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07 June 2010

Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON
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Dear Ms Walli:

Re: EB-2008-0346 – Gas DSM Framework Review – GEC comments on Concentric Report

Attached please find our comments on the Concentric report on the Gas DSM framework.

Sincerely,

David Poch

Cc: all parties

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Ontario Energy Board

Consultation of the Gas DSM Framework

GEC Comments in response to the Concentric Report

OVERVIEW

Concentric Energy Advisors (hereafter, "Concentric") has developed a detailed report to the Board containing at least 49 specific recommendations on 14 different gas DSM framework issues. GEC provides its comments and suggestions regarding each of these recommendations below.

Before getting to those specific recommendations, we thought it important to highlight what we consider to be the most important issue addressed in the report: DSM budget levels. The importance of many of the other issues is directly tied to the magnitude of DSM budgets. For example, if budgets do not grow substantially, the cost-effectiveness test used matters less. The suggested focus on achieving high market penetrations of best available technologies will mean little if the spending necessary to accomplish high market penetrations is not required and approved. The interest in improving low income program designs will only have limited application if budgets are not increased to levels that permit many more low income participants. The stakes on lost revenue, evaluation and shareholder incentives are all tied to budget levels.

GEC submits that the economic, environmental and other policy imperatives for significantly increasing the level of investment in gas DSM in Ontario have never been more compelling. Indeed, we believe that provincial government policy demands significant increases.

The question of how large DSM budgets should grow has always been a contentious one. There has always been a fair amount of agreement on the policy principles on the matter. Going back to EBO-169, the Board and many stakeholders, including GEC, have been in agreement with the premise that DSM spending should be adequate to capture all cost-effective efficiency resources, constrained only if rate impacts are "undue". Concentric has also agreed with this premise. Disagreements on budgets have always centered on the questions of what is undue and how fast the LDCs can grow their programs. GEC contends that no party has ever demonstrated in a regulatory proceeding before the Board that significantly larger gas DSM budgets would create undue impacts. Thus, given the policy imperatives, we suggest that the Board should require pursuit of all cost-effective savings (recognizing that it may be appropriate to take a few years to ramp up to such levels of effort) – as several other jurisdictions have now done – and place the burden of proof to demonstrate that rate impacts would be "undue" on any party who opposes spending what is necessary to achieve maximum cost-effective efficiency. Indeed, spending less than what is required to attain maximum cost-effective efficiency by definition means that customers will ultimately pay more for energy services. Thus the burden should be on those who would impose these higher costs on the system to demonstrate that near term rate impacts preclude their achievement.

Concentric has further suggested that budgets be increased to between 4% and 6% of the utilities' gross operating revenues less the cost of gas as a practical starting point to achieve Ontario policy objectives. They propose that level of spending because they believed it to be consistent with the spending levels they found for leading gas DSM jurisdictions in North America. However, as discussed further below, Concentric's review of leading gas DSM jurisdictions focused on spending in 2007 or 2008. In contrast, the policy framework now being debated for Ontario would not begin to apply to DSM efforts until 2012 – four or five years later. In response to a question from GEC, Concentric agreed that gas DSM spending, particularly in leading jurisdictions, has been on an upward trajectory. Thus, GEC contends that the spending levels put forward by Concentric are outdated and not applicable.

GEC has conducted some preliminary research on this topic, investigating spending levels proposed for 2010, 2011 or 2012[1] for the 10 U.S. utilities included in Concentric's report (Table 15). Thus far, we have obtained data for only five of the 10 utilities.[2] However, as the following table shows, *in every single case,* spending for 2011 or 2012 is dramatically higher than the 2007 or 2008 values in Concentric's report. The increases range from 52% at the bottom end to over 1000% at the top![3] Interestingly, the average spending for these five utilities in 2007/2008 as reported by Concentric was 3.9% (the same as the average for the longer list of 10 that it

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[1] Since not all utilities have already filed or had plans approved for 2012, it was not always possible to include numbers for that year. Thus, given trends of rising DSM budgets, the DSM budget values reported in GEC's analysis should be viewed as conservative benchmarks for 2012.

[2] We obtained data for a sixth utility: Unitil (which recently bought the Maine gas utility included in Concentric's report). However, the spending numbers we obtained for 2007/2008 were different than those provided by Concentric so we have not included it in our analysis. Nevertheless , it is worth noting that the data we obtained show spending forecast for 2009/2010 – still two years earlier than the 2012 year in which new OEB gas DSM framework decisions would first be applied – to be 88% higher than 2007/2008.

[3] Our analysis shows that National Grid is forecasting spending of $90 million 2012. That is almost 12 times the value Concentric reports for National Grid in 2007. We believe that Concentric's reported value for 2007 covered only the final 8 months of that year. However, even if spending in the first 4 months was similar, the 2012 spending level would be roughly 8 times the 2007 spending level.

analyzed). If Gross Operating Revenues for these utilities increased at the rate of inflation,[4] their spending in 2011/2012 would average about 12% of gross operating revenues. Two of the five would be spending 15% or more. Again, this underscores that the Ontario utilities would need to be spending in 2012 at least four times what they are spending today to keep pace with other leading jurisdictions.

Table 1: 2011/2012 Budgets for U.S. Utilities in Concentric Report (Table 15)[5]

		Concentric Estimates of Budgets			GEC Updates to Budgets		
Jurisdiction	Utility	Year	Budget (millions)	% of utility revenue less cost of gas	Year	Budget (millions)	% of utility revenue less cost of gas
California	SoCalGas	2008	$68.0	5.4%	3-yr avg 2010-12	$103.3	7.8%
Connecticut	Southern CT Gas	2008	$2.0	1.6%	2010	$3.3	2.5%
Iowa	MidAmerican	2007	$15.8	3.9%	2012	$25.5	5.7%
Massachusetts	Ngrid	2007	$7.8	2.7%	2012	$90.0	28.2%
Minnesota	CenterPoint Gas	2008	$8.4	5.9%	2012	$22.5	14.8%
Average				3.9%			11.8%

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[4] GEC did not conduct original research on current or projected future Gross Operating Revenues less the cost of gas. For this analysis, we simply assumed that such revenues increased annually at the average rate of inflation in the United States over the previous three years.

[5] References for the GEC budget numbers are as follows: (1) Decision of Commissioner Grueneich and ALJ Gamson, Public Utilities Commission of the State of California, Approving 2010 to 2012 Energy Efficiency Portfolios and Budgets, regarding Applications 08-07-021, 08-07-022, 08-07-023 and 08-07-031, September 24, 2009; (2) 2010 Electric and Natural Gas Conservation and Load Management Plan, submitted by The Connecticut Light and Power Company, the United Illuminating Company, Yankee Gas Services Company, Connecticut Natural Gas Corporation and The Southern Connecticut Gas Company, Docket Nos. 09-10-03 and 08-10-02, October 1, 2009; (3)MidAmerican Energy Company, Energy Efficiency Operating Plan, EEP-08-2, to the Iowa Utilities Board, Volume 1, Updated April 1, 2010; (4) Petition of Boston Gas Company, Colonial Gas Company and Essex Gas Company each d/b/a National Grid for Pre-Approval of Gas Energy Efficiency Programs and Recovery of Gas Energy Efficiency Related Costs for the Period of January 1, 2010 through December 31, 2012 – D.P.U. 90-121, Exhibit NG-6; (5) CenterPoint Energy Compliance Filing to the Final Decision on its 2010-2012 Conservation Improvement Program (CIP) Triennial Plan and Center for Energy and Environment’s Proposal for the One-Stop Community Energy Services for Inclusion in CenterPoint Energy’s 2010-2012 CIP Triennial Plan, Docket Nos. G008/CIP-09-644 and G008/CIP-09-291, December 30, 2009.

SPECIFIC RECOMMENDATIONS

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.*

In principle, GEC agrees that the Societal Cost Test (SCT) is an appropriate measure but we are concerned that it is impractical and will consistently underestimate the true societal value of DSM. In practice we are likely to see an inadequate carbon shadow price adder and nothing more (witness the extended discussion that ensued at the Externalities Working Group following EBO-169).

Consumers undertake conservation for numerous reasons all of which have social value. Just as a co-generator may provide the electricity system with power and provide other benefits to the host site (heat or steam), a conservation investment may provide other benefits to the participant or host site such as comfort, improved workplace health and productivity, price security, security of energy services supply etc.. These benefits tend to be site-specific and difficult to quantify. As a result, they are rarely if ever factored in to SCT or TRC calculations of cost-effectiveness. Concentric conceded this point in its recent response to GEC question 1.A (Concentric question 25):

> *"Concentric believes that the above-mentioned externalities are difficult to quantify. As a result, Concentric agrees that the SCT and TRC test do not capture non-energy benefits, and consequently tend to understate the true societal benefits of DSM."*

An alternative to engaging in a difficult and divisive debate about SCT is to use the Program Administrator Cost Test (PACT) or Utility Cost Test as the primary screen, just as we do for utility purchases of supply. PACT will ensure that average utility bills are lower than they otherwise would be. It will also enable utilities to implement a broader array of programs that are societally cost-effective because of non-energy benefits (but fail screening under the SCT or TRC when not counting those benefits).[6] This will, in

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[6] Consider a measure that costs $1000 and has $750 worth of energy benefits and another $750 worth of non-energy benefits. Under the SCT or TRC, this measure would fail screening with a benefit to cost ratio of 0.75 because those tests do not capture non-energy benefits. However, if the utility was providing only a $500 rebate, it would pass with a ratio of 1.50 (i.e. $750 in energy benefits compared to $500 in DSM costs). In essence, under

(footnote continued)

turn, allow for a greater range of customers to participate in DSM offerings. This is important because the principal cure for any concerns about rate impacts is to increase opportunities for all customers to participate meaningfully in DSM. Finally, the PACT will eliminate one of the contentious input assumptions for calculating net benefits – incremental measure costs – because the only cost that matters under the PACT is a utility's DSM expenditure.

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).*

   GEC notes that budget has been and will likely remain the acting constraint on DSM, not the screening test. However, particular measures or programs may fail to meet the TRC that could pass the SCT or PACT. We do agree that the B:C threshold should be 1 with the exception of pilots, initial efforts in market transformation (which ultimately should exceed 1) and low income programs where significant equity concerns arise that warrant relaxation of the test.

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.*

   GEC has suggested that the PACT be the primary screen and accordingly, its use as a prioritization tool (to address resource constraints) is viewed as appropriate. However, we have two concerns about Concentric's recommendation.

   First, while we agree that maximizing savings per dollar of spending is an important policy goal, we do not believe it is or should be the only policy goal. Other critically important goals include (1) equity among consumers in their ability to access or participate in DSM programs; and (2) prioritizing lost opportunity markets since opportunities missed in such markets may be lost for decades (e.g. once a new building is constructed or once a new boiler is purchased) and be more expensive to address when they resurface.

   Second, we suggest that cost-effectiveness screening is a more valid prioritization tool at the program level than at the measure level. We submit that due concern for lost opportunities will often require bundling of measure delivery that will require 'out of

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the PACT, we allow the market to value non-energy benefits and factor them into decision-making regarding program participation.

sequence' measures. For example, in residential programs it makes sense to do all cost-effective weatherization in one step despite some of it having a relatively lower B:C ratio than other programs or measures competing for utility investment. Cream skimming can be a problem with any screening test that is used to determine utility incentive rewards and it is important to avoid specifying a prioritization approach in a manner that would compound that problem. Accordingly, the Board should be explicit in its specification of lost opportunity avoidance as a higher priority as it did in EBO-169.

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

   GEC agrees that equity considerations require separate consideration of low income customer programs. These customers who have been paying for LDC DSM in rates for many years should be able to participate and share the benefits but experience has demonstrated that programs to address low income efficiency opportunities are quite expensive.

   It is also important to note that low income programs generally produce tangible cost-of-service savings by reducing credit and collection costs (when bills are more affordable, customers are less likely to get in arrears on their bills). We believe the Board should require the utilities to quantify these benefits and factor them into future cost-effectiveness screening of low income programs (as another component of avoided costs).

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).*

   GEC agrees that a more permissive threshold for program screening is appropriate to ensure that low income customers can participate in DSM programs. This threshold is a matter to be considered in light of the resources available which in turn should be limited by two tests: How cost effective are the measures? Is the rate impact undue? In an ideal situation all customers would have access to all cost-effective measures. Rates would rise but all bills would fall. The higher program delivery costs faced in low income programs are a reasonable 'subsidy' to ensure equitable access to DSM and to address the fact that these customers would otherwise be 'subsidizing' other DSM participants with no ability to enjoy DSM benefits themselves. This is particularly important if the unique benefits low income programs provide, in terms of reducing credit and collection costs, are not captured in cost-effectiveness screening (see GEC recommendation above).

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

   GEC agrees. A portfolio level test can obscure analysis of the cost-effectiveness of particular programs or measures.

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.*

   GEC agrees that pilot or R&D initiatives are the way to begin addressing emerging opportunities that may be cost-effective in the future, and that such efforts do not need to achieve a benefit-cost ratio of 1.0. While the initial period of an MT program may not achieve 1.0, these programs should be expected to exceed 1.0 over the course of several years.

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.*

   GEC suggests that consideration be given to calculating avoided commodity costs with a rolling three year average of forecasts to help smooth volatility. As discussed above, we also recommend that the Board require the utilities to quantify the reduction in credit and collection costs that low income programs produce, and factor those savings into avoided costs as well.

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.*

    GEC agrees that avoided cost should be captured with rigor, looking at the actual avoided societal resource at the margin (which may well be renewables given carbon constraints), the best measure of societal discounting, and actual measure lives. However, such changes should be made because they better reflect actual costs or actual equipment use, not as an artificial means to an end.

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.*

    GEC suggests using the Social Discount Rate (as the government uses for considering long term options) as it best reflects the average opportunity cost of capital to the economy.

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.*

    As discussed above, GEC is concerned that consideration of externalities will be incomplete and highly unlikely to reflect the actual cost of reducing emissions by the amount necessary to stabilize the global climate (i.e. 80% reductions or more which would likely produce market clearing prices for carbon that are much greater than $25/ton). Therefore, GEC favours the PACT test. If a total or societal cost test is used it would be appropriate to include carbon costs but it would be desirable to avoid a prolonged debate about the level.

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.*

    See above.

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.*

    GEC agrees but the ability to submit evidence and propose assumption changes that deviate from the default values should be available to all parties, not just the utility. In its response to question 55 (SEC question 14), Concentric states that they support such symmetry. Further, GEC stresses that many inputs will be program specific and over-simplification can result in economic waste and misdirected programs. The guidelines should specify the consultative mechanism to be utilized to minimize the need for contested hearings.

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.*

    GEC strongly support regular evaluation and updates of assumptions. This assists in program design refinement. It also imposes rigor to ensuring that rate-payers are receiving the greatest benefits possible for their expenditures (subject to balancing interests in equity and other policy objectives).

The related suggestion of a Board appointed auditor (discussed below) would ensure that important evaluations and related updates to input assumptions are done accurately, on a timely basis and in a transparent and objective fashion. GEC notes, for example, that even recommended changes to input assumptions provided by the LDCs' auditor – even those to which the Companies appeared to agree – have not always been made (e.g. see discussion of stream trap measure lives in soon-to-be-filed GEC submission on Enbridge's 2011 DSM Plan). Board management of that process will create much greater trust in the process of updating assumptions.

As noted in prior consultations, GEC submits that utilizing best available information for both LRAM and incentive calculation is appropriate given the relative maturity of gas DSM in Ontario.

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.*

GEC agrees that a focus on market penetration should simplify some evaluation but notes that many programs (such as custom measures) are not amenable to this approach and will still require TRC, SCT or PACT-style evaluation. GEC also agrees that attribution and free-ridership remain concerns in some cases (see below).

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.*

GEC believes strongly that free ridership must be evaluated based on good research after the fact. Otherwise LDCs will have an incentive to chase free-riders (particularly where a TRC or SCT-based incentive is utilized). Even where a market penetration based incentive is utilized, great sums of money can be wasted and opportunities lost if programs are not refined to minimize free-ridership. If the Board were to consider using a default net-to-gross ratio or free rider rate, we would suggest that recent experience with the LDCs and the myriad of efforts in the market today would necessitate using something more like 50%, with the burden of proof for use of a higher number being placed on the utilities.

In Ontario, the LDCs report that we are now achieving in the range of $400 million of TRC per year. In custom projects which can account for 70% of total savings, free ridership estimates may range from 0% to 90%. If a better program design and targeting of effort can reduce actual free-ridership from 75% to 25% this could produce $100 million of true incremental TRC each year. It would be penny wise and pound foolish to save one or 2 million dollars on evaluation and regulation at the expense of even a fraction of that level of savings. Accordingly, GEC supports a well funded, objective and independent effort to evaluate free-ridership regardless of the shareholder incentive framework.

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.*

    GEC agrees that the centrality approach to attribution is problematic and that apportionment by funding proportion is a better default presumption. The burden should be on the LDC to provide evidence to rebut the presumption.

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.*

    Persistence is one consideration that should go into proper determination of measure life. GEC agrees that a more rigorous approach is preferable as the level of societal investment in DSM grows.

19. *Finally, in their DSM plans, utilities tend to use a useful life that for certain DSM measures 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.*

    Again, GEC agrees that there should be no artificial cap on measure life. If a measure can legitimately be expected to produce savings for longer than currently assumed, the measure life should be increased accordingly. We are not certain that all of the examples provided by Concentric meet that test. However, we agree that a more rigorous approach to estimating measure life is preferable as the level of societal investment in DSM grows.

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.*

    As discussed above, while GEC agrees with the goal of getting the best bang for the buck, we do not believe that is or should be the only policy objective guiding DSM program and portfolio design. Other factors, such as equity in access to DSM offerings and minimizing lost opportunities, are also very important.

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.*

    Well-designed conservation potential studies are an important research tool to assist in portfolio design and budget formulation and are worthy of continued development as the market and technology evolve. However, it is important to note that such studies are not and should not be the only tools useful for establishing savings targets, budgets, etc. Past program experience and other studies can be just as important.

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

    GEC agrees that customer and vendor surveys can provide useful insight into progress of market transformation initiatives. However, it is important to underscore that their usefulness is not a given. It all depends on what questions are asked, how they are asked, whether useful answers are received, whether bias in responses has been limited, etc.. Indeed, specific experience with poor survey studies has already been noted by EAC's and Auditors of the LDCs' programs in recent years. GEC believes that market penetration is often the most useful measure of MT success. Market penetration information can sometimes be obtained from customer and/or vendor surveys.

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.*

    GEC supports the need to recognize and target lost opportunity situations and agrees that the LDCs should have a mechanism to allow them to react to new information. Given recent experience in which the gas LDCs have not focused primarily on lost opportunity markets (e.g. witness how much of the residential savings realized by the LDCs over the past decade have come from retrofit change-outs of showerheads – the antithesis of lost opportunities), despite policy guidance from EBO-169, the Board may want to consider requirements to allocate specific and large proportions of DSM budgets and/or shareholder incentives to efforts in lost opportunity markets.

24. *…in a landlord/tenant situation, the benefits of DSM programs will inure to the landlord rather than the tenant. 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.*

    GEC agrees. A multi-fuel approach may be particularly important for the low income sector to achieve economies of scale in program delivery.

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.*

GEC agrees with these recommendations, but suggests that experience in numerous other jurisdictions suggests that the approach recommended by Concentric likely requires a significantly greater level of investment in low income initiatives than the Ontario LDCs have made historically. We would support a ramping up of low income efforts as part of a broader ramp up of gas DSM efforts.

GEC also notes that there are community-based organizations in Canada with specific expertise in low income program design such as Green Communities Canada. The LDCs should be encouraged to utilize this expertise.

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.*

GEC agrees with Concentric's observations and would add that equity considerations also suggest that a larger budget is appropriate to allow all customers to be meaningful program participants over a reasonable timeframe.

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%).*

GEC notes that in response to Question 97 (GEC question 1.C), Concentric agreed that "DSM budgets should set to achieve the policy objectives in place." Government policy in Ontario is clearly supportive of aggressive DSM targets. Thus, GEC submits that budgets should reflect the level necessary to pursue all societally cost-effective DSM and only be constrained if rate impacts are undue. In response to question 98 (GEC 1.D), Concentric agreed with this statement. GEC does not believe that the highest levels seen in other jurisdictions are likely to involve undue rate impacts.

Further, GEC has pointed out that Concentric's data is from 2007-2008 and will be 5 years old by the start of the next DSM cycle in Ontario. Concentric agreed with this observation and also agreed, "as a general premise…that DSM budget levels have been increasing…" Thus, even if the Board were to use spending levels in leading jurisdictions as a basis for establishing spending levels for Ontario (perhaps relying in part on decisions elsewhere that such spending does not lead to undue rate impacts), it would need to look at much more up-to-date values. GEC has conducted some preliminary research on this topic, investigating spending levels proposed for 2011 or 2012 for the 10 U.S. utilities included in Concentric's report (Table 15). Thus far, we have obtained data for only five of the 10 utilities.[7] However, as the following table shows, *in every single case,* spending for 2010, 2011 or 2012[8] is dramatically higher than the 2007 or

[7] We obtained data for a sixth utility: Unitil (which recently bought the Maine gas utility included in Concentric's report). However, the spending numbers we obtained for 2007/2008 were different than those provided by Concentric so we have not included it in our analysis. Nevertheless , it is worth noting that the data we obtained show spending forecast for 2009/2010 – still two years earlier than the 2012 year in which new OEB gas DSM framework decisions would first be applied – to be 88% higher than 2007/2008.

[8] Since not all utilities have already filed or had plans approved for 2012, it was not always possible to include numbers for that year. Thus, given trends of rising DSM budgets, the DSM budget values reported in GEC's analysis should be viewed as conservative benchmarks for 2012.

2008 values in Concentric's report. The increases range from 61% at the bottom end to over 1000% at the top![9] Interestingly, the average spending for these five utilities in 2007/2008 as reported by Concentric was 3.9% (the same as the average for the longer list of 10 that it analyzed). If Gross Operating Revenues for these utilities increased at the rate of inflation, [10] their spending in 2011/2012 would average about 12% of gross operating revenues. Two of the five would be spending 15% or more of gross operating revenues. Again, this underscores that the Ontario utilities would need to be spending in 2012 at least four times what they are spending today to keep pace with other leading jurisdictions.

Table 1: 2011/2012 Budgets for U.S. Utilities in Concentric Report (Table 15)

		Concentric Estimates of Budgets			GEC Updates to Budgets		
Jurisdiction	Utility	Year	Budget (millions)	% of utility revenue less cost of gas	Year	Budget (millions)	% of utility revenue less cost of gas
California	SoCalGas	2008	$68.0	5.4%	3-yr avg 2010-12	$103.3	7.8%
Connecticut	Southern CT Gas	2008	$2.0	1.6%	2010	$3.3	2.5%
Iowa	MidAmerican	2007	$15.8	3.9%	2012	$25.5	5.7%
Massachusetts	Ngrid	2007	$7.8	2.7%	2012	$90.0	28.2%
Minnesota	CenterPoint Gas	2008	$8.4	5.9%	2012	$22.5	14.8%
Average				3.9%			11.8%

[9] Our analysis shows that National Grid is forecasting spending of $90 million 2012. That is almost 12 times the value Concentric reports for National Grid in 2007. We believe that Concentric's reported value for 2007 covered only the final 8 months of that year. However, even if spending in the first 4 months was similar, the 2012 spending level would be roughly 8 times the 2007 spending level.

[10] GEC did not conduct original research on current or projected future Gross Operating Revenues less the cost of gas. For this analysis, we simply assumed that such revenues increased annually at the average rate of inflation in the United States over the previous three years.

28. *Concentric recommends that the OEB consider establishing a minimum percentage of utility revenues 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.*

    GEC views 3% as grossly inadequate to capture a significant portion of lost opportunities, let alone all cost-effective DSM. GEC suggests that the proper approach is to analyze what budget would be required to achieve the policy goal (eg. 90% of best available) and then determine if rate impacts preclude that level. Further, as noted above, the Concentric-reported spending levels of other leading jurisdiction are very much out of date for the purpose of setting budget levels in Ontario in 2012. Our preliminary analysis suggests that leading utilities are planning to spend 12% or more – in some cases much more.

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.*

    For the reasons discussed by Concentric (see below), GEC supports use of market penetration as a goal setting approach and as a measure of success for utility incentives but notes that this will not be applicable to all programs. That said, we believe that the examples provided by Concentric of achieving market penetration goals over 10 or 15 years are not nearly rapid enough for many markets (though they are probably reasonable for others, such as market penetration of comprehensive whole building retrofits), given economic and environmental policy imperatives and examples of more rapid successes elsewhere. We also observe that the key to success with this approach will be to sufficiently fund DSM to enable significant progress in a variety of markets in a reasonable time period.

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.*

    (see above)

31. *Finally, Concentric believes that similar metrics could be developed for 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.*

    Maximizing energy savings for low income customers reduces bill delinquency and related costs. Such added benefits should be recognized.

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.*

    Again, this is desirable but will not address all program opportunities.

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.*

    GEC views this as one aspect of respecting the importance of addressing lost opportunities and achieving economies of scope and scale.

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.*

    GEC agrees.

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.*

GEC agrees. LDCs have repeatedly demonstrated that they can meet or exceed DSM targets. Incentive dollars are more effectively spent if targeted at incenting higher levels of performance.

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.*

GEC agrees. Further, given the high program delivery cost for L.I. programs, pursuit of deeper savings will avoid lost opportunities and achieve economies of scope. Accordingly, the L.I. program shareholder incentive should specifically address the depth of savings per participant.

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.*

As submitted in the prior round of consultation, GEC agrees that this will encourage LDCs to both continuously improve program design and consult with stakeholders, will reduce controversy and the potential for gaming and is not an undue risk for the LDCs at this stage.

COMMENTS ON COMPENSATING FOR LOST REVENUE

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

In the context of the Board's consultation on decoupling, the LDCs have not appeared supportive of this direction (presumably out of concern about the potential for a lower

ROI award as risk is reduced). GEC is concerned that the current rate adjustment mechanisms may not fully insulate the LDCs from variations in the rate year in volume among all rate classes due to conservation activities of third parties and that this is an increasingly important concern in the evolving Ontario context. Full decoupling, or weather adjusted decoupling (leaving *only* the weather risk with the LDCs) would better address this concern. If lower ROI can be achieved with fairness it would appear to be squarely within the Board's authority to insist upon such an approach.

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.*

GEC agrees with most of this recommendation. Our only concern is with the last sentence. LRAM calculations need to be based on the most recent information available at the time LRAM claims are being made in order to ensure that ratepayers are only compensating the utilities for revenues that are truly "lost". To that end, we are very wary of artificial cut-off dates, particularly when the utilities control evaluations and the timing of the release of evaluation results. If evaluations become managed by the Board, as suggested by Concentric, this concern would be significantly mitigated.

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.*

GEC agrees that a Board appointed evaluator and auditor would improve objectivity, reduce controversy and ultimately lead to better DSM performance. GEC recommends that the current working groups be maintained as they have proven to be cost-effective mechanisms to encourage better program design and enhanced accountability. Concentric appears to agree with this.

GEC and other parties have lamented for some years the processes involved in reviewing program efforts after the fact. Although the establishment of Evaluation & Audit Committees has resulted in improvements in recent years, controversy has persisted on the choices of what to evaluate each year, and the quality and timing of evaluation work. The reality that the utilities currently control interaction with evaluation contractors, see draft reports that the EACs do not always see, and control the timing of release of final reports also continues to keep stakeholders from fully trusting the evaluation process. Shifting the responsibility for managing evaluation and annual audits to the OEB would free the utilities to put their energies into improving programs and maximizing participation.

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.*

GEC agrees that these are costs of distribution.

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.*

GEC agrees (see above).

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.*

GEC agrees.

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.*

GEC agrees.

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.*

GEC suggests that a collaborative, rather than merely consultative process might further reduce regulatory burden and improve program results. We further contend that experience in other jurisdictions suggests that collaborative approaches have been enormously successful. Indeed, most of the jurisdictions in the United States which Concentric identified in its report as the leaders either have efficiency programs administered by organizations other than utilities or have more formal collaboration between utility administrators and other stakeholders.

Concentric has suggested that the one potential disadvantage of collaborative structures is that they have "the potential to slow down development of development and delivery of cost-effective and innovative DSM programs." However, Concentric offers no evidence to support this statement. Even when pressed to provide examples, they note only one example in which filings related to performance and benefit-cost claims were made late and another in which shareholder incentive payments were approved late. Neither of these examples speak to the development or delivery of cost-effective and innovative programs. Moreover, no evidence is provided to support the inference that the delays referenced were due to the collaborative structure. Again, we believe the fact that the most successful jurisdictions with utility administration of programs are those with formal collaborative structures for input by stakeholders speaks volumes.

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.*

GEC strongly supports a multi-fuel joint delivery approach, especially for the low income sector.

In addition, because programs targeted to mass markets (e.g. residential and small commercial customers) benefit from clear and consistent messages to a variety of key market players (e.g. consumer, retailers, contractors, manufacturers, etc.), we submit that Board should expect the two gas utilities to offer consistent, integrated programs in those markets unless compelling reasons for doing things differently in each service territory are offered. We note that this is not the case today. The two utilities have many differences in their DSM programs. Concentric seemed surprised by that situation at the Stakeholder meeting and agreed with GEC's recommendation in their response to question 77 (GEC question 1.I).

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.*

GEC agrees.

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.*

GEC agrees.

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.*

GEC suggests that the Board not dismiss this option, and should advise the LDCs that it remains an option if the utilities fail to adequately address DSM.