Ambient Corporation
February 2008
Call Sign WD2XEQ
File No. 0118-EX-RR-2005

PROGRESS REPORT OF AMBIENT CORPORATION'S TESTS PURSUANT TO EXPERIMENTAL LICENSE

Ambient Corporation ("Company") submits this six-month progress report in accordance with the conditions of its Experimental License to evaluate broadband access via carrier current systems over power lines.

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Test Sites: The Company has continued its ongoing test program at its test site in Westchester County, New York since the grant of its original STA in June 2002. The physical layout of this system is unchanged during the last 6 month reporting period, but as previously reported, the Company has replaced its legacy equipment with second generation equipment. Radiated emission measurements data taken at locations where new second generation equipment was installed was provided in the Company's Progress Report submitted August 1, 2007.

Testing of MV/LV facilities with Orange and Rockland Utilities Inc. ("O&R") at Monsey, New York has been completed and this facility is no longer in operation. The Company will be dismantling its test facilities at this location.

The Company's previously reported in-house Low Voltage demonstration system at a 200 unit high-rise apartment building in New York, NY, remains in operation.

The Company entered into a BPL Trial Agreement with San Diego Gas & Electric Company (SDG&E), a unit of Sempra Energy (NYSE: SRE), to evaluate BPL-enabled consumer and utility based applications. SDG&E reported in September 2007 that it had concluded its BPL technology trial and that it had removed the BPL equipment from its lines.

The Company entered into BPL Trial Agreement with FirstEnergy Corporation to install Ambient Access BPL system (84 units) on 4 medium voltage circuits in Brimfield, Ohio. This system, which consists of second generation nodes, is unchanged and remains in operation.

The Company has a BPL Trial Agreement with Entergy Corporation. This Access BPL test system includes no more than a total of eighteen second generation nodes units on two separate medium voltage circuits in and near Little Rock, Arkansas. These systems are unchanged and remain in operation.

BPL Standards Development: During the last six months, members of the Company's engineering staff participated in the following IEEE meetings.

Dr. Yehuda Cern, Vice Chair and Technical Editor of IEEE Working Group P1675, reports that the draft "Standard for Broadband over Power Line Hardware and Personnel Safety" has been completed and has been approved on the initial ballot. A number of comments were submitted by voters, and the working group will be considering them shortly, for possible improvements to the draft standard and a final voting phase.

Aron Viner, its Director of Compliance & Standardization, is Chair of the PLC EMC Standard Working Group which will develop the Standard "Powerline Communication Equipment. Electromagnetic Compatibility (EMC) Requirements. Testing and Measurement Methods." The draft has been completed and is now in the phase of consideration of the comments from Sponsors review Committee. Our expectation that this Standard will be recirculated for balloting in March.

Ram Rao, the Company's Chief Network Architect, and Aron Viner, members of IEEE P1901, the BPL MAC/ PHY Standard Working Group, are participating in the development of a "Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications." The Standard is in early stage of development, however, the Working Group made substantial commitments to insure that EMC issues will be addressed in technical requirements for Coexistence, Access and In-Home Clusters of the Standard. The Working Group has made substantial progress in terms of choosing technical proposals for standards. As of this report, Working Group has finalized the down selection process for the Access and In-Home clusters, however, the work on these clusters is continuing to achieve consensus for confirmation balloting. The Coexistence cluster proposals continue to be under discussion and will be in balloting on the next Working Group meeting in April.

Testing of Advanced Hardware and Software Capabilities: In the framework of its Experimental License, the Company continues to develop and test methods for enhancing the performance of its BPL systems and to monitor and adjust the parameters of its test facilities to be responsive to the concerns of the amateur radio operators consistent with its obligations under its Experimental License

The Company's extensive experimental testing program made possible rapid development of a new generation of the industry's first high-speed BPL access products and has demonstrated the Company's technical leadership in the industry. For example, in September of 2006, Ambient received a grant of BPL Equipment Authorization, FCC IDENTIFIER: SPKBHPLCAA, Equipment Class: Access Broadband Over Powerline System, X2 PLC NODE.

The Company has made additional advances in its software and hardware to develop new generations of products which fully address all applicable regulatory requirements. As a result of an experimental program, the Company has implemented several Class I permissible changes, and after testing *in situ* under Experimental License received FCC Grant of Authorization for the following Class II permissive changes:

- Band of operation was extended from 30 MHz to 35 MHz; and
- Medium Voltage Capacitive Coupler was added to the list of the coupling devices for EUT.

See FCC Grant of Equipment Authorization - Class II Permissive Change to Access Broadband Over Powerline System (X2 PLC NODE), FCC ID: SPKBHPLCAA, dated 08/10/2007 and associated test measurement results.

The Company continues to collect data for design verification of the power quality and consumption parameters of its second generation equipment operating on MV circuitry in Briarcliff Manor. This data is being correlated and verified with data collected by the Utility to provide a statistical basis with which to verify equipment power consumption in different weather, temperature and data capacity conditions.

As previously reported to the Commission, the Company has notched out its signals on Amateur bands, demonstrating significant advancements in our technology over the relatively short time period of its test program. These bands include the following Amateur Radio bands: 80, 40, 30, 20, 17, 15, 12 and 10 meters: 3.5-4 MHz, 7-7.3 MHz, 10.1-10.15 MHz, 14.0-14.35 MHz, 18,068 -18,168 MHz, 21-21.45 MHz; 24,890-24,990 MHz, and 28.0-29.7 MHz. Also, the Ambient frequency plan was modified to comply with excluded bands of operations according Table 1 of the FCC Part 15, Subpart G Rules.

The Company also has in place procedures to give prior notification to and to consult with public safety users in the areas where it plans to deploy its Experimental test systems. It has also sent written notifications to public safety users in areas where it has longstanding trials under its Experimental License.

Finally, the Company is focusing its development activity on utility applications that will help develop a “Smart Grid” for the nation’s electrical infrastructure. Implementation of a Smart Grid will allow more efficient usage of electrical energy and reduce consumer use, thus mitigating environmental concerns. Implementation of a Smart Grid would also help secure the electrical power grid. For these reasons, the Company encourages the Commission to encourage the expansion and implementation of BPL solutions that will help achieve a Smart Grid.

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