Potential Risk / Barrier	Background	Type of Risk	Level of Risk	Mitigation Plan to Reduce Risk
Insufficient Supplier Availability IT Meters Communications	<ul> <li>Could be affected by delayed decision making of regulatory agencies</li> <li>Affected by number of vendors chosen</li> <li>Minimum requirements, once established, could eliminate available vendors to choose from</li> <li>Products may be available in the U.S., but do not have CSA or MC approvals</li> <li>Supplier availability may be affected by size of order</li> </ul>	Implementation Financial	Probability L Impact H	<ul> <li>Setup overall schedule to be aware of lead times required</li> <li>Ensure technical and commercial requirements are not too stringent to avoid too few suppliers</li> <li>Clearly communicate required decisions dates and impact of missing dates</li> <li>Seek to amalgamate purchase requirements</li> </ul>
Delayed Decision Making by External Agencies	<ul> <li>Delayed decisions by agencies may jeopardize timelines</li> <li>Decisions that alter requirements may affect contracts</li> </ul>	Implementation Financial	Probability H Impact H	<ul> <li>Effective governance and issue management through steering committee setup early on</li> <li>Clearly communicate required decisions dates and impact of missing dates</li> <li>Identify changes needed in Board regulatory instruments</li> <li>Work MC to facilitate approvals</li> <li>Work with CSA for mutual acceptance of UL certification</li> <li>Establish flexible contracts that anticipate problems</li> </ul>
Contract Defaults by Suppliers	<ul> <li>Suppliers may not be able to meet supply requirements</li> <li>Supplier may not be capable of meeting required timeframes</li> <li>The supplier goes bankrupt</li> </ul>	Implementation Financial Operational	Probability M Impact L	<ul> <li>Proper contracts, and careful review of actual abilities vs. stated abilities prior to engaging suppliers</li> <li>Avoid sole supplier arrangements</li> <li>Conduct vendor research</li> <li>Supervise suppliers, enforce contract milestones</li> <li>Perform credit assessment and ensure financial viability of suppliers before contracting with them</li> </ul>

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Resource issues <ul> <li>collective</li> <li>bargaining</li> <li>agreements</li> <li>insufficient</li> <li>installation</li> <li>resources</li> </ul>	<ul> <li>Collective bargaining agreements may preclude competitiveness and/or contestability for LDC</li> <li>LDC or service provider may not have adequate resources for implementation plan</li> <li>CBA may prevent LDC from utilizing external resources</li> <li>Currently there are a number of strikes underway with contracting out as prime issues</li> <li>LDCs may be required to use high priced resources for low skill work</li> <li>Lack of skilled labour from service providers</li> <li>Training of available installers may not be an issue for residential single phase metering, but could be an issue if fast deployment of complex metering is expected</li> </ul>	Implementation Financial Operational	Probability M Impact H	<ul> <li>LDCs should create open dialogue with bargaining units throughout the process</li> <li>Review and understand options/agreements regarding temporary and contract labour</li> <li>Ensure that implementation plan does not make false assumptions about the availability of outside resources</li> <li>Ensuring use of existing staff for complex metering may mitigate concerns over loss of jobs</li> <li>Develop well defined implementation plan</li> <li>Hire resources from external service providers</li> <li>Develop inter-utility resource sharing arrangements where possible</li> <li>Allow for adequately staged implementation</li> <li>Allow for recovery of increased costs if new staff hiring and training is required</li> <li>Work with collective bargaining units and their associated hiring halls to obtain resources if cost effective</li> </ul>
Poor Product and Installation Quality	<ul> <li>Sudden increase in manufacturing of product in tight timelines increases the risk of reduced quality control</li> <li>Quality issues are often not apparent until some time after meter installation or warranty expiration</li> <li>New vendors may introduce products without securing necessary federal approvals</li> <li>Vendors will not pay any post-warranty costs associated with product recalls</li> <li>Most Meter Test Shops will not be able to</li> </ul>	Financial Operational	Probability L Impact H	<ul> <li>Setup alternate suppliers to deal with quality problems</li> <li>Setup sample test installations early and obtain upfront cost recovery from OEB</li> <li>Test all chosen technologies early in the process to identify any issues as early as possible</li> <li>Ensure accredited meter verifiers provide meter sealing services</li> <li>Ensure proper training and skill levels of contract hires, and establish accountabilities for error and dispute resolution</li> <li>Ensure contracting terms specify expectations of quality and push risk onto vendors through penalty clauses</li> <li>Ensure meters have capability of remote software patches</li> </ul>

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LDC Non-performance	<ul> <li>calibrate or service electronic meters inhouse</li> <li>Distributors will have difficulty buying into the plans if it is seen that ongoing future issues are not addressed.</li> <li>Distributors / shareholders may see increase in meter reading costs as manual reads of water metering may still be required.</li> <li>LDC's are not prepared to assume unnecessary financial risk with respect to cost recovery</li> <li>Intervenors and OEB may question costs to be recovered</li> <li>LDC's may be reluctant to move away from existing demand reduction or real time pricing initiatives</li> <li>LDCs may have limited resources that are working on other initiatives such as EDR, RPP and RAR</li> </ul>	Implementation Operational	Probability M Impact H	<ul> <li>Ensure that LDC rate recovery is guaranteed</li> <li>Establish OEB processes to ensure LDC compliance</li> <li>Clear code requirements re: LDC obligations</li> <li>Allow process driver the authority to assign a third party to carry out distributor's obligations under the smart meter implementation plan if compliance issues persist (e.g. assign another distributor or a contractor)</li> <li>OEB must develop fair and defendable cost recovery processes</li> <li>Carefully plan implementation to reduce additional pressures in future years</li> </ul>
Negative Customer Reaction	<ul> <li>Customers may be unaware of smart meter initiative</li> <li>Customers may be concerned about privacy of data</li> <li>Customer may refuse to participate out of principle to show disagreement with initiative</li> <li>May be customer backlash if expected benefits don't materialize</li> <li>Customers may not be satisfied with implementation rate of program</li> </ul>	Implementation Operational	Probability H Impact H	<ul> <li>Careful and properly orchestrated communication and education plans from the Provincial level that are consistent with messages from local levels</li> <li>Adequate government penalties to ensure LDCs have authority to deliver implementation plan</li> <li>Demonstrate to the customer real methods for savings</li> <li>Develop close ties between Smart Meter initiative and DSM and DR initiatives</li> <li>Coordinate required visits to homes from different initiatives to minimize disruption to customers and better utilize LDC resources</li> </ul>

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Public Pressure on	<ul> <li>Customers may see this as a way to justify increase in bills</li> <li>Customers don't understand rate structure</li> <li>Other DSM or DR initiatives may result in multiple visits to homes increasing disruption to customers</li> <li>Large (non RPP) customers will want to be priority for smart meter installations as they remain exposed to spot market pricing (may be frustrated with LDC responsiveness</li> <li>Timing of RPP in relation to smart meter installations may make customers think that a smart meter installation will increase their bills</li> <li>Customers in different LDCs pay different rates for smart meters</li> </ul>	Financial	Probability	<ul> <li>Set clear guidelines for LDC obligations with respect to customers who self-select for upgrade to smart meter</li> <li>Time RPP in relation to the smart meter installation so that customers view the smart meter as a way of being about to manage electricity costs</li> <li>Well thought out installation process clearly communicated to customer</li> <li>Stay within the framework of the Minister's directive on</li> </ul>
Government to Change Direction	<ul> <li>next Provincial election (2007)</li> <li>Public pressure on government to reverse decisions</li> <li>Multiple initiatives underway that may impact on customers at the same time</li> </ul>	Implementation	M Impact H	<ul> <li>smart meter implementation and work within present government's policy</li> <li>Well defined implementation plan</li> <li>Track achieved benefits and communicate early successes</li> <li>Develop a government communication plan aimed at all stakeholders</li> <li>Develop strong policy case for initiative that outlines benefits to customers</li> </ul>
Insufficient LDC cashflow to finance program	<ul> <li>Many LDC's are still in the process of recovering costs from market opening and may struggle with cashflow</li> </ul>	Financial Implementation	Probability L	<ul> <li>Upfront cost recovery processes should take LDC cashflow situations under consideration</li> <li>Analyze financing options provided by vendors</li> </ul>

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	<ul> <li>Smart meter initiative will require funding for equipment purchases, installation programs, CIS and meter data management system changes, etc.</li> </ul>		Impact H	<ul> <li>Utilities may apply to the Minister for rate review by OEB if lacking funds</li> </ul>
EBT Hub Non- performance	<ul> <li>EBT Hubs will need to have their systems ready to be able handle the additional data that will be passed through their systems from LDCs to Retailers</li> <li>Along with the additional volumes of data, new data for a customer will be received by the Retailer every day instead of on a weekly basis (current state)</li> </ul>	Implementation Operational	Probability L Impact H	<ul> <li>The process driver should fully test hub readiness early on in the process to ensure that they will be ready</li> <li>A Retailer and LDC may make alternate arrangements for passing usage data on a daily basis (guidelines will be developed)</li> </ul>