Rate Design for Electricity Distributors

EB-2012-0410 for low volume consumers

Stakeholder discussions
Overview

• Review new approach to rate design a fixed charge for recovery of distribution costs
• Reasons for a new approach
• Proposals for implementing a fixed charge
• Questions for discussion
Timing for Policy Change

- **RRFE:**
  - Customer focus on value of distribution service
  - Support for 5 year capital plans

- **LTEP:**
  - Conservation delivery by distributors
  - Facilitate increase in micro generation through net metering
Renewed Regulatory Framework for Electricity

- Focus on the consumer and value of the service
- Provide sustainable regulatory framework that supports achievement of outcomes
- Optimization of system use – better planning
- New regulatory framework supports a new look at rates
- Rate design principles
  - Cost causality
  - Fairness
  - Efficiency
Delivery Infrastructure

Transmission System

Distribution System

Primary Distribution
(E.g., 32/4.8kV)

Sub-transmission
(E.g., 44 kV)

TS

DS

Retail Customer

Transmission
(e.g., 230/500 kV)

Secondary Distribution
E.g., 240/20 V

Distribution Transformer

Sub-transmission
Customer

Primary Customer
Distribution Cost Drivers

• Customer numbers
  • Individual cost of assets close to customers: meters; connection; secondary system.
  • Operation costs: billing; metering; customer care.

• Capacity
  • Cumulative effect on assets closer to transmission: distribution substations; sub-transmission and primary systems.

• Throughput
  • Wear and tear on assets.
Average Number of Residential Customers - Ontario

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Residential Usage – Weather-Normalized versus Actual – All Ontario

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GS<50KW – Weather-Normalized versus Actual – All Ontario
A new rate design

- Based on objectives for the sector a new approach
- Distribution revenue recovery model change to fixed monthly charge
- Implement for low volume customers initially
- Supports policy objectives of RRFE and provides customer focused solution
Customer Focused Rate Design

• Managing the bill – focus customer on commodity costs, conservation
• Revenue neutral
• More stability and predictability
• Customer understanding of value
  • Delivery pays for local distribution (poles and wires)
  • System built to meet connection of customers and peak requirements
  • Avoiding investments in capacity increases
Objectives for Rate Design Implementation

- **Customer focus**
  - Value of distribution system as infrastructure
  - Peak demand

- **Long-term asset planning**
  - Support for 5 year plans
  - Cost drivers are customer numbers and peak demand

- **Public Policy**
  - Conservation
  - Supporting distributed generation through net metering

- **Barriers**
  - Current rate design linked to consumption
Implementing the New Rate Design Approach

- The Board has set out three proposals for implementing a fixed monthly charge for distribution service
  1. A single monthly charge for the rate class
  2. Fixed monthly charge based on the size of the electrical connection
  3. Fixed monthly charge based on use during peak hours
Single monthly charge

• Charge determined based on class revenue divided by number of customers
• Simplicity and stability for consumers
  • Single charge for rate class, easy to understand
• Support for planning
  • Connections, customer costs are most significant cost driver
• Simplicity for implementation
  • Reduced risk for distributor with only customer numbers affecting revenues
  • Adjusted by IR mechanism
Fixed charge based on connection

- Fixed charge is based on the maximum connection current

- Customer understanding and stability
  - Provides direct relationship to expectation of service
  - Opportunity for customers to take action in terms of use of the system
  - Larger users will pay a larger share (fairness)
  - Customer can choose to join a lower group

- Supports conservation
  - Provides an incentive for customer to contain use

- Aligns with the cost drivers for distributors
  - Long term cost containment as peak capacity is cost driver (asset optimization)
  - Can encourage rational growth of system
Fixed charge based on use during peak

• Use of peak hours, peak usage to determine customer sub-groups

• Customers understanding of costs and tools to manage bills
  – Customers have stability in charge during rate period
  – Can be designed to build on understanding of peak usage (TOU)
  – Customer has opportunity to change usage to try to get to lower group
  – Higher users pay more (fairness)
  – Low-income consumers skew to lower groups and thus likely better off

• Supports conservation and TOU objectives
  – Takes advantage of smart meter functionality
  – Provides an incentive for customer

• Aligns with the cost drivers for distributors
  – Long term cost containment as peak capacity is cost driver (asset optimization)
  – Optimize use of the system

• Potential to address boundary issue for General Service at 50kW
• Support for net metering of distributed generation
Questions for stakeholders

• How would the different approaches affect the achievement of the Board’s goals:
  • Providing stability and predictability to consumers on their bills;
  • Enhancing consumer literacy of energy rates;
  • Providing consumers with tools for managing their costs;
  • Focusing distributors on optimal use of assets and improving productivity;
  • Removing or reducing regulatory costs; and
  • Supporting public policy?

• Should distributors be allowed to choose which method they will use or should it be consistent across the province?

• What are the implementation issues that the Board should consider for each methodology regarding timing and consumer impacts?