

TECHNICAL BULLETIN

Grid Support in Utility Interactive Microinverters: IEEE1547-2018 Compliance

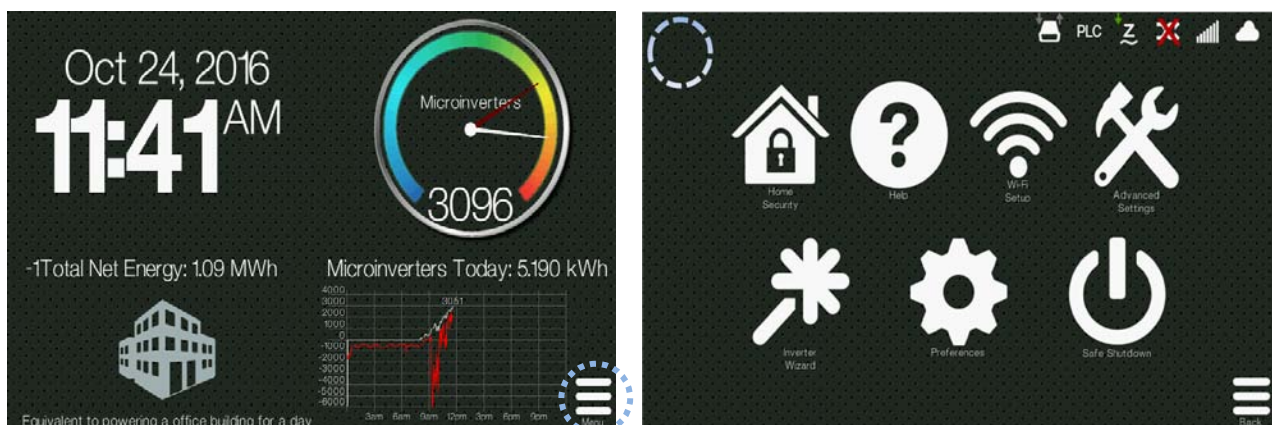
Date: 6/15/2020

Utilities have historically imposed inverter requirements on DER¹ connected systems primarily focused on disconnection during grid disruption to ensure line crew safety (anti-islanding provisions). However, a growing number of utilities now stipulate additional control features to better manage DER performance under a variety of grid and load conditions. These relate to how the microinverters should respond due to under/over voltage/frequency and the disconnect/reconnect timing associated with these events. Eventually, these parameters will be standardized nationwide under IEEE1547-2018 (In California, these parameters are currently specified by UL1741-SA).

The Chilicon Power CP-250E and CP-720 are fully compliant with IEEE 1547-2018² with default settings based on this specification. However, through the Chilicon Power gateway, these values may be modified to accommodate requirements of a utility or installation that may differ from the initial settings.

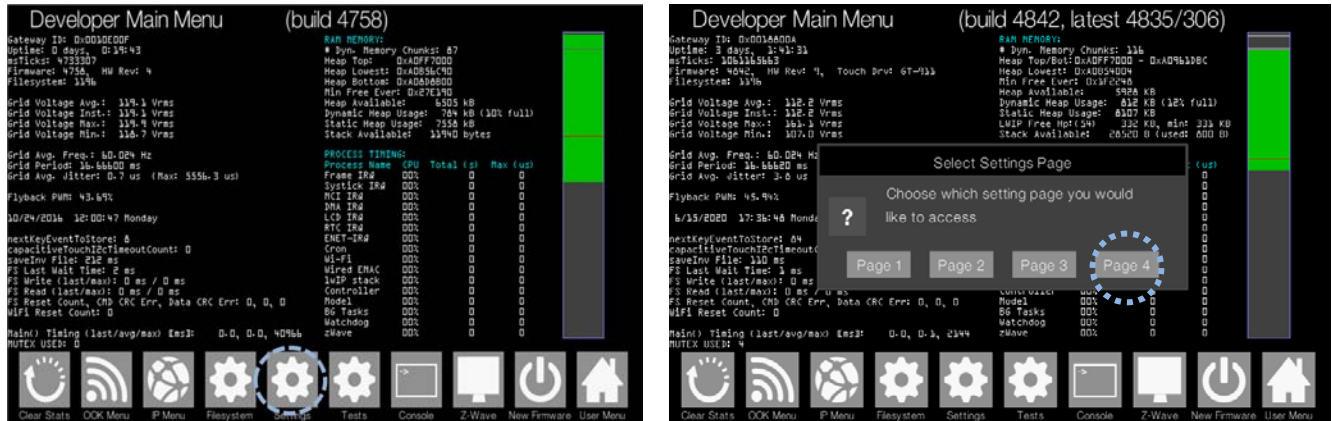
The process is detailed below:

- 1) On the initial display page, select the menu option in the lower right corner.



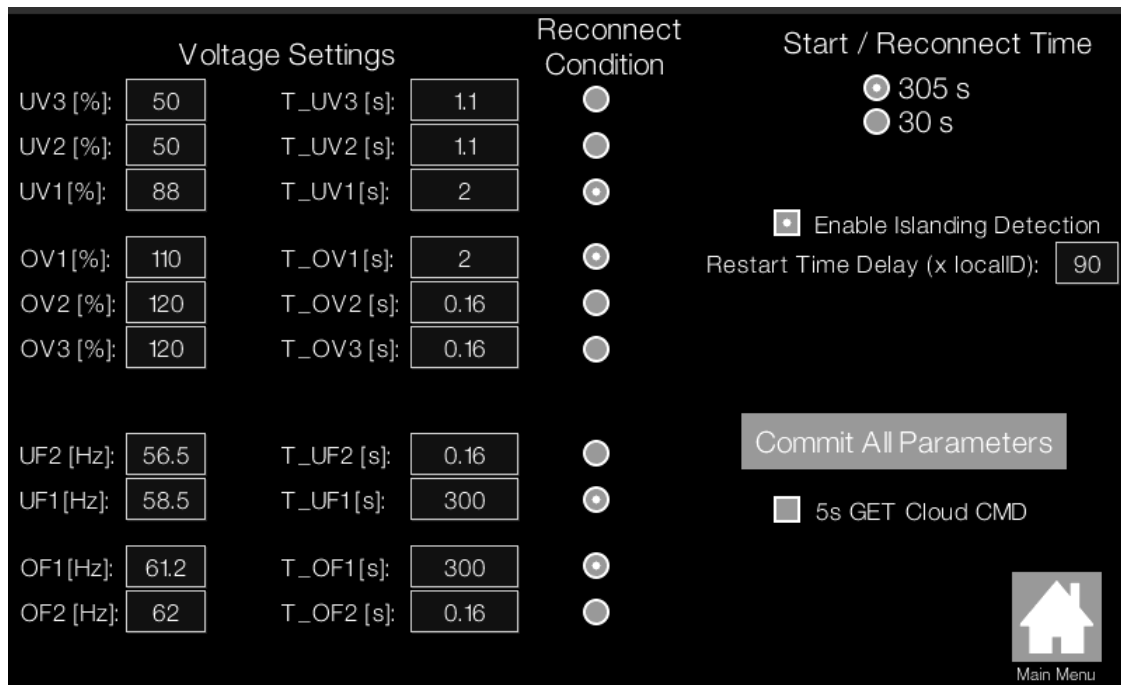
- 2) Next, touch the upper left corner of the screen. Located there is a “hidden” button which activates the “Developer Main Menu” screen. If prompted for a password, type in “revolution”.

3) On this screen select the settings button (fifth button from the left).



4) Select the option for Page 4.

5) The following screen will allow you to adjust the grid support entries. For example: the values below are those required by the New England based utility National Grid (specification ESB756).



6) Once completed, select “Commit All Parameters” and then “Main Menu” to return to the home screen.

¹Distributed Energy Resource

²See Intertek Report numbers: 100846617LAX-001 and 102862126CRT-008a