

# Evolving CDM Requirements – How to Cope with the Uncertainty

CDM in a Sustainable Energy Future

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# Uncertainty reigns

- Uncertainty pervades every element of CDM for an LDC
- We will walk through half a dozen examples to illustrate how the uncertainty affects the regulatory regime
- Examples include some newer requirements from OEB

# Load forecast and CDM

- OEB expects CDM to be included in the load forecast—what does this mean?
  - Explicitly
  - Implicitly
  - Natural conservation vs. programmatic conservation
- Load forecast is a “top-down” analysis while EM&V results are “bottom-up” ( $2 + 2 \neq 4$ )
- *Ex post* EM&V results are available between 9 months and several years later
  - Only useful for updating load forecast if programmatic CDM is an explicit variable
  - Seems like we aren’t willing to wait for the results regardless

# Load forecast and CDM

- *Ex ante* CDM forecast is expected
  - Sophisticated bottom-up approach vs. general linear regression or % of target approach
  - Hydro One Transmission just filed a 73 page exhibit detailing different options for incorporating CDM into a load forecast
  - Not likely (or reasonable) that all LDC's can take such a sophisticated approach
  - Even if they could, would it make sense to have 8 or 20 or 78 of these exercises?
- No explicit instruction from OEB as to what is an acceptable or not acceptable manner to include CDM

# OPA Program performance

- LDC's are relying on OPA (province-wide) programs for the lion's share of savings to meet OEB targets
- Quarterly reporting from OPA to LDC's is helpful, but these are reported, not evaluated results
  - The gap between reported and evaluated (EM&V) results is known to a fair degree, but is not communicated
  - If progress is inadequate or slipping, as it appears to be, what can LDC's do to correct/respond?
- How many LDC's have sophisticated action plans tied to a sophisticated CDM forecast?
  - This kind of portfolio management is required to be in a position to respond to performance feedback (e.g., quarterly reports)

# OPA Program performance

- 2011 evaluated results will be available late Summer/early Fall of 2012
  - Programs did not launch January 2 as planned—major delays in some cases
  - How do we determine the trend line given so many variables that affect CDM performance (hockey stick syndrome)?
- OEB has clarified that when projects are completed is when savings count
  - Lots of unfinished 2010 (and earlier?) projects will count towards 2011 target
  - Any projects not operational by December 31, 2014 will NOT count towards current target
- If overall performance is lagging, are we waiting for definitive and official results reporting to act?

# LRAM claim and LRAMVA

- LRAM claims must be “net of” conservation built-in to the load forecast to prevent “double dipping” related to rates
- CDM is now large enough that a once every four years rate step could be problematic
- LRAMVA (variance account) created to deal with this
  - Effectively a rate adder applied in advance of EM&V “actuals”
  - Applies to years between rebasing (every four years)
- LRAM has tripped-up many LDC’s in recent years
  - Rejected claims
  - Lack of clarity as to what exactly is in the load forecast
- LRAMVA lacks explicit instructions as to the “correct” way to calculate

# Tier 2 and 3 programs

- Regulator rejected both Hydro One and Toronto Hydro Tier 3 program applications near the beginning of the 2011-2014 cycle
  - Some legitimate regulatory issues with proposals, but co-ordination and co-operation could have easily solved those
  - Effect seems to have scared away all other LDC's
- LDC targets were set assuming a significant portion would be met by Tier 2 and 3 programs
  - Tier 1 not “over performing” so not able to close gap
- Duplication concern misapplied
  - Trying to prevent duplication instead of managing it
  - All mature CDM portfolios in North America are rife with duplication—it's called “competition” and considered an essential and good thing if operating in a businesslike manner a priority
  - Marketplace of good ideas needed given speed of evolution of technologies and large diversity of customer and community characteristics across Ontario
  - No problem and minimal extra expense measuring/evaluating a variety of similar or like programs
- Performance bonus available for exceeding targets comparably high dollars that could be utilized for a variety of CDM and non-CDM purposes
  - Is a single LDC in Ontario pursuing it?
- Overall, a huge opportunity lost

# TOU Rates

- TOU savings were built into the IPSP, which in turn were built into targets downloaded to LDC's in 2010
- OPA in charge of evaluation of TOU impacts
  - Makes more sense than LDC's trying to measure
  - But, odd, given that it is an OEB "program" that neither OPA nor LDC's have any control over
  - Complex evaluation that will take significant time and requires that all customers be on TOU rates (not just have a Smart Meter installed)
  - Results, if all goes well, will come in at the "11<sup>th</sup> hour" and LDC's will therefore not know if a gap exists that they need to fill
- Unfortunately, TOU scheme used in Ontario has drifted in the opposite direction than necessary to produce savings since original IPSP estimates developed
  - We need a much higher spread between peak and off-peak rates to generate a behavioural response

# Capability Building

- Several training and capability initiatives are finally starting to roll-out the door from OPA
  - How are these being evaluated?
  - How do LDC's claim savings from them (can they)?
  - Is it a good investment of time and resources to help support these initiatives in LDC communities?
  - What about all the capability building some LDC's (including gas) have been doing for many years?
- Capability building can drive greater numbers of customers to CDM programs, but should also spur them to doing additional actions on their own
- Measuring this spill-over and the broader effects of market transformation convincingly is important if regulatory savings claims are expected

# Broader government policy

- The LTEP says conservation is “the best and first resource” and that the CDM requirement should grow steadily for the next 20 years
- Others argue temporary supply surplus should result in cuts to CDM, at least for the time being
- Economics of CDM and energy efficiency suggest more could be done, but it doesn’t have the “sex appeal” of renewables or other generation options
  - CDM is harder to “see” and conceptualize
- What evidence is there that CDM is “first in the stack?”

# Broader government policy

- What if government policy shifts (again)?
  - What is rational behaviour for an LDC in an environment where CDM is largely driven through central agency funding and regulatory compliance because volumetric rates make it counter-intuitive for utilities to pursue?
  - What do utility “bonuses” that start getting paid at 80% of target compliance suggest?
  - Are we using CDM, in a co-ordinated, sophisticated way, to help smooth the way to the new world of inevitably higher electricity rates, an intelligent grid, heightened economic competition across all industries?
  - Or, are we hesitating to take bold action due to a policy environment that, at best, sends mixed signals on almost all major issues

# Conclusion

- We should be concerned that it will be difficult to meet OEB CDM targets
- Normal business model would be to attempt to over-perform and hope that you at least accomplish the target in the end
- LDC hands are tied (or there is an impasse) regarding major elements required to meet the target
  - How well will province-wide/OPA programs perform
  - Launching and operating LDC-specific CDM programs
  - TOU rates and their effect on CDM
- Financial and regulatory elements also contain much uncertainty
  - Acceptable way to deal with CDM in the load forecast
  - Ensuring a “successful” LRAM claim
  - Utility performance bonus payments off the radar
  - Capability building...what is the effect of assisting OPA-funded entities as well as LDC’s own activities
- Is it all going to change at the next election anyway?