AT&T Corp. FCC Form 442 Printed Form, Item 4 Online Form, Item ?

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# Exhibit 1

Item 4			
Frequency	Class	Emission	Authorized Power
(MHz)		Designator	(Watts)
1.705-80 MHz	FX	Unintentional Radiator	Note 1
2400-2472	FX	20M0D2D/16M6W7D	Note 2
5150-5250	FX	16M6W7D	.05, Note 2
5250-5350	FX	20M0D2D	.25
5725-5825	FX	16M6W7D	1.0

Notes:

- 1. Power will be limited to assure compliance with Section 15.207.
- 2. Authorized maximum power will be set to assure compliance with Section 15.249.

AT&T Corp. FCC Form 442 Printed Form, Item 5 Online Form, Item ?

# Exhibit 2

### Item 5

BPL and IEEE 802.11 trial systems are fixed and will be located as follows:

<u>State</u>	<u>County</u>	<u>City</u>		Address- Bound	ed Approximately by Streets		
FL	Dade	Miami		SW 95 <sup>th</sup> Terrace	e, SW 104 <sup>th</sup> Street,		
				SW 125 <sup>th</sup> Aver	ue, FL Highway 821		
Geographic coordinates of trial area corners:							
Nort	hwest 25:40:4	6N Lat.	80:23	:54W Lon.	NAD83		
Nort	heast 25:40:4	6N Lat.	80:23	:15W Lon.			
Sout	heast 25:40:1	6N Lat.	80:23	:15W Lon.			
Sout	hwest 25:40:1	6N Lat	80:23	:54W Lon.			
<u>State</u>	<u>County</u>	<u>City</u>		Address- Bound	ed Approximately by Streets		
CA	San Mateo	Menlo P	ark	Willow Road, C	ilbert Street, Nova Lane		
				Middlefield Roa	d, Concorde Drive		
Geographic coordinates of trial area corners:							
Nort	hwest 37:27:3	6N Lat.	122:0	9:52W Lon.	NAD83		
Nort	heast 37:27:3	6N Lat.	122:0	9:24W Lon.			
Sout	heast 37:27:1	2N Lat.	122:0	9:24W Lon.			
Sout	hwest 37:27:1	2N Lat.	122:0	9:52W Lon.			

Operation is also anticipated for testing purposes at AT&T Labs locations as follows:

State	County	City	Address	Within 1 km of Coordinates
NJ	Morris	Florham Park	180 Park Avenue	40:46:37N Lat., 74:24:43W Lon.
NJ	Monmouth	Middletown	200 S. Laurel Ave.	40:23:51N Lat., 74:08:10W Lon.

AT&T Corp. FCC Form 442 Printed Form, Item 10 Online Form, Item 7

## Exhibit 3

#### Item 10a/7a

The service offering being considered for future deployment is a 3-10 Mbps symmetric wireless data mobility service to the home with the added option that customers can use their data equipment anywhere within the system coverage area. The service is envisioned to be highly competitive.

Miami, FL: AT&T proposes to install a Broadband-over-Power Line (BPL) system using the medium voltage (MV) and low voltage (LV) facilities of Florida Power & Light in a residential area of Miami Florida, passing approximately 350 residences. Amperion BPL equipment will be deployed on the MV lines and Main.Net BPL equipment will be deployed on the MV lines; each vendor's system will serve approximately half of the test area. The test area will be mapped into 40 cells consistent with the local powerline architecture.

Menlo Park, CA: AT&T proposes to install a BPL system using the MV and LV facilities of Pacific Gas & Electric (PG&E) in a residential area of Menlo Park, California, passing approximately 300 residences. Main.Net BPL equipment will be deployed on MV and LV lines. The test area will be mapped into 30 cells consistent with the local powerline architecture.

Both the Miami and Melo Park systems will interconnect to the telephone network via fiber optic cable or other broadband transmission means. Multiple feed points will provide access to the approximately 40 cells (Miami) and 30 cells (Menlo Park) into which the test areas are mapped. Low voltage BPL distribution technology will be used to provide customer access to the system, primarily in areas served by underground electric facilities in the Main.Net test areas; IEEE 802.11 equipment will be deployed at cell nodes to accommodate customer access, primarily in test areas served by overhead electric facilities. In some cases, both LV-BPL and 802.11 access technologies will be available at the same customer location.

Both Amperion and Main.Net BPL systems used in these tests employ orthogonal frequency division multiplex (OFDM) within the 2-30 MHz band, although operation may be tested on some units above 30 MHz, but within the frequency limits specified in this application. In order to assess the electromagnetic compatibility of these systems to licensed services, measurements are planned to determine (1) 47CFR Part 15 compliance, (2) potential interference to licensed services in the HF and lower VHF bands and (3) susceptibility of the BPL systems to interference from licensed services. Susceptibility testing will require transmission in segments of the HF and low VHF bands used by BPL systems at power levels intended to simulate what may be expected from transmitters in the licensed services. Every effort will be made not to interfere with transmissions of

#### Exhibit 3

AT&T Corp.

licensed services. Most test transmissions will be of short duration and will be made at power levels lower than those authorized to licensees. In no case will test power levels exceed those permitted to licensees.

In order to facilitate mounting arrangements compatible with the power grid infrastructure, the 802.11 access point, bridge, repeater equipment and BPL devices may be repackaged into a single weatherproof box. Since this will void the FCC compliance certification for devices removed from their original enclosures, this application for experimental operation includes frequencies in the 2.4 GHz and 5.150-5.825 GHz bands used by 802.11a and 802.11b compliant equipment. However, the repackaged units will be tested to assure they are within Part 15 limits.

### Item 10b/7b

Experiments in both cities will assess the viability and maturity of BPL and IEEE 802.11 technologies and the feasibility of using fiber to the neighborhood with these technologies to deliver local access services using the facilities of a power company. In addition to assessment of the technical performance and delivery capabilities of services these systems are intended to provide, experiments will also evaluate the electromagnetic compatibility of the BPL technologies with the licensed services.

### Item 10c/7c

Potential contribution aspects of the experiment include achieving a greater understanding of the operation and economics of BPL systems in a deployed configuration, performance assessment from a customer perspective of the test architecture using fiber to the neighborhood and information regarding the interaction of BPL with the licensed radio services. As issues are identified in each of these areas during the course of the experiment, improvements in technology and operation will be stimulated and tested.