

## **The Truth about Itron and B.C. Hydro Wired Connections**

Back in March 2011, in response to groups of individuals concerned about the negative effects of the upcoming Smart Meter Program, B.C. Hydro gave assurances that, once Hydro's plans were "finalized" they would be offering help to people with legitimate concerns.

People took Hydro at their word. Since March, a growing number of citizens have been writing letters and making phone calls, contacting B.C. Hydro, sharing their health issues, asking for answers and offering information with regards to the problematic effects of wireless metering technology. To this date, there has been precious little, if any, constructive feedback or support received from Hydro.

Back in March, Fiona Taylor, Hydro's acting manager of Smart Metering, and Dr. John Blatherwick, retired Chief Medical Health Officer for Vancouver, currently a consultant for B.C. Hydro, said that Hydro would be providing answers to people on a "case by case basis." Since then, Gary Murphy, Hydro's Chief Project Officer, stated, "We're not going to force meters down on people that have had these concerns. We'll put those folks onto the end of the program. We're looking at alternatives." Still, most recently, B.C. Hydro advisor Harper Hadden stated that "customers" could take it upon themselves to have the "Smart Meters" relocated, at their own expense.

This is a far cry from "helping people." This does not change the fact that, "on a one-to-one basis" a Hydro Smart Meter will still be transmitting on site, and that meter will still emit biologically harmful microwave radiation.

Safer, more practical, more ethical options need to be implemented.

There are areas in Ontario and the United States that are still using wired electric meters. In fact, today, homes in Ontario have meters collecting data and sending it via phone lines. This process makes sense. It uses a private line that is only used for this service and it is safe and secure. The filed patents for the Itron OpenWay meters actually state, as do many patents for other smart meter brands, that Itron OpenWay can use a telephone line for communications.

# ITRON "OPEN WAY" TELEPHONE LINE EVIDENCE

## ITRON ANNUAL 2008 REPORT

Filed 02/26/08 for the period Ending 02/25/08

<http://files.shareholder.com/downloads/ITRI/1212411828x0xS780571%2D08%2D42/780571/filing.pdf>

On page 7 it explains that Ethernet and PSTN (telephone lines) can be used:

**The OpenWay system** can utilize a variety of public communication platforms to transfer data, including GPRS, **Ethernet**, **PSTN**, BPL, Wi-Fi, WiMax and others."

When BC Hydro responds to individuals stating that Itron only has a commercial model for telephone lines, this seems quite strange, considering that other residential homes in Canada are using wired smart meters.

"Opting Out" is another solution people asked BC Hydro about, and it is the same process Maine, California and other states in the USA are looking at.

What does BC Hydro have to lose from actually wiring these meters? They will still make their money, charging for peak hours of electricity use. Other vendors such as Telus can still charge for data collection via wired connections. So, in the end, these companies using wired connections will still get the data and revenue that they wanted, plus their customers will be more content than they would have been with ongoing health issues.

So, when BC Hydro or Itron say wired or phone connections are not possible, we can show their own patents that explain just what these meters can do.

B.C. Hydro needs to be fair and honest with its customers. These patents explain the truth about **Itron OpenWay** wired connections. British Columbians deserve to know the truth when it is their own health on the line.

# ITRON ANNUAL 2004 REPORT

Form 10-K Itron Inc / WA / -ITRI Filed : March 11, 2005  
(period: Dec 21, 2004) Page 9 of 116

Fixed Network AMR uses locally installed repeaters and concentrator devices to communicate with ERTs. Concentrators then use the utility's choice of public communication platforms like GPRS (general packet radio service) networks, **Ethernet**, **PSTN (public switched telephone networks)** and others to transfer data between the concentrators and a host processor at a utility.

Fixed Network AMR is designed for highly-automated, frequent data collection and is scalable to be cost effectively installed in both large, high density deployments, as well as smaller, spot deployments. Fixed Networks AMR supports a utility's ability to perform a number of advanced applications such as interval meter data collection, time-of-use billing, load profiling, leak and tamper detection, off-cycle reads, outage and restoration notification, among others.

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## REFERENCES

- 1 - ITRON "OpenWay" uses PSTN Telephone Lines
- 2 - Wired Meter in Ontario use PSTN
- 3 - PATENT : System for remote data collection
- 4 - ITRON Form 10-K Annual Report Filed Feb 26, 2008
- 5 - ITRON PATENT using TELEPHONE Connections via Modem
- 6 - ITRON ANNUAL 2008 REPORT
- 7 - ITRON Introduces Two Additional Network-Based AMR Solutions and Expands Communication Capabilities.
- 8 - PSTN - Public Switched Telephone Network
- 9 - TELUS PSTN
- 10 - Network running over both WIRED and wireless communication protocols
- 11 - Fairfax PG&E considers a WIRED Smart Meter alternative

## **1 - ITRON "OPENWAY" uses PSTN Telephone Lines**

**OpenWay is the brand name that is on HOMES / RESIDENTIAL smart meters**

**ITRON CENTRON II OpenWay handles PSTN MODEMS in the PATENTS and even on the website:**

<https://www.itron.com/na/productsAndServices/Pages/CENTRON%20II.aspx?market=electricity>

"A **variety** of communication options from industry-leading OEM providers."

## **2 - WIRED METER IN ONTARIO use PSTN phone lines**

**ELSTER WIRED SMART METER - MANUAL SAYS** on page 10 of 192 of the PDF

### **Telephone Regulatory Information**

The A3 ALPHA meter internal modem complies with Part 68 of the FCC Rules. A label on the meter nameplate contains the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company. The connection to the telephone network is through a modular jack USOC RJ-11C.

The REN is used to determine the number of devices that can be connected to the telephone line. If there is excessive ringer load on the telephone line, it is possible that a device will not ring in response to an incoming call. On most lines, but not all, the sum of the RENs should not exceed 5. To be certain of the number of devices that can be connected to a line, the local telephone company should be contacted.

If this equipment causes harm to the telephone network, the telephone company will notify the user in advance that temporary discontinuance of service may be required. If advance notice is not deemed practical, the

telephone company will notify the user as soon as possible thereafter. At that time, the telephone company will also advise the user of the right to file a complaint with the FCC if believed to be warranted.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will notify the user in advance that any necessary modifications can be made to ensure uninterrupted service.

If the user experiences trouble with this equipment, the Elster Electricity RMR Department should be contacted at +1 919 212 4700. If the equipment is causing harm to the telephone network, the telephone company may request that the equipment be disconnected until the problem is resolved.

This equipment should not be repaired by unauthorized personnel except when replacing an entire module. This meter is not intended to be used on digital PBX lines, party lines, or pay telephone service provided by the telephone company

### **3 - PATENT : System for remote data collection**

Patent #: 6163276

Issued on: 12/19/2000

<http://www.patentstorm.us/patents/7782225/description.html>

Other communication means between the DOC and the Base Stations may be a wireless cellular network, CDPD, PSTN and satellite data network.

### **4 - ITRON Form 10-K Annual Report Filed Feb 26, 2008**

<http://investors.itron.com/secfiling.cfm?filingID=780571-08-42>

Data collection hardware consists of handheld computers, mobile AMR and fixed network AMR. We provide several models of handheld computers that are used by meter readers to walk a route. Most handheld units we sell today are radio-equipped (handheld AMR); however, where there is not an AMR enabled meter, the meter reader visually reads the meters and inputs the data. Mobile AMR uses a radio

transceiver located in a vehicle that communicates with all AMR-enabled meters within range and receives meter reading, tamper and other information from the meters. Mobile AMR is designed for reading concentrated deployments of AMR-enabled meters. Fixed network AMR communicates with AMR-enabled meters through an RF network on a more frequent basis. Concentrators are installed within a utility's territory and use a variety of **public communication platforms** including GPRS, **Ethernet**, **PSTN (public switched telephone networks)**, BPL (broadband over power line) and others to transfer data between the concentrators and a host processor at a utility

## **5 - ITRON PATENT using TELEPHONE Connections via Modem**

Itron, Inc. (Liberty Lake, WA)

**Appl. No.:** 12/507,157

**Filed:** July 22, 2009

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=7847537.PN.&OS=PN/7847537&RS=PN/7847537>

## **6 - ITRON ANNUAL 2008 REPORT**

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## 7 - ITRON Introduces Two Additional Network-Based AMR Solutions and Expands Communication Capabilities.

<http://www.thefreelibrary.com/Itron+Introduces+Two+Additional+Network-Based+AMR+Solutions+and...-a053900324>

The MicroNetwork consists of three components: Itron meter modules; locally installed communications nodes called concentrators; and an Itron host processor station. The system uses a two-step process to gather metering data.

First, using Itron's radio communications technology, the concentrator units automatically gather consumption data collected from nearby electric, gas, and water meters equipped with Itron meter modules.

The MicroNetwork then utilizes TELEPHONE and /or cellular communications technology to send the **gathered consumption data to the host processor station**. There the metering data is processed and forwarded to billing services and other utility business operations as needed

## 8 - PSTN - Public Switched Telephone Network

[http://en.wikipedia.org/wiki/Public\\_switched\\_telephone\\_network](http://en.wikipedia.org/wiki/Public_switched_telephone_network)

## 9 - TELUS PSTN

PRI Service is a high speed digital facility between your serving wire center and your premises that provides access to the **public switched telephone network ("PSTN")** and other networks. TELUS provides three types of PRI Services: (a) Voice/Data DS-1 PRI (23B+D), which supports incoming and outgoing voice and data calls; (b) Starter Bundle (10B+D), which supports 10 PSTN Links for incoming and outgoing voice and data calls; and (c) ISP PRI, which supports incoming data calls only.

[http://business.telus.com/en\\_CA/BC/help/Small\\_Business/Help\\_And\\_Support/Terms\\_of\\_Service/details/bcSmbISDNTermsOfService.html](http://business.telus.com/en_CA/BC/help/Small_Business/Help_And_Support/Terms_of_Service/details/bcSmbISDNTermsOfService.html)

## 10 - " Smart Energy 2 defines an IP-based network of running over both WIRED and wireless communication protocols"

<http://www.eetimes.com/electronics-news/4216970/Zigbee-gets-consensus-on-smart-meter-spec>

## 11 - Fairfax considers WIRED Smart Meters

<http://sananselmofairfax.patch.com/articles/fairfax-begins-abatement-against-pge-utility-considers-wired-smart-meter>

**Fairfax Begins Abatement Against PG&E;**

**Utility Considers Wired Smart Meter**

Fairfax could physically remove PG&E antenna, even as the utility considers an alternative to its wireless meter.

By [Kelly Dunleavy](#) November 5, 2010

Despite the possibility that PG&E may finally consider a **wired alternative** to its controversial wireless digital smart meters, Fairfax decided to begin the process of nuisance abatement against the utility. This is the first step towards the town physically removing the [four PG&E antennas](#) that serve as gathering and transmission points for the smart meters.

[Read about how the smart meters work here.](#)

"We might as well take that next step and see where it goes," said Fairfax Council Member Larry Bragman. The transponder units, Fairfax claims, were put up [without the necessary town approval or permits](#). Fairfax has issued a number of citations and PG&E has said that the utility is not subject to local jurisdiction's ordinances.



A nuisance abatement proceeding – designed for those that defy town codes and do not amend the violation – is a hearing that occurs first in front of town staff, then in front of the council, and could ultimately be appealed to the courts. If it is decided that the PG&E antennas are a nuisance in violation of town code, then they will be abated or physically taken down.

It is not yet clear if PG&E will voluntarily participate in the nuisance abatement hearing.

"I don't know how we're going to get them to participate in a hearing, when they won't acknowledge our right to issue these citations," said Mark Lockaby, Fairfax's building official.

"State law gives the [California Public Utilities Commission] exclusive oversight over the utilities," said PG&E spokesperson Paul Moreno, who also said he hadn't been notified by the town of the proceeding yet and so wouldn't comment on the specifics.

The decision Wednesday night by the Fairfax Town Council to begin the process came close on the heels of a [demonstration in Stinson Beach this week where residents attempted to create a blockade and surrounded a Wellington Energy truck](#) – which is serving as the contractor installing the meters in Marin. In Fairfax, there has also been at least [one police report of a PG&E worker being harassed](#).

The town is encouraging residents to simply report any installations of smart meters to the police and to the town staff.

Since Fairfax declared a moratorium on the PG&E meters within town limits, [it appears that meters have continued to be installed](#). PG&E also voluntarily agreed, at that time, to a [temporary moratorium on the installation of the meters within Fairfax until a number of community question and](#)

[answer sessions were conducted](#). Only [two](#) of the three meetings have [happened](#); the last was [rescheduled for Nov. 30 at the Women's Club](#).

Bragman said it seems gas meters are being replaced. Town Manager Michael Rock also acknowledged that the police department has taken a number of reports of meters being installed. But, PG&E has said that they are only replacing meters that are broken or need replacement. In those cases, they don't have any older meters to replace them with, and so residents are getting the new digital smart meter. However, the meters that are being installed are not active and are not transmitting or receiving data.

In more than one case, Wellington contractors have been confronted by angry residents demanding to know why PG&E is violating both the town's moratorium and the utility's voluntary delay. In nearly every instance, the contractors have said they had no knowledge of the moratorium and were given work orders to install the meters.

The council also voted Wednesday night to send a certified letter to the subcontractors notifying them they were in violation of the moratorium.

"So, they can't feign surprise with such sincerity," said Bragman.

On the positive side, for those who have been concerned about the health, safety, privacy, and security issues surrounding the meters, PG&E has agreed to consider a wired alternative to the wireless meters at the behest of the [Marin Energy Authority \(MEA\)](#).

"They are looking into it and will get back to us in the next couple of weeks," said MEA Executive Director Dawn Weisz.

Moreno also acknowledged that MEA asked PG&E to look into **wired meters** and that they will be reporting on the feasibility of offering an

alternative for some residents.

Weisz said that MEA, which doesn't have any control over the installation of the meters, may help PG&E with outreach and public education about energy efficiency, but only if customers are offered a choice about what type of meter they could have installed: wired or wireless.

For critics of the meters, the wireless transmission of individual usage data raises health concerns about electromagnetic frequencies and radio frequencies. Because the data is transmitted from the smart meters on individual's homes via a mesh cellular network to the transponder antennas on nearby poles, there is also concern that that network could easily be hacked into – making it easy for criminals to know when residents were home or what their daily habits were.

[PG&E has said these criticisms are unfounded.](#)

A wired option – using either fiber optic or a shielded cable – has been suggested by a number of opponents and is used as part of a smart grid in a number of countries, including Italy. In its application to the CPUC, the [EMF Safety Network](#) asked for a wired smart grid instead of the wireless one.

"At this point, as a first step, I would be satisfied with a moratorium and an opportunity to be heard by the CPUC," said Sandi Maurer, president of the EMF Safety Network.

PG&E has said in the past that a **fiber-optic or wired option** would be prohibitively expensive and would be a large-scale project involving construction and further disruption of residents' lives. The CPUC approved the wireless, digital meters as part of a larger smart grid. PG&E will finish the deployment of 10 million meters by 2012.

If PG&E does agree to a wired alternative meter at MEA's request, it will be the first such concession it has made.

"So, that's a glimmer of good news," said Fairfax Mayor Lew Tremain.