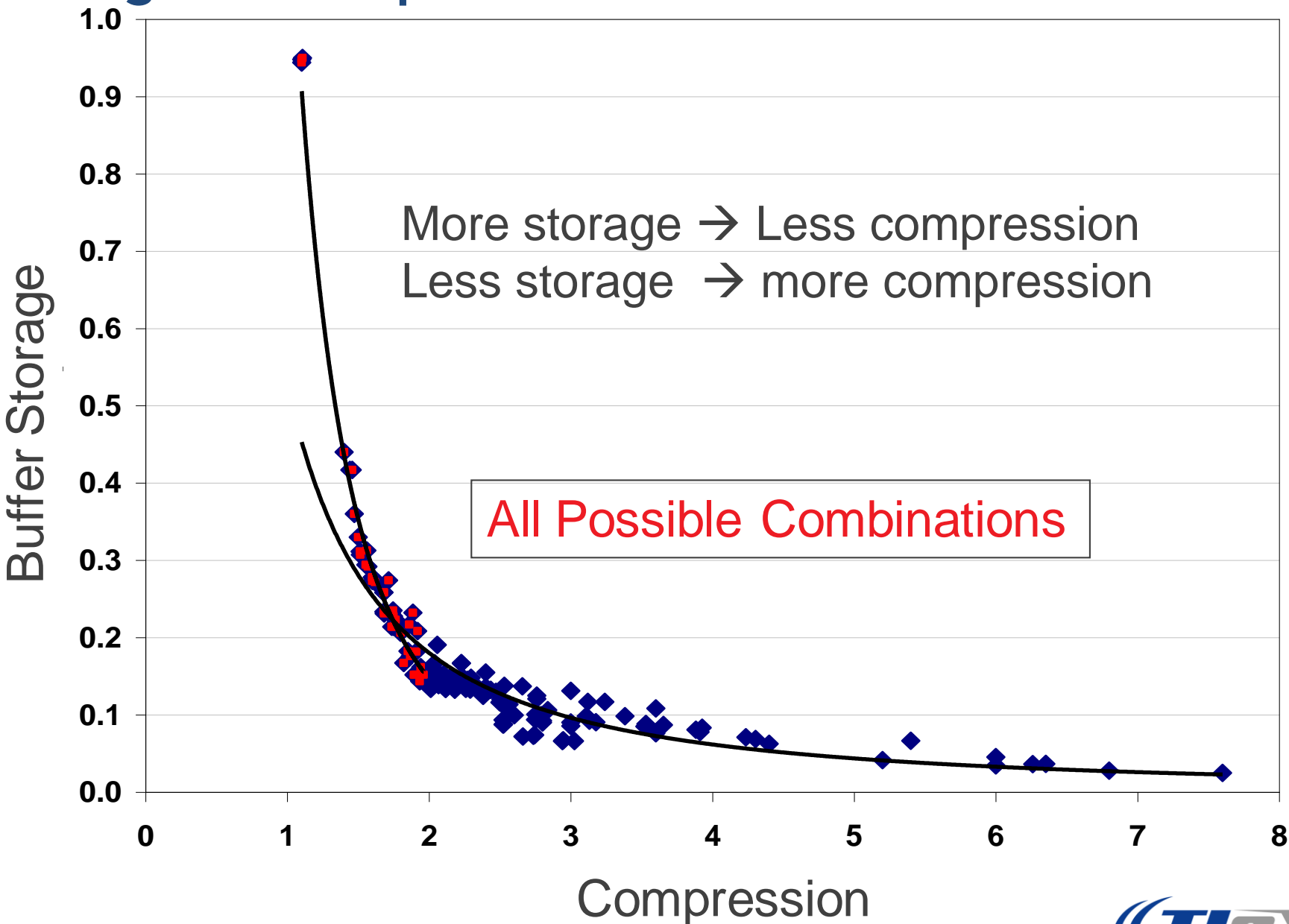
Argonne National Laboratory

Presentation at CSD Workshop
Argonne National Laboratory

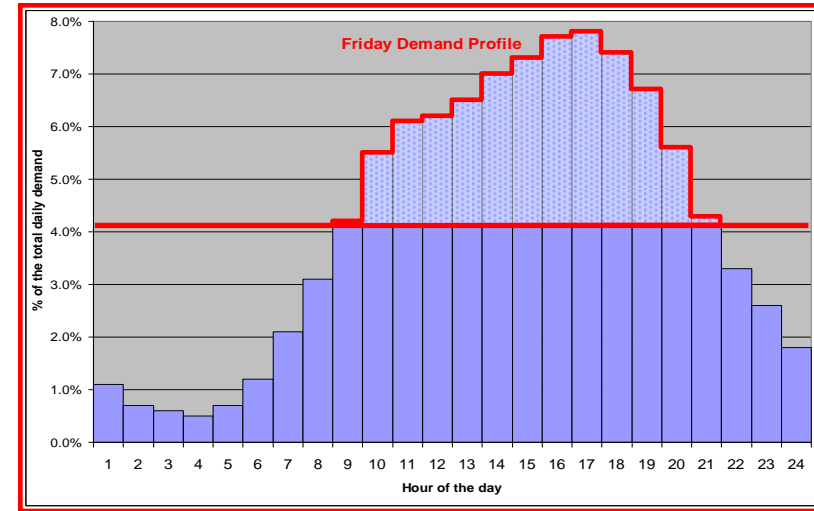
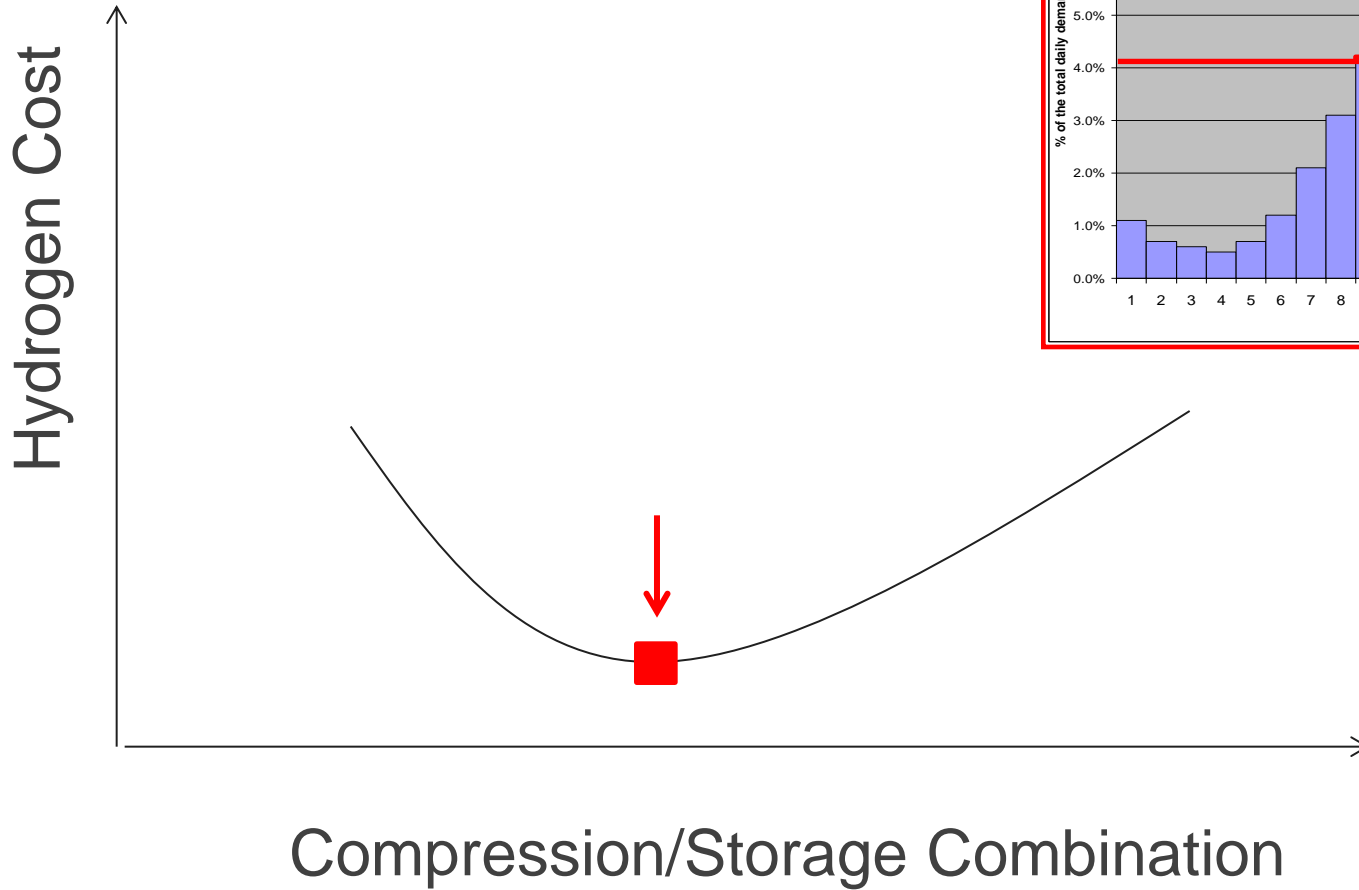
March 21, 2013



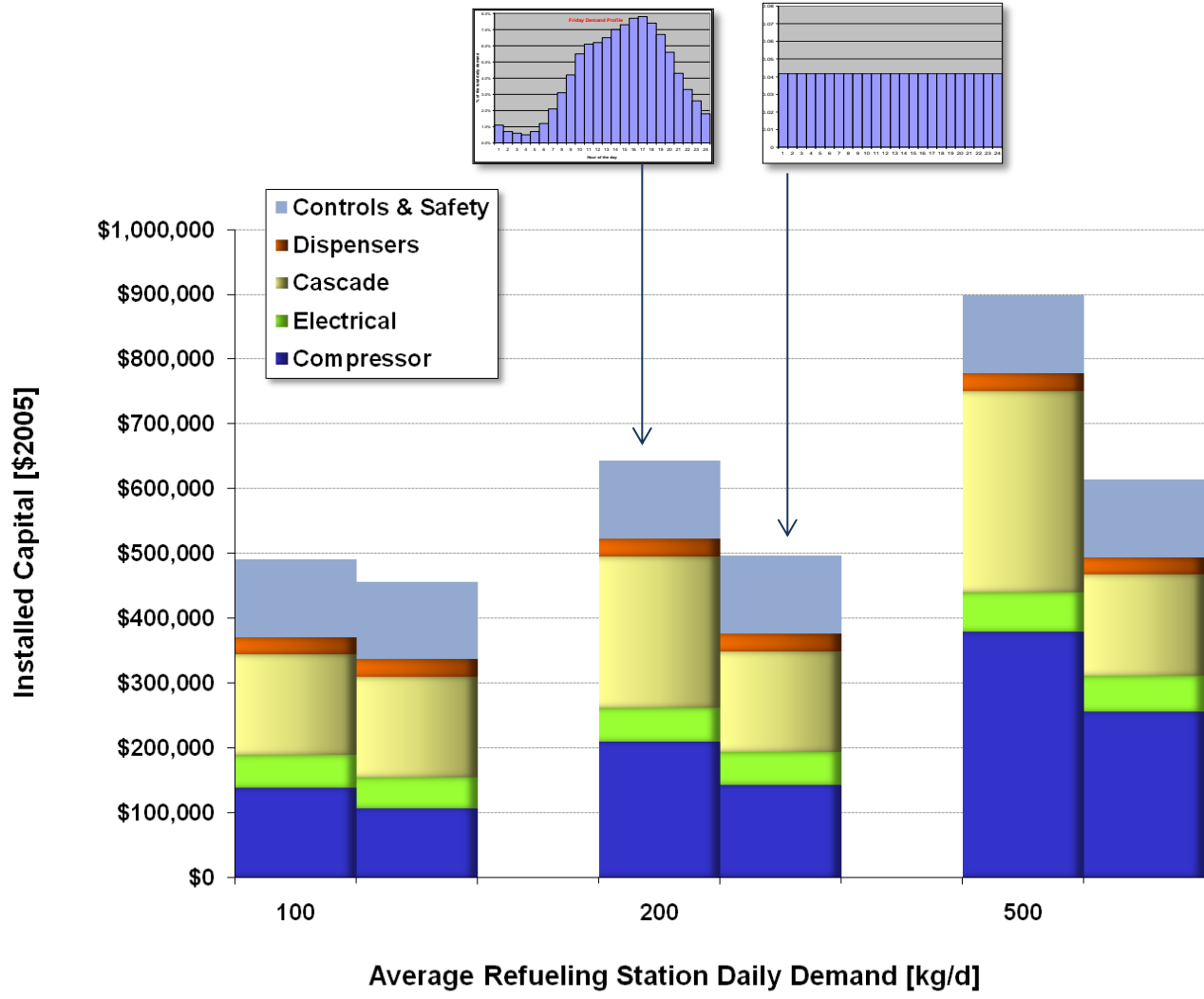
Refueling station optimization



Goal: minimize compression/storage contribution to hydrogen cost

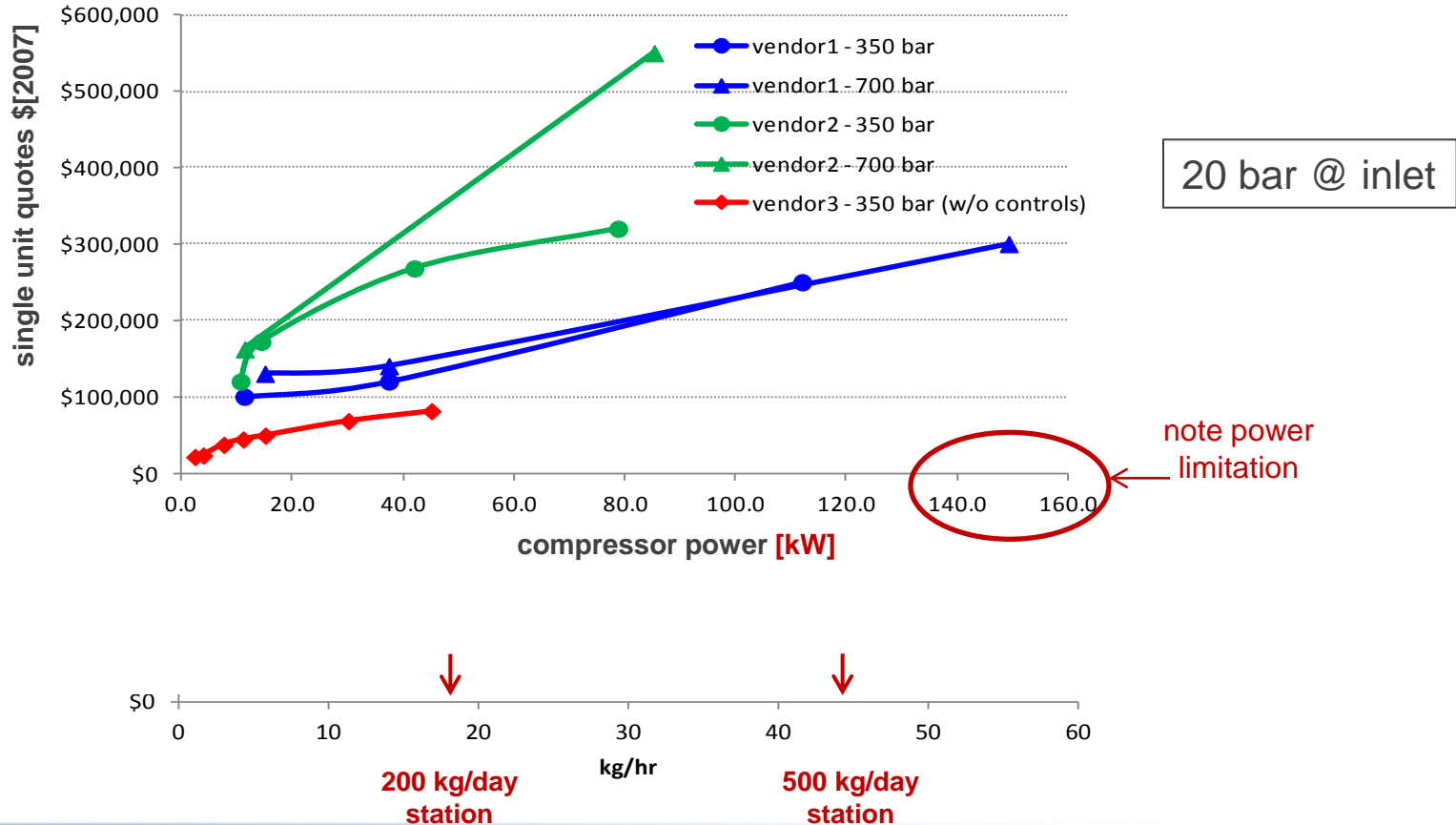


Station Cost could be significantly lower with a more uniform demand profile



Compressor power can be significant at high throughput

➤ May require expensive electrical upgrading for large stations



Station footprint impact on cost of H2 could be significant

