



18<sup>th</sup> June 2008

British Columbia Utilities Commission  
Sixth Floor  
900 Howe Street  
Box 250  
Vancouver, B.C.  
V6Z 2N3

Dear Sir/Madam,

We are responding for your request for input on the application by FortisBC to install Advanced Metering Infrastructure (AMI). We have a strong concern with this application because of the possibility of radio frequency interference from equipment installed in the vicinity of the Observatory.

There appear to be two methods used to implement AMI. One uses signaling over the power lines themselves (referred to as Power Line Carrier – PLC) and the other uses wireless links. Use of wireless systems close to the Observatory will probably cause harmful interference and would not be acceptable.

It appears that PLC may not cause harmful interference. We have been in contact with Fortis and will work with them to find a suitable solution, other than the use of wireless. We would like the Utilities Commission to direct Fortis to commit to a solution that protects the Observatory and provides Fortis with the means to operate AMI.

We note that, as is the case for other electronic devices and licence-exempt systems, Fortis will only be able to operate on a non-interference basis, namely on the condition that it does not interfere with operations of the Observatory or other licenced users of the spectrum. Industry Canada has the power to intervene in cases where a new system causes interference with existing spectrum users.

Our willingness to accommodate Fortis in implementing AMI in the PLC mode should be understood **not** to include any other use of the power distribution system for communications. In particular, we are strongly opposed to any use of power lines for distribution of internet services. Such technology has been proposed in the past under the name “Broadband Internet over Power Lines” or BPL. While strictly speaking not a radio transmission, the potential for radiation of BPL signals from power lines has been demonstrated to be very high, and would be totally unacceptable in the vicinity of the Observatory.

I have attached a map which shows the ownership of the land around the Observatory. The cross-hatched area is within line-of-sight (or near line-of-sight) of our present radio telescopes and of identified potential sites for future telescopes. We cannot accept the installation of wireless systems within this boundary.

Inspection of the map shows that the National Research Council owns a substantial area of land (2200 hectares), that a large fraction of the remaining land is a provincial protected area (the White Lake Grasslands Protected Area), and that a further large area is undeveloped crown land. Privately owned land makes up a small fraction of the sensitive area, and relatively few houses are situated within the marked boundary.

The boundary is recognized by the Regional District of Okanagan Similkamen (RDOS) and is defined in its Official Community Plan and By-Laws. Within this boundary there are special provisions to protect the Observatory, including strict minima on lot sizes and provision for implementation of covenants to protect the Observatory.

The Observatory is further protected by two covenants. The first is a Land Use Contract between the RDOS and the St Andrews development which prohibits all radio transmitters on the property (among many other provisions). The second is a covenant on land in the vicinity of Kitley Lake which also prohibits radio transmitters.

We would also like to point out that Industry Canada, the authority that issues licences for use of the radio spectrum, co-operates closely with us to protect our operations.

Yours sincerely

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