DCN **16-15-0034-00-Gcon**

**4) Contributions expressing interest in such a standard**

Full Spectrum and its customers, suppliers and software development partners are interested in participating in the 802.16 narrow channel standardization process. Since 2012, Full Spectrum has developed, sold and supported a non-standard variant of 802.16e for licensed 1 MHz (and narrower) channel sizes.  We believe there is a substantial market for a standard product based on the following:

* Well-documented input from many utilities and the Utility Telecom Council expressing a need for private, licensed, mission critical wireless data networks to support a variety of existing and new smart grid applications including substation SCADA, distribution automation, distributed generation and other grid optimization needs.
* Utilities and other mission critical entities continued preference for private, licensed radio networks due to the limitations in robustness, availability, security and coverage of commercial wireless networks. (Evidence of this preference can be seen by the ongoing operation and enhancements of existing private land mobile radio networks even though commercial cellular networks were introduced in the 1980s and have achieved 100% penetration of the population.)
* The incremental cost to implement a private wireless data networks is low given that utilities already have existing private land mobile radio infrastructure including towers and backhaul.
* Unlicensed wireless networks are not suitable for mission critical application due to potential interference and power restrictions.
* 1 MHz (and narrower) licensed channels are readily available for purchase and capable of meeting the capacity requirements of a private wide area network.
* Readily available low cost SDR technology which can easily support the scope of the project.

Full Spectrum’s existing FullMAX technology is an example of a proprietary implementation of narrow channel 802.16e for the utility industry. This technology has gained strong acceptance and is being deployed by both large investor owned utilities and electric cooperatives in the US with over 100,000 square miles of coverage already deployed by 5 customers. Full Spectrum’s proprietary market adoption helps to validate the 5c’s and we strongly believe the standardization process can only serve to broaden the market and improve upon the existing technical and economic feasibility.