ES TOOL USER GUIDE

*** First take the quiz! The same quiz is given after this training to assess the teaching efficacy of the tool! ***

Installation and Opening:

1. Download Matlab App Installer file
2. Launch Matlab
3. Select "APPS" tab
4. Press "Install App" button
5. Browse for downloaded file and select
6. Open ES_DR_APP_FINAL from "MY APPS"

Learning Experience (After taking Quiz):

After opening ES_DR_APP_FINAL from "MY APPS"

The first goal is to identify the differences between intermittent and continuous process facilities

1. Arbitrarily select an energy storage system (ESS) and demand reduction (DR)
2. Select "intermittent process" or "continuous process" from the "Select Profile" drop down
3. Press "Run" button
4. Make note of the values shown in the table
5. Change the profile to the other type of facility and run again (without changing ESS or DR)
6. Make note of how the values in the table changed

The next goal is to identify the differences between ESSs

1. Select intermittent process facility and 30 kW DR
2. Only change the ESS, run, and make note of which table values change
3. Ask yourself: which of these results are dependent on the ESS? Which ESS is the most cost effective? Which ESS lasts the longest? Which has the smallest volume (or, has the highest energy and power densities)?

The last goal is to identify the effect of DR on the facility demand profile

1. Select intermittent process facility and any ESS
2. Adjust the DR slider to a low value and run
3. Adjust the DR slider to an intermediate value and run
4. Adjust the DR slider to a large value and run
5. Make note of how the new demand changed relative to the original demand

Now, take the quiz again and compare results to how you did before walking through the learning experience!