

Ontario Energy Board

Regulated Price Plan Working Group Meeting #4

October 27, 2004

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Discussion Outline

- Issues for any strawman
 - Mobility issues
 - Tendency towards unfavorable price variance
- Development of new strawmen
- Strawmen discussions
 - Description of strawmen
 - Price results for strawmen
- Comparison and scoring of strawmen
- Development of new strawman
- Issue for any strawman: calendar adjustment
- Next Steps

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Calendar Adjustment

- The proposed legislation has the RPP starting May 1, 2005
- The first 12 months of the RPP will therefore end April 31, 2006
- The proposed legislation says that the first 12 months are fixed, so an ending of that date is difficult to avoid
- But should the RPP cycle be adjusted to bring the RPP year to a calendar year and be consistent with other entities, especially the LDCs?
- If yes, how and when should it be adjusted?

Mobility Conditions

- Mobility conditions (of entry and exit) can be set up with any strawman
- Mobility conditions deal with four cases:
 1. Customers moving residence and getting final bills
 2. Customers leaving LDC supply (to go to competitive retailer)
 3. Customers moving residence and getting initial bills
 4. Customers returning to LDC supply
- Some members of the working group have indicated that they do not want to create barriers to mobility
 - The implication is that they are referring to cases 2 and 4 above
 - Cases 1 and 3 are not likely to be deterred by conditions with respect to electricity final or initial billing

Mobility Conditions

- Mobility conditions deal with several questions:
 - Clearing variances on leaving
 - Credit or payment for existing accumulated variances on entering service
 - Conditions on returning, such as minimum times away from LDC service (for returning from competitive supplier)
- Issues in this decision include
 - Fairness to both leaving and remaining customers
 - Administrative costs for LDCs.
 - Customer understanding and acceptance
 - User pay principle
 - Impact on customer mobility
 - Consistency with LDC practice

Conditions on Leaving

	Collect Attributed Variance on Past Consumption		
	Model 1	Model 2	Model 3
Moving from LDC service area	No	No	Yes
Leaving RPP supply	No	Yes	Yes

Mobility Models: Leaving

- Model 1 has the highest mobility, with no variance collection or other conditions imposed on those who leave for any reason.
 - This one is easy to understand and administer
- Model 2 distinguishes between those who leave the service area and those who migrate to competitive retailers
 - Harder to understand, may be more fair by not allowing customers to get away from variances created for their benefit
 - Could be seen as a barrier to customer mobility
- Model 3 collects variances under all conditions; it looks to assign costs and collect them from those who cause them
 - May be more fair, but creates the same perceived mobility barrier as Model 2 and likely to have much higher administrative costs (though good design might keep them low.)
- Administrative costs for Models 2 and 3 could be kept low by, for instance, getting monthly a calculation of uncollected accumulated variance (in \$/kWh) and applying it to the customer's past usage

Conditions on Entering

	Collect Attributed Variance on Future Consumption		
	Model A	Model B	Model C
Moving to LDC service area	No	No	Yes
Returning to RPP supply	No	Yes	Yes

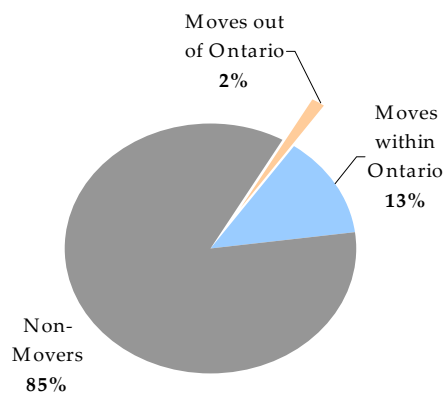
Mobility Models: Entering

- Model A has the highest mobility, with no variance collection or other conditions imposed on those who enter for any reason.
 - This is easy to understand and administer
- Model B distinguishes between those who enter the service area and those returning from competitive retailers
 - Harder to understand, may be more fair by not charging customers for variances they did not cause
 - Could enhance customer mobility
- Model C collects variances under all conditions.
 - May be more fair, but could have much higher administrative costs (though good design might keep them low.)
- The simple model for leaving does not work as well here, because prospective consumption is unknown.
- Another way to implement Models B and C would be not to charge (credit) entering customers with variance true ups existing when they came. This would require that LDCs charge different rates for varying periods of time to customers in the same rate classes

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Mobility: Data on Moving



Data are from Statistics Canada for 1996

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Mobility Models: Minimum Times

- Minimum times to remain off LDC supply could be applied to any of the cases
- One extension of the apparent approaches would impose minimum times on Models 2, 3, B and C but not 1 or A
 - Because Models 1 and A impose no other conditions or calculations, while the others do for those going to or coming back from competitive retailers
- An alternative approach would impose minimum times on Models 1 or A but not on Models 2, 3, B and C
 - Because with no financial conditions imposed by Models 1 and A, it may be appropriate to apply a non-financial condition (minimum times) on those coming back from competitive retailers

Tendency for Unfavorable Variance

- The Navigant Consulting variance analysis indicates a tendency to produce unfavorable variances (that is, to RPP supply costs higher than forecast.) This tendency is due to the underlying conditions of supply and of price itself
- Nuclear performance
 - Nuclear performance does not have a lot of room to improve from that already in the forecast
 - However, nuclear unit outages have the potential for a serious negative impact on the total amount of nuclear power available
- Waterpower availability
 - The information from OPG showed a tendency towards less hydroelectric availability than is in the forecast
- Any variance in supply affects RPP supply costs in two ways
 - It affects the market price by affecting total supply in the province
 - It affects the fraction of the RPP supply that must be priced in the market
 - In both cases, a reduction in supply from designated resources will likely increase total RPP supply costs

Tendency for Unfavorable Variance: Price

- Price
 - If the average price is about \$50 per MWh, the downward variance cannot be more than \$50
 - But the upward variance could be as much as \$1950 per MWh (if price reaches the maximum market clearing price)
 - Historically, market price has often been above \$150 per MWh, which would produce a variance of more than \$100 per MWh from the average price
 - So the statistical model of the variance of price tends to have bigger variances upward than downward
 - This means the price variances are more likely to be unfavorable than favorable

Implications of Unfavorable Variance

- Navigant Consulting believes that the tendency towards unfavorable variance correctly models the situations in the world
 - We have tried very hard to make sure that the model we are using does reflect, to the extent possible within resources of time and money, the real world price situations
- Even with that tendency, the unfavorable variances we have estimated for the 1 in 10 bad year do seem to be within a reasonable range
- Navigant Consulting believes that this analysis provides a reasonable basis for decision making, always recognizing that any analysis of this kind is subject to error of various kinds
- But the fact that unfavorable variances are more likely than favorable ones may argue for assuming, in the RPP supply cost calculations, a price higher than the expected value produced as the forecast

Purpose of New Strawmen Development

- At the last meeting, the working group discussed several strawmen, intended to incorporate various approaches to meeting the objectives
- The working group identified several of these approaches as not likely to be acceptable
- Working group members also identified some of their primary concerns and preferences among the strawman attributes
- To further the process, these strawmen draw more narrowly on a range of attributes identified by the working group as desirable

Assumptions for New Strawmen Development

- The assumptions for this development are similar to those for the first set of strawmen
- No true ups or other price changes in first year of RPP
 - May need some specific provisions for the transition from the first to the second year of RPP
- RPP will be designed for 4/5 years
- Initial strawmen will not incorporate pricing schemes requiring smart meters (for example, Critical Peak Pricing)
 - Smart meter implications will be dealt with after this basic approach is outlined
- Assume residential and small business customers are eligible for RPP

Information Presented

- For the previous discussion, Navigant Consulting presented the pricing results for each strawman, tested against 5 randomly generated price paths
- These strawmen are presented with the same pricing results against the same 5 price paths
- As requested by the working group, we have added two attributes for each strawman:
 - Timelines for the calculation of true ups and rebasing, including timeline for notice to customers of price changes
 - Cumulative OPA variance account
- We have also included some direct comparisons of the strawmen along various criteria

Strawmen

- We have compiled two strawmen to look at different approaches to an RPP regime as it might be developed
- The strawmen are driven by basic themes
 - Customer acceptance
 - Customer incentives
- The strawmen draw on the results of the last meeting and the feedback received from working group participants

Working Group Feedback

- From the last meeting, and from the feedback received by email from working group members, we believe we have a good sense of where the working group is in some agreement (including on some options that are not acceptable)
- We also know where there are differences between the expressed preferences of the working group
- The strawmen have therefore been chosen to represent agreement where it exists, and to test differences where they are present

Consumer Acceptance

- Relatively little change from present arrangements
- Relatively stable prices
- Easy for eligible customers to understand
- Low administrative costs

Consumer Acceptance: Strawman

- True up:
 - Every 12 months of the total accumulated variance
 - At any quarter where the accumulated variance for the year exceeds \$50 per customer
 - Favorable variances are not rebated, but kept as reserve for future
- Rebase:
 - Review annually, implement based on changed price forecast and in underlying cost conditions as determined by OEB
- True up and rebase considered together
 - Change price only if true up and rebase together change prices by more than .10 cents per kWh (\$1 per month per customer for average 1,000 kWh per month customer)
 - Cap of 6% on upward price change; no caps on decreases
 - If true up and rebase would raise prices by more than 6%, rebase takes precedence and resulting variance is carried over to next period
- Recovery period:
 - Variances collected over 12 months following true up

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Consumer Acceptance: Strawman

- Calculation and notice:
 - Notice period for price change is one month
 - Calculations based on partial estimates, with timeline as necessary to maintain notice period (with estimates kept to necessary minimum)
- Price tiers:
 - One tier
- Seasonal pricing:
 - No seasonal pricing
- Second-year transition:
 - No difference from any other yearly true up and rebasing
- Residential and small business classes:
 - All eligible customers pay the same price for energy

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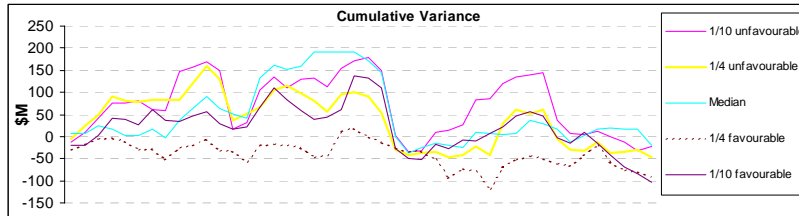
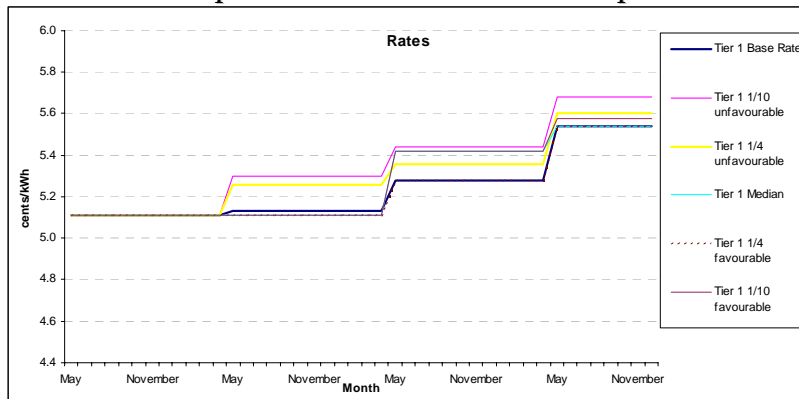
Consumer Acceptance: Timeline

Consumer Acceptance	2006												2007												2008				
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Calculate true-up																													
Calculate rebase																													
Notice (true-up)																													
Notice (rebase)																													
1st yr true-up and rebase																													
2nd yr true-up and rebase																													

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Customer Acceptance: Variance and True-up Scenarios



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Customer Incentives

- Greater cost reflectivity, to provide incentives to rational use of electricity
- Greater incentives for cost-effective conservation

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Customer Incentives: Strawman

- True Ups:
 - Quarterly true ups of total accumulated variances, only true up if at least .05 cents per kWh. (\$.50 per month for average customer)
- Rebase:
 - Review annually, implement based on changed price forecast and in underlying cost conditions as determined by OEB
 - Rebase only if change would be at least .10 cents per kWh (\$1 per month for average customer)
- Recovery period:
 - Collection rate calculated to clear variance over 12 months
 - All uncollected variances are trued up each quarter, whether they originated in the preceding quarter or are carryovers
- Calculation period and notice:
 - No advance notice to customers in bill stuffers; notice in first bill after true ups/rebasing implemented (same as natural gas)
 - True up calculations based on estimates as necessary

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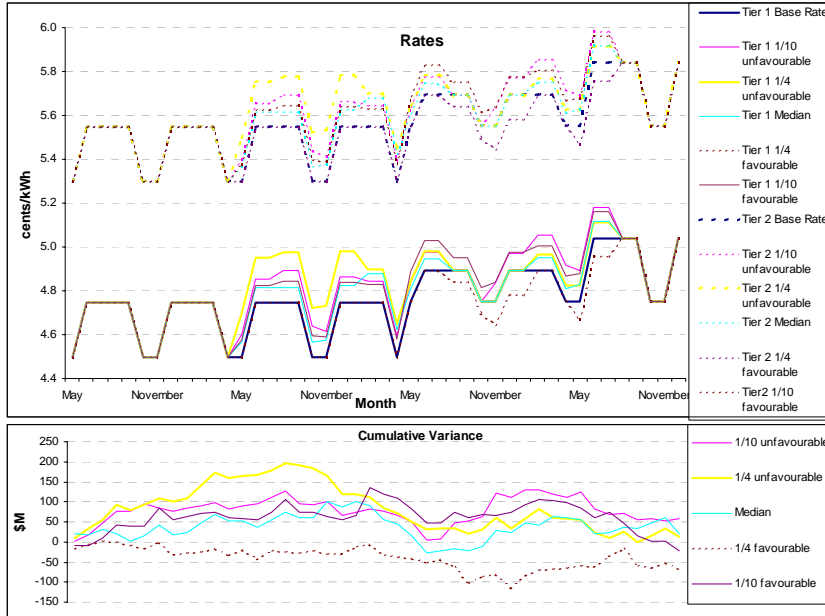
Customer Incentives: Strawman

- Tiers:
 - Two tiers. Tiers are designed to straddle the average price, with the upper tier providing some incentive for conservation
 - Variance true ups are allocated to both tiers on the same cents per kWh basis
- Seasonal:
 - Two seasons, peak and off peak, applied to both tiers
- Second-year transition:
 - Treat like an annual true up / rebase
- Residential and small business classes:
 - All eligible customers pay the same for energy

Customer Incentives: Timeline

Customer Incentives	2006												2007												2008					
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	
True-up calculations																														
Rebase calculations				■					■						■														■	
Notice (true-up)				■	■		■	■	■	■					■	■			■	■	■	■	■					■	■	
Notice (rebase)				■	■											■	■												■	■
Collect 1st true-up				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collect 2nd true-up						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collect 3rd true-up									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collect 4th true-up												■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collect 5th true-up																■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collect 6th true-up																														■
Collect 7th true-up																														■
Collect 8th true-up																														■
Peak seasons	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Customer Incentives: Variance and True-up Scenarios



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Comparison Table

Straw man Elements	Consumer Acceptance	Customer Incentives
True-ups	Annual, or more frequent on trigger of \$50 per customer	Quarterly, based on total uncollected variance. True up minimum of .05 cents per kWh
Rebase	Annually, with minimum adjustment of .10 cents per kWh	Review annually, rebase only if change is at least .10 cents per kWh
Price cap	6% maximum increase per year	
Variance Recovery Period	12 months	Priced to clear over 12 months. Recovery rolls forward with true ups
Calculation	2 months before implementation	1 month before implementation
Notice	1 month	none
Tiers	one tier	Two, straddling average market price
Seasonal	none (flattened over year)	2 seasons <ul style="list-style-type: none"> • Peak • Off-peak
Entry/Exit	Mobility conditions considered separately	Mobility conditions considered separately
Second-year Transition	none required	Clear all variances within 6 months
Residential vs. Small Business Classes	same rate	Top tier higher for larger volumes, in peak season, and higher threshold for businesses than consumers

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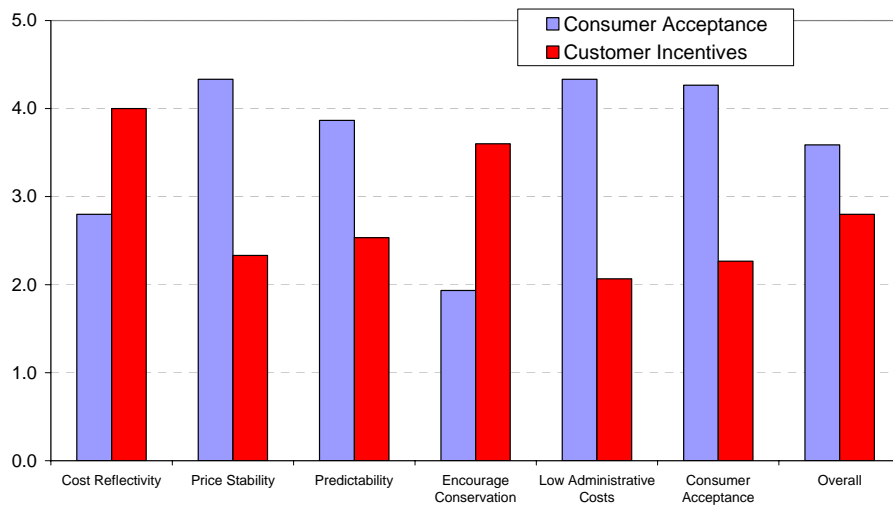
Strawman Scoring

- The score sheets will be distributed
- The working group will score each of these two strawmen against the objectives
- Scores will be tallied during the coffee break, and we will discuss the scores and the reasons for them
- After the discussion of these strawmen, the working group will work on a draft of a recommended strawman

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Strawman Scoring Results



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