

## WRA Questions for STEP Phase 5 Technical Conference

### Intermodal hub project

Please provide a one-line diagram of the distribution grid infrastructure currently serving the UTA and a second one-line drawing showing the changes and additions to that grid infrastructure that will be installed for the pilot.

How is power currently provided to the light rail system in general, and how, specifically in the area of the project? Will these facilities be used to power the charging stations in the pilot? Will the same feeder infrastructure be used for both light rail and the charging station?

Does the light rail system use regenerative braking? If not, has an evaluation been made of the cost to retrofit the light rail system with regenerative braking? How would regenerative braking impact the pilot project?

What software systems will be employed by RMP to manage the power flows at the UTA site, on the RMP distribution grid?

Will intermittent charging strategies be employed to control maximum load on the distribution grid? What software and hardware will be utilized to control intermittent charging?

### Battery Demand Response Project

Please provide a one-line diagram that shows how the batteries are connected to the solar system and to the grid, including all active and passive components.

Will all batteries be located in living areas?

Is each of the 621 Sonnen battery system have its own Battery Management System (BMS). Are each of the 621 Sonnen battery systems controlled independently, in groups, or as a whole for demand response purposes? For charge and discharge cycles?

Will the battery system be capable of exporting energy to the distribution grid or will the batteries be configured as non-exporting storage systems?

Will the battery system only be charged by the on-site solar system, or will they be grid charged some of the time?

Do the Sonnen battery systems have advanced inverters? Will they comply with IEEE 1547 (April 2018)?

Will the Sonnen battery systems be DC coupled to the solar system(s)?

Which RMP system(s) will be used to control the battery system(s)? Will software need to be developed for the RMP system(s) to manage the battery systems? Or will new software/hardware systems need to be purchased or designed to control the battery storage systems?

### ARMS project

We would appreciate a brief review of why RMP decided to upgrade some of their AMR meters to AMI instead of replacing all of their AMR meters with modern AMI meters. We are concerned that AMR meters will not be supported by Itron and other companies sometime in the next decade. The world is

going to AMI. To the best of our knowledge, no new AMR systems are being installed anywhere in the country. All new installations are AMI. Some discussion would be appreciated.

If RMP decides to replace all AMR meters with AMI meters in the future, will any of the work done in the proposed pilot be wasted? Please discuss how the work on the current pilot will fit into an eventual full replacement of AMR with AMI meters and associated management hardware and software.