Flywheel Energy Storage Solutions

- **Grid decentralization to handle EV Adoption**
- **Substation siting**
- **Time of Use Cost Shifting**

Grid decentralization to handle EV Adoption-Microgrid FESS adoption to address additional required spinning reserve to support EV charging is the fastest growing factor for utilities. Minimizing the need for big electrical upgrades for any Super or Mega charger installation. Hybrid Time of Use and Solar production to fulfill 100% of EV needs is less expensive than a utility only upgrade, unless the power company gives the power away, for a number of years.

Substation siting-There are over 55,000 substations in North America, ranging from very large transmission level to very small distribution level stations in remote rural locations. These are the primary home for FESS, to place them closest to optimum points of use. As we continue to build and reconfigure the real estate over time, the utilities shouldn't have to adjust anymore by having to rebuild the grid, instead run head first toward microgrids at every opportunity.

Time of Use Cost Shifting-A benefit of FESS microgrid systems is that while they are available for resiliency on a moment's notice. This means that FESS systems that have been installed for resiliency, with the proper energy management system (EMS), are able to provide the utility with monetary value daily by storing energy at times when energy costs are low and utilizing that stored energy at times when costs are high. This functionality enables the FESS to pay for itself several times (7) over its estimated lifetime of 30 years.