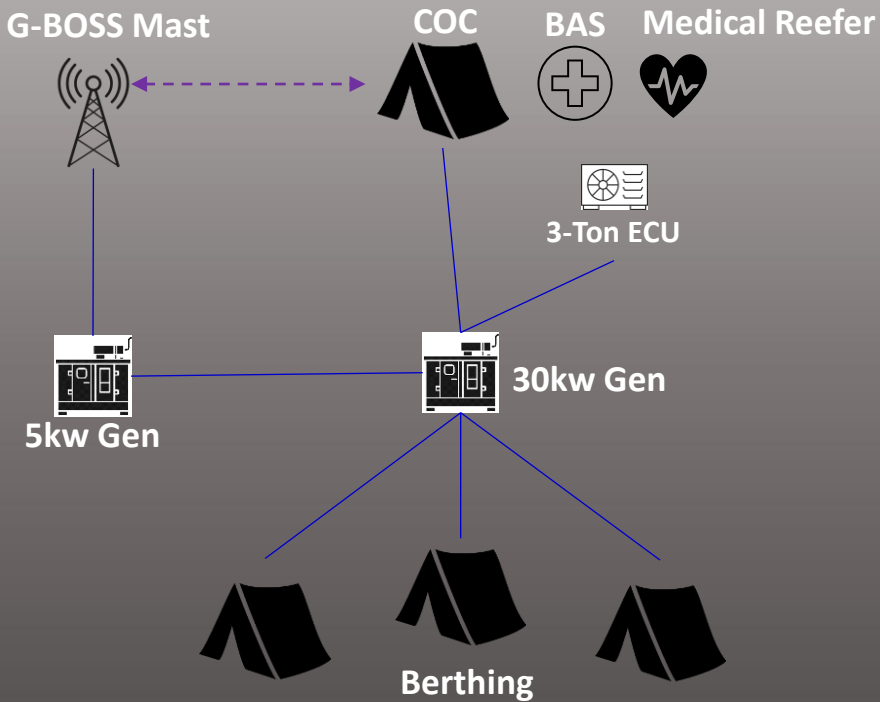


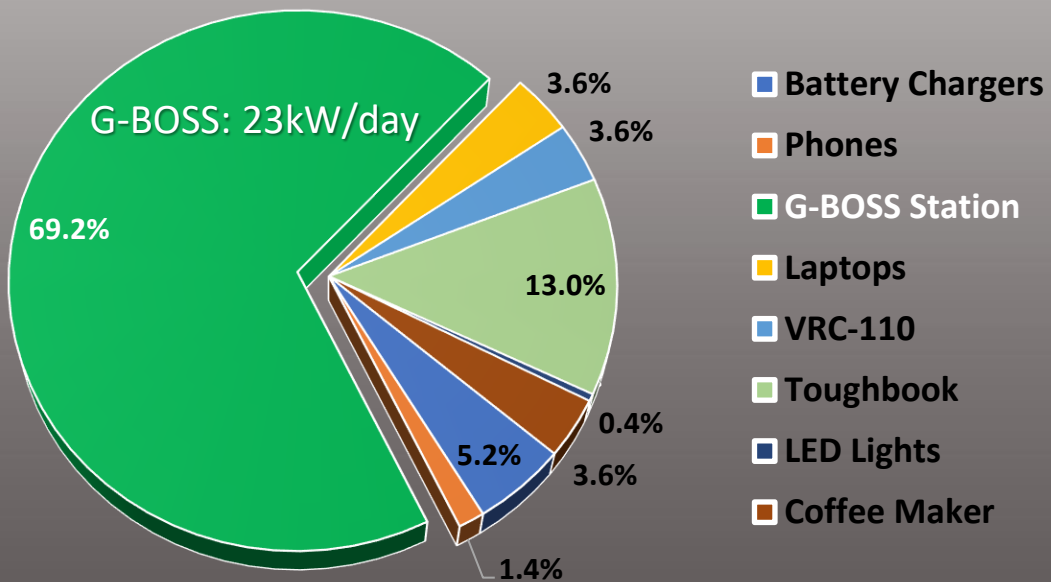
Studying eTHOR in a Forward Command Operations Center (COC) context

Understanding the equipment, relationships, and parameters of a Forward Base.



In legacy power setups, the COC and the larger Patrol Base, connect to generators based on power and peak amperage requirements.

Modeling the energy use of a platoon-sized COC.

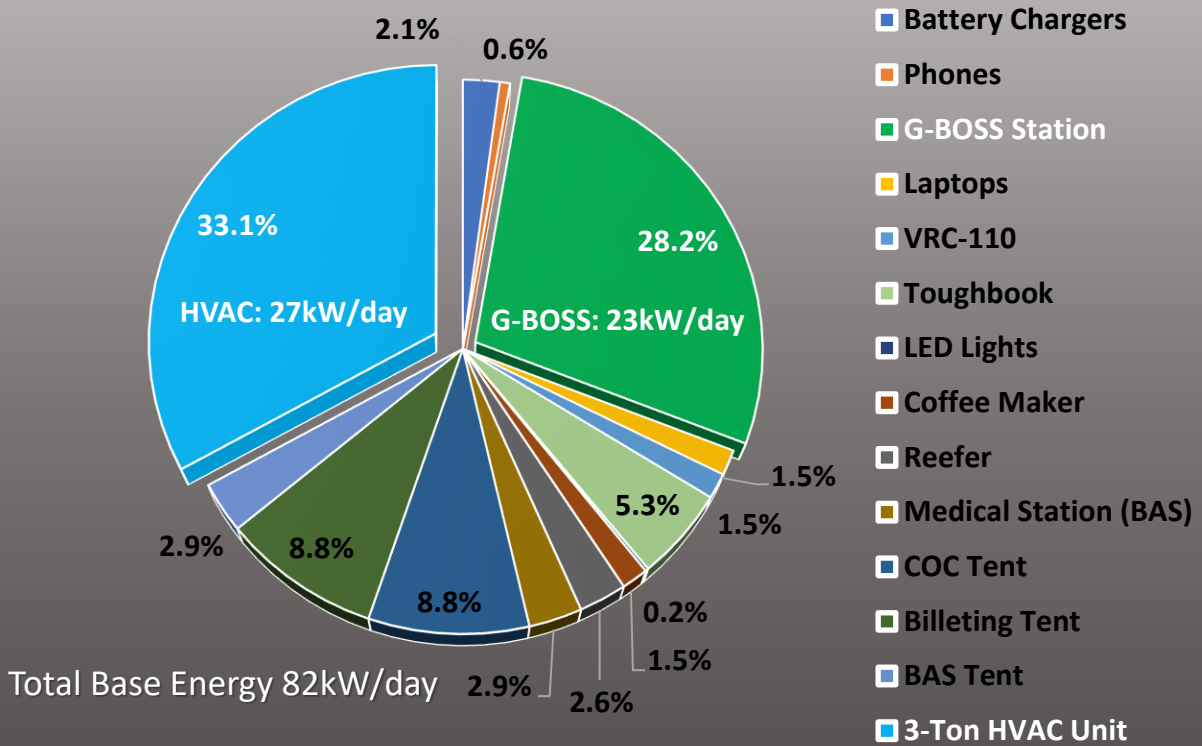


Total COC Energy 33kW/day

G-BOSS C2 Station w/sensors accounts for nearly ~70% of entire COC power.

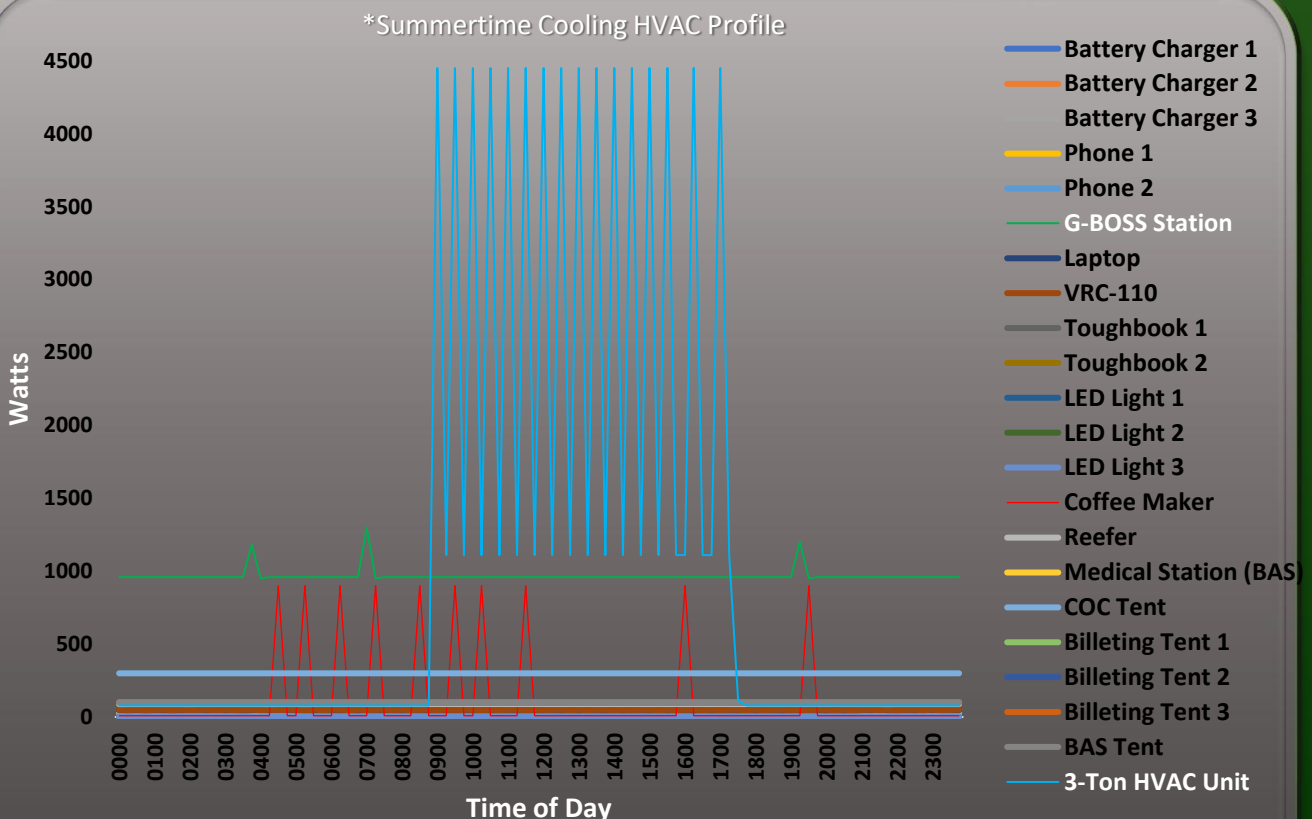
Modeling full base energy use shows high demand of energy from HVAC

Modeling the energy use of the larger Forward Base around the COC.



When modeling the entire Patrol Base, the **HVAC system** now accounts for over 30% of the power and G-BOSS only 28%

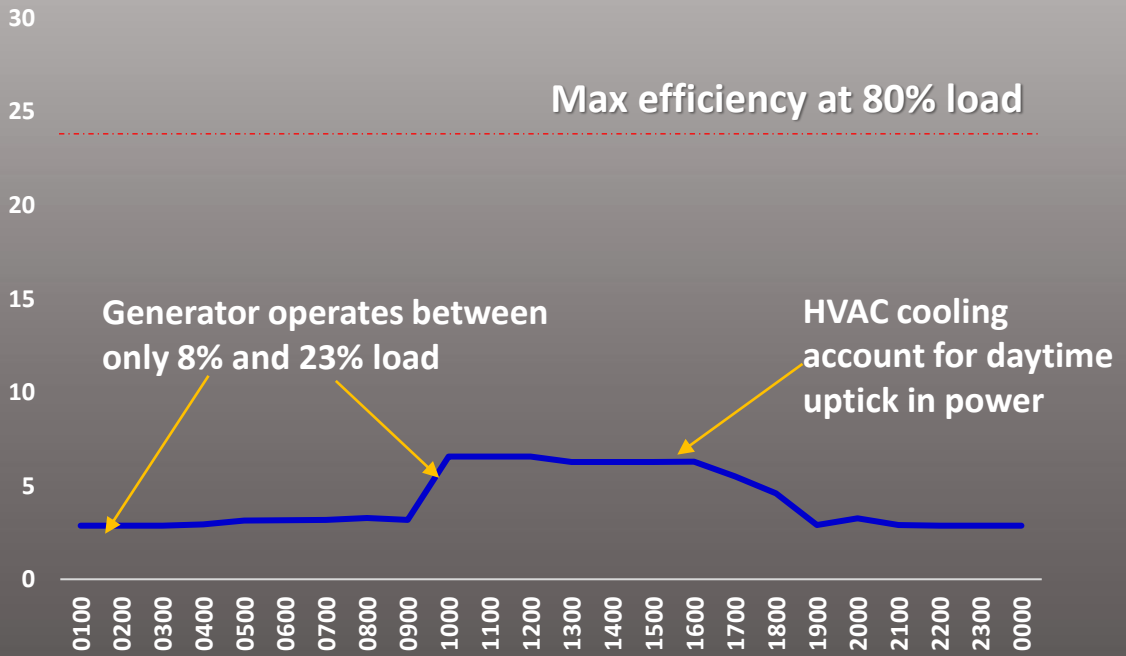
Breaking down power draw over time.



G-BOSS and the HVAC show the highest draws while the HVAC and the coffee maker show the most variability in draw over time.

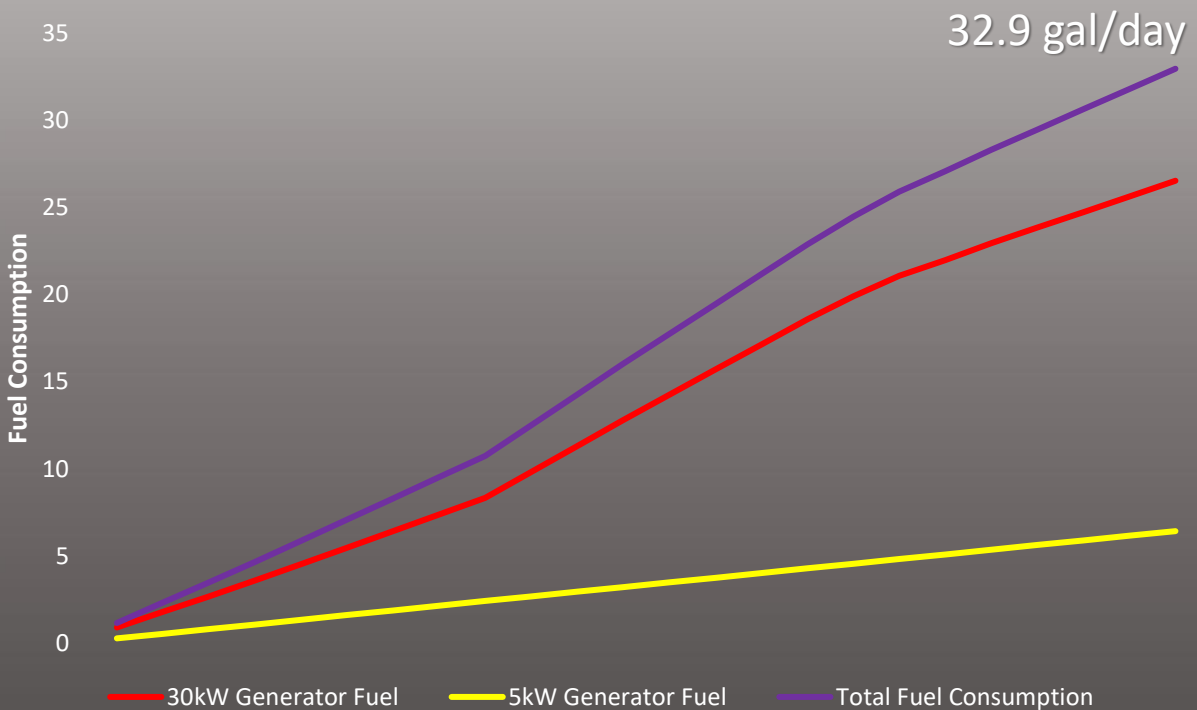
Traditional Generator-only power grids offer poor operating and fuel efficiency

Modeling generator activity in a forward base to understand legacy power



Generator requirements are matched to HVAC startup amperage, not energy profile, leading to poor generator efficiency

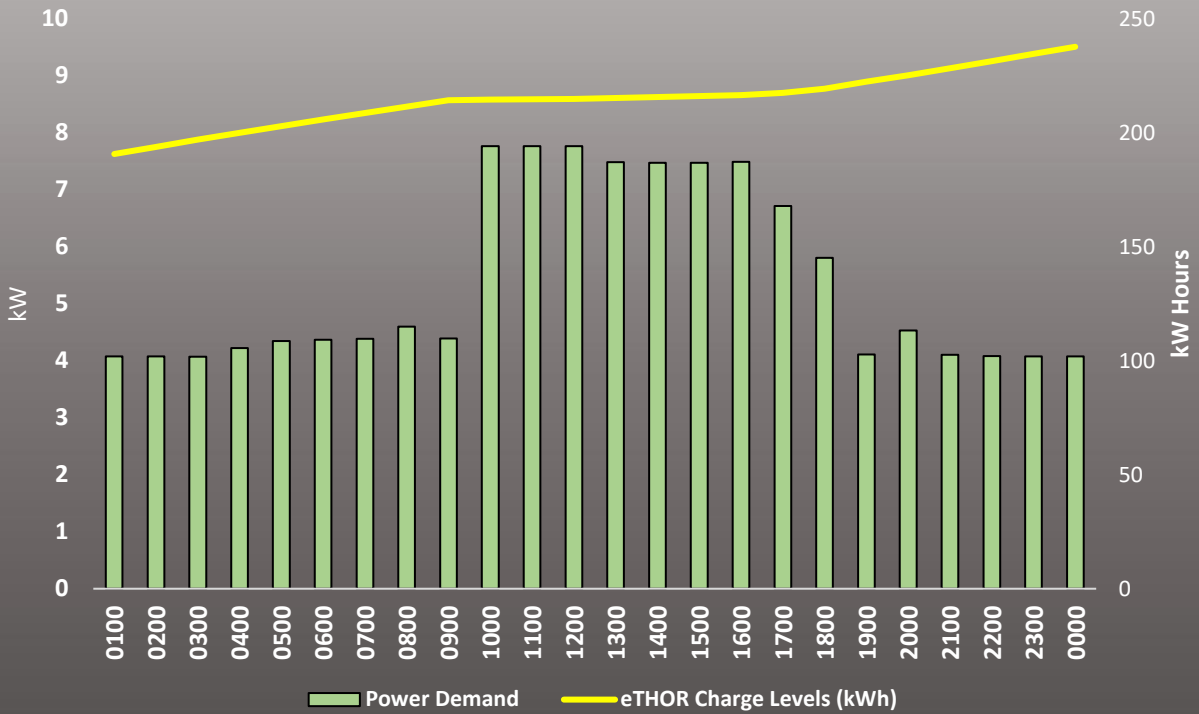
Modeling fuel consumption to power a legacy tactical power grid



Inefficient use of generators leads to consistently higher rates of fuel consumption

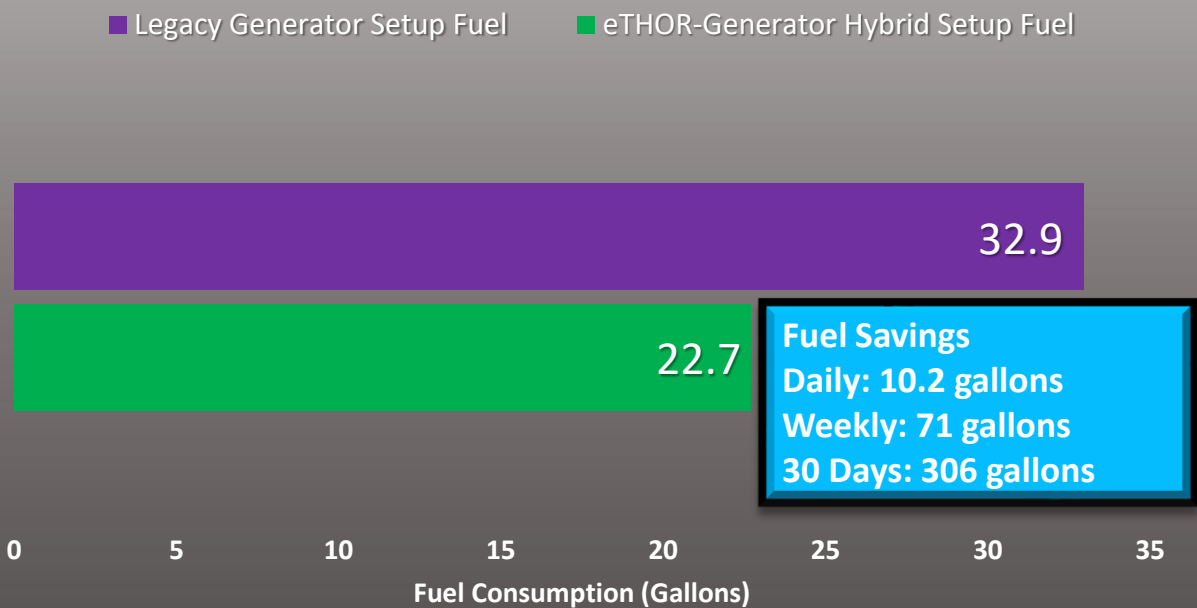
eTHOR allows more efficient use of generators, reduces fuel consumption, and provides added capability

Modeling eTHOR augmenting generators in a tactical power grid



Swap the 30kW Generator with a 10kW matched and eTHOR covers all power AND amperage needs while maximizing generator efficiency

Comparing fuel consumption between legacy and hybrid power setups



Pairing eTHOR with a smaller 10kW generator provides excess power, operates more efficiently, and saves fuel doing it.