Project	**IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>**
Title	**Power Control for Femtocell ABS in IEEE 802.16m Amendment**
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Re:	802.16m Amendment Working Document Call for contributions on "Support for Femto ABS"
Abstract	This contribution proposes the power control scheme for Femtocell ABS**.**
Purpose	For discussion and approval by IEEE 802.16m TG
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Power Control for Femtocell ABS in IEEE 802.16m Amendment

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1 Introduction

Downlink power control for Femto is supported in the current SDD [1]. In this contribution, we propose the text to support the downlink power control for femtocell ABS in AWD.

2 Proposed Text

[Insert text in subclause 15.4.12.1 as follows]

----------Start of the Text----------

15.4 Support for Femto ABS

15.4.12.1 Downlink Power Control

The procedure for downlink power control for Femtocell is as follows:

1. The femtocell ABS sends AAI-SCN-RSP message to request one or multiple AMSs to report measurement metrics for interference and received signal density from the ABSs for specified RF spectrum resources via the downlink control channel.
2. AMSs measure and record metrics for interference and the received signal density from the BSs for each requested ARF spectrum resources. These metrics can be measured by preambles and control channel. One of example of metrics can be CINR or CNR for each requested RF spectrum resources.
3. The AMS reports these metrics to the serving ABS via the uplink control channel using AAI-SCN-REP message. The reported value of metrics should consider the effect of their historical values. A weighted average value may be used.
4. The ABS allocates power, modulation and coding scheme, and subchannel according to QoS, loading, received metric's value, interference limitation, service type, etc. This kind of allocation is user based. Cooperation between multiple BSs, including femtocell BSs, Macrocell BSs, and

Picocell BSs, may exist during the resource allocation procedure. The aim of cooperation of multiple BSs is to decrease the effect of co-channel interference.

----------End of the Text----------

References

[1] IEEE 802.16m-09/0034, "IEEE 802.16m System Description Document (SDD)"