



Canadian Electricity Association files application with CRTC to improve the efficiency, reliability and security of the electrical smart grid

Ottawa (October 30, 2018) – Today, the Canadian Electricity Association (CEA) [filed an application with the Canadian Radio-television and Telecommunications Commission \(CRTC\)](#) seeking changes to the regulatory regime for wireless communications that will enable CEA's Canadian Electrical Utility (CEU) members to improve the efficiency, reliability and security of the smart grid that consists of tens of millions of smart devices deployed throughout Canada's electrical grid. These smart devices are used to control various elements of the grid and provide telemetry information that is necessary for managing the grid.

“The 21st century electrical smart grid is heavily reliant on wireless communications, but the regulatory regime under which those services are currently provided does not provide CEUs the degree of control over the smart grid necessary to provide electricity to Canadians in the most efficient, reliable and secure manner possible. We hope that the CRTC agrees with us and makes the changes we are requesting by approving our application”, said the Honourable Sergio Marchi, President and CEO of CEA.

Why is this application necessary?

Many smart devices rely upon the same subscriber identification module (SIM) cards found in smart phones and mobile wireless connectivity to ensure two-way communications with smart devices. However, these SIM cards are only programmed to connect to the mobile wireless network of the wireless carrier that provided the SIM cards. That is to say, they are locked into that network.

This SIM card “lock-in” prevents CEUs from switching mobile wireless providers, since switching would require truck rolls to each smart device, which could number in the hundreds of thousands or millions for large CEUs, to swap out SIM cards manually. The cost of these truck rolls is a serious competitive constraint that makes it prohibitively costly for CEUs to switch wireless carriers in order to obtain wireless service on the best available terms, which could translate into lower electricity rates for Canadian consumers and businesses.





SIM card lock-in also limits redundancy in the smart grid. This is because smart devices subject to SIM card lock-in cannot automatically switch communications to the mobile wireless network of an alternative wireless carrier if the primary wireless carrier's network ceases to function for any reason. Accordingly, when an outage occurs in the primary carrier's wireless networks, CEU communication with the affected smart devices ceases and the reliability of the smart grid is impaired.

CEUs also do not currently have any control over key aspects of the security of their smart devices, including control of the SIM card credentials and subscription database, which are controlled by the wireless carriers providing mobile wireless connectivity to the smart device.

The application that CEA has filed with the CRTC, if approved, will enable CEUs to select the wireless carriers providing wireless connectivity to the smart devices dynamically and remotely. This degree of control over smart devices will address the competitive, reliability and security issues of concern to CEUs. It will also allow CEUs to deploy their own wireless networks in areas in which they have deployed electrical grid equipment but no other wireless carrier network is present. This will transform electrical grid components in those areas into smart grid components.

CEA is excited about how implementation of the regulatory changes it is seeking could contribute to the competitiveness of the Canadian economy and consumer welfare.

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About the Canadian Electricity Association

Canadian Electricity Association (CEA) members generate, transmit and distribute electrical energy to industrial, commercial, residential and institutional customers across Canada every day. From vertically integrated electric utilities, independent power producers, transmission and distribution companies, to power marketers, to the manufacturers and suppliers of materials, technology and services that keep the industry running smoothly -- all are represented by this national industry association.

For additional information:

Julia Muggeridge, Director of Communications & Marketing
T 613.627.4333
muggeridge@electricity.ca

