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FEDERAL COMMUNICATIONS COMMISSION
Office of Engineering & Technology
7435 Oakland Mills Road
Columbia, MD 21046

Subject: FCC ID: TY7-6030A

OET Equipment Authorization Branch:

Attached are the necessary documents supporting our request for certification of the CURRENT Gateway-Bridge 6030. This equipment is the newest addition to CURRENT's third generation access BPL hardware family and is installed in a part of the medium voltage electricity network which does not fit neatly into the classifications of "overhead" or "underground" as defined in the BPL Report and Order of October, 2004. That location is often called a "riser pole" by the electric utilities and is where the underground medium voltage (URD) cable ascends a pole and is ultimately connected to the overhead (OH) medium voltage (MV) lines.

Existing network elements in CURRENT's third generation BPL solution for overhead installations have generally used frequencies above 30 MHz on the overhead medium voltage lines and frequencies below 30 MHz on the overhead low voltage lines and on the underground medium voltage cables. Among other functions, the CURRENT Gateway-Bridge 6030 discussed here acts as a relay between the OH and URD environments, retrieving data from the OH MV in the high band above 30 MHz and forwarding that data into the underground MV in the low band below 30 MHz. It is installed high up on the riser pole near the OH MV lines and uses a broadband coupler covering both bands. Since the OH and URD cables are galvanically connected at the riser pole, unintentional propagation of low band signals (below 30 MHz) on to the OH MV lines is unavoidable and therefore a significant portion of this submission deals with establishing compliance with 15.615(f)(1) for this device.

Recognizing the ultimate need for a device like this in CURRENT's system, we met with OET on August 23, 2007 to get technical clarification of the wording of 15.615(f)(1), most notably the word "prohibited" as applied to the exclusion bands in the first sentence and the phrase, "shall not place carrier frequencies in these bands" in the second sentence. The conclusions from that meeting were (i) that OFDM carriers falling in the exclusion bands were required to be notched digitally, (ii) that the exclusion bands must be guarded to least 20 dB below the compliance level and (iii) that the full depth of guarding for the excluded band could be accomplished by lowering the overall transmit power if necessary.

We believe the data presented here fully abides OET's guidance and demonstrates overall compliance for the CURRENT Gateway-Bridge 6030. As always, I am immediately available to address any questions that may not have been adequately covered by our submission.

Sincerely,

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