BC Hydro
Power smart

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Request Number: 201.20.2017-158

24 March 2017

Ms. Sharon Noble
818 Bexhill Place
Victoria, BC
V9C 3V5

Dear Ms. Noble:

Re: *Freedom of Information and Protection of Privacy Act* ('the Act')
— Request for records

I am writing in response to your request for records under the Act.

Your request consisted of 3 parts.

Each element of your request is addressed, below, in the order it appeared in your request.

1. **A copy of the formal SbD report with the names and qualifications of those conducting this study.**

   Please see attached records. As you review the records, please note that the table/report was a theoretical tool to provide BC Hydro with an overview of possible risks in the context of reported safety incidents and near misses. It is important to understand that the wording used in the tool was designed to identify ranges of possibility, rather than act as a record of actual events.

   Section 15 of the Act permits a public body to withhold information if its disclosure could reasonably be expected to harm the security of any property or system, including a building or communications system. One piece of security-related information has been withheld in accordance with section 15.

   A small amount of information in the table has been withheld in accordance with section 22 of the Act. Section 22 requires BC Hydro to not disclose the personal information of a third party if the disclosure of that information would be an unreasonable invasion of a third party's personal privacy. In view of section 22, we have removed from the enclosed records the names of some individuals.

2. **The safety related requirements included in the RFP tender documents and the test reports that were provided, in response, by ITRON.**

   Please see attached record from RFP tender documents.

   With regard to test reports provided by ITRON, BC Hydro has 266 pages that are fully redacted under Section 21 of the Act.

   Section 21 prohibits a public body from disclosing information that would reveal commercial or financial information of or about a third party that is supplied, implicitly or explicitly, in confidence and could, if disclosed, reasonably be expected to harm significantly the competitive position, or interfere significantly with the negotiating position, of the third party, or result in undue financial loss or gain to any person or organization. The ITRON test reports constitute the type of information contemplated by Section 21. They have therefore, been withheld.

3. **The third party (NEETRAC) report on ITRON's remote disconnect switch.**

   BC Hydro's report from NEETRAC is 138 pages and we have redacted all pages under Section 21 of the Act.

   Section 21 prohibits a public body from disclosing information that would reveal commercial or financial information of or about a third party that is supplied, implicitly or explicitly, in confidence and could, if disclosed, reasonably be expected to harm significantly the competitive position, or interfere significantly with the negotiating position, of the third party, or result in undue financial loss or gain to any person or organization. The NEETRAC report constitutes the type of information contemplated by Section 21. It has therefore, been withheld.

   If you wish to purchase a copy of the NEETRAC report, you could contact NEETRAC at the following website:

   www.neetrac.gatech.edu

If you have any questions regarding our response to your request for records, please call me. You may also ask the Office of Information and Privacy Commissioner for BC ('the OIPC') to review our response to your request by writing to the following address within 30 days of receipt of this letter:

Office of the Information and Privacy Commissioner for BC
4th Floor, 947 Fort Street
Victoria, B.C.
V8V 3K3

If you request a review, please provide the OIPC with a copy of this letter and a copy of your request.

Yours truly,

Scott Macdonald

Scott Macdonald

Attachments

			Socket	A Base		A Base
Project Title:	Smart Meter Infrastructure (Customer Meter)					
Project Short Name:		Self-Contained Meter 1 Phase	✓			
Project Manager: [redacted]		3 Phase	✓			
s.22		CT Meter 1 Phase (5K)	✓			
		3 Phase (40K)		✓		✓

HAZARD ORGANIZATION			ACCIDENT SEQUENCE				RISK ANALYSIS										RESIDUAL RISK ANALYSIS									CONTROL MEASURE MONITORING				
Hazard ID No.	Hazard Type (select)	Equipment / Area / System	Undesirable Event / Failure Modes	Cause	Consequence	Current Control Measures	Worker Severity Level (select)	Worker Freq. (select)	Worker Risk Level (auto)	Public Severity Level (select)	Public Freq. (select)	Public Risk Level (auto)	Enviro Severity Level (select)	Enviro Freq. (select)	Enviro Risk Level (auto)	Proposed Control Measures Under Consideration	Worker Residual Severity Level (select)	Worker Residual Freq. (select)	Worker Residual Risk (auto)	Public Residual Severity (select)	Public Residual Freq. (select)	Public Residual Risk (auto)	Residual Enviro Severity Level (select)	Enviro. Freq. (select from list)	Enviro Risk Level (auto)	Control Measure Status (select)	Next Action Date	Type of Completed Control Measures (select)	Risk Reduction Comments / Documentation	Control Owner (name / group)
Existing Hazards : Design																														
Electronic Self-Contained (1Ph & 3 Ph) Socket Type Meter: Design																														
1	System Failure: (Electrical) Equipment Failure	Electronic Self Contained (1Ph & 3Ph) Socket Type Meter (<=200A, 600V)	- Explosion of meter (Catastrophic failure of MOV-Metal Oxide Varistor) - Projectiles off of the explosion hit a member of the public	High energy surge overloads meter caused by BCH system - Contact of transmission lines (i.e. 69kV) to distribution line (i.e. 25kV or 12kV), or vice versa, caused by MVA, fallen tree, etc	Public Injury Property damage Public nm# 79529 [2009] - Digital CIS type meter blackened & blown from meter bases. Electrical mechanical meter no issue. Customer digital equipment damaged and power outlet blackened (potential fire) -Mtg Aug 24, 2012 (No fires or injuries)	None Identified				S6 - Fatality	L2 - 1 / 100,000 years	4				Perform studies on incidents at Mission - perhaps there is type of meter that is more prone to failure										No Longer Required		System Controls - Competence		
1																Better meter design - MOV more tolerant to high energy				S6 - Fatality	L1 - 1 / 1,000,000 years	3				In Service		Engineered Controls - Dissipate	ITRON meters have better over-voltage / surge protection design (need specification / test report)	
1																Better meter design - Contain explosion with barrier				S5 - Permanent disability	L2 - 1 / 100,000 years	3				Not Selected		Engineered Controls - Contain	Not practical	
1																Better meter design - Dissipate explosion with a break-off plate (directs explosion)				S6 - Fatality	L1 - 1 / 1,000,000 years	3				Not Selected		Design Controls - Substitute	There was a plug (weak spot) in sensitive area that could be used as "pressure relieff" or "sacrifical part" but Measurement Canada disallowed such plug and it is now welded shut	
																Minimize Distribution Underbuild Design				S6 - Fatality	L1 - 1 / 1,000,000 years	3				In Service		Design Controls - Minimize	Need confirmation [redacted]	
1																System/ primary surge arresters - Distribution surge arrester (ZnO) failure rate at 0.1%, while high voltage is even lower (ref. *INMR Vol. 11 No. 1, January-February 2003*)				S6 - Fatality	L0 - 1 / 10,000,000 yrs	2				In Service		Engineered Controls - Dissipate	s.22 Need confirmation [redacted] s.22	
1																Individual home surge arresters				S6 - Fatality	L0 - 1 / 10,000,000 yrs	2				Not Selected		Engineered Controls - Dissipate	Non-effective, typical home surge arresters are for short duration surge, this type of fault will have longer duration	
1																Fuse on secondary transformer				S6 - Fatality	L0 - 1 / 10,000,000 yrs	2				Not Selected		Design Controls - Eliminate	Not a BCH or North American practice	