

Exhibit D

Errors in the United Power Line Council BPL Database

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November 20, 2010

There are numerous errors and several omissions in the United Power Line Council (UPLC) BPL database, located at <http://www.bpldatabase.org>. Some of these omissions are very self-evident, so there is no valid reason for these errors other than the lack of oversight and/or cross checking that is not being performed by the database administrator. The errors, omissions and an ever-growing number of BPL systems that have shut down but are still continued to be listed in the database seriously lessen the usefulness of the database.

Although the database administrator would have no automatic way of knowing whether a particular contact-information entry is correct, it was not time-consuming to ask the operators about the status of the system. The resultant failed email from some of those inquiries, due to bad email addresses, was also easy to determine.

There are 170 ZIP codes in the US that have a BPL system entry in the database. ARRL easily identified errors in 40 of them. This represents an error rate of 24% of the ZIP codes containing *easily* identified errors.

There may be other errors that are not apparent from the data or from a failed-email error email message. As two examples, media reports indicate that Current Technologies is no longer using BPL in its Denver, CO “Smart Grid City” deployment, yet the system continues to be listed in the BPL database. In the Houston, TX area, CenterPoint has discontinued the use of the BPL system there, disconnecting it at its former control point, yet has left the equipment powered up on the poles, continuing to emit BPL noise. (ARRL notes that it CenterPoint is no longer able to control carriers or operating levels, so it cannot understand how this system is operating legally.) ARRL has also not been able to identify that a number of IBEC BPL systems listed in the database are in actual operation. Thus the estimate that 24% of the database information is in error is almost certainly an underestimation and it is likely that the actual error rate is much higher.

ARRL has also identified that some of the frequency information in the BPL database is incorrect. IBEC, for example, lists that it is notching in the bands that FCC Part 15 rules state cannot be used for access BPL on overhead electrical lines, but recent ARRL testing near Afton, VA shows that this is not the case. Although IBEC had previously demonstrated to ARRL, to local Amateurs in the area and to a consultant that it hired to assess Amateur Radio interference that IBEC systems do not use the Amateur bands, this is not the case in the Afton area, except in the immediate vicinity of one fixed-station interference complainant. This error in frequency listing would add to the percentage of ZIP codes for which the BPL database is incorrect.

In one case, for the BPL system formerly operated by the Shpigler Group in Livermore, CA, the BPL operator informed ARRL that in response to his being contacted by UPLC, he had reported to UPLC that he was no longer operating the system. That entry in the database, however, was not changed in any way in response to the operator communicating with UPLC.

The following BPL operators were contacted by ARRL, but did not respond to ARRL's inquiry:

- New Visions – Recent media reports in the free press indicate that New Visions is no longer operating any BPL in the central NY region. These systems are probably not in operation, if they ever were.
- Gridline

Summary of number of ZIP codes with problems:

- System known to be shut down but still listed in database: 18
- System known to be shut down but still listed in database for which the operator of record has confirmed to ARRL that he has informed UPLC that he is no longer the operator of the system: 1
- Contact information email invalid: 19. These systems appear to be no longer in operation.
- ZIP code not a valid ZIP code: 1
- Missing frequency, model or other information: 2
- Incorrect frequency information: Unknown, but confirmed to be incorrect in at least one ZIP code in central Virginia.

ZIP code	City, State	BPL operator	Error	Notes
01104	Springfield, MA	Amperion	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	It has been reported to ARRL that the system is no longer in operation.
01742	Concord, MA	Concord Light	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in	

			operation.	
11520	Freeport, NY	Freeport Electric	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	
18015	Bethlehem, PA	PPL Telecom	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	
20110	Manassas, VA	City of Manassas	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	
20164	Sterling, VA	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	The domain name in the contact email address, CopperRoad.com, is listed as being for-sale
20165	Sterling, VA	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	The domain name in the contact email address, CopperRoad.com, is listed as being for-sale

20166	Sterling, VA	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	The domain name in the contact email address, CopperRoad.com, is listed as being for-sale
20167	Sterling, VA	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	The domain name in the contact email address, CopperRoad.com, is listed as being for-sale
22921	Unknown presumed VA	IBEC	ZIP code is not a valid ZIP code.	
24141	Radford, VA	Designed Telecommunications	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	
24153	Salem, VA	Designed Telecommunications	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	
27709	Durham, NC	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail,	The domain name CopperRoad.com is listed as being for-sale

			unknown user.	
27825	Everetts, NC	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	The domain name CopperRoad.com is listed as being for-sale
27892	Williamston, NC	Copper Road	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	The domain name CopperRoad.com is listed as being for-sale
28226	Charlotte, NC	Current	There is no model or frequency information listed.	
28277	Charlotte, NC	Current	There is no model or frequency information listed.	
29696	West Union, SC	Itron, Inc.	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.g	
32208	Jacksonville, FL	Jacksonville Electric Authority	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in	

			operation.	
32209	Jacksonville, FL	Jacksonville Electric Authority	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	
43402	Bowling Green, OH	Amperion	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	
48813	Charlotte, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48820	DeWitt, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48822	Eagle, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007

48837	Grand Ledge, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48861	Mulliken, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48866	Ovid, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48875	Portland, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48876	Pottersville, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48879	St Johns, MI	Utility.net	Although this	This system was

			system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	taken out of service in November 2007
48906	Lansing, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
48917	Lansing, MI	Utility.net	Although this system appears in the BPL database, the BPL operator has confirmed that the system is no longer in operation.	This system was taken out of service in November 2007
63701	Cape Girardeau, MO		The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	
63702	Cape Girardeau, MO	Ameren UE	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.	
63703	Cape Girardeau, MO	Ameren UE	The contact information for	

			the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.
63705	Cape Girardeau, MO	Ameren UE	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.
70807	Baton Rouge, LA	PowerGrid	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.
70810	Baton Rouge, LA	PowerGrid	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.
72064	Hazen, AR	PowerGrid	The contact information for the BPL operator is incorrect. Email sent to the address provided is returned as failed mail, unknown user.
94551	Livermore, CA	The Shpigler Group	David Shpigler has informed ARRL that he no

longer operates
the system in
Livermore. He
told ARRL that
he had reported
this to UPLC.
The entry is still
in the database.