

June 7, 2010

Sent via email and mail
boardsec@oeb.gov.on.ca

Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto, Ontario M4P 1E4

Dear Ms. Walli:

Re: **EB-2008-0346**
Toronto and Region Conservation (TRCA) Comments on Concentric Report:
“Review of Demand Side Management (DSM) Framework for Natural Gas Distributors”

As indicated in our letter April 7, 2010, we respectfully submit our comments to the Concentric Report. Three hard copies will follow by mail as per the specifications.

We appreciate the opportunity to participate in this important process.

Sincerely



Brian Denney, P.Eng.
Chief Administrative Officer

/Encl.

Toronto and Region Conservation (TRCA) Comments on Concentric Report: “Review of Demand Side Management (DSM) Framework for Natural Gas Distributors”

BACKGROUND

Toronto and Region Conservation (TRCA) welcomes this opportunity to provide input to the DSM Framework for natural gas distributors. As a first time intervenor, TRCA's interest and knowledge relate to The Living City programming which we have been delivering to a growing number of building sectors across Ontario since 2003.

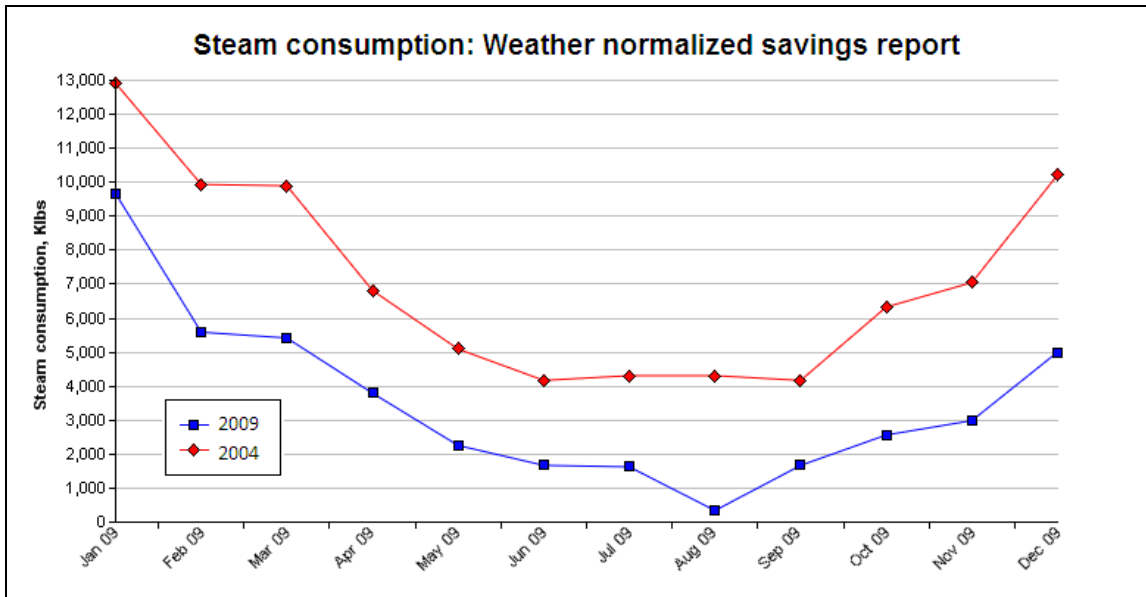
Greening Health Care is one of The Living City programs which TRCA launched in May, 2004. Today, more than twenty Ontario hospital corporations and over 40 hospital sites are members of Greening Health Care. A central element of Greening Health Care is its web based building performance management system developed in Ontario, which now contains one of the largest performance databases in North America. The hospitals use the system to:

- benchmark their energy and water use,
- set targets based on high-performing facilities,
- determine their conservation potential, and
- monitor their monthly energy and water savings.

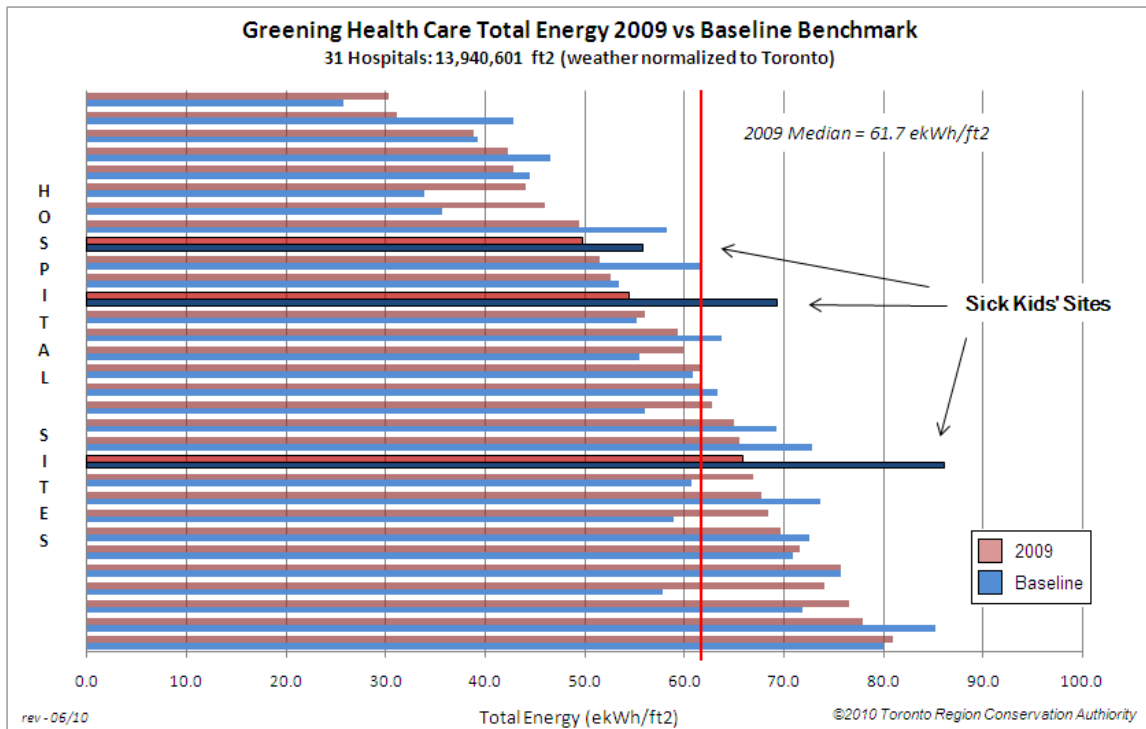
Member hospitals meet quarterly in facilitated workshops and webinars where they receive education in technology and best practices, plan and implement improvements, and network knowledge and experiences with each other. Together they form a collaborative community of interest working progressively toward ever higher levels of efficiency and cost savings.

The Hospital for Sick Children (SickKids) in Toronto is one of the founding members of Greening Health Care. Since 2004 it has implemented a range of operational improvements and retrofit projects across all three of its major downtown sites. Its savings have grown each year, and in 2009 its Atrium facility has been recognized for demonstrating a 50% steam use reduction from its 2004 baseline, making it one of the most efficient hospitals in the Greening Health Care database. SickKids' total energy and water savings for all three sites in 2009 amounted to \$1,600,000, and their current energy target aims to double those annual savings in future years.

SickKids Atrium steam savings report 2009 vs.2004:



For Greening Health Care as a whole, more and more member hospitals are recording double-digit percentage energy savings, together worth millions of dollars annually. As new hospitals join the program they can readily assess their energy performance relative to the Greening Health Care database and top-performing hospitals, set initial targets, and gain immediate access to the accumulated knowledge and experience of the group.



Notwithstanding the energy savings made so far, the benchmark chart shows there is still a wide range of energy use per sq. ft. among the Greening Health Care hospitals. Many of the facilities in the lower section of the chart are newcomers to Greening Health Care and have considerable room to improve, with savings potential typically worth hundreds of thousands of dollars per year.

Greening Health Care exemplifies what we have come to refer to as performance-based conservation. Such programs share the following characteristics:

- Voluntary, collaborative and member directed.
- Continuous energy reporting – members have been monitoring their energy performance for many years.
- Data-driven – targets and best practices are informed by benchmarking and validated by actual energy savings recorded by the hospitals.
- Multi-year commitment – it can take two years or more for a new member hospital to demonstrate early success with operational improvements and make the business case for greater investment in conservation.
- Continuous improvement – energy conservation evolves from one-time projects to an ongoing management process of individual initiatives working towards higher and higher performance targets.

Performance based conservation complements and enhances more prescriptive DSM programs. It harvests the considerable potential for low cost, high total resource cost (TRC) savings resulting from operational improvements, re-commissioning of building systems, and upgraded controls and automation. By continuously monitoring and reporting on actual energy use and savings achieved, it helps verify that prescriptive measures are properly installed and operated and do indeed realize the estimated savings upon which prescriptive incentives are calculated. Performance based conservation informs standard-setting, supports rational “bottom up” estimation of conservation potential in each building sector, and reports on overall energy, cost and emissions savings and progress towards targets using real data, not engineering estimates. It also enables collaboration, competition and accountability among building owners, managers and communities which creates broad market transformation.

Since TRCA introduced this approach seven years ago, performance-based conservation has grown rapidly within Ontario and is being adopted across Canada. TRCA also delivers the Mayors’ Megawatt Challenge for municipalities, and helped launch the ongoing Sustainable Schools program. TRCA is working under an agreement with the Canada Green Building Council (CaGBC) to support its national GREEN UP program which uses a similar approach in the commercial office, government/utility company administration buildings, K-12 schools, municipal arenas, bank and credit union branches, and university sectors. TRCA and CaGBC are jointly developing Greening Retail to address the retail sector, and intend to introduce the approach to more building types over time. Using web-based delivery, the approach is fully scalable and potentially accessible to all sectors and buildings across Ontario.

Performance-based conservation is transforming the market in Ontario and beyond. In September, 2009 Real Property Association of Canada (REALpac) launched its “20 by ’15” target which aims to lower median energy for office buildings by up to one half by 2015. “20 by ’15” is derived from the performance metrics developed through the national performance based GREEN UP program, and is receiving worldwide attention as a model for deep conservation and emissions reductions. The Government of

Canada is considering the results of these performance based conservation programs in its development of Energy Star for buildings in Canada.

Enbridge Gas Distribution (EGD) has been supporting Greening Health Care and Sustainable Schools since 2006 through its M&T (Measurement & Targeting) program for commercial buildings. Incentives are paid to program participants based upon reports which document actual energy savings achieved and the actions taken to generate the savings, and which are certified by the building owner and an engineer. Any incentives paid under other EGD programs are netted off against the recorded savings so there is no double counting. Importantly this program encourages and rewards good management and continuous improvement. For example, SickKids earned incentives for 2006, 2008 and 2009 as it continued with its ongoing energy conservation program, reinforcing the persistence and reliability of performance-based conservation savings.

For 2009, this EGD program support has extended to TRCA's Mayors' Megawatt Challenge program and to office buildings participating in performance based programs.

What we have learned is that:

- performance based conservation delivers far greater energy savings than had been expected,
- the larger part of the savings is found in low/no cost improvements,
- successful and sustainable conservation has more to do with good management than with technology,
- conservation programs have to support building managers with information, tools and resources so that they can recognize the unique set of conservation opportunities in their facilities,
- benchmarking can identify buildings with high conservation potential, inform target-setting and point to where savings are to be found in each building, and
- monthly savings reporting flags variances in predicted savings, identifies measures which do not perform as intended, verifies savings which have been achieved and guides continuous improvement.

Such specific, timely and accessible information can align and integrate the efforts of all the players involved in building performance, including managers, operators, contractors and designers, enabling them to work together towards higher and higher standards of energy efficiency.

Performance based programs address the whole building and all its systems, delivering natural gas, electricity and water savings, and thereby providing the opportunity for natural gas and electric utility companies to coordinate their conservation programming for all building sectors.

TRCA's comments on the fourteen elements in the Concentric report are based upon expanding and accelerating the proven benefits of performance based conservation across all buildings and building sectors in Ontario. The goals are to:

- support provincial policy objectives,
- scale up the level of conservation,
- harvest the considerable untapped potential for energy savings through operational and other low cost improvements,
- deliver verified energy savings to Ontario ratepayers and consumers, and

- develop a rapidly expanding and readily accessible market for Ontario's green products and services

To meet these goals on a broader provincial basis, TRCA recommends that future DSM/CDM programming in Ontario should include the following elements:

- Multi-year term recognizing recruitment and engagement goals in the beginning providing energy reporting, target-setting and conservation planning
- Incentives based on documented energy savings
- Coordination between natural gas and electric utilities
- Reliable and accessible monthly billing data
- Conservation potential estimation based on aggregated results
- Advanced metering for mid-sized buildings, including schools
- Research into best practices identified through continuous savings reporting
- Related education for building owners and managers, and for the buildings industry
- Sponsorship for established and proposed programs which provide these elements to the market in Ontario
- Measure Life input assumption raised over time as permanence of savings is demonstrated

ORGANIZATION OF COMMENTS

As outlined in the directions in the March 19 letter from the Board asking for submissions, the comments are grouped according to the 14 elements of the Concentric Report. TRCA has copied each of the recommendations from the body of the report and is providing comments on the issues identified within the 14 elements.

COMMENTS ON COST EFFECTIVENESS TEST

1. *In order to evaluate DSM programs that help the Board achieve more stringent conservation and climate change objectives, Concentric recommends that the Board consider adopting the Societal Cost Test (which includes all reasonably estimable externalities including CO2 emissions) as its primary method of assessing the cost effectiveness of proposed DSM programs.*

TRCA agrees that the Societal Cost Test should be adopted as the primary method of assessing the cost effectiveness of proposed DSM programs, in order to capture the full value of savings achieved. Our experience indicates that real savings grow every year when people are engaged through feedback from actual performance data. Therefore, TRCA suggests that these tests be applied over a multi-year basis rather than on an annual one.

2. *Under this approach, the Board would approve all energy efficiency and conservation programs with a benefit/cost ratio greater than 1.0 (subject to the budget constraints discussed under Issue #6 below).*

TRCA believes that programs with a benefit/cost ratio greater than 1.0 on a multi-year plan basis should be approved.

3. *Concentric recommends that the Board consider using the Program Administrator Cost test to prioritize the proposed DSM programs and measures. Priority would be given to those programs and measures with the highest PAC test results, thereby aligning DSM targets with DSM spending.*

TRCA has demonstrated that performance based conservation programs which harvest sustainable low/no cost energy savings will consistently achieve high PAC scores over multi-year plans, and so has no objection to this recommendation.

4. *Concentric recommends that the Board separately evaluate the cost effectiveness of proposed DSM programs for low-income customers*

TRCA agrees that the Board should separately evaluate DSM programs for low-income consumers. Further, TRCA recommends that the Board encourage integrated province-wide performance based programs for this sector such as the original Green Light Initiative run by the Social Housing Services Corporation.

5. *Concentric recommends that the Board consider adopting a Societal Cost test threshold for low-income programs of 0.60 to 0.75. This range is somewhat more aggressive than the 0.80 TRC result used in British Columbia, but more conservative than the 0.25 modified Participant Test result adopted in California. The recommended range of 0.60 to 0.75 is higher because it utilizes the Societal Cost test (which includes externalities), while the range in other jurisdictions relates to the TRC test or the Participant test (which do not include externalities).*

TRCA has no comment on this.

6. *Concentric recommends that the Board apply the cost effectiveness test on a program basis rather than a portfolio basis.*

TRCA has no comment on this.

7. *Although the utilities have expressed concern that applying the cost effectiveness test on a program basis discourages them from pursuing more innovative technologies, Concentric believes that concern can be addressed through approval of special funding for research and development efforts (similar to what is done in Minnesota) and for pilot programs that may not have benefit/cost ratios greater than 1.0, as long as the Board has an opportunity to review the success of those programs within two or three years.*

TRCA supports the idea of special funding for research and development efforts into innovative approaches and tools in addition to technologies. This allows piloting of potentially significant savings approaches that would not initially pass the cost effectiveness tests. The state of conservation today is recognizing that large savings can be achieved through better operational practice and the use of analytical tools grounded in performance data that help guide decisions on areas of greatest conservation opportunities. In fact TRCA contends that the highest innovation potential today lies in establishing the performance-based conservation methodology which has been created in Ontario and is expanding to other regions. R & D funding can be prioritized by a test of actual savings that can result from the use of the process or tools. It also should be

based on multi-year plans as one year will not usually be sufficient for the pilot to reach its maximum effectiveness.

This approach to innovation will also allow the Board to stay in alignment with the increasingly dynamic nature of customer based conservation approaches through its bi- or tri-annual review of the successes, particularly in a market which is moving towards performance based conservation.

COMMENTS ON AVOIDED COSTS

8. *Concentric recommends that gas distributors should be responsible for calculating avoided costs and submitting them to the OEB for approval. Concentric endorses the Board's current approach whereby the commodity cost is updated on an annual basis, and all other avoided costs are based on a three-year program cycle. This appears to strike the proper balance between including current information for commodity costs, which tend to be volatile, while holding constant those costs which do not tend to change as frequently.*

TRCA agrees but recommends a longer program cycle of up to 5 years, with renewals as consumers continue to improve their energy efficiency over time.

9. *Concentric recommends that the OEB consider innovative approaches to the DSM framework, including using the avoided costs associated with renewable energy resources, reducing the discount rate to place more value on savings that are expected to occur in future years, placing a monetary value on the reduction in carbon emissions that is achieved due to energy efficiency programs, and extending the effective useful life of certain DSM measures to capture the actual savings that are realized as a result of those measures.*

TRCA agrees. In addition, innovative approaches should include operational and other low cost improvements in both gas and electricity use that would be verified through actual utility performance data as part of a multi-year plan. These approaches can be part of programs that the gas distributors can deliver for two reasons. First, they will address looking at conservation from a systemic perspective, with all energy reduction opportunities in consideration to maximize savings, and second, they have the distinct advantage of being a trusted source for services in the market. They need not deliver all of these services themselves but can have authorized third parties contracted to provide the services for them, not unlike what Enbridge is doing with solar thermal installations to the residential sector, and its support for TRCA's Greening Health Care and other programs.

This leverages several areas. Gas distributors not only have the accurate billing data for verification and demonstration of savings persistence, but also can be better aligned with the effective useful life of the conservation measures by demonstrating initial achievement and long-term persistence of savings. The opportunity to scale up the level of conservation through the distributors in this way is unparalleled.

10. *Rather than using the utility's weighted average cost of capital as the discount rate, the Board might consider adopting a societal discount rate similar to those in Iowa and Wisconsin, which could be based on the average yield on the Government of Canada long bond over a specified number of months. This would place more value on savings that are projected to occur in future years, and would give utilities an incentive to pursue DSM measures with longer lasting benefits.*

TRCA agrees with adopting a societal discount rate and the idea of placing more value on future verified savings and on the longer lasting benefits of DSM measures.

11. *The Board could require utilities to assign a value to certain environmental benefits such as reduced carbon emissions. Under this approach, it would be necessary for the Board to either establish the value of carbon emissions or seek guidance from an outside expert, the regulated utilities, or the federal or provincial government in establishing the value of carbon emissions. Once a carbon price is determined, the Board could then direct gas distributors to include that value in their avoided cost calculations. Based on Concentric's survey of other jurisdictions, a price in the range of \$15/ton to \$25/ton would be consistent with the value placed on carbon emissions elsewhere.*

TRCA agrees that environmental externalities should be included but has no comment on how to value the avoided costs.

12. *Concentric recommends that, if the OEB determines that it wishes to assign an economic value to avoided carbon emissions, the issue may require further research and analysis in order to ascertain a more accurate and precise value based on the expected form of carbon regulation in Ontario.*

TRCA has no comment on this.

COMMENTS ON INPUT ASSUMPTIONS

13. *Concentric endorses the Board's current approach of developing a common set of input assumptions with the assistance of an independent consultant. However, if the gas distributors wish to deviate from these input assumptions, we believe that they should be allowed to file information that would support their assumptions.*

TRCA recommends a performance based approach which depends more upon actual savings data to demonstrate conservation, and helps validate calculated formulas and their assumptions.

14. *The Board should continue to update input assumptions to reflect the best available information based on the Evaluation Reports. This practice is consistent with the approach taken by the majority of other jurisdictions in our research survey. The advantage of this approach is that the Board will be better able to measure programs success against policy objectives when input assumptions are updated frequently. Another advantage is that the Board will be relying on the best available information for purposes of determining the lost revenue adjustment mechanism and the financial incentive for the utility. The primary disadvantage to frequent updates of input*

assumptions is cost. However, since the OEB has significant experience with DSM programs, Concentric would anticipate that the majority of changes to input assumptions would be refinements rather than major overhauls. Therefore, we would not expect the cost of frequent updates to be as significant in Ontario as it might be for a less mature DSM framework. Further, the information gathered from the annual Evaluation Reports should be very useful in making minor revisions to input assumptions based on empirical evidence, especially on issues such as free ridership.

TRCA agrees with regular updating of input assumptions, and recommends that Evaluation Reports include, to the greatest practical extent, reporting from performance based programs which support (or indicate adjustments to) certain assumptions, in particular Measure Life.

COMMENTS ON ADJUSTMENT FACTORS

15. *Concentric believes that our recommendation to focus on market penetration of DSM technologies reduces the importance of adjustment factors in Ontario because market penetration is more readily measured than consumer behavior. However, there will continue to be concerns about whether that market penetration is the direct result of energy efficiency and conservation programs, or whether it would have occurred regardless of those efforts.*

TRCA believes that market penetration of performance based conservation programs is an important measure of success. Gas and electric distributors should be expected to engage more and more energy users in such programs so that they become familiar with and respond to the motivations of benchmarking and continuous performance reporting. Once engaged, their changes in behaviour (and the performance of their buildings) are in fact readily verifiable through the levels of savings achieved.

16. *Concentric believes there is merit in simplifying the controversy over free ridership by either assuming that free ridership is offset by spillover, unless a specific program can be reliably shown to deviate from this assumption, or by multiplying reported energy savings by a designated factor (e.g., New York uses 90%) to adjust for effects that are not attributable to DSM. However, if the Board determines that it would like to include free ridership as an input assumption, then we agree with Navigant Consulting that this would be best accomplished by relying on empirical data from the program evaluation reports, or by relying on evidence from other similar jurisdictions as it becomes available.*

TRCA believes that building owners' participation in performance based conservation programs which gas and electric distributors help create and sustain over time should not be subject to free-ridership considerations.

17. *Attribution of benefits is another controversial adjustment factor because it is very difficult to assign credit for energy savings. Concentric is concerned that the centrality principle currently used by the OEB gives too much credit to gas distributors for DSM programs. Concentric recommends that, rather than attributing 100% of the benefits to gas distributors that satisfy the centrality principle, as the default, the utilities should provide evidence supporting any percentage greater than that actually spent by the*

utility. Otherwise, the OEB should assign a percentage of credit to the utility based on the percentage of total dollars they spent on designing, developing and delivering the joint DSM programs in question. We believe this would more equitably attribute benefits to gas distributors than under the existing DSM framework.

TRCA supports collaboration between gas and electric distributors in supporting performance based conservation programs, and recommends attribution of benefits to both parties based on actual gas and electricity savings achieved.

18. *Concentric agrees that persistence should not be assumed at 100%, as in the current DSM framework. We recommend that persistence be determined from the technical input assumptions and the annual evaluation reports. If gas distributors wish to deviate from the level of persistence established in the evaluation reports, they should be required to file evidence with the Board to support a different adjustment factor.*

TRCA believes that a performance based approach can provide a better means of managing persistence as it relies on actual monthly billing data to determine conservation savings over multi-year programs. This lends itself to better tracking of implemented conservation measures and their persistence. TRCA's programs have strong evidence of persistence since they were introduced in 2003-4.

19. *Finally, in their DSM plans, utilities tend to use a useful life for certain DSM measures that is shorter than the actual engineering life, which may understate the long-term benefits of these measures. In response, the Board might consider extending the useful life of certain DSM measures in order to more accurately reflect the actual savings produced by those technologies. For example, the Board might explore extending the useful life of replacement windows, attic insulation and new building envelopes because the future benefits for those measures may have been understated.*

Notwithstanding the issue around the life of technology measures, TRCA believes that in addition, low cost and operational measures can have a long useful life which can be tracked through a performance based model.

COMMENTS ON DSM PROGRAM DESIGN

20. *Concentric agrees with the previously-referenced NRRI publication, which indicates that DSM programs should be aligned with identified energy savings opportunities or "behavioral" problems in the market. DSM programs should be designed to emphasize those measures and technologies that contribute most to cost effective energy savings. Another guiding principle for regulators that was articulated in the NRRI publication was that the utility should prioritize its DSM programs based on which programs are expected to produce the most cost effective results. This suggests that program design should be influenced, to some degree, by the cost effectiveness of each individual program, as well as by whether the program addresses an identified savings opportunity or a recognized behavioral problem.*

TRCA can agree to the cost effectiveness criteria provided that the scope for program design be broadened from prescriptive, technology based measures to those that recognize verified behavioural, operational and people related conservation that can harvest the larger part of potential gas savings in buildings. Recommissioning, occupant engagement and operational action must be part of the design mix. If actual performance i.e. savings are tracked over multiple years, programs can be better designed to include people and behavioural issues, incentives, rewards and recognition which can become powerful tools that need to be harnessed.

21. *Concentric recommends that the Board utilize energy efficiency potential studies from Union and Enbridge as an indicator of which DSM programs are most likely to achieve the highest energy savings because they are aligned with documented opportunities to reduce gas consumption.*

TRCA disagrees. We contend that a more effective approach to estimating conservation potential is through “bottom up” target setting and savings estimation for individual buildings of different building types, based on existing top-performing buildings, and extrapolated to the building sector as a whole. This is the premise behind REALpac’s transformational 20 by ’15 target which was developed through the Canada Green Building Council’s national performance based GREEN UP program. This approach to estimating conservation potential is more straightforward and less expensive, has credibility grounded in real building performance, and lends itself to continuous improvement as better and better standards are demonstrated in more and more buildings.

22. *Concentric recommends that the Board utilize a combination of customer and vendor surveys to estimate the effectiveness of these programs, with the understanding that precise estimates of savings from market transformation programs are not attainable.*

In TRCA’s experience, measuring the effectiveness of programs can be much more precise through the use of performance data before and after measures have been implemented. These measures are not limited to technology but include those of operational, recommissioning and occupant engagement. In addition, when these actual savings results are fed back to customers, it drives a process of continuous improvement and builds momentum for more right actions.

23. *Distributors should be encouraged to pursue lost opportunity markets when they become available by including the achieved program results in the calculation of the financial incentive, and the Board should allow the distributor to modify its current DSM plan in order to pursue these opportunities.*

TRCA agrees with this.

24. *Concentric recommends that gas distributors and the Board continue to explore ways to address this concern because we believe that DSM programs for low-income consumers represent an important component of an effective DSM policy.*

TRCA agrees with this.

25. *Concentric concludes that DSM programs for low-income customers should follow several guiding principles. First, the utility should identify geographic regions with the highest concentration of low-income customers. Second, the utility should primarily focus on those customers with the highest energy use and those who have a history of late payments or face disconnection. Third, in order to capture economies of scale, the utility should develop programs that serve an entire neighborhood, rather than an individual customer. Fourth, the utility should concentrate on DSM programs that provide immediate and long-term benefits, such as home weatherization and appliance replacement. Fifth, the utility should coordinate with community organizations and local contractors to modify consumer attitudes and behaviors through education. Finally, the utility should understand that serving the low-income or disabled population requires a grassroots, community-based effort.*

TRCA has no comment on the focus priority but suggests that the performance based conservation approach can be an important tool in moving the public social housing and private low income MURB sector along the path to suite metering and better engagement.

COMMENTS ON DSM BUDGET

26. *As noted in Table 4, Ontario's 2007 Action Plan for Climate Change establishes targets for aggressive reductions in greenhouse gas emissions by 2020. In 2007, natural gas accounted for 26% of GHG emissions in Ontario. If gas distributors are to contribute toward a reduction in GHG emissions, then more spending on DSM will almost certainly be necessary. At the same time, there is increased commitment to using renewable energy and natural gas to generate electricity in Ontario. Concentric observes that these changes require gas distributors to continuously re-think how they approach resource planning and how they serve customers. It is important for the Board to implement a DSM framework that provides gas distributors with sufficient funding to develop and deliver energy efficiency programs that meet these policy objectives, while ensuring that the programs are cost effective and do not place undue pressure on customer rates.*

TRCA agrees with this increased support for DSM, while pointing out that the large potential for low/no cost savings has been largely untapped to date.

27. *In order to achieve more aggressive energy efficiency and conservation targets, Concentric concludes it will be necessary to increase spending on DSM programs in Ontario. As noted earlier in Tables 13 and 14, the average Canadian gas distributor spent approximately 2.0% of utility revenues less the cost of purchased gas on DSM programs in 2007, while the average U.S. gas distributor in our sample spent approximately 3.9% in 2008. Enbridge and Union both spent somewhat more than the average Canadian gas distributor in 2007, at 2.26% and 2.60% respectively. However, these percentages are well below the average spending among the U.S. gas distributors in our sample, and significantly below the gas utilities which spend the highest percentage of utility revenues on DSM – Manitoba Hydro (7.11%), Southern California Gas (5.40%), CenterPoint Minnesota Gas (5.93%) and Cascade Natural Gas (8.21%).*

TRCA believes that while more funds can be spent on DSM programs, the amount should be based on a bottom up aggregation using a performance based approach in program design rather than a top down percentage. This will help ensure better alignment of resources with documented results and lead to more effective allocation of resources moving forward.

28. *Concentric recommends that the OEB consider establishing a minimum percentage of utility revenues⁸¹ that gas distributors would spend on DSM programs, as well as a range of Board-recommended percentages that encourages gas distributors to pursue innovative or aggressive DSM measures. Concentric recommends a minimum annual budget threshold of 3.0% of utility revenues less the cost of purchased gas, and a Board-recommended range between 4.0% and 6.0%. Some of the relevant parameters for establishing this recommended range might include: 1) achieving a long-term Societal Cost Test equal to 1.0; 2) achieving market penetration of 90% for the Best Available Technologies for mass market DSM measures, and 3) contributing toward achieving any carbon reduction targets that are established as a result of the Green Energy Act or similar future legislation.*

TRCA believes that while more funds can be spent on DSM programs, the amount should be based on a bottom up aggregation using a performance based approach in program design rather than a top down percentage. TRCA disagrees with using a minimum or fixed rate as it is unnecessary and inefficient.

COMMENTS ON DSM METRICS/TARGETS (MEASURING SUCCESS)

29. *Concentric recommends that the Board adopt market penetration of the Best Available Technologies as its primary metric for evaluating whether a particular DSM program or measure is successful. In situations where market penetration is not applicable or cannot be measured (e.g., attic insulation might be difficult to observe), Concentric recommends measuring the reduction in gas consumption per customer attributable to the DSM program or measure. The market penetration metric would require gas distributors to establish a baseline of the existing circumstances in Ontario for each energy efficiency and conservation measure by conducting an inventory assessment. Once this work is completed, the OEB would be able to measure program success by establishing market penetration targets for each specific energy efficiency measure by a certain date. For example, the Board might determine that it wishes to set a target of 75% market penetration for installation of the best available replacement windows by 2020, or a 60% market penetration for installation of the most efficient gas furnaces by 2025. These percentages would depend on several factors, including the results of the inventory assessment that establishes the baseline for each measure, any specific metrics the Board may set regarding reductions in per capita gas consumption, and any carbon emission reduction targets that may be promulgated as a result of the Green Energy Act. Concentric recommends that the Board consider establishing long-term market penetration targets that cover three to five years, and require the gas distributors to propose how to achieve these targets in their DSM plan filings.*

TRCA disagrees with the idea of Best Available Technologies as the primary metric. TRCA, through its programs and other related ones, has proven that using Best Available Technologies is no guarantee of energy reductions. This has also been shown by the Canada Green Building Council results of its recent pilot programs on lighting

retrofits and the studies that the US Green Building Council has done that show no correlation between a new LEED building's modeled energy rating and its actual energy use. How it is operated is THE determining factor. Using a performance based conservation approach, actual savings can be documented to determine overall effectiveness of implemented measures.

30. *Concentric recommends that the Board strongly encourage gas distributors to focus on DSM programs which have the highest potential for increasing market penetration of BAT. By concentrating on market penetration, Concentric believes the Board can more accurately measure and evaluate the success of DSM programs. Once it has been determined that end-use applications are in the public interest, it is more straightforward to monitor penetration of those applications. This approach will result in the selection of DSM programs that maximize the economic potential of energy efficiency and conservation programs, rather than simply passing a minimum benefit/cost threshold of 1.0.*

Again, TRCA disagrees with using BAT and encourages the Board to consider the performance based conservation approach.

31. *Concentric believes that similar metrics could be developed for its DSM programs serving low-income customers. Market penetration and the reduction in gas consumption per customer appear to be equally appropriate for this customer segment. However, the targets might be different for certain programs and measures. For example, the Board may want to establish a higher market penetration standard (perhaps 90%) for home weatherization of low-income properties to ensure that energy savings is maximized.*

TRCA disagrees with using similar metrics serving low-income customers for reasons described in Issue 29.

COMMENTS ON FINANCIAL INCENTIVE (UTILITIES)

32. *Concentric recommends that the financial incentive mechanism be primarily tied to the success of the gas distributor in achieving pre-determined market penetration levels for each DSM technology.*

TRCA disagrees and encourages the Board to consider the performance based conservation approach, where actual documented savings become the primary determinant of success.

33. *Further, Concentric recommends that the Board set metrics and targets for gas distributors so that they are incented to pursue DSM measures that provide deep energy savings.*

TRCA agrees with this.

34. *Concentric recommends that the Board develop an incentive formula that considers the magnitude by which the gas distributor exceeds certain metrics or targets, including market penetration, reduction in gas consumption, and/or contributions toward reductions in carbon emissions.*

TRCA encourages the Board to develop an incentive formula that is based on the performance based conservation approach and considers multi-year plans, targets based on customer engagement and bottom up actual savings aggregation and continuous reporting.

35. *Concentric recommends that gas distributors should not be eligible to receive financial incentive payments if they do not exceed the established DSM metrics and targets for each program (i.e., resource acquisition, market transformation, and low income), whether it be for market penetration, energy savings, or carbon emission reductions. Concentric does not believe that gas distributors should be rewarded for achieving less than 100% of program success. Conversely, we do not believe that penalties for failing to achieve 100% success are advisable.*

TRCA has no comment on this.

36. *For low income programs, Concentric recommends that the Board develop a separate financial incentive mechanism that is contingent on market penetration, reductions in gas consumption, and efforts to reduce customer bills through education and awareness programs for low income consumers.*

TRCA agrees, with the exception of using market penetration as a metric, as the performance based conservation approach would be more useful.

37. *When input assumptions are updated, Concentric believes that it is appropriate to use best available information for purposes of calculating the financial incentive payment. Our recommendation is based on the premise that the Board-approved input assumptions have been developed with the assistance of an expert consultant, that stakeholders have had ample opportunity to comment on those input assumptions, and that any changes for existing DSM measures will tend to be refinements. If Ontario did not already have significant experience with its DSM program, we would be more sympathetic to arguments regarding the value of "locked-in" input assumptions, so that year-to-year changes in input assumptions should be more modest.*

TRCA has no comment on this.

COMMENTS ON COMPENSATING FOR LOST REVENUE

38. *Concentric recommends that the Board consider providing gas distributors with the opportunity to request revenue decoupling.*

TRCA has no comment on this.

39. *If revenue decoupling is not adopted by the Board, or until such time as it is implemented, Concentric believes that the necessary information is available to calculate the LRAM based on energy savings (which is contained within the Societal Cost test and Program Administrator Cost test) and market penetration (which is the primary metric we recommend for measuring program success). Further, if the Board continues to rely on the LRAM, Concentric recommends that the calculation should be based on updated input assumptions. However, we agree with Enbridge that it is reasonable to establish a date by which information used to calculate LRAM must be submitted.*

TRCA has no comment on this.

COMMENTS ON CONSERVATION IMPACT EVALUATION

40. *Concentric recommends that the OEB appoint the entities that are responsible for conducting the independent program evaluation and the third-party audit of program results.*

TRCA suggests that the independence of program evaluation is less important with a performance based approach as it will provide greater transparency of results.

41. *Concentric believes that it is appropriate for the utility to continue to pay for the program audit and the program evaluation, and to continue to recover that cost through the designated cost recovery mechanism.*

TRCA has no comment on this.

42. *Concentric anticipates that the Board would be responsible for selecting the program evaluator(s) and the program auditor, for defining the parameters of the evaluation and the audit, and for reviewing the results. Concentric believes the Board should consider assigning one or two OEB staff members to oversee the DSM program and evaluation audit process, thereby minimizing the impact of this recommendation on the Board's limited resources.*

TRCA has no comment on this.

43. *In selecting the third-party auditor, Concentric recommends that the OEB attempt to balance the need for expertise in verifying DSM program results with the need for independence. Certain stakeholders have expressed concern that the third-party auditor may not be truly unbiased if it typically represents the interests of regulated utilities. However, it is important to select an auditor that possesses the qualifications and expertise to evaluate and verify the reported results.*

Again, TRCA suggests that verified results with a performance based approach will be more transparent and help mitigate bias issues.

COMMENTS ON FILING AND REPORTING REQUIREMENTS

44. *Concentric endorses the OEB's proposed annual reporting and evaluation reporting requirements. We believe that the Evaluation Report and the Annual Report, as described in the DSM Draft Guidelines, will provide the Board with the necessary information about the success of DSM programs without imposing unnecessary costs and administrative burdens on gas distributors.*

TRCA has no comment on this.

COMMENTS ON STAKEHOLDER INPUT

45. *Concentric endorses the OEB's current approach to soliciting stakeholder input. From our perspective, the Board's existing DSM Framework strikes the appropriate balance between allowing stakeholders the opportunity to participate in the development, design and evaluation of DSM programs while recognizing that gas distributors are ultimately responsible and accountable for these programs.*

TRCA has no comments on this.

COMMENTS ON INTEGRATION OF GAS/ELECTRIC

46. *The Board might wish to encourage utilities to integrate certain phases of their DSM programs, such as program delivery (e.g., home energy audits) or low-income community programs. Home energy audits offer a significant opportunity for cost synergy because the potential for both natural gas and electric savings can be assessed in the same visit.*

TRCA strongly agrees and proposes that the performance based conservation approach can provide important coordination facilitation among energy types as well as engage others to maximize the conservation opportunity.

47. *Concentric recommends that the Board consider ways in which gas and electric utilities can coordinate, if not integrate, their DSM programs to improve customer participation and to achieve certain administrative efficiencies.*

TRCA agrees and proposes that the performance based conservation approach can provide important coordination facilitation among utilities as well as engage others to maximize the conservation opportunity.

48. *We further believe that DSM programs for low-income customers that are implemented on a community basis provide a unique opportunity for cooperation between gas and electric utilities to capture synergies in communications and delivery of programs. Pilot programs on an individual community basis represent an appropriate start to such an initiative.*

TRCA agrees with the unique opportunity for cooperation between utilities for low income customers and proposes that the performance based conservation approach can provide important alignment among utilities as well as engage others to maximize the conservation opportunity.

COMMENTS ON ALTERNATIVE DSM FRAMEWORK

49. Concentric does not offer any specific recommendations with regard to alternative DSM frameworks. In our opinion, the evidence related to the relative merits of third-party administrators is inconclusive. If Ontario's DSM program was failing to achieve the Board's policy objectives, then it might be reasonable to consider whether the administration should be turned over to a third party entity. However, we have not seen evidence suggesting this is the case. We agree with stakeholders that the DSM framework in Ontario could be enhanced, but we do not believe that the current framework should be abandoned and replaced by something entirely different. Rather, we recommend modifications to the existing framework, and to the parameters of that framework.

TRCA proposes integrating the performance based conservation approach into the 14 elements to enhance the administration, flexibility, effectiveness and scale of DSM driven energy savings in Ontario. The details are described at the beginning of this comment paper in the Background section.