

## DRAFT

## Utility Meter + Gateway (Home Area Network/HAN) protocol

This is a work in progress.

PJM will approve the use of a Gateway device within a HAN to meet the DR interval meter data requirements based on the following. Note: the Gateway device are either a wireless pulse data recorder or wireless receiver that collect interval kwh readings:

- (1) The Utility approves the Gateway device for such use and certifies the unit as revenue grade (ie: accuracy meets +/- 2% threshold)

OR

- (2)The Gateway device (specific make/model) is:

- a. Approved by the EDC/utility for data communication purposes (this is not accuracy as in (1) above)
- b. Certified Zigbee/IEEE 802.15.4 compliant. CSP must provide document showing such certification.
- c. Tested/certified successfully at PJM Tariff's 2% error standard as per the following testing procedure at an accredited metrology lab.
  - i. CSP to select a random sample of Gateway devices out of total population (eg use ANSI/ASQ Z1.4 to determine sample size).
  - ii. Compare each Gateway device reading (500 readings) with reference meter at the lab (2% error over the readings). Record as pass/fail per device.

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- iii. The TimeStamping on each device must be compared to NIST on every read – and (as per ANSI) not worse than +/-2 minutes per week. Record as pass/fail per device.
- iv. The overall sample lot must pass.

b) Based on Test results PJM will either approve or deny the Gateway device (make/model) for use in the PJM Markets.

## Open Items:

- Above protocol will not capture Network issues from Smart Meter to Gateway device - should a field study be required instead of above lap test? (Note: Lab conditions may be very different than field conditions)