

February 26, 2019

Josh Wasylyk, Project Director, Ontario Energy Board

Dear Josh:

This letter is to advise you, the members of the Demand Side Management Evaluation Advisory Committee, and other related individuals of my resignation from this committee. It will be no surprise to you and other members of the committee that I have been frustrated and disappointed about many facets of the committee, its operation, its unwillingness to consider options and unilateral OEB decision making which staff have been left to implement.

Most importantly, I am concerned that this committee is doing a great disservice to the natural gas customers in Ontario.

As you and the others may or may not know, I have been involved in DSM in Ontario since the mid-1980s. For me, the true opportunity of DSM was to help customers get the best value for their energy dollars. Assisted by a vast array of talented people at the former Ontario Hydro, and my exposure to many US experts, including the individuals who coined the term DSM, I had the opportunity to develop a full understanding of the complete range of functions key to DSM from market research, strategy, program design and evaluation. As a result, I gained significant insight into what is commonly referred to California Standard Practice, developed for electrical utilities. It spread across the USA, North America and the world. (Ironically the term free riders was coined by electrical utilities attempting to refute the economics of energy efficiency espoused by reputable organizations such as the Natural Resources Defense Council).

While at Ontario Hydro, I managed market research, program development, technical research requirements and results monitoring. I also had the pleasure of organizing and chairing the first International Conference on Demand Side Management in Toronto. I have delivered at least 100 papers to conferences in Canada, the United States and in many international jurisdictions. I was invited to speak at a World Bank event. The US Department of Energy invited me to teach a course at the first DSM session of the Asia Pacific Economic Cooperative (APEC) in Korea. I brought Amory Lovins world renowned expert and Dr. Arthur Rosenfeld from Lawrence Berkeley Laboratory into sessions at Ontario Hydro. I wrote a book on Energy Performance Contracting, an industry whose Canadian incarnation was far different from its US counterpart.

I left Ontario Hydro in 1993 and established a Canadian office for one of the leading US based consulting firms in this field, Synergic Resources Canada. My business was successful, and I had no interest in returning to a utility when I was approached by an innovative Vice-President (Janet Holder) to become the Director of Marketing at Enbridge Gas Distribution. At that time, Marketing, Sales and DSM were all in silos; Janet knew it had to be different. I understood and united them all under my favourite idea that each of those functions essentially had the same goal – help customers get the best value for their energy

dollars. I was successful in creating a team that consistently surpassed targets, participated in the introduction of the shareholder incentive and lost revenue adjustment mechanisms which leveled the playing field between DSM and Sales, or between demand and supply.

I transferred all my knowledge and experience from 15 plus years of electricity DSM to natural gas. What I didn't understand, and what I came to understand later is the potential for saving electricity which is mostly based on substituting more efficient products for less efficient products only partially applies to natural gas. At first, I understood that saving gas was much simpler than saving electricity. With respect to electricity, understanding the impact of a more efficient lighting or heating system depends on a wide range of factors- time of use, load shapes of customers versus load shapes of the overall system, and the component sources of electrical generation and a myriad of other factors. The myriad of statistical and mathematical analytics was staggering.

Natural gas DSM seemed simple by comparison – there were weather sensitive loads – winter heating and year-round loads – water heating. However, EBO -169-III had applied the complex, statistical electrical DSM paradigm to natural gas. I admit, I bought into that paradigm. It was what I knew; so most early natural gas programs were incentives for higher efficiency products and equipment – shower heads, water heaters, furnaces, boilers, and so on. The average savings could be estimated and multiplied by the number of units installed with a discount for those customers who might have done it anyway (pejoratively called “free riders”) were the basis of the calculation of savings. The underlying economics of the California Standard Practice were also the basis for evaluation of results with a preference for equipment replacement not conservation through a combination of better equipment, improved systems, better management and accountability through metered performance.

The good news for consumers is that the work the natural gas utilities did to improve the efficiency and the standards for furnaces and water heaters have delivered huge savings which have never factored into DSM calculations or shareholder incentives.

With a seemingly successful regime in place, I left Enbridge and as I was re-initiating my consulting practice, I was recruited to be a senior (political) policy advisor in the newly elected Ontario Liberal government in the fall of 2003. Increasingly my desire to help customers get the best value for their energy dollars expanded to include sustainable energy matters – renewables, carbon reductions, and conservation rather than just energy efficiency. Some people see the words conservation and energy efficiency as interchangeable, but in fact the impact of each is quite different. The California Standard Practice was totally based on energy efficiency. In fact, the legendary Dr. Arthur Rosenfeld, who I brought up to brief key Liberals in 2004, balked at the inclusion of conservation. (Conservation had become a nasty word as a result of Jimmy Carter asking Americans to wear a sweater rather than turn the heat up.) I held fast.

During the four years, I served as policy advisor, the most important piece of legislation that I help develop was the *Energy Conservation Leadership Act*, which required the broader public sector to first report on their consumption of energy and water and then develop plans to reduce their consumption on a per square foot basis. Increasingly, I learned that managing energy (and water use) was more important than install more efficient products and collecting a utility incentive to do so. It truly was the fact that the “proof of the pudding is in the eating”.

At the same time the Canada Green Building Council was using an approach that used real metered data (energy and water bills adjusted by weather and other factors) to demonstrate not only the potential for saving energy, dollars and reducing carbon, but to demonstrate the actual results of doing so. Pilots projects sponsored by the CGBC across Canada were proving a better and more assured way to deliver

results. I was lucky to have had a consulting contract assisting in these pilot projects. I finally got it - it was all about performance, measurement and accountability. It was only partially about substituting a more efficient product for an existing less efficient product. And with respect to saving natural gas, it was more about optimizing the energy system in a building so that all its component parts worked together and not against each other. And it was not a one-shot equipment replacement or retrofit project, it was continuous improvement taking the feedback from the system and the metered energy data to adjust.

I knew large commercial building managers had grown weary of utility programs that promised savings that did not necessarily materialize – the largest office tower in Canada had completed a total lighting replacement to more efficient lamps and got no savings whatsoever – what it got was a higher and unneeded level of lighting – three times the lighting required – so the contractor sold the building management three times as many lamps as required and electrical incentives paid on a per lamp basis were three times what was required and yet the customer's bill was not reduced and savings were not achieved, even if the traditional estimations assumed they were - the worst nightmare for society, energy professionals and customers.

And it should be the worst nightmare for agencies, boards and commissions engaged in consumer protection, energy conservation and environmental protection.

About that time, the Toronto and Region Conservation Authority had become the host of the World Green Building Council and was developing its energy conservation programs based on the approach used by the Canada Green Building Council. It's chair, Ian Jarvis, stepped down to concentrate his consulting business, EnerLife, on these programs such as Sustainable Schools, Greening Health Care and the Mayors Megawatt Challenge. He engaged the natural gas utilities in the programs, but with mixed success. The classic, California Standard Practice Evaluation methodology discounted what was considered operational and behavioral improvements in favor of hard wired or hard piped equipment replacements.

However, EnerLife was hired by the Ontario Ministry of Energy to develop the data requirements for the implementation of the Energy Conservation Leadership Act, which by then had been subsumed in the Green Energy Act. Interestingly, this element was one of the few salvaged by the current Conservative government. EnerLife is not the only consulting firm helping customers apply this data-based approach.

As a member of the Evaluation Advisory Committee, I was determined to introduce what I considered a better way not mine, but a better way I had seen that delivered results. But the odds were stacked against me. US based consultants were hired, US based experts were on the EAC. I don't question their credentials; they are qualified and experienced in delivering on the US model. But the EAC was never privy to costs estimates or comparison of bidders.

With the evaluation process taken out of the hands of the utilities, their customers were left to pay the very significant bills to pay for evaluation, an annual amount over \$1 million annual for each utility with the utilities knowing the cost only after they paid the bills, not before. And that amount doesn't include the cost of labour not just to staff to the EAC, but to check every calculation by the consultants, many of which have been erroneous.

And even more importantly, it doesn't include the lost opportunities of developing new and better approaches to help customers get the best value for their energy dollars or to reduce carbon emissions. The utilities have already documented the difficulties resulting from the elongated time gaps between project completion and evaluation research.

BOMA Toronto and OSEA have documented in many arguments the value of performance-based conservation measured by metered data not deemed values or engineering estimates. In addition, both have demonstrated the absurdity of the estimates contained in the Technical Resource Manual, which are mostly based on US Data, US Electrical Utility Data and Data from the southern US where, the weather conditions and other operating conditions are very different. Those data may be appropriate for those jurisdictions and those utilities, but it boggles my mind that the Ontario Energy Board accepts estimated savings about space heating parameters from a school district in California where 24/7 heating for almost 50% of the year are not addressed.

In addition, I would be embarrassed if any of Ontario's natural gas consumers were party to the debates that go on among committee participants that could be likened to "counting the angels on the head of a pin".

The Independent Electricity Operator funded a project to demonstrate the value of the performance-based approach when electric, gas and water utilities work together to help customers get value and the environment get protection. It should be required reading for all members of this committee.

I offer this communication in a hope to do what I have not been able to accomplish – find value for customers, enable utilities (or now the Utility) to unleash its creativity and to help protect our environment. Frankly, I worry about the next natural gas DSM Framework may not have an opportunity to achieve what I have been unable to do.

Sincerely,

Marion Fraser

PS: I would also suggest that Integrated Resource Planning on a system wide basis makes no sense for natural gas; it could be employed in very specific, local situations.

CC: Members of the OEB Evaluation Advisory Committee and Others.