Summary

Current State of Customer Groups

Customer Group	Current Rate	Type of Meter
Residential	Two tier fixed rate	non-interval
General Service <50kW	Two tier fixed rate	non-interval
MUSH sector	Two tier fixed rate	non-interval / interval
General Service > 50kW (non-interval		
metered)	spot price based on NSLS	non-interval
General Service > 50kW (interval metered)	spot price	interval
General Service > 50kW (designated)	Two tier fixed rate	interval / non-interval

Deployment strategies

Workstreams	Installer Skill Level	Low Cost Deployment Strategy
WORKSTREAM A: >50kW customers and		
other multi-phase metering	Certified meter technician	One off installations
WORKSTREAM B: Residential and GS		
<50kW with single phase metering	Low skill resource pool	Mass deployment (LDC territory sweep)

Targets for LDCs

LDCs will be required to complete the deployment of 20% of their meters by 2007. This will include all of the >50kW meters, all new installations, upgrades and meter changeouts, and the remainder will be small general service customers and residential meters (in congested areas if they exist)

Cost of self selection vs. mass deployment

It is estimated that one off installations of residential meters cost 5 times more to complete than a mass deployment strategy. From a technology perspective, most mass market private network communication infrastructure support a cluster of customer meters. Allowing residential and small general service customers to self select the timing of their meter installations would result in grossly underutilized communication infrastructure (a network capable of supporting 100s of meters would only be supporting a few meters). This would reduce ROI since the majority of the costs would be incurred upfront with benefits being realized several years later. It is not recommended that residential and small general service customers be allowed to self select the timing of their meter installations.

LDC specific mass deployment strategies

LDC's may present alternative plans that may not necessarily be consistent with other LDC's, but as long as they are consistent with the objectives of the smart meter program they should have the flexability to manage their own deployments. Examples: 1) Develop a "multi-meter" application, combining electric and/or water and gas installations to develop common AMR platforms; 2) Develop a joint meter/load control application, combining meter installations with other devices such as water heater controls; 3) Develop a broad communication platform that takes advantage of local opportunities such as fibre, unused radio bandwitdth, phone line, cable or PLC 4) Combine with other work managment opportunities, work programs or DSM initiatives

Assumptions made on customer groups with high potential for demand reduction

The workgroup does not have decisive evidence to prove that a certain Ontario customer class is a better target for consumption shifting than others. Studies that may have been completed on the US marketplace may not necessarily apply to the Ontario population. As well, reduction in demand is heavily dependent on implemented rate structures and effective DSM programs. One group that was given consideration was publicly funded buildings for its demand reduction potential due to the government's leverage on the group.

Work Leveling Issues with Reverification

Due to the aggressive provincial timelines for smart meter deployment (ie. mid-2005 to 2010), reverification work load will increase unless some provisions are made by Measurement Canada to level out workload over a longer timeframe.

Assumptions

- 1. Self-selected >50kW customers will use available communication technology
- 2. A meter will count toward the provincial targets if it meets the minimum requirement as specified by the Directive and the
- customer can be billed using a time-of-use rate. Grandfathered installations will also count towards the target.
- 3. Assumption that implementation of smart meter program will start by mid-2005

Summary

- 4. 95% of new installs, upgrades, and meter changeouts will be connected to communication systems by 2007 and 100% by 2010
- 5. Province wide growth in meters is estimated at approximately 1.6% per year resulting in an additional 420,000 meters by 2010

What Installations will be Grandfathered? (Customers who will not receive a smart meter until their existing meter reaches the end of its life)

1. Prepaid Meters will be grandfathered. The meters are capable of billing on time based rates but are not able to bill based on Critical Peak Pricing (CPP). Therefore, different rates will need to be setup for this group that doesn't include CPP (when implemented). At the end of a pre-paid meter's life, the meter will be replaced with a smart meter. In some situations, this will mean that underutilized smart meter communications infrastructure will exist until all pre-paid meters are phased out.)

2. Existing Interval Meters: Interval meters that are being used without communication will have communication added as per the minimum requirements while grandfathering the meter. Customers who have an existing interval meter will be allowed to request that a new meter be put in that meets the minimum requirement (e.g. if they would like pulse output and the existing meter does not provide that functionality).

Exceptions (Metered customers who will not receive a smart meter)? *

Criteria: Cost effective remote communications not available, minimal loads and / or not easily accessible. LDCs can apply to process driver for approval of other exceptions other than those listed below.

Typical exceptions

- 1. Railroad crossings
- 2. Traffic Lights
- 3. Street Lighting
- 4. Cable TV amplifiers
- 5. Temporary services
- 6. Bus shelters
- 7. Emergency lighting
- 8. Telephone booths

* LDC would not have to put meter in but is not precluded from putting meter in