**IEEE P802.24**

**Vertical Applications TAG**

|  |  |  |
| --- | --- | --- |
| Project | IEEE P802.24 Vertical Applications Technical Advisory Group | |
| Title | Smart Grid Task Group – Sub 1 GHz White Paper Outline | |
| Date Submitted | 10 March 2015 | |
| Source | Tim Godfrey | Voice: 913.706.37777 E-mail: |
| Re: | White Paper Development | |
| Abstract | Outline for the TG’s Sub 1 GHz White Paper | |
| Purpose | Provide a framework for developing the Sub 1 GHz White Paper | |
| Notice | This document has been prepared to assist the IEEE P802.24. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. | |
| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.24. | |

Introduction: (criteria for inclusion, and evaluation)

Why Sub 1 GHz is of interest for Smart Grid

Existing incumbents and uses in the band

Standards for regional sub-GHz channel plans

802.15.4g (SUN) (Steve Pope)

802.11ah (S1G)

Standards for TV White Space

802.15.4m (TVWS)

802.11af (TVHT)

802.22

802.19.1

Applications

List of applications (Elec, Gas, Water meters, DA (PV/DER), street lights, “smart cities”, heat use sensors, DR, EV Charging)

Application for backhaul from (GW/Concentrator/Router/Collector)

Duty Cycle Requirements, Power Limitations, and their impact on usable applications

Specific limitations of applications to portions of bands.

Summary of characteristics and key comparisons

Reference PAP 2 table for facts about the standards

Explanation and Interpretations of the data

Explanations of coexistence between similar standards in each group

Global regulatory environment

FCC, CEPT, ARIB, CENELEC, ETSI, ITU,

Areas that adopt other domain’s rules

(Map of world with regulatory agencies highlighted)

Coexistence in global bands

Conclusions