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January 16, 2015

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge St.
Toronto, ON
M4P 1E4

Dear Ms. Walli:

Re: EB-2014-0289 Natural Gas Market Review
Comments of the Vulnerable Energy Consumers Coalition (VECC)

Please find attached the Comments of the Vulnerable Energy Consumers Coalition (VECC) with respect to the above-noted proceeding.

Thank you.

Yours truly,

Michael Janigan
Counsel for VECC

Cc: OEB - Stephen Cain at stephen.cain@ontarioenergyboard.ca

EB-2014-0289

Ontario Energy Board

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, (Schedule B);

AND IN THE MATTER OF the Natural Gas Market Review 2014, convened by the Ontario Energy Board.

COMMENTS OF THE VULNERABLE ENERGY CONSUMERS COALITION ("VECC")

January 16, 2015

1. Pursuant to the Board's letter of September 19, 2014, VECC provides its comments with respect to the Natural Gas Market Review, 2014, Board File Number EB-2014-0289. VECC has attempted to organize its comments according to the Proposed Issues List prepared by Board Staff issued on December 23, 2014.

PROPOSED ISSUES LIST

1. **How can the Board's assessment of distributor natural gas supply plans be enhanced to ensure a better understanding of the various elements of the plan, the potential risks associated with those elements, and the applicant's proposals for methods of managing those risks?**

   One of the most important issues for residential ratepayers has been the recent volatility of the heating season weather and hence the volatility in heat sensitive demands and volatility in gas prices. The issue was succinctly summarized by Mr. Shorts of Union Gas:

   This slide shows the cumulative winter heating degree-days that Ontario has seen, especially the Union franchise area since 1969. As you can see, that red bar at the end is '13-'14, which is obviously the highest one that we can see on the chart.

   The other thing to note, if you look back just two years ago, that winter of '11-'12 or the winter that really wasn't, you will see that that's actually the lowest one on the chart. And that is one of the challenges of a gas supply plan, and the procedures that you have in place is you have to have a balance. You have to be able to manage those types of swings.[1]

   It is also factually correct that the 2013-14 winter was relatively severe as noted by Mr. Petak of ICF:

   This chart elaborates on the strength of the cold weather that we had this past winter. It clearly shows that -- and we're taking perhaps a longer view than Jeff did. We're taking a 65-year view, and even a longer view than Chris, with 45 years. It shows this was one of coldest winters on record in the Ontario market and the Midwest markets.

[1] Transcript, Volume 1, page 52

In fact, NOAA some interesting statistics from this past winter: 91 percent of the Great Lakes were actually frozen, and that's only the second time that that has occurred in the past 100 years.

So very cold weather, widespread cold again. And what the bars on this chart show is that this winter was generally 13 to 20 percent colder than normal in the two areas, Toronto and Chicago weather station data, as shown here. And so it was clearly one of the coldest winters on record.[2]

Given that there is evidence that the weather has become more extreme in recent years,[3] and that overall warming may involve the increased frequency of extreme winters, VECC submits that it would be useful to contemplate re-examining how the Ontario gas utilities manage their seasonal gas loads,[4] perhaps along the lines suggested by some participants at the Stakeholder Conference.

For example, Mr. Quinn representing FRPO and OGVG suggested buying gas as a substitute for storage service:

But, in fact, I thought Union Gas very well described what a utility can do in monitoring of storage targets and the impact of drawing down on storage earlier.

In our view, beyond the storage and transportation assets that the utilities have as a lever to pull, there is also landed gas at Dawn. We've heard a lot about Dawn as a robust market, and that market, it is evidenced in some of the slides from Navigant that the prices were relatively stable even in through January, providing opportunity to add additional gas. And that additional gas can be a substitute for storage withdrawal.

So where I may vary from my friends at Enbridge, I'm not -- I would love to see their plan that says additional storage would benefit ratepayers,

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[2] Transcript, Volume 1, pages 65-66

[3] "Data from NASA shows 13 of the hottest years on record have come in the last 15, and by a different data set produced by NOAA, 14 of the hottest years on record have come in the last 15." http://www.politifact.com/truth-o-meter/statements/2013/feb/15/barack-obama/barack-obama-says-12-hottest-years-record-have-com/

[4] The record indicates that there are differences between Union and EGD in respect of heat-sensitive load, definition of peak day, use of storage, bringing in winter gas brought in, etc., and, no doubt, these differences contributed to the respective experiences of the utilities and their respective customers especially during the 2013-14 winter. VECC submits that what is important here is 'the way forward.'

but I believe having sufficient storage and then using that storage to its full potential is a better way of doing it, and that is bringing in additional gas.[5]

Also, the OEB's Ms.Hare instigated an interesting discussion regarding storage space and its use as follows:

MS. HARE: Yes, it is Marika Hare from the Ontario Energy Board. I have a question for Navigant. It is slide 19 of your presentation. Could you please elaborate on the very last point on that slide, talking about the supply plan storage management more conservative supply plan? Can you expand on that, please?

MR. VAN HORNE: The parameters that the utilities would need to comply with, as far as how much they're allowed to pull down, the trajectory of that, if it was not so front-loaded perhaps, if the requirement was to maintain more storage longer.

MR. PICKERING: So just to comment a little more on the intent of that, is that there's some ability here in Ontario and in Canada for the utilities to use some discretion in terms of how they manage storage and how they manage load over the -- we're talking about in the course of the winter.

And a discussion that's worthwhile from your question is there are things that the regulators can do to -- might have addressed a more rapid drawdown of the storage by putting limits on a monthly basis. And that's sort of what we're talking about, so as a matter of discussion.

We also have suggested, you know, when we're talking about other factors worth talking about, are they practical or not, additional storage would have done perhaps the same thing. If there was additional storage, they could be incented in some way, perhaps from a regulatory perspective in some way. Maybe that would have had some positive impact.

But the point that you asked is: Is it appropriate?

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[5] Transcript, Volume 1, pages 101-102

Now, what will go into that consideration, of course, is that there may be a cost to it.

So if you put triggers and limits on storage, managing how the utility -- reducing the flexibility of the utility as to how they manage the storage, it may end up with a cost at the end of the wintertime.

So there's a trade-off here in terms of regulatory policy and how much leeway you see appropriate in a storage situation for a utility to manage within.[6]

In VECC's view, given recent history and the possibility that 'extreme is the new normal',[7] a re-examination – including but not limited to – the following issues led by the Board would be beneficial:

- The amount of storage made available to meet in-franchise peak and seasonal demands;
- The amount of storage deliverability made available for in-franchise peak and seasonal demands;
- Appropriate use of storage with respect to the drawdown profile and deliverability, provided to meet in-franchise seasonal and peak demands;
- Consideration of a more robust gas supply plan that could meet extreme winter demands that contemplates using all the supply tools available to a utility including bringing in additional gas during the drawdown period should certain trigger points be met.

2. **How can the Board better ensure that it's assessment of natural gas applications is informed by up to date information on relevant developments in the broader North American natural gas sector?**

   and

3. **What is the appropriate role of the Board in relation to the efficient operation of the natural gas market in the public interest, for**

[6] Transcript, Volume 1, pages 69-70

[7] At this point, the 2014-15 winter appears that it could be another extreme.

example, regarding the sufficiency of Ontario access to northeastern U.S. gas supplies?

During the Stakeholder Conference sessions, great emphasis was put on the increasing North American gas production potential, mainly due to the realized increase in shale gas production and estimates of future increases in shale gas production. The first panel made the following assertions:

From a very changed marketplace that is illustrated, in terms of the slide that you have on your screens there, that shows the -- a couple of things. First of all, that this natural gas shale, which we'll be paying quite a bit of attention to, has really reshaped the natural gas market in North America.[8] ...

Then a key thing happened in the marketplace. The Energy Information Administration, the U.S. government, filed an adjustment to the amount of resources that they had calculated previously. It was a 24 percent or 6.2 Bcf average annual adjustment to the deliverability of unconventional onshore gas for the region, 2010 to 2030, in their AEO, and this was a change, a vast change from what they had filed just in their AEO 2008.[9]

Looking forward, Western Canadian Sedimentary Basin supplies continue to be displaced by the Marcellus, we're going to put forward here. This is our view looking forward. You can see that the Marcellus is going to become more important. You'll know Marcellus-Utica a lot more than what you have in the past. This is our forecast going forward of gas supply to the U.S. northeast right now.[10]

VECC has a number of concerns with the shale gas production forecasts on record in this proceeding.

First, and fundamentally, VECC notes that some scientists have raised serious questions with the EIA shale production forecasts. From Day 1 of the Stakeholder Conference, the following exchange occurred:

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[8] Transcript, Volume 1, page 12
[9] Ibid, page 13
[10] Ibid, page 20

MR. WIGHTMAN: James Wightman on behalf of VECC. I just was wondering -- there was a report that was issued this year called "Drilling Deeper" by J. David Hughes.[11] *He claims that, barring the discovery of a new Marcellus, shale gas production will peak by 2020. And he also claims that in the past EIA, estimates have been overly rosy. Could you comment on that, and have you seen the report? Thank you.*

MR. PICKERING: I have not seen the report. The reports like it are not -- as I imagine, I have seen before. And there are some of those views that have come up from time to time.

I don't know the date of that report. Frankly, the reports that have -- are built on the peak resource prognostication for the shale industry in particular -- I think that is what the point was -- quite honestly, those kinds of reports are less in number these days than they were in 2008, 2009, 2010.[12]

Further, with respect to forecast risks, VECC notes that an article by Mason Inman writing in *Nature* on the December 3, 2014[13] notes the following with respect to shale gas production from 'the big four' US shale plays – Marcellus, Barnett, Fayetteville, and Haynesville – comprising 2/3 of current US shale gas production, states:

If natural-gas prices were to follow the scenario that the EIA used in its 2014 annual report, the Texas team forecasts that production from the big four plays would peak in 2020, and decline from then on. By 2030, these plays would be producing only about half as much as in the EIA's reference case. Even the agency's most conservative scenarios seem to be higher than the Texas team's forecasts. "Obviously they do not agree very well with the EIA results," says Patzek.[14]

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[11] This report is available at http://www.postcarbon.org/wp-content/uploads/2014/10/Drilling-Deeper_FULL.pdf. The author spent 32 years as a scientist and research manager with the Geologic Survey of Canada. A biography is available at http://www.postcarbon.org/our-people/david-hughes/.

[12] Transcript, Volume 1, pages 23-24

[13] This article may be found at http://www.nature.com/news/natural-gas-the-fracking-fallacy-1.16430.

[14] It has been noted, in the above-referenced resources and elsewhere, that fracked wells' production profiles are much shorter in duration than conventional gas wells' production profiles.

Secondly, in VECC's view, even if the EIA and other forecasts prove to be accurate, there are enviro-political risks for shale gas production that may limit extraction.[15]

The issue of enviro-political risks was raised at the Stakeholder Conference:

MR. JANIGAN: ...

I've been a little bit surprised over the last two days that -- in regulatory proceedings where I normally attend, I hear discussions of nothing but risk and what the risk is to the regulated companies to carrying out most of their objectives.
In this case, it seems to me that there is a rather substantial risk of a lot of these plans being knocked into a cocked hat by the fact of the rising public opposition of the fracking of gas.

I was looking on the net just recently, and I noticed that only 24 percent in, for example, the U.K. support fracking gas. And a poll done in August, it looks like 70 percent are against -- or in favour of a moratorium on the fracking of gas in Canada.

You know, I can't -- you know, I have no particular way of a testing to the veracity and accuracy of these kinds of polling results, but it seems to me that there is a fair degree of opposition that is growing with respect to this practice.

Once again, our brief is mainly for low-income consumers; it is not an environmental brief, so I am not here to tell you that the practice is environmentally sound or not sound. But when I look on in the news media and documentaries and whatever, there seems to be a lot of public concern about this.

I was in the Yukon earlier this year, where there was an application to replace an aging diesel generator with an LNG generator. And there was a public meeting and 2- or 300 people attended, and every one of them was against the idea of replacing the diesel generator with an LNG

[15] VECC notes that the process of fracking has been associated with earthquakes/tremors in Ohio and in BC. Also, fracking has been associated with noise, groundwater, and air pollution.

generator because it might lead to natural gas from BC, fracked natural gas from BC coming into the Yukon. And, you know, speaker after speaker stood up in this thing.

Now, the Yukon is, of course, a special case in relation to the people that are very attached to the environment there, but it strikes me as -- I have heard nothing but blue sky about this stuff and markets, markets, markets over the last two days.

What kind of contingency plans are there, for example, if there is a moratorium or some restrictions on fracked gas in Ontario? Does anybody have those kind of plans?

MR. PICKERING: Fracked gas in Ontario?

MR. JANIGAN: Yes. Either bringing it in, or...

MR. PICKERING: I will take a shot at this. We have been involved in this question -- I think it's a very valid question that you bring up -- for numbers of years now, going back to before 2008.

The situation, as we see is it, is that there has been a continuum of debate on -- from environmentalists, from other concerned individuals as part of any public process that deals with a process as impactful, certainly, to an industry, but also made up of very heavy equipment that this process of fracking is. And no one is denying that.

In the very beginning, the natural gas industry had done -- and leading up to this abundance, had done a very poor job, the natural gas industry, of being able to communicate to the populace what natural gas was, what the advantages and what the risks were of drilling, especially in the new process that had been not as well understood as -- even as today or as it will be years from now.

There have been a wide range of debates on the efficacy of the fracking process, and organized groups that have voiced their opinions against the practice of fracking.

Typically, just to be clear here, the impact of a fracking moratorium in the province of Ontario or by the province of Ontario probably would have little impact, given the production profile currently in Ontario.

Typically, any of the – typically -- it can change -- the jurisdiction for fracking bans or regulation over production activity in general is at the state or the provincial level. So if Alberta was to do something like that, I think we would be talking about a different situation, or British Columbia, where there is undoubtedly a debate on just this very topic.

I think over the years -- and now it isn't many years, so we're talking about an evolution of an industry, really a reformation of the industry, in six years -- there has been an active, a public debate on this matter, very important matter.

And what I would like to make clear, that if fracking, hydraulic fracturing and horizontal drilling, as an industry practice was banned across all jurisdictions, we would go back to a situation of shortage.

This would impact directly on shale gas development, which is the reason why we're all essentially addressing some of the questions we have been addressing for the last two days and for the rest of today.

So that would be the situation. We would go back to a situation of shortage, apparent shortage, that was the conventional wisdom going back to 2008.

So let's be clear about that. The process of fracking is, as it stands today, something that -- you mentioned the U.K.. You really need to -- you need to talk more specifically about the individual situations that get the media attention. And in the U.K., there has been some tie of the fracking, the drilling process, with earthquake.

The evidence in the U.K. has been that there really -- as there's been a lot of people that looked at this, there has been no tie to the practice of drilling, fracturing and earthquake.

Other situations, similarly, need to be looked at on an individual basis. But the sum total is that there's no incidents of -- that we've seen that have resulted through the process of hydraulic fracturing and horizontal

drilling that have really had impacts on the environment. We just haven't seen them.
If there has been any, it's -- and there's one or two, so...

MR. FRASER: Mr. Sloan, you had a comment?

MR. SLOAN: I did. We don't view the risk of a ban as being significant. It's more a cost risk. So there could be some additional regulation in the areas where shale gas is being produced that would increase the cost somewhat, but the economic benefits to the people and the companies that are currently producing gas are so great it would be very, very difficult to go away from that.

Perhaps a more important risk would be the issue of the difficulty of building pipeline capacity out of the basins, and particularly in areas like New York, where they have taken a significant stand on fracking, and New England. It makes the costs and the risks of building pipeline capacity in those markets much greater.[16]

VECC advances no position in this proceeding on the practice of fracking and the public policy that should exist with respect to the same. VECC is concerned that the "blue sky" approach to the uninterrupted supply of fracked gas and the planning of transportation infrastructure accordingly is skirting the requirements of regulatory prudency.

VECC notes also that a (growing) number of jurisdictions have instituted fracking bans as a result of environmental concerns.[17]Recently, Governor Andrew Cuomo of New York State announced he would not try to overturn a fracking ban on the Marcellus shale located in the state. followed the release of a highly-anticipated health and environmental study on the impacts of fracking.

> A study, conducted by the Cuomo administration, concluded that while data is limited and risks surrounding fracking are not fully known, the potential adverse impacts appear significant enough

[16] Transcript, Volume 2, pages 46-50
[17] A list of jurisdictions with fracking bans may be found at http://keeptapwatersafe.org/global-bans-on-fracking/.

for the Health Department to recommend that fracking should not be allowed.[18]

Thirdly, VECC notes that the economic environment in which fracking operators have been producing in is characterized by cheap money (almost zero interest rates) and increasing money supply (Quantitative Easing) which has allowed considerable leveraging (debt incurrence).[19] [20]

Fourthly, VECC notes that fracking shale gas, while profitable when oil prices were in the vicinity of $100/bbl, may become unprofitable at current oil price levels.[21] [22]

The main risks to residential (and other) ratepayers associated with relying on the shale gas forecasts and the concomitant displacement of conventional gas supplies may be realized in the event that one, many, or all of the above-mentioned risks result in realized shale gas production being substantially lower than currently forecasted.

The adverse ratepayer impacts could include (i) the unnecessary stranding of existing assets in place (and in rate base) to utilize conventional gas supplies and (ii) the stranding of new infrastructure put in place to made shale gas available. This has the potential of ratepayers paying for stranded costs related to assets whose main economic rationale for construction rested on shale gas forecasts that turned out to be wildly optimistic.

As such, VECC submits that any major new infrastructure, underpinned by Ontario ratepayers, should not be based solely on long range shale gas production forecasts: they should be flexible enough investments that they are economically viable in the event that shale gas is indeed 'a

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[18] http://www.nationaljournal.com/energy/new-york-state-moves-to-ban-fracking-20141217

[19] The situation has been characterized by some as a credit and fracking bubble.

[20] Should credit expansion come to an end, there has been speculation that many frackers would be put out of business.

[21] The potential impact of dropping oil prices on shale gas production is discussed in a December 2, 2014 article in POWER available at http://www.powermag.com/oil-price-collapse-poses-threats-to-u-s-shale-gas-boom/.

[22] While existing operations would be expected to continue as long as the price of gas was at least equal to the average variable cost of production (capital expenses being sunk), it seems reasonable to conclude that new investments in in shale production will be adversely impacted should current oil price levels continue.

bubble.' Further, as noted by CME herein, it should be pipelines rather than customers that bear the risks of underutilization.

4. **In what ways, if any, do the Board's public interest mandate and/or views in relation to the overarching outcome(s) for Ontario's natural gas market require clarification?**

Currently, the regulation of natural gas service is governed by 6 objectives set out in sec. 2 of the *OEB Act*. As might be expected, there is no prioritization of objectives in the Act and the exercise of Board Power in furtherance of one objective to the potential detriment of another is, of course, a possibility. The configuration and future availability of natural gas service transportation has been a matter of discussion and debate among the participants in this review. For the most part, differing positions could claim legitimacy as being in fulfillment of the broad objectives mentioned above. VECC questions whether the permissive approach to the exercise of the Board's powers is still correct or in need of modification. It may be permissible for example for the Board to turn aside conservation concerns to advance competition and pricing issues, but should it be done and what criteria should be applied? These kinds of issues become more vexing if left to a crisis to explore.

5. **What are the merits and disadvantages of replacing the Empress (AECO – C) price with the Dawn Hub price as the reference price for the commodity used for regulatory purposes?**

In VECC's view using the Dawn Hub price would be desirable as long as the benefits, from e.g., reflecting a more accurate volume-weighted price of the price of the gas used for regulatory purposes, exceeded the costs incurred by the utilities of moving to the new reference price.

6. **Are there mechanisms for enhanced inter-regulatory agency communication and agenda coordination that would facilitate the consideration of the potential broader impacts of specific regulatory applications?**

VECC makes no submissions in respect of this issue.

7. **Regarding regulatory aspects of the natural gas and electricity markets interface, what process should the Board use to**

   • keep abreast of developments affecting both markets (e.g. role and regulation of natural gas storage); and
   • facilitate better cross-sector communication and coordination (e.g. the impact of GDAR on potential information sharing between electricity and natural gas stakeholders)?

   VECC makes no submissions in respect of this issue.

8. **In what ways should access to information on Ontario primary and secondary natural gas markets be made more transparent for buyers and sellers?**

   VECC's view is that a competitive marketplace is characterized by full, timely, and public disclosure of commodity and service prices, both on a spot basis and for future/forward price basis.

9. **What, if any, are the merits of a stakeholder discussion on how to facilitate broad energy sector optimization (e.g. storage; multi-source district heating/cooling; combined heat and power; CDM/DSM) and if so, in what context should such a discussion take place?**

A stakeholder discussion with this broad an objective requires more than simply ensuring all the right players are at the table. It involves advanced preparation of the subject through solicitation of presentations together with discussants that can explore the merits of a policy of optimization. In particular, the components of optimization and the benefits of pursuing objectives that are lined up with the regulator's objectives. As much as possible, it should stay away from framing the discussion as a contest of interests between stakeholders with the regulators as the final deciders. This means that optimization must be defined as avoiding a winners and losers perspective. VECC notes with approval CME's proposals with respect to the preparation of expert analysis to inform any discussion of the issues in play this proceeding.

2. VECC submits that it has been responsible in its participation and requests its costs for participation.

Dated at Toronto, this 16th Day of January 2015