

**CNC/IEC Smart Grid Task Force
Companion paper
for the
Smart Meter Program of Hydro-Québec**

prepared for

**Regroupement des organismes environnementaux
en énergie (ROÉE)**

regarding

Régie de l'énergie hearing R-3770-2011

**Projet Lecture à Distance of Hydro-Québec
(Phase 1)**

Presented by:

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Régie de l'énergie
DOSSIER: R-3770-2011
DÉPOSÉE EN AUDIENCE
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1. Introduction

It is noted in Mr. Bertsch's Expert Report to the Hydro Quebec Smart Meter hearing¹:

"Although slower to start, Canada initiated a task force focused on promoting Smart Grid standardization in Canada. Coordinated through the Standards Council of Canada and the National Committee of the International Electrotechnical Committee², the group (of which I am a member) will produce a Smart Grid road map with recommendations in early 2012."³

The referenced Smart Grid road map of the Task Force is expected to be released shortly, but is not yet available. It is noted that this road map is intended for hearings such as for Hydro Quebec's Smart Meter program and it can provide valuable information for Hydro Quebec, Interveners and the Régie in their deliberations.

Consequently, I am submitting a draft document⁴ containing key sections, particularly relating to smart meters and the customer premises, to the Hydro Quebec Smart Meter hearing process. Because it is in draft form, the document is subject to change without notice.

The opinions expressed in this companion paper are my personal views and observations, and do not necessarily reflect the views of the Task Force or of the Working Group 1.

2. Membership of Task Force

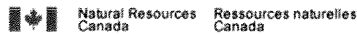
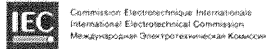
One can gather a sense of the wide range of disciplines that have been involved in the development of Task Force work by looking at the drawing below, Figure 1 - in spite of it being somewhat dated. Approximately 65 individuals across Canada have been involved in some way in the work of the Task Force throughout its developments in the last 2 years, helping to start the process for standardization among the provinces.

¹ C-ROEE-0028, Dec 12, 2011

² Canmet Energy, Natural Resources Canada; http://canmetenergy-canmetenergie.nrcan-rncan.gc.ca/eng/renewables/integration_der/success_stories/collaboration_canada_council.html

³ C-ROEE-0028, Section 4.2, Page 15 of 39

⁴ C-ROEE-0077, March 27, 2012



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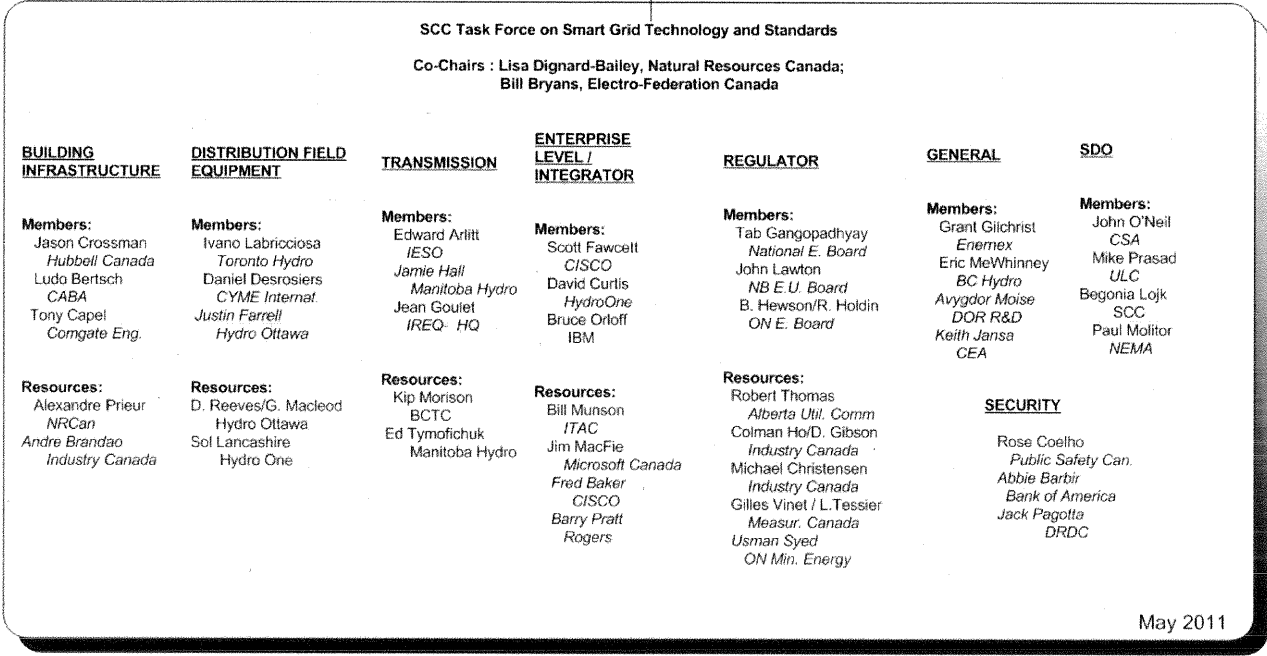


Figure 1: Standards Council of Canada Task Force on Smart Grid

3. Context of the Draft Task Force Roadmap Document

The draft Task Force roadmap document is intended to highlight the technical work of Working Group 1 (WG1), which covers smart meters and customer premises. The document includes the Table of Contents and introduction of the overall Task Force work.

The architectural logical diagram for the customer premise will provide a useful framework for the discussion and development of Hydro Quebec's Smart Meter program. At the same time it maps and harmonizes with Smart Grid work in the US through NIST/SGIP. I believe the diagram provides an important perspective on the Smart Grid that is unique in the industry in that the focus is on the end-consumer ensuring their own living quarters are treated with respect, and that there is clear delineation between the customer and utility zones. Analyzing a utility's Smart Meter program using the diagram can help identify deficiencies and assist in design development.

The recommendations included in the draft document are focused on WG1 topics and in my view, provides a roadmap that is both reasonable to achieve and also provides meaningful objectives to ensure the value of the Smart Grid is obtained.

A list of standards focused on meters is included. It should be noted that while Home Area Network (HAN) standards are important, in this release of the report, it was decided to focus on a specific major gap in the industry – that is the consumer-related aspects discussed above.

4. Recommendations

I recommend that Hydro Quebec analyze the draft Task Force Smart Grid road map document⁵ and evaluate how its proposed Smart Meter program follows the recommendations that are presented. It is suggested that Hydro Quebec in its evaluation reveal any changes or modifications that the document helped initiate.

Also, I recommend that Hydro Quebec describe its proposed Smart Meter program in the terminology and descriptive form as presented in the architectural diagram and accompanied description.

Further, I recommend that Hydro Quebec also develop a dissertation on their handling of utility/customer controlled zones and trusted/untrusted zones.

⁵ C-ROEE-0077, March 27, 2012