RP-2004-0196

ONTARIO ENERGY BOARD

Smart Meter Implementation Plan

Comments of Direct Energy on the Draft Report of the Board for Comment

November 29, 2004

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Introduction

Direct Energy is a leading North American competitive energy and related services retailer. We serve over 5 million customers in North America. Direct Energy supplies energy to consumers in Ontario, Alberta, Texas, Ohio, Pennsylvania, Michigan, Massachusetts, Rhode Island and Connecticut. In Alberta and Texas we supply energy on both a regulated and unregulated basis. We provide energy related services in every province in Canada and in many parts of the U.S. states.

In Ontario we serve approximately 1.9 million households, representing about half of those in the Province. Our services and products in Ontario include: natural gas; electricity; HVAC equipment installation, maintenance and repair services; and water heater installation and rental services.

Direct Energy's parent company, Centrica plc, has over 45 million customer relationships worldwide. Centrica has a market capitalization of US $17.5 billion and US $22 billion in annual revenues. In the United Kingdom, Centrica owns approximately 3,000 MW of generation capacity to support its retail customer base. The company is seeking to invest in excess of £750 million in generation over the next five years, focusing particularly on renewables.

In North America, Direct Energy is active in wholesale trading as well as in retail energy markets. We also own electricity generation and gas production assets in support of our retail supply business. To support our retail gas supply obligations, we own and operate in excess of 3000 producing and non-producing gas wells in Alberta. We recently completed the acquisition of our first power plant in North America. The 550 MW Bastrop combined cycle plant was acquired in June 2004 to supply our retail customer base in Texas.

This experience informs Direct Energy's general view that consumers benefit from competitive energy and related services markets. Direct Energy's comments on the Ontario Energy Board's draft report on the Smart Meter Implementation Plan are informed by this general view.

The balance of this submission is organized into four parts. Part I sets out the consumer benefits from the competitive provision of energy services. Part II sets out the preconditions for achieving these consumer benefits through the deployment of smart meters. Part III provides recommendations on particular measures for achieving the preconditions identified in Part II. Part IV is the conclusion.

I. Consumer Benefits From Competitive Provision of Energy Services

Consumer benefits from the competitive provision of energy services include:

- The transfer of risk arising from investment in new technology, products and services from municipalities/taxpayers and ratepayers to investors.

- Economically efficient allocation of resources and expertise. Various sector participants focus their resources and activities on their own institutional competencies (generation, trading/risk management, delivery, retailing and customer care).

- Clear incentives for responsiveness to consumer needs and preferences. In properly competitive markets, providers tailor products and services to specific customer groups and needs. These products and services are designed, and constantly updated, to maximize market penetration.

- Product innovation and differentiation. Market participants will attempt to differentiate themselves from other competitors based on quality of service, service offerings and terms and conditions of service including (but not limited to) prices. The result is constant evolution of consumer offerings.

- Enhanced consumer choice. Incentives for consumer responsiveness and for product innovation and differentiation result in a broader array of consumer choices.

- Investment in customer service and satisfaction. Competition drives higher standards of service as providers strive to attract and keep customers.

Competitive entities, acting under ordinary commercial incentives, are better placed than regulated institutions to deliver these benefits while assuming and managing risk. Properly implemented, broad deployment of smart meters will enable the development of a broad range of products and services, beyond regulated time of use rates, that will enhance consumers' ability to manage their electricity demand. These products and services would include; a) innovative, customer tailored time of use commodity products; and b) hardware, software and related services for load management.

II. Preconditions for Achieving the Consumer Benefits of Competition Through Smart Meter Implementation

In order to achieve maximum benefits from the investment in smart meters, the smart meter plan should be designed and implemented in a manner that facilitates entry and response by competitive providers of the products and services that the smart meter system infrastructure is intended to support. In particular, the plan should:

- Set technical specifications for meters and related systems that will provide opportunities for competitive energy service providers to utilize the meter and the resulting data to offer enhanced functionality and services to customers.

- Direct unbundling of metering services and related charges. This will allow meter contestability and customer initiated system enhancements as and when suitable products are brought to market.

- Ensure that data collection and availability protocols support not only the Regulated Price Plan (RPP) time of use pricing plans, but also support the development and delivery of more customer tailored time of use product offerings.

- Ensure that equal access to smart meter data is provided to all market participants (LDCs, customers and customer authorized energy services providers). This requires that all of these parties are able to access the same data, in the same way, in the same time frame, as of the same implementation date.

- Ensure that energy service retailers are involved in:

    - Specification of the detailed system and data protocols and standards.
    - Pilot programs designed to test technologies and systems.
    - Consumer information and education initiatives.

- Provide that retailers are kept informed of the rollout schedule for smart meter installations, both specific installations for customers served by the retailer and general rollout programs for low-volume customers.

- Provide that the Ontario Energy Board retains authority to require compliance from all market participants with the rules, licences and codes that relate to smart meter implementation.

The next section will outline the particular measures that Direct Energy recommends in order to achieve each of the foregoing preconditions to maximize consumer benefits from the rollout of smart meters in Ontario.

III. Recommendations for Particular Measures for Smart Meter Implementation.

1. Minimum meter and related system specifications.

Many of the product and service innovations that are necessary to truly leverage the investment in smart meters will require: a) two way communication with the home's energy systems; and b) real time access to consumption data. The proposed basic smart meter system would only have one-way communication protocols, with data access only after the fact (the following day).

In order to allow for expansion of the basic specified system in a cost effective manner, the specified meter characteristics should include a port for external communications on the meter itself. The additional infrastructure costs to the LDC, if any, should be negligible. As amendments are made to regulatory instruments to accommodate smart meters, it is important to ensure that the rules allow customers to make additions to the meter, provided that the integrity of the meter itself is not compromised.

2. Unbundling of metering services and related charges.

The UK experience in achieving meter contestability is instructive. That experience indicates that the minimum conditions required to make competition in meter ownership and related services viable are: i) an industry infrastructure that enables competition; ii) unbundled metering services and charges; iii) a shared database among market participants which provides the identity of the owner of each meter and, iv) a separation between distribution and meter services to prevent cross subsidization that would erect a barrier to competition. In the UK market, where metering competition has developed, a number of large suppliers had both significant market share and the capital to invest in the IT infrastructure required to realize efficiencies in the provision of joint (natural gas and electricity) metering services.

Similar conditions do not exist in Ontario today. However, the unbundling of meter services and related charges is a necessary first step towards full meter competition. The unbundling of meter services and related charges will allow potential alternative meter and related service providers, and customers, to assess the value of ownership of, or other forms of provision of, enhanced smart meter systems, at their own expense. Innovative metering, load control and related products and services will then be allowed to develop as and when they become commercially viable. That is, the forces of competition will be allowed to work, and the consumer benefits of competition will emerge. Further, should customers request such enhanced systems, LDCs should be required to allow them, at the customer's cost, provided that the systems do not compromise the implementation or operation of existing or planned LDC infrastructure.

3. Data collection and availability.

The draft plan proposes that energy consumption data will be made available to customers and their retailers by 8am the following day. However, innovative services, such as load control, will require intervention on a near real time basis. To accommodate such services, Direct Energy has proposed in a preceding section of this submission the specification of an external data port in the standard meter to allow for such access, and clarification of the relevant codes to provide for such access.

Apart from the sort of near real time access referred to in the preceding paragraph, data in an hourly format should be retained and made available to consumers and their service providers. It is the ability of smart meters to record energy consumption in hourly time

slices that facilitates the development of flexible and customer tailored time of use energy products. The draft plan contemplates that after the first few months, the data to be made available to customers and their retailers will be aggregated into time of use blocks (likely those defined for regulated price plan ("RPP") purposes). Retailers may wish to offer products with different intervals from those used for the RPP. Aggregation of consumption data prior to provision to customers and their retailers would unduly constrain the development of enhanced product offerings by retailers that vary from the time slices underpinning the design of the RPP. Direct Energy recommends that consumption data be available to customers and their agents in hourly intervals.

4. Equal access to smart meter data.

It is important that the systems and data protocols for all market participants be implemented in the same fashion and by the same date. Retailers are an integral part of electricity supply in Ontario and should be afforded the same access to supply infrastructure as providers of regulated supply. Retailer customers should be afforded the same opportunities as other customers. Product innovation and customer adoption of smart meters will be maximized by a shared and coordinated industry effort.

5. Retailer involvement in planning and communications.

Retailers can provide insight to, and support for, the following activities in preparation for smart meter implementation:

- Specification of the detailed system and data protocols and standards.
- Pilot programs designed to test technologies and systems.
- Consumer information and education initiatives.

The deployment of smart meters will impact many of the business and data exchange processes for all market participants. For example, processes related to settlements and to the volume of non-billed usage transactions will be impacted. Electricity market opening in May 2002 illustrated the breadth and complexity of system issues that these sorts of data and billing transactions entail. Some of those issues have still not been resolved. To mitigate the risks associated with the changes resulting from smart meter implementation, a cooperative effort involving all participants is required. The Board should convene a working group similar to the EBT Standards Working Group where all market participants can contribute to the process, under the facilitation and with the direction of the Board when necessary. As discussed at point 7, below, Direct Energy is of the view that this is an appropriate matter for the Board to assume carriage of.

The draft report advocates pilots, by way of which utilities will be able to learn about, and test, the operation of various smart meter systems. It is important that co-operative pilots involve all market participants and their customers. This will ensure that system evaluation and testing includes the operation of, and the data exchange and opportunities

for, the delivery of non-RPP time of use pricing products and enhanced smart meter based services.

A focused and cooperative consumer education program involving input from and participation by all market participants, including retailers is important. Retailer involvement is important since our customers will call us, and seek our advice. Consistent and informed messaging and information will significantly contribute to the ease of implementation, and customer adoption, of smart meters. In addition, retailers can contribute to the understanding of customer value and viable product offerings, which will leverage broader benefits from the investment in smart meters.

6. Information on rollout of smart meter installations.

Retailers are impacted by the rollout schedule for smart meters in at least two ways.

First, retailer customers will have their meters switched. Retailers should have the ability to inform our customers, and answer their questions. Our customers will call us, and we will want to have the information to service them and support our relationship with them. These relationships are crucial to the continued viability of retail choice in the restructured power sector. Retailers should have notification a minimum of 60 days in advance of meter switches for retailer served customers.

Second, in order to develop and deliver innovative, customer tailored products and services to leverage the smart meter investment, retailers need to know when smart meters will be available to their target customers. Communications, marketing initiatives and resource and product planning will require lead-time. LDCs should be required to provider retailers as well as customers with advance notice of the rollout schedules in the LDC's service territory.

7. Authority to monitor and require compliance by all market participants

As Direct Energy understands the proposed role for the implementation coordinator, it would be to manage the smart meter implementation plan and to facilitate commercial arrangements between parties (primarily among LDCs forming buying groups, and between these buying groups and meter/systems providers). The Board has expressed a concern that a conflict may exist if the Board fulfilled this function as it must ultimately approve costs to be recovered in rates. While the precise nature of the potential conflict is not clear to Direct Energy, we do not see any issues with the OPA performing this function, under the auspices of the office of the Chief Energy Conservation Officer

However, Direct Energy submits that it is critically important that the Board retain its regulatory authority over the development of rules, codes, standards and protocols in respect of the smart meter system development and implementation. All parties will need to agree, and then comply with, implementation standards and time frames in order to

avoid systems and operational gaps that would, in the end, be harmful to customers. Direct Energy does not endorse delegation of the authority to direct and police this compliance to the OPA or any other external authority. This is properly a role for the Board.

IV. Conclusion

There are significant consumer benefits from the competitive provision of energy services. Competitive entities, acting under ordinary commercial incentives, are better placed than regulated institutions to deliver these benefits while assuming and managing risk. A properly implemented plan for smart meter deployment will make possible the development of innovative customer products and services beyond regulated time of use rates. Competition promises the development and delivery of consumer tailored, value added goods and services to enhance consumers' ability to manage their electricity demand, providing benefits to adopters and the system as a whole.

One additional matter that Direct Energy would recommend that the Board consider commenting on in its report is the need to coordinate Ontario's ambitious smart meter implementation plan with Measurement Canada's responsibility for testing and approving new meter products. The process for obtaining Measurement Canada certification for a new meter product can take from six months to two years. The process involves; a) the development of an internal standard for the meter based on the technical and operating manuals; and b) in-lab testing of the meter against that internal standard. The length of the certification process is dependent on the complexity of the meter technology, whether that technology is familiar to Measurement Canada and the length of the certification queue. There is a concern among technology and service providers that a bottleneck exists in the certification process as a result of resource constraints at Measurement Canada. Direct Energy respectfully suggests, through these comments, that the Ontario Ministry of Energy engage Measurement Canada in discussions of how best to co-ordinate the expected meter qualification activity arising from pilot program activity in Ontario and the ambitious meter deployment plan timing. Certification timing should not be a barrier to achieving consumer benefits from the availability of choices and adequate meter supply in support of competitive tendering processes.

Direct Energy appreciates the opportunity to provide these comments on the Board's Draft Report on the Smart Meter Implementation Plan. We look forward to continued participation in the deployment of smart meters in Ontario.