

Background:

The IESO is responsible for making decisions regarding changes to market rules, market design or market procedures (herein after referred to as market changes). When making these decisions, it is often the case, that the IESO, in effect, must balance two competing objectives of the *Electricity Restructuring Act, 2004 (the "Act")*:

1. To protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service; and
2. To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry.

However, there is little judicial guidance of how to balance these objectives when they are at odds. The lack of guidance on a decision criterion can lead to delays in the decision making process, inconsistency in decisions, and a politicized decision making process. The lack of judicial guidance also requires (in effect) the IESO, to interpret how to balance the potential competing objectives of the *Act* when carrying out this function.

The IESO introduced the use of Cost Benefit Analysis (CBA) to help ensure a transparent, consistent and objective decision making process for market changes. CBA provides an analytic framework that facilitates a disciplined approach to assessing the net benefits (costs) of a proposed market change. CBA is important, but the role that it serves is not to resolve stakeholder debates; rather its role is to inform those debates—to challenge advocates and decision-makers to take account of the values and preferences of all of the affected parties—what the province as a whole, for better or worse, would choose.

Sometimes, a proposed market change results in improved efficiency but higher prices or bills for consumers. Strictly speaking, the modern day CBA considers only the implications of an IESO change for economic efficiency. As a result, the CBA decision criterion would approve a market change in this situation. It is however an open question whether such a criterion would properly balance the objectives of the *Act*. More generally, a criticism of the modern day CBA decision criterion is that it may not take into account all factors that bear on the social benefits of a policy change as it ignores the effects of the change on wealth distribution.

The IESO has requested stakeholder input on an appropriate decision criterion, one that would best reflect the objectives of the *Act*. The IESO is seeking a final position from members of the Stakeholder Advisory Committee (SAC) of their views regarding the appropriate decision criterion at the December 3, 2009 SAC meeting.

To further assist SAC members in making their assessment, this document does two things. First, it offers two basic principles to ground the choice of a public policy decision criterion. The document then describes four specific public policy decision criteria discussed or applied in other public policy arenas. These represent possible options for the IESO and for SAC member consideration.

Principles for a Decision Criterion that Serves the Public Interest¹

1. *An ideal decision criterion should allow market changes that enhance the well-being or welfare of Ontarians and disallow market changes that would diminish it.*

The principle that government policy or the social good should be assessed exclusively with regard to its impact on the welfare of individuals is referred to as *welfarism*.² This sounds like a standard principle for any public policy decision criterion. However the task becomes difficult when a policy change results in both gainers and losers and there is no obvious mechanism that provides actual (as opposed to hypothetical) compensation to the losers. In this case, some value judgement is required.

Under the welfare approach, a decision rule typically depends on the impact of a policy change on two types of market impacts.

- Impacts to suppliers from exchange in a market, typically measured as the change in producer surplus (ΔPS);
- Impacts to consumers, typically measured as the change consumer surplus (ΔCS)

How to measure these impacts (quantitatively and qualitatively) is the task of the CBA.³ The problem then becomes one of aggregation; how to add up the measurable impacts in order to best assess whether the aggregate impact indicates an increase or decrease in overall welfare? It is this latter part of the task that is the matter of the decision criterion discussion.

2. *The appropriate weight applied to the surplus change of any individual should not depend simply upon the label of the individual as a "consumer" or "supplier."*

In other words, the decision criterion should be non-discriminatory. The decision criterion can depend upon the distribution of dollar gains and losses across a set of individuals, as well as individual characteristics such as wealth, but the dollar impact of a change on a particular individual should not be affected by the individual's identity as a consumer or supplier.

¹ These principles are discussed in Ross, Thomas W. and Ralph A. Winter (2003), "Canadian Merger Policy Following Superior Propane" (2003) 21:3 Can. Comp. Rec. 7, and Duhamel, Marc and Peter G.C. Townley (2004), "From Superior Propane to Bill C-249: The Consequences of Informed Ignorance?" Canadian Competition Record 21(4): 109-122.

² Ross and Winter (2003) note that a rule for intervention that is not based on this principle "is bound to lead to decisions in some circumstances that make all parties affected by the intervention worse off, or at least harm some without benefiting others."

³ For more information on cost benefit analysis and how to measure these impacts, see Townley, Peter G.C. (1998), Principles of Cost-Benefit Analysis in a Canadian Context, (Prentice Hall: Toronto) and http://www.ieso.ca/imoweb/pubs/mear/CRA_Overview-of-Cost-Benefit-Analysis.pdf.

Possible Decision Criteria⁴

The following describes four decision criteria. To illustrate each decision criteria algebraically, we will make the simplifying assumption that there are two classes of participants; suppliers and consumers.⁵

Furthermore, as mentioned above, each of the decision criteria requires some value judgement when there are gainers and losers– that is some weighting of the impacts on the different classes of individuals is required. Let W_P be the weight applied to suppliers (producer surplus) and W_C the weight applied to consumers (consumer surplus). Note that as a technical matter, only the relative weights matter. For what follows, we adopt the convention under which weights sum to one. That is, $W_P + W_C = 1$.

1. *Kaldor-Hicks (K-H) Standard:*

This is also referred to as the *Total Surplus* standard or the *Potential Pareto Improvement* standard. It is also the standard applied in modern CBA. Under this standard, the impacts of a policy change on all participants are treated equally (i.e., an equal weight is applied). That is, under the K-H standard:

$$W_P = W_C = \frac{1}{2}$$

Under this standard a market change would be approved if:

$$\frac{1}{2} \Delta PS + \frac{1}{2} \Delta CS > 0$$

The basis for this standard is economic efficiency. This standard approves changes that result in productive efficiencies – meeting the provinces energy requirements at a lower overall cost, or allocative efficiencies –eliminating waste whereby electricity is being produced at a cost that exceeds the value of consuming it, or electricity is not being produced when it costs less than the value of consuming it. Improving the productive and allocative efficiency in the industry also encourages dynamic efficiency in the form of new innovative ways to produce electricity more efficiently or consume electricity more efficiently.

⁴ Each of these standards is discussed in Ross and Winter (2003), Townley, Peter G.C. (2003), “Efficiency Standards: They also serve who only sit and weigh(t),” Canadian Competition Record 21(2): 115-132 and. These papers also discuss the merits of each standard from the stand point of approving mergers.

⁵ Importers can be captured within the supplier category while exporters can be captured in the consumer category. Some of the decision criteria would require the different groups to be separated. Note further that we are abstracting from some of the measurement issues raised by Dr. Townley. First, we do not discuss how to deal with non-Ontario participants. In general it is expected that these participants would be provided a zero weight as it is likely that the focus would be on the welfare of Ontarians. However, parsing out the impacts can be difficult as it is not always clear the origin of a participant. Second, we assume that suppliers and consumers are distinct, however, this may not always be the case – a domestic generator may also be an exporter for example. These issues should not affect the choice of an appropriate decision criterion; rather they would affect the application of the criterion.

Proponents of this standard also argue that improved industry efficiency means that more money (wealth) is made available to the Ontario economy as a whole. The additional wealth can be invested back into the industry which in turn can improve the overall productivity of the industry and the Ontario economy; a higher level of provincial GDP can be achieved.

However, opponents of this standard would argue that the K-H standard does not address the potential for distributional impacts on welfare. The K-H standard treats gains and losses symmetrically, as if simply summing dollar gains and losses is equivalent to summing individuals' actual welfare gains and losses. As a result, a transfer of wealth from one individual to another individual has no effect on the final decision with this criterion. This would only be valid if all individuals valued dollars at the margin equally, but this need not be so. Of relevance is that if those who would gain by a market change are wealthier than those who would lose, satisfaction of the K-H standard may not indicate an increase in aggregate well-being (Ontario welfare). This rule arbitrarily assigns equal distributional weights to consumers and sellers, and thus it has the potential to allow welfare-diminishing market changes (violation of the first principle).

Does this criterion balance the objectives of the Act?

This criterion would approve market changes that improve efficiency regardless of the net impact on consumers. If this standard were adopted, the presumption would be that Ontario consumers (current and future generations) would ultimately benefit from having a more productive economy as a whole and higher levels of GDP.

Does this criterion satisfy the principles for public interest criterion?

This standard would satisfy the second principle, but as discussed above, may not satisfy the first in certain situations.

2. Price Standard

This standard would disallow a market change that would lead to a price increase (bill increase) to any set of consumers (essentially a decrease in a consumer's well being). This standard essentially sets weights on consumer and supplier impacts as follows:

$W_P = 0$ and $W_C = 1$.

Under this change, the market change would be approved if:

$\Delta CS > 0$

Proponents of this standard would argue that only the dollars in consumers' pockets matter; an extra dollar in the hands of suppliers represents no social benefit to the province. Of course, opponents would argue that this rule could often disallow market changes that would enhance the overall welfare of the

province (a change that causes consumers' bills to rise by a \$1 per year would be disallowed even if the change promised billions of dollars in efficiency gains for the province and for the shareholders of the supplier companies).

Does this criterion balance the objectives of the Act?

This standard would approve market changes that result in efficiencies, so long as those efficiencies lower the overall bills to consumers (or at least lower the bills to some consumers and do not raise the bills to others); changes that promote efficiency but not at the expense of a set of Ontario consumers.

However, the Ontario Energy Board decision with respect to the IESO market rule amendment MR-00331-R00: "Specify the Facility Ramping Capability in the Market Schedule" (the 3-times ramp rate hearing), would appear to reject this as a decision criterion as it approved a market change that was anticipated to produce efficiency gains but lead to an increase in prices and average consumer bills.⁶

Does this criterion satisfy the principles for public interest criterion?

This criterion would not satisfy the first principle in many if not most situations, and arguably would violate the second principle.

3. The Balancing Weights Approach

This is Dr. Townley's approach. This is the approach that he recommended very influentially to the Canadian Competition Tribunal in *Superior Propane* merger hearing, and which found favour with the Federal Court Appeals.

Townley's view is that, in the absence of adverse distributional impacts, winners and losers should be treated (weighted) identically. (i.e., $W_P = W_C = 1/2$). If a policy would cause adverse distributional impacts, it makes little sense to go to the extreme ($W_P = 0$ and $W_C = 1$) without examining their severity.

The Balancing Weights Approach is simply one way (of many potential ways) to focus on the relevant efficiency versus equity trade-off. Assume, for example, that a proposed market change would lead to an increase efficiency of \$1 -million but cause suppliers to gain \$2-million and consumers to lose \$1 million. In order to reject the market change, the IESO would require reason to attribute to consumers a weight at least double that of suppliers.⁷

⁶ In the Boards final decision in this matter it is stated: "The Board concludes that the efficiency benefits that are anticipated to arise as a result of the Amendment are consistent with the purpose of the Act that speaks to promoting economic efficiency in the generation, transmission, distribution and sale of electricity. The Amendment also supports the purposes that relate to encouraging electricity conservation, demand management and demand response; ensuring the adequacy, safety, sustainability and reliability of electricity supply in Ontario; and protecting the interests of consumers in relation to the adequacy and reliability of electricity service. While the Board acknowledges that the Amendment may result in an increase in average consumer bills, that increase is anticipated to be modest."

⁷ That is, the decision criterion is $W_P \Delta PS + W_C \Delta CS > 0$, Then with $\Delta PS = \$2$ Million and $\Delta CS = -\$1$ Million, to reject the market change $W_C > 2 W_P$. The IESO would require reason or evidence to support the application of this weight.

There may be circumstances in which the IESO may feel quite comfortable rejecting the market change on this basis. However, in the absence of evidence of such egregious distributional impacts, the market change should proceed. It is not enough to treat any adverse distributional impact as a policy veto; some assessment of its importance relative to efficiency gains is necessary. Under this approach, there would be an onus on those participants (in this case the consumers) to bring forth this evidence. This could include evidence from some industrial or commercial consumers that the change (the price or bill increase) would directly result in plant closings or significant job loss that could severely affect some individuals or a community. Evidence that the annual bill increase would account for a material portion of the province's "poor" consumers' annual income may also be persuasive.

Does this criterion balance the objectives of the Act?

Arguably, this approach is designed to allow the flexibility to precisely balance the objectives on a case by case basis. A general concern with this approach is that the IESO is tasked with evaluating the merits of many changes in a given year and it may not have the expertise to evaluate the distributional impacts on a case by case basis.

Does this criterion satisfy the principles for public interest criterion?

This approach was designed to achieve the two principles.

4. Superior Propane: The Ross-Winter Proposal

The Competition Tribunal did not have to assign a specific weight to any class of customers in its decision to permit the merger; it determined that the weight required to reject the merger far exceed any reasonable weight that it could place on the expected impacts of the merger on propane consumers. However, the Tribunal did put forth a methodology with respect to computing weights to account for distributional impacts vis-a-vis efficiencies. The Tribunal looked to the progressivity of the Canadian tax code for guidance in determining the relative value that Canadians attach to income flowing to citizens of different wealth or income levels. In so doing it roused the reasoning that "government intervention in mergers should not be relied upon more strongly to implement a redistribution of income than the policy instruments designed specifically for that purpose."⁸ The Tribunal's ruling essentially "justified welfare weights that are higher than the weight on profits only for consumers who are "poor or needy.""⁹

In a subsequent article, Ross & Winter used the evidence presented in the hearing on the progressivity of the tax system to determine a set of weights to be applied to consumers and producers. They estimated the weights (W_P, W_C) to range between (.48, .52) to (.492, .508).

⁸ See Ross and Winter (2003), page 7.

⁹ Ross and Winter (2003), at page 7. The Tribunal identified these consumers as falling within the lowest quintile of the income distribution of consumers.

Duhamel & Townley argued that every merger case is different with respect to efficiencies and distributional impacts, and thus a rigid weighting system is not likely appropriate for merger policy. However, many of the policies the IESO may wish to consider may be somewhat similar. Therefore, rather than calculating the weight necessary to reject a market change that would create gainers and losers (Townley's approach), the IESO may wish to incorporate a set of weights into its analyses such as those derived by Ross and Winter.

Under the Ross- Winter standard, a market change would be approved if:

$$.48 \Delta PS + .52 \Delta CS > 0$$

This would favour consumers, and this may be seen as the deference they merit vis-a-vis the stated objectives of the Act. Although some flexibility would be lost, consistency of application would be gained.

Does this criterion balance the objectives of the Act?

At worst, the standard provides reasoned but "blunt" balancing of the objectives of the Act.

Does this criterion satisfy the principles for public interest criterion?

The criterion satisfies the second principle. However, since it is a fixed set of weights, it may not always satisfy the first principle.