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BY EMAIL and RESS

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Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, Ontario
M4P 1E4

Attn: Kirsten Walli, Board Secretary

Dear Ms. Walli:

Re: EB-2015-0276 – Union Gas DSM Deferrals

We are counsel for the School Energy Coalition. Pursuant to Procedural Order #3 in this matter, these are SEC's submissions on the Application.

Introduction

Union Gas had, for 2014, a robust audit process with active stakeholder involvement. While the audit process has always suffered from the fact that the stakeholders (and to a certain extent the auditor) never really get full access to information on what Union actually did in carrying out its DSM programs, that has for the most part been handled with apparent effectiveness by reviewing aggregated information in a rigorous way.

The one area in which that was not possible was also the area producing the biggest savings, the commercial and industrial custom projects. In that area, the details mattered, but for a long time Union (and Enbridge) refused to share detailed information on those projects, or only shared limited amounts of information, after the fact. That has slowly changed, and today much of the information on these projects is part of a fully-supervised audit process.

In this proceeding, SEC has focused on the Large Volume custom projects. There are no schools in that category. However, a forensic review of that category allows the parties, and the Board, to have a deeper look than the Board has ever seen at how Union Gas is pursuing DSM



programs. If the Applicant's approach to the Large Volume custom projects is indicative of its approach to its entire DSM portfolio, the Board should have cause for serious concern.

The Large Volume Program

Union Gas has 77 large volume customers, of whom 53 participated in DSM programs in 2014 [C.OGVG.2]. After audit, the Applicant claims that its program resulted in more than 870 million lifetime cubic meters of savings. The utility paid \$3.2 million in incentives to convince the customers to spend an incremental \$60 million on projects to reduce gas use [C.IGUA.9]. The average cost per ccm. for the customers was thus 6.9 cents, and that was achieved with a low overall spend from the utility.

The Board does not actually see all of the projects for the 53 participating customers. The Board sees, instead, the 22 projects reviewed by the CPSV reviewer, Diamond Engineering. Those 22 projects were for 18 customers [C.IGUA.11], and represent a stratified sample of the total population of projects.

In this case, though, for the first time the Board also sees some information on the other projects incented for those same 18 customers. That information, set out in C.SEC.11, shows that there were actually a total of 72 projects for those 18 customers. SEC has compiled the information on those 72 projects, using the information in C.IGUA.11, C.Staff.12, C.SEC.1, and C.SEC.11, into a table for those 18 customers. That table is attached to these submissions, and has also been provided to the parties in Excel format.

While the table represents projects for only 18 of the 53 participating customers, those customers delivered 74% of the savings for the Large Volume program, received 40% of the incentives paid under that program, and had 29% of the incremental spending allegedly incented by that program. (In fact, 12 of these customers represent 72% of the large volume savings.) Thus, it is possible to reach some conclusions about the overall program by looking at this list.

What is most striking is the project economics. 84% of the savings come from the 71% of the projects having a payback of 2.0 years or less. Even more astonishing, 77% of the savings come from the 49% of the projects with a payback of 1.0 year or less. Some have paybacks as low as a couple of days.

Further, even those numbers are somewhat understated. If paybacks are recalculated using the ccm claimed, which is the expected savings from the projects at the time they were implemented, both percentages are substantially higher. Only a few projects had paybacks longer than 2.0 years.

Payback is only one criterion, of course, but the ability to look at the whole list allows the Board to reach practical conclusions. Customer D, which had the largest audited savings, is said to have spent an additional \$467,140, which it saved within about four months. However, it needed \$184,895 of incentives to make the decision to go ahead. Customer A, with the second highest savings total, spent it is claimed an incremental \$433,893, which it got back within six months, but still needed \$58,080 from the utility to go ahead with its projects. Customer B, the



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third highest savings total, spent \$362,465, which it got back in ten weeks, but had to have a cheque of \$55,975 to go ahead.

These three customers total 26% of Union's claimed 870 million of savings, represent 9% of the incentives paid, and 2% of the incremental customer spending. That customer spending was paid back to the customers in savings, it is claimed, in about four months, yet Union had to spend \$300,000 in incentives, and additional money in administration and other costs, to get it. This is not credible.

Perhaps more surprising are the customers who are said to have committed larger amounts,, for smaller incentives. Several of the customers had incentives that were only 3% or 4% of their supposed incremental spending, yet Union claims that their program caused the incremental spending, and the savings. On average, incentives are 5.4% of incremental spending for the whole program, with a 7.4% average for these 18 customers, and a 4.5% average for the remaining 35 customers.

SEC is also concerned with the types of projects. When we have in the past looked at just the sampled projects, we see some patterns, but now that we have a larger population for the first time, the patterns are more obvious. In addition to the low paybacks, discussed above, it is clear that 28 of these projects, comprising 19% of savings, are repairs to steam leaks and traps. Another 20%, in 5 projects, are repairs to pipe insulation (with very short paybacks). For customers C, E, H, K, and O, these two categories appear to be everything that was done.

In addition to the obvious problems with those types of projects, which have been discussed at length in the past, there is a baseline issue. As confirmed over and over in the interrogatories, the assumption is that, but for the Union program, these leaks, traps, or insulation would have been left unrepaired for, typically, 20 years. The assumption appears to be that Union's customers do a very poor job of maintaining their factories unless they are well-supervised by Union Gas. This, by the way, despite the fact that in almost every case these customers have written repair protocols specific to these items.

We also note that a third of the projects, representing 37% of the savings, were actually completed and in-service in 2013, not 2014. This is not contrary to the rules. Union can pay incentives for projects completed in a prior year. However, it exacerbates the impression already left by this list, that most or all of what Union Gas is doing in the Large Volume program is not influencing customers to save gas. It is more akin to giving customers money for things they were already doing.

Union's Argument

As we know from past discussions, the Applicant has two standard responses to criticisms such as those set out above.

First, they are not just providing incentives. They are also providing their expertise, identifying things the customers could do to save gas. The incentives are only a way of getting in the door.



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The problem with this argument, as noted by the Board in its Decision in EB-2015-0029/49, is that the large volume customers don't value that expertise. When invited to use the expertise, but paying for it, they all declined. They are happy to manage their own energy needs, or hire consultants of their own choice in the marketplace. There are many available.

Second, Union will note that they are giving the customers back their own money. This is a self-directed program, so each customer has a "budget" of incentives, which they can claim from Union for doing qualifying DSM projects.

With respect, this is the wrong way to think about this program. The point of having the program, and paying \$900,000 per year for overheads and other non-incentive costs, is to change customer behaviour. If all the utility is doing is writing cheques for the customer's internally-determined activities, there is no point in having the program.

It would indeed be possible to have a self-directed program that achieved real incremental results. It would, though, have to include some kind of causation threshold, allowing only projects that were over and above the customer's business as usual activities to be incented. That is quite obviously not the case here.

Sampling

The CPSV and audit processes are supposed to be driven by careful sampling, allowing the 22 reviewed projects to be a proxy for the full population of projects. The sampling methodology is one that has been used for a few years, and was reviewed and approved by stakeholders (including the undersigned) before implementation. It should be sound.

Now that we have more project information, a question is raised as to the validity of the sample. The sample includes 18 of 53 participants, but those included have the bulk of the savings. This is intentional, as the sample is weighted to the biggest savings. The 53 participants had a total of 207 projects, so a ratio of 3.9 per customer. The sampled 18 customers had 72 customers, so a ratio of 4.0 per customer, almost identical. All of this appears fine.

The part that is of concern is the dollar ratios. Savings of 870 million at a cost of \$60 million works out to 6.9 cents per ccm. However, the sampled 18 customers had savings of 644 million, at a cost of \$17.5 million, which works out to 2.7 cents per ccm. Conversely, the remaining 35 customers had savings of 227 million, at a cost of \$42.5 million, which works out to 18.8 cents per ccm.

The obvious concern here is that, given the uncertainties of the program results, a cost of 18.8 cents per ccm seems very high, possibly even not cost-effective when results are calculated more correctly. The less obvious concern is that the 135 projects for the 35 customers not included in the sample may, given the very different cost-effectiveness level, be different in kind from the projects sampled.



Conclusion and Recommendation

The Board and the parties have more visibility on Large Volume than on any other part of the Union Gas DSM programs. As a result of that visibility, there are substantial concerns about whether the programs are really achieving the goals the Board has set out in authorizing those programs, and the rate impacts that result.

There are two aspects to this.

First, what should the Board do about the Large Volume results?

Whether the Large Volume is as claimed, or zero, has no impact on the shareholder incentive. However, as OEB Staff correctly points out, it does have an impact on the LRAMVA. SEC believes that, on the evidence before the Board, no part of the 870 million lifetime cubic meters claimed for the Large Volume program has been shown to have been the result of Union's efforts. Most of it is obviously not the result of Union's influence, and the rest is doubtful. The onus is on Union, and it has not been met. Therefore, SEC believes that none of the 870 million of claimed savings should be included in the LRAMVA calculation.

Further, SEC submits that Union Gas should be ordered to amend their 2014 Annual Report on DSM to remove that 870 million from their claimed program savings everywhere that it appears. While it has no immediate dollar impact, the ccm total included in the utility's annual report is often quoted to justify DSM spending. This 870 million is not supported by the evidence, and should not be included in the claimed savings.

The other part of Large Volume results is the sampling question raised above. SEC submits that the Board should order OEB Staff, through the Evaluation Contractor under consultation with the Evaluation Advisory Committee, to review the sampling methodology to ensure that it continues to produce a useful and representative sample.

Second, what conclusions should the Board draw from this that may be applicable to the other parts of the Applicant's DSM programs?

SEC took a deep dive on the Large Volume program to see if it would raise any issues about how Union Gas is approaching DSM. It would appear to us that the Applicant's overall DSM approach is not sufficiently directed at getting incremental savings. On the other hand, there is no evidence allowing the Board to conclude that the problems in the Large Volume program also exist in the other parts of the DSM program.

To deal with this, SEC proposes that the Board order OEB Staff, through the Evaluation Contractor under consultation with the Evaluation Advisory Committee, to carry out a value-for-money audit of the Union Gas DSM programs, to be completed in time for the mid-term review of their 2015-2020 plans. Such a review would provide an independent assessment of things like a) whether the utility is targeting truly incremental vs. readily available savings, b) whether expectations, both of staff and of customers, are high enough, c) whether some parts of the program are not producing sufficient real benefits relative to results, d) whether program design elements have been optimized to achieve real results, etc. In this proposal, SEC is not



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suggesting a duplication of the annual audit and evaluations. This is not about the numbers. This is about whether the approach – to the goal and to the customers – is in line with what the Board and the ratepayers expect.

Subject to those recommendations, SEC believes that the DSMVA and the DSMIDA should be cleared as proposed by the Applicant (subject to the submissions of OGVG on the collections process).

All of which is respectfully submitted.

Yours very truly,

JAY SHEPHERD P. C.

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cc: Wayne McNally, SEC (email)
Interested Parties

Union Gas 2014 Large Volume Industrial Projects

Customer	Project	Type	In-service	Claimed	Audited	Cost	Incentive	Percent	Payback
A	0609	COG pipeline replace/clean	2014	73,702,240	55,048,200	\$205,467	\$20,000	9.7%	0.5
	0669	Recuperator Tube upgrade	2013	15,813,426	12,336,032	\$228,426	\$38,080	16.7%	0.5
	Totals	Customer A		89,515,666	67,384,232	\$433,893	\$58,080	13.4%	
B	0612	Re-route condensate	2014	66,484,536	66,782,800	\$362,465	\$55,975	15.4%	0.2
	Totals	Customer B		66,484,536	66,782,800	\$362,465	\$55,975	15.4%	
C	0630	Pipe insulation repairs	2013	49,248,925	45,153,600	\$337,691	\$10,000	3.0%	0.4
	0504	Steam leak repairs	2014	8,301,758	6,375,371	\$569,845	\$20,000	3.5%	4.4
	0505	Steam leak repairs	2014	4,408,290	3,438,467	\$287,955	\$11,770	4.1%	4.2
	0545	Steam leak repairs	2014	4,108,936	3,204,970	\$217,857	\$10,000	4.6%	1.2
	0546	Steam leak repairs	2014	2,235,727	1,743,867	\$118,860	\$10,000	8.4%	1.2
	Totals	Customer C		68,303,636	59,916,275	\$1,532,208	\$61,770	4.0%	
D	0608	COG pipeline replace/clean	2013	42,279,902	26,647,800	\$261,272	\$80,000	30.6%	0.6
	0622	COG pipeline replace/clean	2013	5,877,760	11,817,400	\$62,300	\$20,000	32.1%	0.1
	0511	Steam leak repairs	2014	2,155,477	1,681,272	\$10,181	\$4,895	48.1%	0.2
	0611	Turbo Generator HR	2014	17,102,800	13,340,184	\$118,411	\$50,000	42.2%	0.3
	0665	Reheat Furnace Tuning	2014	53,268,000	41,549,040	\$14,976	\$30,000	200.3%	0.01
	Totals	Customer D		120,683,939	95,035,696	\$467,140	\$184,895	39.6%	
E	0667	Pipe insulation repairs	2013	40,061,244	55,347,200	\$367,734	\$21,546	5.9%	0.4
	0656	Steam trap repairs	2013	245,177	191,238	\$19,526	\$3,807	19.5%	1.8
	0657	Steam trap repairs	2013	1,032,139	805,068	\$80,271	\$20,000	24.9%	1.8
	0658	Steam trap repairs	2013	843,485	657,919	\$63,280	\$20,000	31.6%	1.7
	0659	Steam trap repairs	2013	1,273,826	993,584	\$97,341	\$20,000	20.5%	1.7
	0660	Steam trap repairs	2013	979,505	764,014	\$74,337	\$20,000	26.9%	1.7
	Totals	Customer E		44,435,376	58,759,023	\$702,489	\$105,353	15.0%	
F	0615	Burner Upgrade	2014	35,898,400	36,616,000	\$348,212	\$50,000	14.4%	0.4
	0614	Baffle Walls	2014	6,239,946	4,867,158	\$733,757	\$27,429	3.7%	2.9
	0626	Burner Replacement	2014	13,130,893	10,242,097	\$514,959	\$20,000	3.9%	2
	Totals	Customer F		55,269,239	51,725,255	\$1,596,928	\$97,429	6.1%	

G	0670	Steam leak repairs	2014	17,083,526	4,489,600	\$26,227	\$20,000	76.3%	6.5
	0516	Steam leak repairs	2014	15,327,458	11,955,417	\$694,429	\$20,000	2.9%	2.9
	0517	Steam trap repairs	2014	7,119,243	5,553,009	\$185,383	\$10,000	5.4%	0.6
	0652	Heat transfer improvement	2014	8,930,594	6,965,863	\$703,822	\$10,000	1.4%	1.3
	0654	Steam trap repairs	2014	5,349,721	4,172,782	\$162,208	\$10,000	6.2%	0.7
	0655	Heat transfer improvement	2014	5,165,186	4,028,845	\$765,960	\$10,000	1.3%	2.4
	Totals	Customer G		58,975,728	37,165,516	\$2,538,029	\$80,000	3.2%	
H	0632	Pipe insulation repairs	2013	16,338,022	15,005,200	\$337,691	\$10,000	3.0%	0.4
	0470	Steam leak repairs	2014	17,431,645	13,596,683	\$366,393	\$10,000	2.7%	1.4
	0485	Steam trap repairs	2014	4,315,808	3,366,330	\$138,496	\$10,000	7.2%	0.7
	Totals	Customer H		38,085,475	31,968,213	\$842,580	\$30,000	3.6%	
I	0543	Steam trap repairs	2014	12,765,262	7,454,300	\$205,467	\$20,000	9.7%	0.5
	0339	Replace furnace components	2013	554,953	432,863	\$253,169	\$20,000	7.9%	1.5
	0340	Replace furnace components	2014	330,551	257,830	\$123,593	\$20,000	16.2%	1.2
	0471	Replace oversize regulators	2013	9,560,741	7,457,378	\$61,693	\$20,000	32.4%	0.4
	0496	Furnace repairs	2013	818,604	638,511	\$257,763	\$20,000	7.8%	1
	0544	Replace oversize regulators	2013	27,908,034	21,768,267	\$129,816	\$10,000	7.7%	0.3
	0596	Furnace repairs	2014	319,470	249,187	\$149,605	\$10,000	6.7%	1.5
	Totals	Customer I		52,257,615	38,258,336	\$1,181,106	\$120,000	10.2%	
J	0522	Steam trap replacements	2014	7,140,421	5,398,330	\$218,337	\$20,000	9.2%	0.8
	0625	Heat transfer improvement	2013	4,076,560	3,179,717	\$353,454	\$10,000	2.8%	0.6
	0679	Steam leak repairs	2013	5,845,496	4,559,487	\$382,114	\$10,000	2.6%	4.2
	0680	Steam leak repairs	2013	7,356,127	5,737,779	\$586,124	\$10,000	1.7%	5.2
	Totals	Customer J		24,418,604	18,875,313	\$1,540,029	\$50,000	3.2%	
K	0487	Steam leak repairs	2013	11,887,826	3,933,920	\$530,045	\$20,000	3.8%	7.5
	0551	Steam trap repairs	2013	1,655,573	1,291,347	\$63,570	\$20,000	31.5%	0.9
	0628	Pipe insulation repairs	2013	15,615,500	12,180,090	\$138,687	\$10,000	7.2%	0.6
	0653	Steam leak repairs	2013	2,368,816	1,847,676	\$178,797	\$10,000	5.6%	4.9
	Totals	Customer K		31,527,715	19,253,033	\$911,099	\$60,000	6.6%	
L	0620	Repair boiler preheater	2014	2,525,612	2,030,670	\$264,391	\$20,000	7.6%	0.4
	0619	Condensate heat recovery	2014	3,687,599	2,876,327	\$104,014	\$32,083	30.8%	1.4
	Totals	Customer L		6,213,211	4,906,997	\$368,405	\$52,083	14.1%	

M	0664	Steam trap replacements	2014	1,018,000	498,295	\$8,019	\$4,009	50.0%	0.2
	0468	Replace steam injection heater	2014	30,483,087	23,776,808	\$1,797,120	\$31,661	1.8%	3
	0486	Steam leak repairs	2014	8,810,914	6,872,513	\$89,571	\$10,000	11.2%	0.3
	0662	Replace heat exchanger	2014	4,612,218	3,597,530	\$51,257	\$20,000	39.0%	0.6
	0663	Replace heat exchanger	2014	3,191,204	2,489,139	\$51,257	\$17,344	33.8%	0.8
	0671	Steam leak repairs	2014	5,807,863	4,530,133	\$99,629	\$10,000	10.0%	0
	Totals	Customer M		53,923,286	41,764,418	\$2,096,853	\$93,014	4.4%	
N	0452	Process improvement	2014	13,311,278	22,245,600	\$1,352,455	\$65,000	4.8%	5
	0649	Steam leak repairs	2014	16,074,470	8,988,400	\$15,890	\$7,945	50.0%	0.1
	0675	Steam injector repair	2014	5,125,817	5,659,840	\$16,000	\$8,000	50.0%	0.2
	0432	Fire suppression system	2013	1,406,772	1,209,824	\$77,874	\$15,291	19.6%	4.3
	0520	Steam leak repairs	2014	5,138,872	4,419,430	\$30,609	\$15,305	50.0%	0.5
	0645	CHP load reduction	2014	121,308	104,325	\$21,159	\$1,199	5.7%	14.9
	0676	CHP load reduction	2014	81,243	69,869	\$36,176	\$981	2.7%	31.2
	0681	Pipe insulation repairs	2014	39,753	34,188	\$7,108	\$432	6.1%	13.9
	Totals	Customer N		41,299,513	42,731,476	\$1,557,271	\$114,153	7.3%	
O	0356	Steam trap replacements	2013	3,367,750	1,890,140	\$25,149	\$12,574	50.0%	0.3
	0326	Insulation repair/replace	2014	1,404,776	1,208,107	\$59,498	\$15,269	25.7%	3.3
	Totals	Customer O		4,772,526	3,098,247	\$84,647	\$27,843	32.9%	
P	0299	High Efficiency turbine generator	2014	2,288,003	854,036	\$800,000	\$24,870	3.1%	51.8
	0431	Feedwater economizer	2014	5,427,632	339,204	\$300,000	\$50,000	16.7%	48.9
	0373	Blowdown heat recovery	2014	126,160	108,497	\$20,000	\$1,371	6.9%	12.3
	0453	Linkageless controls	2014	1,221,447	1,050,445	\$20,500	\$10,250	50.0%	1.3
	Totals	Customer P		9,063,242	2,352,182	\$1,140,500	\$86,491	7.6%	
Q	0287	Kiln insulation replacement	2014	949,366	1,398,400	\$134,657	\$10,319	7.7%	5.3
	Totals	Customer Q		949,366	1,398,400	\$134,657	\$10,319	7.7%	
R	0371	Programming change	2014	913,569	1,589,760	\$920	\$460	50.0%	0.03
	0313	Steam trap repairs	2014	819,081	704,410	\$26,637	\$13,319	50.0%	0.9
	Totals	Customer R		1,732,650	2,294,170	\$27,557	\$13,779	50.0%	
TOTALS		Results for 18 participants		767,911,323	643,669,582	\$17,517,856	\$1,301,184	7.4%	