

**EB-2012-0451**  
**EB-2012-0433**  
**EB-2013-0074**

## **ONTARIO ENERGY BOARD**

**IN THE MATTER OF** an application by Enbridge Gas Distribution Inc. for: an order or orders granting leave to construct a natural gas pipeline and ancillary facilities in the Town of Milton, City of Markham, Town of Richmond Hill, City of Brampton, City of Toronto, City of Vaughan and the Region of Halton, the Region of Peel and the Region of York; and an order or orders approving the methodology to establish a rate for transportation services for TransCanada Pipelines Limited;

**AND IN THE MATTER OF** an application by Union Gas Limited for: an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Parkway West site; an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the Town of Milton; an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Brantford-Kirkwall/Parkway D Compressor Station project; an order or orders for pre-approval of the cost consequences of two long term short haul transportation contracts; and an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the City of Cambridge and City of Hamilton.

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### **MOTION RECORD OF THE INTERVENORS, COUNCIL OF CANADIANS**

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**AND IN THE MATTER OF** an application by Union Gas Limited for: an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Parkway West site; an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the Town of Milton; an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Brantford-Kirkwall/Parkway D Compressor Station project; an order or orders for pre-approval of the cost consequences of two long term short haul transportation contracts; and an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the City of Cambridge and City of Hamilton.

### **NOTICE OF MOTION**

Pursuant to Rules 8, 42 and 44 of the  
Board's Rules of Practice and Procedure

The Council of Canadians will make a motion to the Ontario Energy Board (the "Board") on a date to be fixed by the Board at 9:30 a.m. or as soon after that time as the motion can be heard at the offices of the Board, 2300 Yonge Street, Toronto, Ontario.

#### **PROPOSED METHOD OF HEARING:**

The Council of Canadians ("COC") proposes that this motion be heard in writing. The issues are straightforward and do not require oral representations.

**THE MOTION IS FOR:**

- 1) An order varying the Board's Decision and Order on Cost Awards, Issued on March 31, 2014 and revised on April 3, 2014, to permit the COC to recover its full costs claim in the amount of \$215,124.61 for its participation in the proceedings; and
- 2) Such further relief as the Board may deem just.

**THE GROUNDS FOR THE MOTION ARE**

1. As set out below, the COC respectfully submits that the presiding Board panel (the "Board") made errors of fact in making its Cost Award in respect of the COC which call into question the correctness of its Decision.

**A. *The Original Panel's Decision and Order on Costs***

2. Following the Board's decision of January 30, 2014, the COC prepared a cost claim<sup>1</sup> seeking reimbursement for the costs it incurred in participating in the proceedings. Neither applicant made any specific objection to its cost claim.
3. On March 31, 2014, the Board issued its decision and costs awards order (revised April 3, 2014) reducing the fees claimed by the COC from \$206,572 to \$144,777.<sup>2</sup>
4. In doing so, it compared the COC costs claim with those submitted by two other intervenors, the Green Energy Coalition (GEC) and Environmental Defence (ED), and made certain findings of fact which, the COC submits, were in error and upon which its decision to reduce the COC costs claim was based. In this regard it found that:
  - "[...] the claim for 451 hours by COC for senior counsel is excessive."<sup>3</sup>
  - the COC's "[...] contribution to the Board's understanding of the issues in the proceeding was not significantly greater than GEC or ED. Therefore, the significantly higher number of hours is not justified."<sup>4</sup>
5. The Board's decision to compare the COC costs claim with those of GEC and ED, and not those of other intervenors, was based on the finding that each of COC, GEC and ED, is a "policy advocacy group and each sponsored expert testimony".<sup>5</sup>

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<sup>1</sup> COC Cost claim for Hearings, Motion Record, TAB 1.

<sup>2</sup> EB-2012-0451, EB-2012-0433, EB-2013-0074, Decision and Order on Cost Awards (Issued 31 March 2014, revised April 3, 2014), Motion Record, TAB 2, at page 5 ("Cost decision").

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

## ***B. Background***

### **1) The Applications**

6. The Applications in issue in these proceedings sought various approvals for major system expansion projects which the proponents advanced on the grounds that they were needed to respond to system demands, to diversify their supply portfolios, to address short haul market access requirements for natural gas transportation, and to address integrity issues on the Enbridge distribution system.
7. The benefits of diversifying supply portfolios, and in particular of providing greater access to U.S. shale gas supplies, was put forward as an important rationale for the projects. As described by Union Gas Limited (“Union”), technological advancement in horizontal well drilling and hydraulic fracturing (“fracking”) “has resulted in a fundamental change in North American natural gas supply dynamics and a shift in market behavior.”<sup>6</sup>
8. Union also described the particular importance to its plans of shale gas reserves in the U.S. northeast:

One of the most prolific gas supply growth areas in North America has been in the Appalachian basin. Appalachian shale gas is produced mainly from the Marcellus in Pennsylvania, Ohio and West Virginia and more recently from the Utica in eastern Ohio and eastern Pennsylvania. Marcellus shale gas production alone has increased nearly 7 Bcf/d since the beginning of 2007 and has been widely described as “the game changer”.<sup>7</sup>

9. Gaz Metro, an intervener and supporter of the projects, explained why greater access to the Dawn Hub at the US border matters:

Having a greater access to Dawn is important to Gaz Métro for two main reasons. First, Dawn is located closer to its service territory and second, it provides a greater security and diversity of supply to Gaz Métro’ customers as it connects directly with the Marcellus and Utica productions.<sup>8</sup>

### **2) The COC Intervention**

10. The COC was founded in 1985 and is primarily sustained by volunteer energy and financial contributions from its members. Those members reside in every Canadian province and

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<sup>6</sup> EB-2012-0433 SCHEDULE B UPDATED, at page 2 of 3, Adobe 7/392.

<sup>7</sup> EB-2012-0433, at page 27 of 121, Adobe 39/392.

<sup>8</sup> Exhibit L.EGB.SCGM.1, at page 11 of 16.

territory. More than 26,000 of them live in Ontario, where many participate in one of the 17 local Ontario chapters of the Council.<sup>9</sup>

11. The Council's work is focused on a few key areas which it considers to be of strategic importance, one of these being energy use and policy. In this regard, it promotes strategies to ensure Canadian energy security that are consistent with meeting climate change and other environmental imperatives, and which respect First Nation rights. These are the interests that motivated and informed its participation in these proceedings to address the need for the proposed facilities, the appropriateness of project costs, and the energy efficiency and conservation alternatives to the projects.<sup>10</sup>
12. For the purpose of assisting the Board, COC retained three experts - David Hughes, Lisa Sumi, and Professor Anthony Ingraffea - to assess the supply and cost risks associated with increasing the reliance of Ontario consumers on natural gas derived from shale reserves in the United States. The COC was alone among the interveners in addressing these issues.
13. The evidence of David Hughes<sup>11</sup> provided a critical assessment of the Applicants' evidence concerning the supply of shale gas supply from US sources. That assessment addressed supply risks associated with reliance upon U.S. shale gas in light of production data that calls into question projections for future supply growth. The Board accepted Mr. Hughes as qualified to give expert evidence concerning energy resource assessment and the potential contribution of unconventional energy resources such as shale gas and tight oil to North America's energy supply.<sup>12</sup>
14. Lisa Sumi's<sup>13</sup> evidence addressed the regulatory risks and attendant costs associated with reliance upon US shale gas; and focused on the potential costs of future environmental and other regulation, given the manifest need for much greater regulation of the environmental impacts of shale gas development.<sup>14</sup> The Board accepted Ms. Sumi's qualifications as an expert on the question of U.S. regulatory policy as it applies to shale gas development.

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<sup>9</sup> EB-2012-0451, EB-2012-0433, EB-2013-0074, Submissions of the Council of Canadians (15 November 2013), at page 1 ("Final argument").

<sup>10</sup> *Ibid*, at p. 1-2.

<sup>11</sup> Exhibit L, EGD, COC.3 (filed in all three applications.); and IR responses; Exhibits M. COC. EGD.1, M.COC.UGL.1.

<sup>12</sup> Transcript Volume 8, October 9, 2013, at p. 10.

<sup>13</sup> Exhibit L. UGL.COC.2, (filed in all three applications), and her IR responses Exhibits M. COC. EGD.1, M.COC.UGL.1.

<sup>14</sup> Transcript Volume 8, October 9, 2013, at p. 13.

15. Professor Ingraffea's evidence<sup>15</sup> addressed the greenhouse gas footprint of shale gas development, which his research indicates is significantly higher than the corresponding footprints from other energy sources, including coal. The Board accepted Professor Ingraffea's qualifications as an expert with respect to the recovery of natural gas from high-volume fracturing from shale formations; the assessment of methane emissions; and the greenhouse gas footprint relating to the development, transportation and use of natural gas derived from shale resources.<sup>16</sup>
16. All three experts prepared reports for these proceedings, responded to interrogatories from both Applicants, and appeared before the Board for cross-examination.
17. In addition to providing the Board with expert evidence concerning the reliability and costs of the natural gas supply from US shale gas reserves, the COC was alone among the parties in addressing the Board's jurisdiction and mandate to consider the upstream environmental impacts associated the development of energy resources in another jurisdiction when these are projected to provide a major source of supply to Ontario consumers.

***C. Errors in Fact in the Original Panel's Decision and Order on Costs***

**1) The Board erred in fact in finding COC's cost claim was excessive and unjustified**

18. In comparing the cost claims of COC in relation to GEC and ED, and finding COC's counsel fees to be excessive and unjustified, the Board erred by failing to consider the very different division of labour that existed between COC witnesses and its legal counsel, than was the case for GEC and ED. When the overall time claimed for both experts and counsel is considered (see Table 1 below), the total of the hours claimed by the COC is actually lower than that claimed by GEC and ED.

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<sup>15</sup> Exhibit L, EGD, COC.1 (filed in all three applications), and IR responses, Exhibits M. COC. EGD.1, M.COC.UGL.1.

<sup>16</sup> Transcript of Proceedings, Vol. 8, October 9, 2013, at p. 7.



**Table 1: Hours claimed by select intervening parties**

	COC		ED		GEC		APPrO	BOMA
	Counsel / Articling student/ paralegal	Expert	Counsel / Articling student/ paralegal	Expert	Counsel / Articling student/ paralegal	Expert	Counsel / Articling student/ paralegal	Counsel / Articling student/ paralegal
<b>Preparation</b>	411.10	83.25	136.39	388.08	180.50	688.70	527.70*	508.90
<b>Attendance – Technical Conference:</b>	--	--	8.25	8.00	15.25	12.00	--	11.70
<b>Attendance – Settlement Conference</b>	13.50	--	--	--	9.50	8.00	--	13.00
<b>Attendance – Oral Hearing</b>	31.30	14.00	24.50	7.50	45.05	12.90	--	55.40
<b>Argument:</b>	62.40	--	79.21	4.08	33.95	10.20	--	119.20
<b>Case Management:</b>	--	--	--	--	--	67.00	--	--
Total:	518.3	97.25	248.35	407.66	284.25	798.80	527.70	708.20
Aggregate total:	615.55		656.01		1083.05		527.70	708.20

\*= includes counsel consultant hours

19. The difference among the three parties in this regard was a consequence of the particular circumstances of the COC’s experts, and their retainers. As the CVs and testimony of these experts indicate,<sup>17</sup> each is highly or even eminently qualified in their respective fields, but none had prior experience giving evidence in a regulatory proceeding before the OEB, or any other regulatory tribunal. While Ms. Sumi had appeared on one prior occasion before the OEB, that occurred in the context of a consultation process, not a hearing.<sup>18</sup>

20. COC experts (two of whom reside in the United States and one in British Columbia) were therefore unfamiliar with the OEB hearing process, including the Board’s filing system, and the modalities for presenting or responding to IRs, for appearing before the Board to give evidence, and for being cross-examined under oath. In the case of Professor Ingraffea and Mr. Hughes, constraints on their availability was also a factor in limiting the role they could play.<sup>19</sup> As the report prepared by Professor Ingraffea explicitly acknowledges, he relied upon

<sup>17</sup> See *supra*, footnotes 11 - 16.

<sup>18</sup> Affidavit of Steven Shrybman, sworn April 17, 2014, Motion Record, TAB 3, at para. 5 (“Shrybman affidavit”).

<sup>19</sup> *Ibid.*

Counsel's summary of the record rather than conducting his own review, and relied on counsel as well for his understanding of the Board's jurisdiction and mandate.<sup>20</sup> The same was true for Ms. Sumi and Mr. Hughes.<sup>21</sup>

21. In consequence of these constraints and limitations, COC experts relied extensively on the assistance of COC counsel to:

- review and summarize the applications;
- provide relevant documents for their review;
- prepare IRs to solicit information to support their analysis;
- provide guidance concerning the parameters for their analysis in light of the Board's jurisdiction and mandate;
- review and comment on their draft reports;
- assist with the preparation of, and to review and comment on the responses to IRs from the Applicants, which in the cases of Professor Ingraffea and Mr. Hughes, were extensive; and
- to make necessary logistical and travel arrangements.<sup>22</sup>

22. By comparison, GEC had well-established relationships with the experts it retained, each of whom had considerable prior experience with OEB proceedings, including those concerning natural gas utilities.<sup>23</sup> They were therefore able to operate far more independently of counsel than the COC experts. Similarly, the consulting firm ED retained to prepare the report it introduced into evidence is based in Ontario. Mr. Jarvis, who was the principal author of that report, had considerable familiarity with Ontario energy policy and serves on the Ontario Energy Minister's Advisory Committee.<sup>24</sup>

23. It is also significant that COC's experts were called upon to address the cost, regulatory, and supply risks associated with U.S. shale supplies, issues that are novel to an OEB regulatory proceeding concerning natural gas infrastructure approvals in Canada. Moreover, the risks in question are in certain respects unprecedented, as are the shale gas developments that Union Gas describes as a "game changer".

24. Therefore, in our respectful submission, the Board erred, in fact, by finding COC counsel costs to be excessive as compared to those of ED and GEC, without considering the very

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<sup>20</sup> EB 2012-0451/2012-0433/2013-0074, Exhibit L.EGD.COC.1, 26 June 2013, at pp. 1-2.

<sup>21</sup> Shrybman affidavit, *supra* note 18, at para 5.

<sup>22</sup> *Ibid*, at para 6. As noted in fn, 1, no fees were claimed by the COC in respect of the assistance of administrative staff in his firm. .

<sup>23</sup> *Ibid*. at paras. 6 and 7; and see GEC evidence EB-2012-0451/0433/0074 Exhibit L.EGD.GEC.3, at pp. 28, 30, 33, 34, 38 (CV of Paul L. Chernick).

<sup>24</sup> EB-2012-0451, ED\_CostClaim\_Enbridge\_Union\_20140304, CV for Ian Jarvis.

different division of labour that existed between counsel and experts in the case of the COC which was both necessary and efficient in the circumstances.

2) The Board erred in fact in characterizing the scope of COC's Intervention

25. In comparing the interventions of the COC with those of ED and GEC, the Board found: "In some respects, COC's scope was narrower than either GEC or ED." In our submission, that conclusion is unfounded.
26. All three parties introduced expert evidence, participated in the exchange of interrogatories, conducted limited cross-examination, and submitted final argument. GEC introduced two expert reports. The first concerned DSM Potential in the GTA and was prepared by the Energy Futures Group.<sup>25</sup> The second was the evidence of Paul Cherniak about the impact of potential load reductions on expansion plans proposed by the Applicants.<sup>26</sup> ED introduced an expert report concerning demand-side management potential in the GTA prepared by Enerlife Consulting.<sup>27</sup>
27. The three expert reports introduced by the COC have been described in paragraphs 13 to 15 above. These reports concern: i) the production history and profile of shale gas development in several regions of the United States and in particular those regions identified as providing a major source of supply to Ontario; ii) the extent to which the environmental and public health impacts of shale gas development have been adequately regulated by U.S. federal and state governments, and the potential cost and supply constraints associated with more effective regulation; and iii) a summary of the technical and peer-reviewed reports co-authored by Professor Ingraffea concerning the greenhouse gas footprint of shale gas development and its role as a purported "bridging fuel".
28. It is admittedly somewhat difficult to compare the evidence adduced by COC with that presented by ED and GEC, but to characterize it as more limited in scope is in our respectful submission unwarranted. That characterization is also at odds with the Board's finding that "The level of involvement by COC and its contribution to the Board's understanding of the issues was not significantly greater than GEC or ED", which indicates that COC's contribution was at least equal to if not slightly greater than that of GEC or ED. In addition, and as previously noted, the COC was alone in raising a significant legal issue with the Board, which was its mandate to consider the upstream environmental impacts associated

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<sup>25</sup> EB-2012-0451/0433/0074 , Exhibit L.EGD.GEC.2.

<sup>26</sup> EB-2012-0451/0433/0074, Exh. L.EGD.GEC.1 ("DIRECT TESTIMONY OF PAUL CHERNICK ON BEHALF OF THE GREEN ENERGY COALITION").

<sup>27</sup> EB-2012-0451, EB-2012-0433, EB-2013-0074, Filed: 2013-06-28, UPDATED: 2013-09-11, Exhibit L.EGD.ED.1.

with U.S. gas, and in particular the greenhouse gas emissions caused by U.S. shale development.<sup>28</sup>

29. Therefore, we respectfully submit that the reduction of the fees claimed by COC on the basis that its scope was more limited than that of GEC and ED was unwarranted and in error.

3) The Board erred in fact in characterizing the nature of COC's interests in the proceedings

30. The Board apparently based its decision to compare the costs claim of the COC with those by ED and the GEC, but not other parties, on the finding that each is a "policy advocacy group".<sup>29</sup>

31. While the Council's interests also include broader public policy concerns, they explicitly concern the security of energy supply to Canadian consumers, including the 26,000 supporters and members of the Council who reside in Ontario.<sup>30</sup> Indeed, a central focus of its evidence and argument before the Board was the risk to the security of supply for Ontario consumers arising from an overreliance on U.S. shale gas, and the consequent reduction in the availability of supply over TransCanada Pipeline facilities providing access to western Canadian natural gas resources.

32. In its concern for supply and related cost risks to Ontario consumers, COC shares at least some common ground with APPrO and BOMA. Therefore, the Board's failure to compare the COC costs claim with those of APPrO and BOMA appears to have been based on an unduly limited characterization of COC's interests, and was in any event unreasonable.

33. Another reason for the Board to have compared COC's cost claim with that of APPrO and BOMA is that in objecting to the costs claim submitted by BOMA, Union Gas made that comparison. It noted that "BOMA's hours of preparation are 27% higher than that of COC at 494 hours", and, "the hours of preparation for COC includes preparation time for consultants it retained to prepare intervenor evidence".<sup>31</sup>

34. In its decision, the Board reduced the fees for COC to \$144,777, of which, as the Board notes, \$30,789 was claimed for experts. The remainder, \$113,994, was for counsel fees. The corresponding amount allowed to each of BOMA and APPrO was \$160,000. Table 2 summarizes the costs claimed by and costs allowed for these three interveners, each of which had their claims for fees reduced. As the comparison reveals, the counsel fees allowed to the

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<sup>28</sup> COC Final argument, *supra* note 9, at pp. 6, 30.

<sup>29</sup> Costs decision, *supra* note 2, at page 5.

<sup>30</sup> COC Final argument, *supra* note 9, at p. 6.

<sup>31</sup> EB-2012-0451, EB-2012-0433, EB-2012-0074, Union Gas Limited – Comments on Cost claims (11 March 2014), Motion Record TAB 4, at page 2.

COC were substantially lower than those allowed to BOMA and APPrO, parties which adduced no expert evidence.<sup>32</sup>

**Table 2: Fees (Exclusive of experts) of Parties whose fees were reduced by the Board**

	<b>COC</b>	<b>APPrO</b>	<b>BOMA</b>
Claimed	175,783.00	190,610.00	264,106.00
Allowed	113,994.00	160,000.00	160,000.00

35. As described, the Board used comparison as a means of assessing the reasonableness of the COC costs claim. In addition to the errors of fact previously noted, its error in characterizing COC interests in these proceedings appears to explain the Board's failure to include APPrO and BOMA in its comparative analysis. A broader contextual comparison of the COC costs claim reveals that it is entirely consistent with those of other intervenors that played an active role in the proceedings, and it is indeed more modest than several others. It is respectfully submitted that on this additional ground, the Board's finding that the COC claim was excessive and unjustified was in error.

36. Finally, the Union Gas reference to the COC costs claim (para. 33 above) is the only specific comment made by either applicant on that claim.<sup>33</sup> While the COC subsequently wrote a brief letter to the Board providing additional details of its account,<sup>34</sup> it was not responding to any objection by the Applicants to its costs claims because no such objection had been made.

**THE FOLLOWING DOCUMENTARY EVIDENCE** will be used in support of the motion:

1. COC Cost Claim for Hearings (Motion Record, TAB 1);
2. EB-2012-0451, EB-2012-0433, EB-2013-0074, Decision and Order on Cost Awards- Issued on 31 March 2014 and revised April 3, 2014, (Motion Record, TAB 2);
3. Affidavit of Steven Shrybman (Motion Record, TAB 3);
4. Union Gas Limited – Comments on Cost claims (11 March 2014)(Motion Record, TAB 4);
5. Enbridge Comments on Intervenor Cost Claim Submissions (11 March 2014) (Motion Record, TAB 5);

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<sup>32</sup> The same holds true in relation to the Canadian Manufacturers and Exporters ("CME"), as the Board's order indicates: the counsel fees allowed to COC were substantially lower than those allowed to CME, despite the fact that the CME did not adduce expert evidence.

<sup>33</sup> See also Enbridge Comments on Cost claims, Motion Record, TAB 5.

<sup>34</sup> COC Costs Claim Response in EB-2012-0451/0433/0074 "GTA pipeline cases" (12 March 2014), Motion Record, TAB 6.

6. COC Costs Claim Response in EB-2012-0451/0433/0074 “GTA pipeline cases” (12 March 2014) (Motion Record, TAB 6); and

7. Such further evidence as the lawyers may advise and the Board may permit.

April 17, 2014.

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Lawyers for Union Gas Limited

# TAB 1



Ontario Energy Board  
COST CLAIM FOR HEARINGS



Affidavit and Summary of Fees and Disbursements

This form should be used by a party to a hearing before the Board to identify the fees and disbursements that form the party's cost claim. Paper and electronic copies of this form and Itemized receipts must be filed with the Board and served on one or more other parties as directed by the Board in the applicable Board order. Please ensure all required fields are filled in and the Affidavit portion is signed and sworn or affirmed.

Instructions:

- Required data input is indicated by yellow-shaded fields. Formulas are present in the document to assist with the calculation of the cost claim.
- All claims must be in Canadian dollars. If applicable, state exchange rate and country of initial currency.  
Rate: 1.11 Country: United States
- A separate "Detail of Fees and Disbursements Being Claimed" (comprising a "Statement of Fees Being Claimed" and a "Statement of Disbursements Being Claimed") is required for each consultant or lawyer/articling student/paralegal. However, only one "Summary of Fees and Disbursements" covering the whole of the party's cost claim should be provided.
- The cost claim must be supported by a completed Affidavit signed by a representative of the party.
- A CV for each consultant must be attached unless, for a given consultant, a CV has been provided to the Board in another process within the last 24 months.
- Except as provided in section 7.03 of the Practice Direction on Cost Awards, itemized receipts must be provided.

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Conduct</u>
Party: <u>Council of Canadians</u>	Affiant's Name: <u>Steven Shrybman</u>
HST Number: _____	HST Rate Ontario: <u>13.00%</u> <i>GST Rate (B.C. 5%)</i>
Full Registrant <input checked="" type="checkbox"/> Unregistered <input type="checkbox"/> Other <input type="checkbox"/>	Qualifying Non-Profit <input type="checkbox"/> Tax Exempt <input type="checkbox"/>

Affidavit

I, Steven Shrybman, of the City/Town of Ottawa  
in the Province/State of Ontario, swear or affirm that:

1. I am a representative of the above-noted party (the "Party") and as such have knowledge of the matters attested to herein.
2. I have examined all of the documentation in support of this cost claim, including the attached "Summary of Fees and Disbursements Being Claimed", "Statement(s) of Fees Being Claimed" and "Statement(s) of Disbursements Being Claimed".
3. The attached "Summary of Fees and Disbursements Being Claimed", "Statement(s) of Fees Being Claimed" and "Statement(s) of Disbursements Being Claimed" include only costs incurred and time spent directly for the purposes of the Party's participation in the Ontario Energy Board process referred to above.
4. This cost claim does not include any costs for work done, or time spent, by a person that is an employee or officer of the Party as described in sections 6.05 and 6.09 of the Board's Practice Direction on Cost Awards.

[Signature]  
Signature of Affiant

Sworn or affirmed before me at the City/Town of Ottawa,  
in the Province/State of Ontario, on February 26/14,  
(date)

[Signature]  
Commissioner for taking Affidavits

AMANDA MARIE QUINN,  
a Commissioner, etc., City of Ottawa,  
for Sack Goldblatt Mitchell LLP,  
Barristers and Solicitors.  
Expires May 1, 2014.

**Ontario Energy Board**  
**COST CLAIM FOR HEARINGS**  
**Affidavit and Summary of Fees and Disbursements**



File # EB- 2012-0451-0433-0074 Process: Hearing re: Application for Leave to Conduct

Party: Council of Canadians

**Summary of Fees and Disbursements Being Claimed**

Legal/consultant fees	\$183,852.50
Disbursements	\$ 7,623.53
HST	\$123,648.58
<b>Total Cost Claim</b>	<b>\$315,124.61</b>

**Ontario Energy Board  
COST CLAIM FOR HEARINGS**



**Detail of Fees and Disbursements Being Claimed**

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Construct</u>
Party: <u>Council of Canadians</u>	Name: <u>Steven Shrybman</u>
Completed Years Practising/Years of relevant experience	
Counsel/Articling Student/Paralegal: <input checked="" type="checkbox"/>	_____
Consultant: <input type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input type="checkbox"/>

**Statement of Fees Being Claimed**

	Hours	Hourly rate	Subtotal	HST	Total
Preparation	348.60	\$330.00	\$115,038.00	\$14,954.94	\$129,992.94
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference	13.50	\$330.00	\$4,455.00	\$579.15	\$5,034.15
Attendance - Oral Hearing	31.30	\$330.00	\$10,329.00	\$1,342.77	\$11,671.77
Argument	57.60	\$330.00	\$19,008.00	\$2,471.04	\$21,479.04
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>			<b>\$148,830.00</b>	<b>\$19,347.90</b>	<b>\$168,177.90</b>

**Statement of Disbursements Being Claimed**

	Net Cost	HST	Total
Photocopies	\$902.50	\$117.33	\$1,019.83
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier	\$20.71	\$2.69	\$23.40
Telephone	\$72.14	\$9.38	\$81.52
Postage	\$11.20	\$1.46	\$12.66
Transcripts		\$0.00	\$0.00
Travel: Air	\$2,379.33	\$309.31	\$2,688.64
Travel: Car		\$0.00	\$0.00
Travel: Rail	\$205.50	\$26.72	\$232.22
Travel (Other):		\$0.00	\$0.00
Parking	\$48.13	included	\$48.13
Taxi or Airport Limo	\$103.43	\$13.45	\$116.88
Accommodation		\$0.00	\$0.00
Meals	\$139.50	\$18.14	\$157.64
Other: Computer searches	\$553.03	\$71.89	\$624.92
<b>TOTAL DISBURSEMENTS:</b>	<b>\$4,435.47</b>	<b>\$570.35</b>	<b>\$5,005.82</b>

BLUELINE

Job #

RECEIPT FOR CAB FARE

Amount 10.4 Date oct-15-13

From \_\_\_\_\_

To \_\_\_\_\_

Cab No. 102 Driver [Signature]

H.S.T. Included in meter fare



BECK TAXI



RECEIPT



Cab No. 145 G.S.T. \_\_\_\_\_

From \_\_\_\_\_

To \_\_\_\_\_

Date 15/10/13 Amount 22.00

Signature [Signature]

416.751.5555

BECK TAXI streetsto  
Toronto's finest street engine

POSITANO RESTAURANT  
633 MOUNT PLEASANT M4S2M9  
TORONTO ON  
20225102  
GH2022510202

\*\*\*\* PURCHASE \*\*\*\*

10-08-2013 21:09:37  
Acct # \*\*\*\*\*6076 C  
Exp Date \*\*/\*\* Card Type VI  
Name: SHRYBMAN/STEVEN  
A000000031010 Visa Credit

Trace # 186  
Inv. # 160  
Auth # 081852 RRN 001169021

Purchase \$131.36  
Tip \$26.27  
Total \$157.63

( 00 ) APPROVED-THANK YOU

Retain this copy for your records  
Customer copy

DINE-IN RECEIPT

POSITANO RESTAURANT  
416-9323982

TABLE - 2

SOLD BY #1:  
TAG #100949 10/08/2013 8:36:39 PM

1	CASA	6.50	6.50 T
1	CALAMARI	10.50	10.50 T
1	PASTA SPECIAL	21.00	21.00 T
1	SYREUSE	13.50	13.50 T
1	BRANZINO	28.00	28.00 T
1	DESSERT	7.50	7.50 T
1	COFFEE/TEA	2.50	2.50 T
1	CAPPUCCINO	3.75	3.75 T
1	DOUBLE ESPRES	3.75	3.75 T
2	BEER	6.00	12.00 T
1	GL CHARDONNAY	7.25	7.25 T

SUBTOTAL 116.25  
SALES TAX 15.11  
TOTAL 131.36  
BALANCE DUE 131.36

ACCOUNT

GRAZIE!



Best Western  
Roehampton Hotel  
& Suites

PLUS

\$16.00 plus HST

Room No. \_\_\_\_\_

*THE BEST WESTERN PLUS ROEHAMPTON HOTEL (the "HOTEL") will not be held responsible for loss or damage to the vehicle for which this check has been issued and which damage occurs between the premises and the place at which the vehicle is either picked up from or returned to by the Hotel employees, regardless of how such loss, damage or injury may have been caused. THE BEST WESTERN PLUS ROEHAMPTON HOTEL is also not responsible for loss or damage to any articles left in said vehicle.*

Guest Copy

Nº 1945



Best Western  
Roehampton Hotel  
& Suites

PLUS

\$16.00 plus HST

Room No. \_\_\_\_\_

*THE BEST WESTERN PLUS ROEHAMPTON HOTEL (the "HOTEL") will not be held responsible for loss or damage to the vehicle for which this check has been issued and which damage occurs between the premises and the place at which the vehicle is either picked up from or returned to by the Hotel employees, regardless of how such loss, damage or injury may have been caused. THE BEST WESTERN PLUS ROEHAMPTON HOTEL is also not responsible for loss or damage to any articles left in said vehicle.*

Guest Copy

Nº 5111



BLUE LINE TAXI  
613-238-1111  
CAR 1234  
TAXI TAB

TAXI  
.11  
866

08/11/2013 13:44:00  
PURCHASE

07%

Transaction # 14  
Card Type: Visa  
Proc: \*\*\*\*\*6076  
Entry: Swiped  
Terminal ID: 29830191  
Merchant ID: 001673  
Bse Amt: 17.50  
Tip: 4.15  
Total: 39.65

Auth. Code: 052747  
Response: APPROVED

CUSTOMER COPY

CUSTOMER SERVICE  
1 866 565 8294  
help@taxitab.com  
DRIVER #

13-sub

he

ICE  
94  
com



Job #  
RECEIPT FOR CAB FARE

1284

Amount \$10.00 Date Sep 11 / 13

From

To

Cab No. 541 Driver EA

H.S.T. included in meter fare



08/01/2013 20:35:01  
PURCHASE

BLUE LINE TAXI  
613-238-1111  
CAR 1132  
1621 NR 13-840

Transaction # 1  
Card Type: Visa  
Proc: \*\*\*\*\*6076  
Entry: Swiped  
Terminal ID: 29830191  
Merchant ID: 001673  
Bse Amt: 17.50  
Auth. Code: 054570  
Response: APPROVED

CUSTOMER COPY

CUSTOMER SERVICE  
1 866 565 8294  
help@taxitab.com  
DRIVER

BECK TAXI  
4177 UNION LN  
Toronto ON, M4A 2S6  
www.becktaxi.com  
(416)751 5555

13-840  
SALE

MID: 5921808  
TID: 4321808  
Batch: 08/26/13  
APPN CODE: 076415  
VISA  
\*\*\*\*\*6076C  
FID: 00000002  
SEC: 372001001002  
08:39:20  
CVC: Y  
\*\*/\*\*

AMOUNT \$16.75.

00 - APPROVED - 001

Visa Credit  
AID: A0000000031010  
TVR: 00 00 00 80 00  
TSE: F8 00

Thank You for Choosing  
Beck Taxi  
3 Ways to Order  
PHONE-WEB-APP

H63P  
CAB 1463

1 BLUE LINE TAXI  
613-238-1111  
CAR 1445  
TAXI TAB 13-840

08/26/2013 16:32:09  
PURCHASE

Transaction # 1  
Card Type: Visa  
Acc: \*\*\*\*\*6076  
Entry: Swiped  
Terminal ID: 29R31110  
Merchant ID: 29RRRR  
Batch: 001408  
Trace Number: 007396  
Bse Amt: 19.00

Auth.Code: 066632  
Response: APPROVED

CUSTOMER COPY

CUSTOMER SERVICE  
1 866 565 8294  
help@taxitab.com  
DRIVER #



Your booking is confirmed. Booking reference: **PKYZWV**

- ✓ An email booking confirmation has been sent to: [davehughes@twincomm.com](mailto:davehughes@twincomm.com)
- Use your booking reference to retrieve your official Itinerary/Receipt at [air](#)

Passengers Mr John David Hughes

Flight	From	To	Departure	Arrival
AC6592	Campbell River (YBL)	Toronto (YYZ)	07:00	16:22
AC034	- Connection in Vancouver -		Mon 30-Sep 2013	Mon 30
AC101	Toronto (YYZ)	Campbell River (YBL)	12:00	16:50
AC6597	- Connection in Vancouver -		Wed 02-Oct 2013	Wed 02

Lynn Ritchie  
 Assistant to Mark Wright, Vanessa  
 Payne and Steven Shrybman  
 T 416.979.6421  
 F 416.591.7333  
 E [lritchie@sqmlaw.com](mailto:lritchie@sqmlaw.com)

1244.00  
 105.41 tx  
 -----  
 1349.91

**S** Sack  
**G** Goldblatt  
**M** Mitchell  
**LLP**

20 Dundas Street W., Suite 1100  
 Toronto ON M5G 2G8  
[www.sqmlaw.com](http://www.sqmlaw.com)

I will SEND this  
 EMAIL so you can  
 see the total.

THIS E-MAIL MAY CONTAIN CONFIDENTIAL INFORMATION WHICH IS PROTECTED BY LEGAL PRIVILEGE. IF YOU ARE NOT THE INTENDED RECIPIENT, PLEASE IMMEDIATELY NOTIFY US BY REPLY E-MAIL OR BY TELEPHONE (COLLECT IF NECESSARY), DELETE THIS E-MAIL AND DESTROY ANY COPIES.

**Lisa Purdy**

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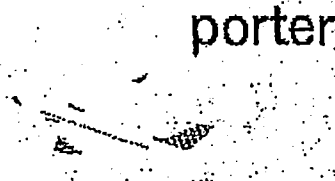
**From:** Steven Shrybman  
**Sent:** September 5, 2013 10:24 PM  
**To:** Lisa Purdy  
**Subject:** FW: Itinerary - Please do not reply to this email

I have changed my return flight to Ottawa and saved some money. So please substitute this invoice for the previous one – they refunded the difference.

---

**From:** PorterAirlines@flyporter.com [mailto:PorterAirlines@flyporter.com]  
**Sent:** September 5, 2013 4:22 PM  
**To:** Steven Shrybman  
**Subject:** Itinerary - Please do not reply to this email

More destinations. More affordably.  
Help us reach new destinations. Visit [porterplans.com](http://porterplans.com).



**Passenger Itinerary**

Thank you very much for your business. We have confirmed your reservation in our system. You will not receive a paper ticket. Please review flight information for accuracy and make note of ID requirements and recommended check-in times. You may print this itinerary for your reference.

MR. STEVEN SHRYBMAN  
106 HELENA AVE  
TORONTO, ON M6G 2H2  
CANADA

<b>Confirmation Number:</b>	<b>R3JLXI</b>	<b>Agent Name:</b>	SHRYBMAN
<b>Booking Date:</b>	03 Sep 2013	<b>Booked By:</b>	X

**Passenger Information:**

---

<b>Name</b>	<b>VIPorter Number</b>	<b>Flight #/Seat #</b>
Mr. Steven SHRYBMAN	8340000055	255/NA

---

**Flight Information:**

---

Date	Flight	Depart	Arrive	Stops
07 Sep 2013	255	Toronto (YTZ) 10:35	Ottawa (YOW) 11:31	

---

**Fare Summary (CAD):**

---

Base Fare:	\$109.00
NAV and Surcharges:	\$12.00
Air Traveller Security Charge:	\$7.12
Airport Improvement Fee:	\$20.00
Harmonized Sales Tax:	\$19.26
	-----
Total Fare Price:	\$167.38
Visa:	\$410.33
	-----
Balance Due:	\$-242.95

---

GST/HST Number: 841583271

QST Number: 1212573775

**Baggage Policy:**

**TWO items of carry-on baggage are permitted per fare-paying passenger.**

- Carry-on baggage is limited to two pieces:
  - 1 standard article not exceeding 55 cm x 40 cm x 23 cm (21.5" x 15.5" x 9") and weighing less than 9 kg (20 lb)
  - 1 personal article not exceeding 43 cm x 33 cm x 16 cm (17" x 13" x 6") and weighing less than 9 kg (20 lb)
- Items that are not permitted in carry-on baggage aboard the aircraft are those that present a potential hazard. They include, but are not limited to, weapons, tools, restraining devices, toy weapons, cutting and puncturing devices (knives, box cutters, scissors, straight razors) ice skates and other hazardous items as defined and regulated by law including explosives, poisons, and other toxic materials.
- All carry-on baggage must fit in the sizing units located both at check-in and the gate areas.
- On board the aircraft, all carry-on baggage must be stowed under the seat or in the overhead compartments.
- The following items are not counted as carry-on: coats, cameras, receptacles containing human remains, containers carrying life sustaining items, strollers, child restraint systems, crutches, canes, walkers and other such items.
- Porter may require that an item of carry-on baggage travel as checked luggage if the bag

Lisa Purdy

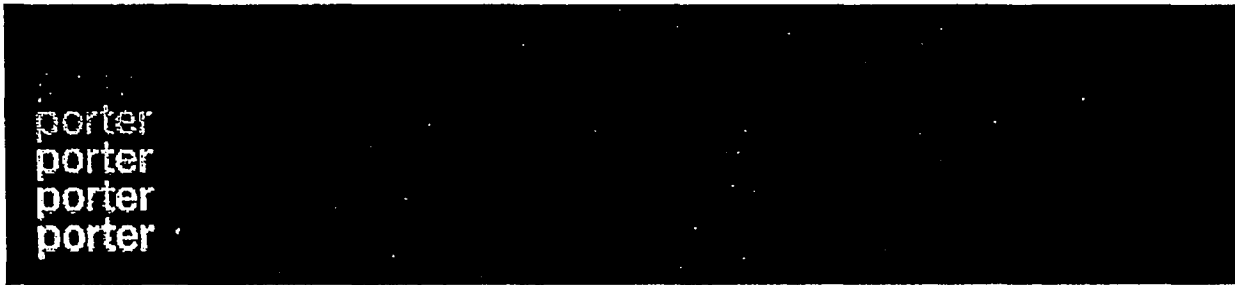
---

**From:** Steven Shrybman  
**Sent:** September 2, 2013 9:12 PM  
**To:** Lisa Purdy  
**Subject:** FW: Itinerary - Please do not reply to this email

Please bill this to the COC on the OEB file

---

**From:** PorterAirlines@flyporter.com [mailto:PorterAirlines@flyporter.com]  
**Sent:** September 2, 2013 9:11 PM  
**To:** Steven Shrybman  
**Subject:** Itinerary - Please do not reply to this email



**Passenger Itinerary**

Thank you very much for your business. We have confirmed your reservation in our system. You will not receive a paper ticket. Please review flight information for accuracy and make note of ID requirements and recommended check-in times. You may print this itinerary for your reference.

MR. STEVEN SHRYBMAN  
106 HELENA AVE  
TORONTO, ON M6G 2H2  
CANADA

**Confirmation Number:** RCVPOX                      **Agent Name:** SHRYBMAN  
**Booking Date:** 03 Sep 2013                      **Booked By:**

**Passenger Information:**

---

Name	VIPorter Number	Flight #/Seat #
Mr. Steven SHRYBMAN	8340000055	260/NA

---

**Flight Information:**

---

Date	Flight	Depart	Arrive	Stops
11 Sep 2013	260	Ottawa (YOW) 14:20	Toronto (YTZ) 15:20	

---



**Lisa Purdy**

---

**From:** Steven Shrybman  
**Sent:** August 19, 2013 5:09 PM  
**To:** Lisa Purdy  
**Subject:** FW: Steven Shrybman : Your VIA itinerary and receipt for booking AIF728

-please bill to Gas Pipe – re attendance at settlement conference in Toronto on <sup>Aug.</sup> ~~Sept~~ 28

---

**From:** VIA Rail Canada [mailto:service@viarail.ca]  
**Sent:** August 19, 2013 5:06 PM  
**To:** Steven Shrybman  
**Subject:** Steven Shrybman : Your VIA itinerary and receipt for booking AIF728

**ITINERARY / RECEIPT - NOT VALID FOR TRAVEL**

Thank you for choosing  
VIA Rail Canada .



BOOKING CONFIRMATION: AIF728

STEVEN SHRYBMAN, VIA PRÉFÉRENCE: 88\*\*\*53

IMPORTANT - AN E-BOARDING PASS HAS BEEN ISSUED FOR EACH SEGMENT OF THIS TRIP AND HAS BEEN SENT IN A SEPARATE E-MAIL. Please bring all e-boarding passes on your trip and review this confirmation carefully as it includes some important information about travelling with us.

**ITINERARY # 1**

**TRAIN 59** | [info](#)

**From:** OTTAWA Mon. Aug 26, 2013      **Departure:** 17:02 PM

**To:** TORONTO Mon. Aug 26, 2013      **Arrival:** 21:01 PM

**Class:** Business      **Car :** 1 Seat : 5A Window

**Remarks:** Operated by: VIA Rail Canada. This train goes through Ottawa on the way from Montreal to Toronto.

**BAGGAGE ENTITLEMENT**

**Carry-on baggage**

OPTION 1 (Recommended in sleeping cars)

- 2 articles  
Maximum  
11.5 kg (25 lb.) each  
54.5 x 39.5 x 23 cm (21.5 x 15.5 x 9 in.)

- 1 personal article  
Maximum  
11.5 kg (25 lb.)  
43 x 15 x 33 cm (17 x 6 x 13 in.)

For this option, articles of more than 11.5 kg (25 lb.) are not allowed on board.

OR

OPTION 2 (NOT recommended in sleeping cars)

- 1 article  
Maximum  
18 kg (40 lb.)  
158 linear cm (62 linear in.) (length + width + height)

- 1 personal article  
Maximum  
11.5 kg (25 lb.)  
43 x 15 x 33 cm (17 x 6 x 13 in.)

For this option, an article between 41 and 50 lb. (19 and 23 kg) is allowed on board, but is subject to a surcharge of \$20 (taxes included, per one-way trip) for excess weight. An article weighing more than 50 lb. is not allowed on board.

### Checked baggage

No checked baggage.

\*VIA Rail reserves the right to weigh, strictly enforce baggage allowances and collect excess baggage charges.

## CONDITIONS OF CONTRACT

1. Your rail ticket is not transferable and is valid only for travel on the train and date shown. You may exchange or refund this e-boarding pass up until the scheduled departure time indicated on this ticket, subject to the conditions of the applicable fare plan. Please advise VIA Rail in advance of any travel cancellation.
2. Times shown in timetable or elsewhere are not guaranteed.
3. In case of necessity, VIA Rail may cancel a train or substitute alternate transportation without notice.
4. To ensure all passengers' safety, VIA Rail reserves the right to inspect all baggage.
5. You are responsible at all times for your carry-on baggage. VIA Rail assumes a limited liability for loss or damage to checked baggage. Ask VIA Rail personnel for more details.

Other conditions apply to your travel.

## RECEIPT

### FARE INFORMATION

Steven Shrybman (Adult) ----- \$111.87

FARE: \$99.00      G.S.T/H.S.T.: \$12.87      P.S.T.: \$0.00      TOTAL: \$111.87

### TAX INFORMATION

Taxable fare: \$99.00  
G.S.T/H.S.T. number: 105521785RT001

PAYMENT 4500\*\*\*\*\*6076 - AUTHORIZATION # 020642  
TRANSACTION DATE: 08/19/2013

## ITINERARY      FARE PLAN      REFUND/EXCHANGE CONDITIONS

OTTAWA /  
TORONTO

BUSINESS

Before Departure : Exchangeable and refundable less a \$24.75 plus applicable tax(es) service charge.  
After Departure : Non-exchangeable and non-refundable.

Other Useful Information (links)

**Lisa Purdy**

---


**From:** Steven Shrybman  
**Sent:** September 19, 2013 8:41 AM  
**To:** Lisa Purdy  
**Subject:** FW: Itinerary - Please do not reply to this email

This should get billed to the OEB.

---

**From:** PorterAirlines@flyporter.com [mailto:PorterAirlines@flyporter.com]  
**Sent:** September 18, 2013 11:20 PM  
**To:** Steven Shrybman  
**Subject:** Itinerary - Please do not reply to this email

More destinations. More affordably.

Help us reach new destinations. Visit [porterplans.com](http://porterplans.com). 

porter

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**Passenger Itinerary**

Thank you very much for your business. We have confirmed your reservation in our system. You will not receive a paper ticket. Please review flight information for accuracy and make note of ID requirements and recommended check-in times. You may print this itinerary for your reference.

MR. STEVEN SHRYBMAN  
106 HELENA AVE  
TORONTO, ON M6G 2H2  
CANADA

<b>Confirmation Number:</b>	<b>X6FK4M</b>	<b>Agent Name:</b>	SHRYBMAN
<b>Booking Date:</b>	19 Sep 2013	<b>Booked By:</b>	

**Passenger Information:**

---

<b>Name</b>	<b>VIPorter Number</b>	<b>Flight #/Seat #</b>
Mr. Steven SHRYBMAN	8340000055	251/NA

---



**Flight Information:**

---

Date	Flight	Depart	Arrive	Stops
20 Sep 2013	251	Toronto (YTZ) 10:10	Ottawa (YOW) 11:06	

---

**Fare Summary (CAD):**

---

Base Fare:	\$109.00
NAV and Surcharges:	\$12.00
Air Traveller Security Charge:	\$7.12
Airport Improvement Fee:	\$20.00
Harmonized Sales Tax:	\$19.26
	-----
Total Fare Price:	\$167.38
Visa:	\$167.38
	-----
Balance Due:	\$0.00

---

GST/HST Number: 841583271

QST Number: 1212573775

**Baggage Policy:**

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  - 1 personal article not exceeding 43 cm x 33 cm x 16 cm (17" x 13" x 6") and weighing less than 9 kg (20 lb)
- Items that are not permitted in carry-on baggage aboard the aircraft are those that present a potential hazard. They include, but are not limited to, weapons, tools, restraining devices, toy weapons, cutting and puncturing devices (knives, box cutters, scissors, straight razors) ice skates and other hazardous items as defined and regulated by law including explosives, poisons, and other toxic materials.
- All carry-on baggage must fit in the sizing units located both at check-in and the gate areas.
- On board the aircraft, all carry-on baggage must be stowed under the seat or in the overhead compartments.
- The following items are not counted as carry-on: coats, cameras, receptacles containing human remains, containers carrying life sustaining items, strollers, child restraint systems, crutches, canes, walkers and other such items.
- Porter may require that an item of carry-on baggage travel as checked luggage if the bag cannot be safely stowed in the cabin.

**Lisa Purdy**

---

**From:** Steven Shrybman  
**Sent:** September 2, 2013 9:25 PM  
**To:** Lisa Purdy  
**Subject:** FW: Itinerary - Please do not reply to this email

This gets billed to the same file

*COC - OEB*

---

**From:** PorterAirlines@flyporter.com [mailto:PorterAirlines@flyporter.com]  
**Sent:** September 2, 2013 9:24 PM  
**To:** Steven Shrybman  
**Subject:** Itinerary - Please do not reply to this email



**Passenger Itinerary**

Thank you very much for your business. We have confirmed your reservation in our system. You will not receive a paper ticket. Please review flight information for accuracy and make note of ID requirements and recommended check-in times. You may print this itinerary for your reference.

MR. STEVEN SHRYBMAN  
106 HELENA AVE  
TORONTO, ON M6G 2H2  
CANADA

**Confirmation Number:** **R3JLXI**                      **Agent Name:** SHRYBMAN  
**Booking Date:** 03 Sep 2013                      **Booked By:**

**Passenger Information:**

---

Name	VIPorter Number	Flight #/Seat #
Mr. Steven SHRYBMAN	8340000055	271/3C

---

**Flight Information:**

---

Date	Flight	Depart	Arrive	Stops
05 Sep 2013	271	Toronto (YTZ) 18:55	Ottawa (YOW) 19:51	

---

---

**Fare Summary (CAD):**

---

Base Fare:	\$324.00
NAV and Surcharges:	\$12.00
Air Traveller Security Charge:	\$7.12
Airport Improvement Fee:	\$20.00
Harmonized Sales Tax:	\$47.21
	-----
Total Fare Price:	\$410.33
Seat Fee:	\$0.00
	-----
Total Including Service Charges:	\$410.33
Visa:	\$410.33
	-----
Balance Due:	\$0.00

---

GST/HST Number: 841583271

QST Number: 1212573775

**Baggage Policy:**

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  - 1 personal article not exceeding 43 cm x 33 cm x 16 cm (17" x 13" x 6") and weighing less than 9 kg (20 lb)
- Items that are not permitted in carry-on baggage aboard the aircraft are those that present a potential hazard. They include, but are not limited to, weapons, tools, restraining devices, toy weapons, cutting and puncturing devices (knives, box cutters, scissors, straight razors) ice skates and other hazardous items as defined and regulated by law including explosives, poisons, and other toxic materials.
- All carry-on baggage must fit in the sizing units located both at check-in and the gate areas.
- On board the aircraft, all carry-on baggage must be stowed under the seat or in the overhead compartments.
- The following items are not counted as carry-on: coats, cameras, receptacles containing human remains, containers carrying life sustaining items, strollers, child restraint systems, crutches, canes, walkers and other such items.
- Porter may require that an item of carry-on baggage travel as checked luggage if the bag cannot be safely stowed in the cabin.

**For travel before August 1, 2013 or for flights booked before July 3, 2013**

**ONE item of checked baggage is permitted, free of charge, per fare-paying passenger.**

- One piece of checked baggage is accepted free of charge for each fare paying passenger.

**Lisa Purdy**

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**From:** Steven Shrybman  
**Sent:** May 1, 2013 11:01 AM  
**To:** Lisa Purdy  
**Subject:** FW: Steven Shrybman : Your VIA itinerary and receipt for booking ZKM398

please bill to gas pipe

(and if I don't indicate otherwise, please also put a claim in for this expense)

---

**From:** VIA Rail Canada [service@viarail.ca]  
**Sent:** 01 May 2013 07:26  
**To:** Steven Shrybman  
**Subject:** Steven Shrybman : Your VIA itinerary and receipt for booking ZKM398

**ITINERARY / RECEIPT - NOT VALID FOR TRAVEL**

Thank you for choosing  
VIA Rail Canada .



BOOKING CONFIRMATION: ZKM398

STEVEN SHRYBMAN

**IMPORTANT - AN E-BOARDING PASS HAS BEEN ISSUED FOR EACH SEGMENT OF THIS TRIP AND HAS BEEN SENT IN A SEPARATE E-MAIL.** Please bring all e-boarding passes on your trip and review this confirmation carefully as it includes some important information about travelling with us.

**ITINERARY # 1**

TRAIN 656 | [info](#)

From: TORONTO Thu. May 2, 2013      Departure: 16:20 PM  
To: OTTAWA Thu. May 2, 2013      Arrival: 20:19 PM  
Class: Business Discounted fare      Car : 1 Seat : 8C Aisle  
Remarks: Operated by: VIA Rail Canada. Route: Toronto-Ottawa-Montréal

**BAGGAGE ENTITLEMENT**

**Carry-on baggage**

OPTION 1 (Recommended in sleeping cars)

- 2 articles  
Maximum  
11.5 kg (25 lb.) each  
54.5 x 39.5 x 23 cm (21.5 x 15.5 x 9 in.)

- 1 personal article  
Maximum  
11.5 kg (25 lb.)  
43 x 15 x 33 cm (17 x 6 x 13 in.)

For this option, articles of more than 11.5 kg (25 lb.) are not allowed on board.

OR

OPTION 2 (NOT recommended in sleeping cars)

- 1 article

Maximum

18 kg (40 lb.)

158 linear cm (62 linear in.) (length + width + height)

- 1 personal article

Maximum

11.5 kg (25 lb.)

43 x 15 x 33 cm (17 x 6 x 13 in.)

For this option, an article between 41 and 50 lb. (19 and 23 kg) is allowed on board, but is subject to a surcharge of \$20 (taxes included, per one-way trip) for excess weight. An article weighing more than 50 lb. is not allowed on board.

### Checked baggage

No checked baggage.

\*VIA Rail reserves the right to weigh, strictly enforce baggage allowances and collect excess baggage charges.

## CONDITIONS OF CONTRACT

1. Your rail ticket is not transferable and is valid only for travel on the train and date shown. You may exchange or refund this e-boarding pass up until the scheduled departure time indicated on this ticket, subject to the conditions of the applicable fare plan. Please advise VIA Rail in advance of any travel cancellation.
2. Times shown in timetable or elsewhere are not guaranteed.
3. In case of necessity, VIA Rail may cancel a train or substitute alternate transportation without notice.
4. To ensure all passengers' safety, VIA Rail reserves the right to inspect all baggage.
5. You are responsible at all times for your carry-on baggage. VIA Rail assumes a limited liability for loss or damage to checked baggage. Ask VIA Rail personnel for more details.

Other conditions apply to your travel.

## RECEIPT

### FARE INFORMATION

Steven Shrybman (Adult) ..... \$120.35

FARE: \$106.50      G.S.T/H.S.T.: \$13.85      P.S.T.: \$0.00      TOTAL: \$120.35

### TAX INFORMATION

Taxable fare: \$106.50

G.S.T/H.S.T. number: 105521785RT001

PAYMENT 4500\*\*\*\*\*6076 - AUTHORIZATION # 024050

TRANSACTION DATE: 05/01/2013

## ITINERARY      FARE PLAN      REFUND/EXCHANGE CONDITIONS

TORONTO /  
OTTAWA

SEAT SALE

Non-exchangeable and non-refundable.

### Other Useful Information (links)

- [Seat Assignment in Economy Class](#)

- [VIA's baggage policy](#)
- [VIA Terms and Conditions](#)

### Customer Support

- For assistance or queries regarding your train booking, please contact VIA Rail for help at [service@viarail.ca](mailto:service@viarail.ca)

### Risk Free Booking

- Fully refundable prior to paper ticket issuance if cancelled **online** within **24 hours of booking** and **before scheduled train departure**, whichever comes first.

### How to cancel a booking online?

- You can cancel your booking online if you have not yet exchanged this booking confirmation for a paper ticket.
- Go to [reservia.viarail.ca/cancellation/request.aspx?l=en](http://reservia.viarail.ca/cancellation/request.aspx?l=en)
- Follow the instructions

### How to get a refund if paper tickets have already been issued?

- Call 1 888 VIA-RAIL (842-7245) to cancel your booking
- Then go to a VIA station with your unused ticket (including the "Receipt" portion) and the credit card used to purchase your ticket, to obtain your refund.

### Do you want to book a hotel room?

VIA Rail offers you special deals on hotel rooms. Whether you're travelling for business or pleasure, we can help you complete your travel plans in one stop with [www.viarail.ca](http://www.viarail.ca)

[Book a hotel](#)

From: PorterAirlines@flyporter.com [PorterAirlines@flyporter.com]

Sent: 02 October 2013 12:59

To: Steven Shrybman

Subject: Itinerary - Please do not reply to this email

porter

More destinations. More affordably.

Help us reach new destinations. Visit [porterplans.com](http://porterplans.com).

### Passenger Itinerary

Thank you very much for your business. We have confirmed your reservation in our system. You will not receive a paper ticket. Please review flight information for accuracy and make note of ID requirements and recommended check-in times. You may print this itinerary for your reference.

MR. STEVEN SHRYBMAN  
500-30 METCALFE ST  
OTTAWA, ON K1P 5L4  
CANADA

Confirmation  
Number:

**B7EFTW**

Agent Name:

SHRYBMAN

Booking Date:

02 Oct 2013

Booked By:

### Passenger Information:

Name	VIPorter Number	Flight #/Seat #
Mr. Steven SHRYBMAN	8340000055	251/NA 274/NA

**Flight Information:**

Date	Flight	Depart	Arrive	Stops
06 Oct 2013	251	Toronto (YTZ) 10:30	Ottawa (YOW) 11:26	
07 Oct 2013	274	Ottawa (YOW) 20:00	Toronto (YTZ) 21:00	

**Fare Summary (CAD):**

Base Fare:	\$218.00
NAV and Surcharges:	\$24.00
Air Traveller Security Charge:	\$14.24
Airport Improvement Fee:	\$40.00
Harmonized Sales Tax:	\$38.52
Total Fare Price:	\$334.76
Visa:	\$334.76
Balance Due:	\$0.00

1/2 to CoC re: OEB file

GST/HST Number: 841583271

QST Number: 1212573775

**Baggage Policy:**

**TWO items of carry-on baggage are permitted per fare-paying passenger.**

- Carry-on baggage is limited to two pieces:
  - 1 standard article not exceeding 55 cm x 40 cm x 23 cm (21.5" x 15.5" x 9") and weighing less than 9 kg (20 lb)
  - 1 personal article not exceeding 43 cm x 33 cm x 16 cm (17" x 13" x 6") and weighing less than 9 kg (20 lb)
- Items that are not permitted in carry-on baggage aboard the aircraft are those that present a potential hazard. They include, but are not limited to, weapons, tools, restraining devices, toy weapons, cutting and puncturing devices (knives, box cutters, scissors, straight razors) ice skates and other hazardous items as defined and regulated by law including explosives, poisons, and other toxic materials.
- All carry-on baggage must fit in the sizing units located both at check-in and the gate areas.
- On board the aircraft, all carry-on baggage must be stowed under the seat or in the overhead compartments.
- The following items are not counted as carry-on: coats, cameras, receptacles containing



Council of Canadians  
700 - 170 Laurier Avenue West  
Ottawa, Ontario  
K1P 5V5

Date: 04 Feb 2014  
Invoice # Sample  
Matter # 13-840

Attention: Brent Patterson

**RE: Council of Canadians re: Enbridge Gas Distribution**

<b>FEES</b>		<b>HOURS</b>	
18-Apr-13	Review Board notice and reporting to clients re: same;	0.80	SLS
24-Apr-13	Review of file to briefing S. Hart re: attendance at telephone conference on April 26	1.00	SLS
24-Apr-13	E-mail correspondence with S. Shrybman re: OEB conference call on behalf of Council of Canadians; printing and reviewing information;	0.30	SH
25-Apr-13	Review application; Telephone conversation with D. Poch re: coordination; email correspondence with L. Sumi and clients;	6.80	SLS
25-Apr-13	Review of materials and preparation for OEB conference call to take place April 25,2013; Discussion with S. Shrybman;	1.00	SH
26-Apr-13	Email exchange with other party re: L. Sumi evidence;	0.40	SLS
26-Apr-13	Participation in Issues and Process conference call re: Enbridge /union applications (OEB);	3.30	SH
26-Apr-13	Preparing notes on conference call and emailing summary to S. Shrybman;	0.30	SH
30-Apr-13	Reporting note to client;	1.00	SLS
30-Apr-13	Discussion with other intervenors;	0.50	SLS
30-Apr-13	Prepare for and attend proceeding before the Board;	6.40	SLS

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01-May-13	Email exchanges with client re: nature and scope of intervention;	1.10	SLS
01-May-13	Telephone call with L. Sumi re: retainer and to review her most recent work;	1.00	SLS
01-May-13	Review of file;	0.60	SLS
01-May-13	Debrief clients on hearing day; seek instructions;	1.90	SLS
02-May-13	Review of file in preparation for client contact call;	1.40	SLS
02-May-13	Telephone conversation with D. Poch re: coordination of expert evidence;	0.50	SLS
02-May-13	Further exchanges with client and L. Sumi;	1.80	SLS
06-May-13	Review L. Sumi paper from Gas Market Regulation proceedings;	0.90	SLS
06-May-13	Email correspondence with L. Sumi and D. Poch;	0.40	SLS
06-May-13	Review T. Colborne article to email request for expert evidence;	1.20	SLS
06-May-13	Review A. Ingraffea reports; review letter of inquiry re: possible retainer to give expert evidence;	1.30	SLS
13-May-13	Preparation for telephone call with D. Hughes and L. Sumi re: possible retainer as expert witness;	1.50	SLS
13-May-13	Preparation for telephone call with D. Hughes and D. Roberts re: possible retainer as expert witness;	1.30	SLS
13-May-13	Review email correspondence;	0.80	SLS
13-May-13	Follow up correspondence with D. Hughes and D. Roberts re: retainer, funding and directing both to relevant Board files;	0.90	SLS
15-May-13	Review Enbridge application;	1.50	SLS
15-May-13	Email exchange with E. Lui;	0.50	SLS
16-May-13	Telephone conversation with E. Lui for update and instructions;; exchange with D. Poch re: integration and relevance of bubble evidence; exchange with D. Hughes re:	7.10	SLS

19-May-13	interrogatories; further review of application and supporting documents; review of NEB TCPL toll decision referenced by Enbridge Gas Distribution; email correspondence with clients and consultants re: mandate and interrogatories; review TCPL open season;; Review Union Gas proposal;	3.00	SLS
20-May-13	Review interrogatories and experts comments; prepare information requests;	8.00	SLS
21-May-13	Finalize file and serve information requests;	6.50	SLS
22-May-13	Brief review and filing of information requests by various parties;	1.00	SLS
27-May-13	Review production order;	0.30	SLS
01-Jun-13	Review correspondence;	2.00	SLS
10-Jun-13	Correspondence with L. Sumi and review outline of her report; telephone conversation with D. Poch re: form and format for our evidence; review of file and information requests;	5.20	SLS
11-Jun-13	Review A. Ingraffea articles and prepare memo to him;	1.00	SLS
11-Jun-13	Review responses to information requests; email exchange with L. Sumi;	1.00	SLS
12-Jun-13	Review information request exchanges between Enbridge and other parties;	2.50	SLS
18-Jun-13	Review L. Sumi's draft, related email exchange and correspondence with A. Ingraffea; consultation with D. Poch;	2.20	SLS
18-Jun-13	Review email correspondence of parties;	0.50	SLS
18-Jun-13	Consult with experts;	0.90	SLS
19-Jun-13	Review articles by expert; draft outline for A. Ingraffea report; email correspondence with A. Ingraffea;	4.20	SLS
20-Jun-13	Email exchange with experts; draft A. Ingraffea report; telephone conversation with D. Hughes;	6.90	SLS
20-Jun-13	Telephone conversation with D. Poch re: CH4 leakage in larger system;	0.30	SLS

22-Jun-13	Review motion re: Gaz Metro and Union Gas;	1.00	SLS
23-Jun-13	Exchange with consultants re: their respective reports;	1.10	SLS
23-Jun-13	Review and comment on Ingraffea; email to D. Poch and L. Sumi re: same;	1.80	SLS
24-Jun-13	Further exchanges with D. Poch and his consultants re: TCPL agenda for mainline; receipt of next drafts from A. Ingraffea and L. Sumi;	1.90	SLS
24-Jun-13	Email exchanges with D. Poch and L. Sumi re: A. Ingraffea; prepare first draft and add comments and remit to A. Ingraffea;	2.10	SLS
26-Jun-13	Final review of A. Ingraffea's evidence;	1.50	SLS
26-Jun-13	Review and comment on Ingraffea draft # 3;	2.00	SLS
26-Jun-13	Review and comment on L. Sumi opinion;	3.50	SLS
27-Jun-13	Review of D. Hughes first draft;	3.60	SLS
27-Jun-13	Review of D. Hughes second draft;	1.80	SLS
27-Jun-13	Email exchanges with experts, interveners and to review correspondence from the parties and interveners;	2.10	SLS
27-Jun-13	Review of L. Sumi final response to IR;	2.20	SLS
28-Jun-13	Various exchanges with experts; finalize, file and serve the expert reports of L. Sumi, A. Ingraffea and D. Hughes;	7.40	SLS
30-Jun-13	Serve all Parties;	0.40	SLS
02-Jul-13	Email correspondence with clients; review PO; review POs #4 and #5; email correspondence with experts re: interrogatory timelines; review Union Gas motion; email correspondence with D. Poch re: Union Gas motion;	3.40	SLS
04-Jul-13	Receipt and review of revised Union Gas Application;	1.50	SLS
06-Jul-13	Further review of IRs and email exchange with experts re: same;	2.90	SLS

06-Jul-13	Review Presidents Action Plan re: UGL and EGD IRs; exchanges with A. Ingraffea and L. Sumi re: same;	2.40	SLS
08-Jul-13	Review IRs to D. Hughes and telephone conversation re: same;	1.00	SLS
09-Jul-13	Reviewing correspondence and motion materials filed by the parties; correspondence with experts re: interrogatories;	2.50	SLS
10-Jul-13	Review IRs and Telephone conversation with L. Sumi, A. Ingraffea and D. Hughes; memo to student re: article search; review correspondence and motion materials; exchanges with student re: responses to interrogatories;	9.20	SLS
10-Jul-13	Retrieving academic articles requested by Union Gas interrogatories;	0.70	MS
11-Jul-13	Review correspondence from parties and attend hearing online;	1.20	SLS
11-Jul-13	Exchange with student and staff re: responses to interrogatories;	0.50	SLS
12-Jul-13	Review correspondence and filings of the parties and board; Telephone conversation with D. Poch re: recent developments and potential impacts on approvals; draft interrogatories for TCPL;	4.80	SLS
13-Jul-13	Review file and correspondence with D. Hughes re: IRs;	1.00	SLS
15-Jul-13	Memos to A. Ingraffea and L. Sumi re: their response to IRS;	1.80	SLS
15-Jul-13	Review Enbridge's revised application;	1.20	SLS
15-Jul-13	Review and comment on L. Sumi's IR responses;	0.50	SLS
15-Jul-13	Further review of revised application;	1.50	SLS
15-Jul-13	Review of correspondence from Parties;	0.70	SLS
15-Jul-13	Review letter from Board; exchanges with A. Ingraffea and review of his response to President's Action Plan;	1.50	SLS
15-Jul-13	Review of D. Hughes' response to IRs;	1.25	SLS
16-Jul-13	Review draft IR responses; various exchanges with experts;	7.20	SLS

17-Jul-13	Review correspondence filed by parties;	0.80	SLS
17-Jul-13	Further review of A. Ingraffea IR responses and instructing assistant re: final formatting;	1.30	SLS
17-Jul-13	Prepare for and telephone interview with D. Hughes re: IRs;	2.60	SLS
17-Jul-13	Exchanges with L Sumi re: Union IR File retrieval and review her response;	1.20	SLS
17-Jul-13	Edit D. Hughes' UGL and EGD responses;	1.40	SLS
18-Jul-13	Review and finalize L. Sumi's response;	1.60	SLS
18-Jul-13	Review and finalize D. Hughes' EGD IR response;	0.90	SLS
18-Jul-13	Telephone conversation with D. Poch re: coordination;	0.30	SLS
18-Jul-13	Detailed review of D. Hughes' UGL IR response;	5.20	SLS
19-Jul-13	Finalize responses; arranging for filing and serving responses to UGL, EGD, CCC and Housing Federation;	6.90	SLS
19-Jul-13	Correspondence with and reporting to client;	1.00	SLS
22-Jul-13	Review correspondence and receipt of revised EGD application;	1.50	SLS
23-Jul-13	Review P.O. #6 and to correspondence scheduling with experts;	1.50	SLS
24-Jul-13	Exchanges with clients re: availability for hearing and Telephone conversation with D. Poch re: procedural issues;	1.40	SLS
25-Jul-13	Review revised NOA Enbridge and TLPC Notice of Intent to Revise Evidence;	2.20	SLS
26-Jul-13	Email exchange with L. Sumi re: her availability to attend hearings;	0.30	SLS
26-Jul-13	Review Union and Enbridge Responses to TLPC letter;	1.20	SLS
29-Jul-13	Review of file and procedural order No. 7;	2.10	SLS

29-Jul-13	Exchanges with our experts and Board Counsel re: scheduling of our witness panel;	0.90	SLS
29-Jul-13	Reporting to client;	0.60	SLS
29-Jul-13	Review evidence on fracking;	0.80	SLS
29-Jul-13	Legal research re jurisdiction of OEB;	1.00	MS
30-Jul-13	Email correspondence with A. Ingraffea re: his op-ed in NYT;	0.40	SLS
30-Jul-13	Communication with clients re: preparation for hearing;	0.60	SLS
30-Jul-13	Email correspondence from Board;	0.40	SLS
30-Jul-13	Legal research re jurisdiction of OEB;	1.00	MS
31-Jul-13	Prepare for and telephone conversation with D. Poch re: latest filings by TCPL and to discuss collaboration on the evidence;	0.50	SLS
31-Jul-13	Review correspondence from the parties re: TCPL request for schedule revision and to review Board order arising therefrom;	1.10	SLS
31-Jul-13	Review ED submissions on its motion to have costing information placed on the public record;	0.70	SLS
31-Jul-13	Review EGD notice of revised application;	0.30	SLS
31-Jul-13	Review of EGD revised application;	0.50	SLS
31-Jul-13	Legal research on OEB jurisdiction: review of QL research; OEB cases and divisional court decision;	1.50	MS
01-Aug-13	Review Board IRs to EGD on updated evidence; review TCPL responses to COC IRs re: latest announcement concerning pipeline east; briefing clients re: same; review procedural order # 8	2.90	SLS
01-Aug-13	Review EGD responses to ED motion;	0.40	SLS
01-Aug-13	Review APPRO IRs of EGD;	0.40	SLS

01-Aug-13	Review GEC IRs; motion by Mississaguas;	1.30	SLS
01-Aug-13	Research re OEB jurisdiction;	1.00	MS
02-Aug-13	Review of IRs filed by several parties;	2.30	SLS
02-Aug-13	Email correspondence with clients re: various issues;	0.50	SLS
06-Aug-13	Discussion with student re scope of OEB environmental mandate;	0.40	SLS
06-Aug-13	Exchanges with client re: file;	1.10	SLS
06-Aug-13	Meeting with S. Shrybmann re: research on OEB extra-territorial jurisdiction;	0.30	MS
07-Aug-13	Review correspondence from parties;	0.40	SLS
07-Aug-13	Review student memo re: scope of OEB environmental jurisdiction and to follow up re: same;	1.20	SLS
08-Aug-13	Review correspondence from Board;	0.20	SLS
08-Aug-13	Meetings with client re: impact of project on gas supply to the GTA through TCPL mainline and to follow up correspondence;	2.60	SLS
09-Aug-13	Exchanges with client re: issues relating to the conversation of the TCPL mainline;	1.20	SLS
12-Aug-13	Review TCPL responses to COC and other interrogatories;	2.30	SLS
13-Aug-13	Further review of TCPL responses to COC, Board, and other interrogatories;	1.10	SLS
15-Aug-13	Review of Union Metro and TCPL applications to NEB; review filings and procedural orders;	1.80	SLS
15-Aug-13	Research on OEB jurisdiction and environmental assessment process;	2.00	MS
16-Aug-13	Review correspondence from the Board;	0.40	SLS
16-Aug-13	Legal research;	2.50	MS



19-Aug-13	Review TCPL revised submissions; memorandum to consultants; follow up conversations with D. Hughes and L. Sumi re: possible IRs;	2.60	SLS
20-Aug-13	Email exchange with experts; meeting with student re: Board's environmental mandate; Telephone conversation with D. Poch and Elston re: same; legal research re: extent of OEB jurisdiction re: Greenhouse gas emissions; drafting further IRs in respect of TCPL supplementary evidence;	7.10	SLS
20-Aug-13	Further legal research on scope of OEB's public interest mandate for environmental impact analysis; preparation of memo;	5.50	MS
21-Aug-13	Exchanges with client re: inter-relationship between mainline and GTA project; monitor IRs from parties;	1.80	SLS
26-Aug-13	Review procedural Order 9; review file;	2.80	SLS
26-Aug-13	Review TCPL responses to our IRs and memo to experts re: same;	1.40	SLS
26-Aug-13	Exchanges and Telephone conversation with D. Hughes re: TCPL responses to our IRs;	0.90	SLS
26-Aug-13	Memo to experts re: scheduling;	0.30	SLS
26-Aug-13	Review of file in preparation for settlement conference;	2.50	SLS
26-Aug-13	Further legal research and preparation of revised memo on OEB environmental jurisdiction;	3.00	MS
27-Aug-13	Completion of research and memo on OEB environmental jurisdiction;	3.30	MS
28-Aug-13	Prepare for and attend settlement conference; review M. Sandilands memo;	7.30	SLS
29-Aug-13	Prepare for and attending settlement conference Day II;	6.20	SLS
30-Aug-13	Review correspondence re: hearing schedule and logistics;	1.20	SLS
02-Sep-13	Review file and correspondence from the parties; reporting to client; memo to experts re: scheduling and logistics;	1.60	SLS
03-Sep-13	Review cross estimates and correspondence;	0.80	SLS
03-Sep-13	Correspondence and meetings with other intervener re: issues;	0.90	SLS

04-Sep-13	Review latest estimates; revise my estimates accordingly;	0.50	SLS
04-Sep-13	Review party correspondence; review latest procedural order; facilitate exchange between GEC and D. Hughes re: the spread in gas prices Dawn v. Empress; coordinate schedule of appearance of our panel;	3.20	SLS
05-Sep-13	Prepare for and attend pre-hearing conference and Board proceeding; follow up communications with experts and clients; memorandum to experts re: modalities for their attendance for cross examination;	4.80	SLS
06-Sep-13	Review correspondence from parties; exchanges with clients, experts and other parties re: various matters	1.20	SLS
09-Sep-13	Discussions re: intervener funding; (N/C)	0.50	SLS
11-Sep-13	Preparation of cross; review correspondence from the parties; review of revised evidence of EGB; exchanges re: confidentiality undertaking; consultation with other intervener;	6.30	SLS
12-Sep-13	Prepare for and attend OEB hearing;	4.80	SLS
12-Sep-13	Meeting with counsel for other interveners;	0.20	SLS
13-Sep-13	Various exchanges with experts re: schedule for COC panel (hearing adjourned);	1.00	SLS
14-Sep-13	Review file, Union update and its responses to staff and other IRs; Telephone conversation with D. Poch re: TCPL's evidence; review correspondence from the parties;	7.20	SLS
16-Sep-13	Prepare for and attend OEB hearing;	5.60	SLS
17-Sep-13	Prepare for and attend OEB proceedings including conducting cross of Union panel; follow up correspondence with our experts re: reference to their evidence made during our cross;	6.90	SLS
19-Sep-13	Prepare for and attend OEB hearing;	3.00	SLS
19-Sep-13	Correspondence with experts re: critique by Union of their evidence;	0.90	SLS
24-Sep-13	Monitor proceedings; cross by ED of EGD alternatives panel;	4.60	SLS
27-Sep-13	Correspondence with experts and clients;	0.80	SLS

27-Sep-13	Preliminary review of transcripts;	1.00	SLS
28-Sep-13	Prepare for the appearance of the COC panel; correspondence from Board and with experts re: adjournment of their appearance on Oct. 1;	6.90	SLS
30-Sep-13	Correspondence with Board and experts re: rescheduling their appearance;	2.40	SLS
01-Oct-13	Further exchanges with the Board re: scheduling COC panel; communications with experts re: same; review party correspondence and evidence update by EGD;	2.20	SLS
02-Oct-13	Attending to logistical issues re: attendance of our experts; review incoming undertakings;	1.40	SLS
04-Oct-13	Reporting to clients re: progress of proceeding and scheduling of COC witness panel;	0.90	SLS
05-Oct-13	Review transcripts, evidence and IRs for the purpose of preparing COC witness panel;	8.00	SLS
07-Oct-13	Communications with experts re: pending appearance and to prepare cross examination of joint panel;	6.30	SLS
08-Oct-13	Meet with and prepare our witnesses for their appearance; (no charge)	4.00	SLS
09-Oct-13	Meet with and prepare witness panel; attend hearing to introduce our expert evidence; conduct cross examination of joint panel;	5.70	SLS
24-Oct-13	Preliminary review of EGD and Union Gas final arguments;	0.50	SLS
28-Oct-13	Review transcripts of cross examination;	2.80	SLS
29-Oct-13	Review file and drafting outline for argument;	6.40	SLS
29-Oct-13	Reading email from S. Shrybman re: Energy Board work;	0.10	JL
30-Oct-13	Review file, evidence, cross, IRs, our evidence in chief; drafting outline for argument;	6.80	SLS
31-Oct-13	Researching and writing on Section 2 of the OEB Act;	4.20	JL
01-Nov-13	Review term sheet filed this date by EGD and Union Gas;	1.20	SLS
01-Nov-13	Prepare final argument;	2.00	SLS

01-Nov-13	Communication with clients;	0.40	SLS
01-Nov-13	Writing memo on Section 2 of the Act;	4.40	JL
04-Nov-13	Exchange with K. Elston; email correspondence with A. Ingraffea re: boe equivalence; review correspondence from Board staff and parties concerning issues arising from the "final" term sheet; reviewing the evidence and cross examination; drafting final argument;	8.90	SLS
04-Nov-13	Research and writing submissions on extra-territorial jurisdiction of the OEB;	3.70	JL
05-Nov-13	Prepare final argument; review various exchanges re: questions arising from the filing of the revised term sheet;	8.80	SLS
05-Nov-13	Researching Keystone history and writing memorandum	4.40	JL
06-Nov-13	Review of party and staff exchanges re: revised term sheet; drafting final argument;	7.90	SLS
06-Nov-13	Researching and writing memo;	7.50	JL
07-Nov-13	Review and exchange of correspondence and PO number Sheriff's Certificates;	1.10	SLS
07-Nov-13	Draft final argument;	7.80	SLS
07-Nov-13	Research and distinguishing cases in memorandum;	5.20	JL
08-Nov-13	Looking up legislative history of Section 2;	0.20	JL
13-Nov-13	Draft submissions;	10.90	SLS
13-Nov-13	Research on legislative history of section 2 of OEB Act;	1.90	JL
13-Nov-13	Researching legislative history;	2.10	JL
14-Nov-13	Draft submissions;	14.20	SLS
14-Nov-13	Researching and writing memo on legislative history of s. 2 of OEB Act;	3.10	JL

14-Nov-13	Reading, revising and editing submissions to Board;	3.40	JL
15-Nov-13	Draft submissions	3.00	SLS
15-Nov-13	Final revisions to submissions;	0.40	JL
17-Nov-13	Review Union Metro and TCPL applications to NEB; review filings and procedural orders;	1.80	SLS
10-Jan-14	Review invoices from experts; email correspondence re: same; organizing in preparation for making submissions on costs;	1.80	SLS
22-Jan-14	Review account;	0.40	SLS
28-Jan-14	Receipt and review of Board correspondence;	0.40	SLS
29-Jan-14	Report to client re: release of Board decision;	0.60	SLS
30-Jan-14	Review Board's decision to compose reporting memorandum to clients;	3.40	SLS
31-Jan-14	Teleconference debriefing with E. Lui re: Board decision;	0.80	SLS
03-Feb-14	Prepare account;	2.10	SLS
03-Feb-14	Review correspondence from interveners;	0.30	SLS
04-Feb-14	Further preparation of account;	1.10	SLS
04-Feb-14	Compose reporting memorandum to expert witnesses re: Board's decision;	0.80	SLS
04-Feb-14	Review correspondence from Enbridge;	0.20	SLS
<b>TOTAL HOURS</b>		<b>518.65</b>	
Total Fees	:	\$	155,675.50
GST/HST On Fees	:	\$	20,237.82
Total Fees and GST/HST	:	\$	175,913.32
<b>DISBURSEMENTS</b>			

Computer search	\$	553.03
Photocopies	\$	902.50
Postage	\$	1.97
Telephone - long distance	\$	72.14
PUROLATOR INV # 420281491	\$	20.71
Transportation - Train	\$	99.00 ✓
Transportation - Airfare	\$	148.12 ✓
Transportation - Airfare	\$	233.12 ✓
Transportation - Airfare	\$	1,194.61 ✓
Transportation - Airfare	\$	148.12 ✓
Reimbursement of Expense - Flight Cancellation Fee*	\$	240.00 ✓
Canada Post - Postage	\$	9.23
Transportation - Airfare	\$	233.12 ✓
Transportation - Airfare	\$	274.12 ✓
Transportation - Taxi	\$	35.27 ✓
Transportation - Taxi	\$	15.49 ✓
Transportation - Taxi	\$	16.81 ✓
Transportation - Taxi	\$	14.82 ✓
Transportation - Taxi	\$	8.85 ✓
Reimbursement of Expenses	\$	681.59 ✓
Re-imbusement of expenses*	\$	850.00 ✓
TR FR 13-607 TO 13-840 Train disbursement	\$	106.50 ✓
Transportation - Airfare	\$	148.12 ✓
Total Disbursements	:	\$ 6,007.24
GST/HST On Disbursements	:	\$ 639.24
Total Disbursements and GST/HST	:	\$ 6,646.48

**TOTAL INVOICE:** \$ 182,559.80

*For reference only - TRUST BALANCE:* \$ 0.00

Total GST/HST on this invoice is \$20,877.06

**FEE SUMMARY**

Lawyer	:	Hours	Hourly Rate	Amount
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STEVEN SHRYBMAN	:	451.35	\$330.00	\$148,945.50
SASHA HART	:	4.90	\$100.00	\$490.00
MARION SANDILANDS	:	21.80	\$100.00	\$2,180.00
JANINE LESPERANCE	:	40.60	\$100.00	\$4,060.00
Totals	:	518.65		\$155,675.50

**THIS IS OUR ACCOUNT HEREIN  
SACK GOLDBLATT MITCHELL LLP**

**PER:**

**STEVEN SHRYBMAN**

E.&O.E.

Any disbursements incurred on your behalf and not charged to your account will be billed later  
Our firm's GST/HST number is 12231 7019 RT0001.

\* items are tax exempt or tax free

In accordance with s.33 of the Solicitors Act, interest will be charged at 1.3% per annum on unpaid fees, charges and disbursements, calculated from a date which is one month after this statement is delivered.

## **THE FIRM**

Sack Goldblatt Mitchell LLP is one of Canada's leading labour law, civil litigation and criminal law firms. SGM also specializes in public interest law, Charter of Rights litigation, human rights law, and pension and administrative law.

SGM is particularly involved in efforts to resist the privatization of public services and resources. For instance, SGM represented two unions who successfully challenged what would have otherwise been the largest privatization in Canadian history, the proposed sale of Hydro One. We have also headed off schemes to privatize municipal water and sanitation services, and SGM is actively engaged in fighting to preserve the integrity of Medicare in the face of mounting privatization pressures.

## **STEVEN SHRYBMAN**

Steven obtained his law degree from Osgoode Hall Law School and was called to the Bar in 1981. Steven has been a member of the British Columbia Bar. He has been a partner at SGM since leaving his position as the Executive Directive of the West Coast Environmental Law Association in 2000.

Mr. Shrybman's practice focuses on international trade and public interest litigation, including issues concerning the environment, health care, human and labour rights, the protection of public services, natural resources policy, and intellectual property rights. He has prepared numerous legal opinions regarding the impact of international trade law on diverse areas of Canadian policy and law. His clients in this regard have included the Provinces of British Columbia, Manitoba and Ontario; the British Columbia, Ontario and Alberta Federations of Labour; the Canadian Union of Public Employees; the Communications, Energy and Paperworkers Union of Canada; the Canadian Autoworkers; the Romanow Commission and both the Canadian and International Library Associations.

Among dozens of public interest cases that Mr. Shrybman has argued, are the following:

- represented the Canadian Union of Public Employees and the Communications, Energy and Paperworkers Union of Canada in an application that prevented the sale of Ontario's electricity transmission system (the second largest in the world) that would have otherwise been the largest privatization in Canadian history - *Payne v. Wilson*, 2002 CanLII 45002 (ON CA);
- represented a coalition of national and international food safety and security groups as public interest interveners in a landmark Supreme Court of Canada





case involving Monsanto's assertion of patent right to seeds - *Monsanto Canada Inc. v. Schmeiser*, 2004 SCC 34, [2004] 1 SCR 902;

- represented the Canadian Labour Congress before the Supreme Court of Canada challenging the constitutionality of Canada's publicly funded, universal health care system, *Chaoulli v. Quebec (Attorney General)*, 2005 SCC 35, [2005] 1 SCR 791;
- represented a coalition of labour and public interest groups in proceedings before the Federal Court of Canada seeking to preserve the integrity of the Canadian Wheat Board - *Friends of the Canadian Wheat Board et al. v. the Attorney General of Canada*, Federal Court file T-1057-11;
- represented public interest interveners in several proceedings arising under the investor-state dispute procedures of the North American Free Trade Agreement - *UPS v. Canada* <http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/parcel.aspx?lang=en&view=d>.  
*S.D Myers v. Canada*; <http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/SDM.aspx?lang=en&view=d>;  
*Merrill Ring v. Canada*; <http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/merrill.aspx?lang=en&view=d>

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**Ontario Energy Board  
COST CLAIM FOR HEARINGS**



**Detail of Fees and Disbursements Being Claimed**

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Conduct</u>
Party: <u>Council of Canadians</u>	Name: <u>Sasha Hart</u>
Completed Years Practising/Years of relevant experience	
Counsel/Articling Student/Paralegal: <input checked="" type="checkbox"/>	_____
Consultant: <input type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input type="checkbox"/>

**Statement of Fees Being Claimed**

	Hours	Hourly rate	Subtotal	HST	Total
Preparation	4.90	\$100.00	\$490.00	\$63.70	\$553.70
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference			\$0.00	\$0.00	\$0.00
Attendance - Oral Hearing			\$0.00	\$0.00	\$0.00
Argument			\$0.00	\$0.00	\$0.00
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>			\$490.00	\$63.70	\$553.70

**Statement of Disbursements Being Claimed**

	Net Cost	HST	Total
Photocopies		\$0.00	\$0.00
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier		\$0.00	\$0.00
Telephone		\$0.00	\$0.00
Postage		\$0.00	\$0.00
Transcripts		\$0.00	\$0.00
Travel: Air		\$0.00	\$0.00
Travel: Car		\$0.00	\$0.00
Travel: Rail		\$0.00	\$0.00
Travel (Other):		\$0.00	\$0.00
Parking		included	\$0.00
Taxi or Airport Limo		\$0.00	\$0.00
Accommodation		\$0.00	\$0.00
Meals		\$0.00	\$0.00
Other:		\$0.00	\$0.00
<b>TOTAL DISBURSEMENTS:</b>		\$0.00	\$0.00

Note:

Sasha Hart worked as a summer law student with Sack Goldblatt Mitchell in 2010. She articulated with Sack Goldblatt Mitchell for the 2012/2013 articling term.

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# SASHA HART

1872 Wolfe St., Montreal, QC H2L 3J8

Tel.: (438)880-6094/ (613) 834-3686 E-mail: sasha.hart@mail.mcgill.ca

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## EDUCATION

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**McGill University, Faculty of Law, (Montreal)** 2008-Present  
B.C.L./L.L.B expected January 2012

**Carleton University, Faculty of Arts, (Ottawa)** 2004-2008  
B.A. - Major(s): Law & Political Science  
• Graduated with Highest Honours

**St. Matthew High School, (Ottawa)** 2000-2004  
French Immersion Program – Certificat d'études en français  
• Valedictorian – Class of 2004; Female Athlete of the Year; School Letter Award

## AWARDS AND ACHIEVEMENTS

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- McGill University Entrance Scholarship 2008
- Carleton University Dean's Honour List 2005-2008
- Carleton University Academic All-Canadian 2005-2007
- Carleton University Claude Bissell Scholarship 2007
- Carleton University David J. Bellamy Memorial Scholarship 2007
- Carleton University A. Davidson Dunton Scholarship 2006
- Jayne Peak Carleton University Award 2006
- Carleton University President's Scholars Entrance Scholarship 2004
- Raven Fund Athletic Scholarship 2007
- Ottawa Carleton Catholic School Board Trustee Award 2004
- Ontario Scholar Award 2004

## LAW-RELATED EXPERIENCE

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**Sack, Goldblatt, Mitchell LLP (Ottawa)** 2007-2008; Summer 2009  
*Office Clerk*

- Created database of library books; made recommendations for additional books to acquire
- Opened/closed files; updated legal journals
- Performed receptionist duties: answered telephone, greeted clients etc.
- Carleton University Legal Internship completed at SGM (Research on DTCA for Steven Shrybman)

**PINAY- The Filipino Women's Organization in Quebec (Montreal)** 2008-Present  
*Student advocate*

- Conducted legal research on Canada's 'Live-In-Caregiver' program
- Prepared affidavits for complaint brought before the Quebec Human Rights Commission (QHRC)
- Prepared document presented at QHRC 'Right to Work Without Discrimination' Conference
- Interviewed caregivers in order to obtain information required for Temporary Work Permits

**Carleton University, Faculty of Law (Ottawa)** 2007-2008  
*Teaching Assistant*

- Graded course papers for 2<sup>nd</sup> year 'Public Law' course

- McGill Legal Information Clinic** 2009-Present  
*Volunteer Legal Assistant*
- Conducted research on questions of employment, family, immigration, and property law
  - Met with clients
- McGill International Journal of Sustainable Development Law and Policy** 2009-Present  
*Associate Editor*
- Critically assessed articles to determine whether they should be included in Journal
  - Made suggestions regarding text editing
- African and Canadian Women's Human Rights Project (ACWHRP)** 2009-Present  
*Student Researcher*
- Conducted research on the application of customary law in Canada, Ghana, Kenya, Malawi

### EXTRA-CURRICULAR ACTIVITIES

- McGill Institute for Health and Social Policy, Research/Policy Fellow** Jan. 2009 –Present
- Qualitative field research conducted in Cameroon on rural women's group empowerment strategies
  - Conducted 49 interviews with group members, community leaders, project managers
  - Writing a case study to be published
- Black Law Students' Association of McGill, Vice-President External** 2009-Present
- Coordinated community outreach initiatives
  - Mentored undergraduate students
- Educational Equity Committee - McGill Law Students Association, Member** 2009-Present
- Helped draft submission to McGill Task Force on Diversity, Excellence and Community Engagement
  - Initiated equity review in Law Faculty
- McGill Law Women's caucus, Member** 2008-Present
- Village of Hope Orphanage – Kitwe, Zambia, Volunteer** Summer 2008
- Taught at community school; Organized sports camps
- Ottawa Community Immigration Services Organization, Volunteer ESL Teacher** 2007-2008
- Prepared and taught ESL lessons to recently immigrated individuals
- Centretown Emergency Food Centre (Ottawa), Volunteer** 2005-2006
- Carleton University varsity women's soccer team, Member** 2004-2007
- Selected for Ontario University Athletics' women's inter-university All-Star soccer team
  - 'Defensive Player of the Year' Award

### SKILLS & INTERESTS

- **Languages:** English; French
- **Interests:** International current events; Travel; Soccer; West-African dance

**Ontario Energy Board  
COST CLAIM FOR HEARINGS**



**Detail of Fees and Disbursements Being Claimed**

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Conduct</u>
Party: <u>Council of Canadians</u>	Name: <u>Janine Lesperance</u>
Completed Years Practising/Years of relevant experience	
Counsel/Articling Student/Paralegal: <input checked="" type="checkbox"/>	_____
Consultant: <input type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input type="checkbox"/>

**Statement of Fees Being Claimed**

	Hours	Hourly rate	Subtotal	HST	Total
Preparation	35.80	\$100.00	\$3,580.00	\$465.40	\$4,045.40
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference			\$0.00	\$0.00	\$0.00
Attendance - Oral Hearing			\$0.00	\$0.00	\$0.00
Argument	4.80	\$100.00	\$480.00	\$62.40	\$542.40
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>			\$4,060.00	\$527.80	<b>\$4,587.80</b>

**Statement of Disbursements Being Claimed**

	Net Cost	HST	Total
Photocopies		\$0.00	\$0.00
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier		\$0.00	\$0.00
Telephone		\$0.00	\$0.00
Postage		\$0.00	\$0.00
Transcripts		\$0.00	\$0.00
Travel: Air		\$0.00	\$0.00
Travel: Car		\$0.00	\$0.00
Travel: Rail		\$0.00	\$0.00
Travel (Other):		\$0.00	\$0.00
Parking		included	\$0.00
Taxi or Airport Limo		\$0.00	\$0.00
Accommodation		\$0.00	\$0.00
Meals		\$0.00	\$0.00
Other:		\$0.00	\$0.00
<b>TOTAL DISBURSEMENTS:</b>		\$0.00	<b>\$0.00</b>

# JANINE LESPÉRANCE

4-91 MACLAREN STREET • OTTAWA, ON • K2P 0K5  
613-277-3131 • janine.lesperance@gmail.com

## EDUCATION

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- Juris Doctor (J.D.) / Master of Arts (M.A.) [joint program]** 2009 - 2013  
*University of Ottawa Faculty of Law / Carleton University, Norman Paterson School of International Affairs, Ottawa, ON*  
- Specialization in international law / conflict analysis and resolution
- Bachelor of Arts with First-Class Honours** 2007  
*St. Francis Xavier University, Antigonish, NS*  
- Major in Political Science with Development Studies subsidiary  
- Dean's List 2003 - 2005, 2007  
- Top-ten ranking in Faculty of Arts 2003 - 2005
- Certificat d'Études Politiques** 2006  
*Institut d'Études Politiques de Lille, Lille, France*  
- Exchange program for full scholastic year

## AWARDS AND ACHIEVEMENTS

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- Ontario Graduate Scholarship 2010 - 2011
- Carleton University 2010-2011 Graduate Scholarship, Dean of Graduate Studies Entrance Scholarship
- University of Ottawa Faculty of Law Public Interest Fellowship, Summer 2010

## LAW-RELATED EXPERIENCE

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- Articling Student** 2013 - present  
*Sack Goldblatt Mitchell LLP, Ottawa, ON*  
- Researching case law and writing legal memoranda pertaining to labour law, public interest litigation  
- Preparing for legal presentations, assisting lawyers in hearings
- Legal Intern** 2011 - 2012  
*Canadian Centre for International Justice, and Amnesty International Canada, Ottawa, ON*  
- Investigated background information and legal principles for specific cases  
- Wrote memorandums and reports, including a report to the United Nations Committee Against Torture  
- Assisted with client intake by providing oral translation (English-French)  
- Monitored the Mungwarere Genocide / Crimes Against Humanity trial in Ottawa
- Volunteer 'Cooperant'** 2011  
*Public Prosecutor's Office, Human Rights Section, Special Unit for Civil War Cases, Guatemala City, Guatemala*  
- Researched international jurisprudence on genocide and wrote memorandum with recommendations  
- Led training presentation for prosecutors and legal assistants of the section  
- Supported organization of evidence (victim testimonies)  
- Observed criminal trial for Dos Erres massacre, as part of Avocats Sans Frontières Canada team
- Research Assistant** 2011  
*University of Ottawa Human Rights Research and Education Centre, Ottawa, ON*  
- Developed research methodology and conducted primary research on CEDAW treaty committee history  
- Compiled and condensed findings, identifying key trends
-

**Legal Intern** 2010

*Bufete Juridico Popular de Rabinal (Rabinal Community Legal Clinic), Guatemala*

- Edited, drafted and translated proposals and petitions in support of civil war victims of Mayan communities
- Researched jurisprudence of Inter-American human rights system
- Supported development of investigation strategy and investigation for land rights cases

**Competitor** 2009

*Nelligan O'Brien Payne First Year Moot Court Competition, Ottawa, ON*

- Prepared factum based on case materials
- Presented arguments orally for mock panel of judges

**OTHER WORK EXPERIENCE**

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**Highland Dancing Instructor** 2003, 2005, 2008 - 2010

*Ellen Cameron School of Dance, Bonville / Ottawa, ON*

- Assisted in teaching and individually taught dance lessons to groups of mixed ages and skill levels
- Choreographed group dances to be performed in competition
- Motivated students in private lessons while providing technical expertise

**English as a Foreign Language Teacher** 2007 - 2008

*Gungnae Public Elementary School, Gunpo, South Korea*

- Led regular classes with Korean co-teachers
- Planned and taught special advanced classes and adult class independently

**COMMUNITY INVOLVEMENT AND VOLUNTEER EXPERIENCE**

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- Member, Law Union at the University of Ottawa 2011 - present
- Guatemala Committee member, *Avocats Sans Frontières Canada* 2010 - present
- Member, *Breaking The Silence Guatemala-Maritimes Solidarity Network* 2010 - present
- Intern, *CANADEM*, Ottawa, ON 2011
- Member, *UOttawa Chapter of Canadian Lawyers for International Human Rights (CLAIHR)* 2009 - 2010
- Las Tolas Community Volunteer Program, Ecuador 2009
- Perucho Organic Agriculture Experience volunteer program participant, Ecuador 2009
- Grant research team member, Canada-Africa Community Health Alliance, Ottawa, ON 2008 - 2009
- Event organizer and performer in Service Learning variety show fundraiser, Antigonish, NS 2007

**SKILLS AND PERSONAL INTERESTS**

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**Languages:** Fluent in English, French, and Spanish

**Travel:** Traveled independently in Western Europe, Eastern Asia, Southeast Asia, and South America; participated in 2007 Service Learning trip to Cuernavaca Centre for Intercultural Dialogue on Development in Mexico

**Highland dancing:** Finalist at the 2005 World Championships; competed across Canada, USA, and Scotland; performed in the 2007 Royal Edinburgh Military Tattoo in front of 217,000 spectators and television audience of 100 million; certified as an instructor by the British Association of Teachers of Dance; currently compete on occasion, train regularly.

**Other fitness activities:** Have raced 10km and half-marathon distances; climbed Cotopaxi volcano in Ecuador; regularly do yoga and pilates

**Folk and Celtic cultural activities:** Play the fiddle and guitar; step-dance; occasionally participate in Ottawa Cape Breton Session musical events



**Ontario Energy Board  
COST CLAIM FOR HEARINGS**



**Detail of Fees and Disbursements Being Claimed**

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Conduct</u>
Party: <u>Council of Canadians</u>	Name: <u>Marion Sandilands</u>
Completed Years Practising/Years of relevant experience	
Counsel/Articling Student/Paralegal: <input checked="" type="checkbox"/>	_____
Consultant: <input type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input type="checkbox"/>

**Statement of Fees Being Claimed**

	Hours	Hourly rate	Subtotal	HST	Total
Preparation	21.80	\$100.00	\$2,180.00	\$283.40	\$2,463.40
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference			\$0.00	\$0.00	\$0.00
Attendance - Oral Hearing			\$0.00	\$0.00	\$0.00
Argument			\$0.00	\$0.00	\$0.00
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>			\$2,180.00	\$283.40	\$2,463.40

**Statement of Disbursements Being Claimed**

	Net Cost	HST	Total
Photocopies		\$0.00	\$0.00
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier		\$0.00	\$0.00
Telephone		\$0.00	\$0.00
Postage		\$0.00	\$0.00
Transcripts		\$0.00	\$0.00
Travel: Air		\$0.00	\$0.00
Travel: Car		\$0.00	\$0.00
Travel: Rail		\$0.00	\$0.00
Travel (Other):		\$0.00	\$0.00
Parking		included	\$0.00
Taxi or Airport Limo		\$0.00	\$0.00
Accommodation		\$0.00	\$0.00
Meals		\$0.00	\$0.00
Other:		\$0.00	\$0.00
<b>TOTAL DISBURSEMENTS:</b>		\$0.00	\$0.00

# Marion Sandilands

6097 ave Esplanade  
Montreal, QC  
438-821-8595  
marion.sandilands@mail.mcgill.ca

## EDUCATION

---

- 2011 – April 2014 **B.C.L. / LL.B Candidate (2<sup>nd</sup> year of 3 years)**  
McGill University, Montreal
- CGPA: 3.47 (Top 10%)
  - Hydro-Quebec Entrance Scholarship (2011); Fraser Milner Casgrain Scholarship (2011); Dean's Honour List (2012)
- 2006 – 2008 **M.A. International Affairs (International Development)**  
Norman Paterson School of International Affairs  
Carleton University, Ottawa
- Dean's Entrance Scholarship and Joubin-Selig Scholarship in International Affairs
- 2003 – 2006 **B.A. Hon. (International Development Studies)**  
McGill University, Montreal
- Minor concentration: Philosophy and Western Religions
  - First Class Honours, Dean's Honour List
  - First year completed at *College of the Humanities*, Carleton University, Ottawa

## LEGAL EXPERIENCE

---

- May 2012 – present **McGill Law Journal**  
**Associate Editor**  
*Reviewing submissions in French and English (first reads), substantive editing (formal and substantive review of citations)*
- October 2012 – present **Prof Adelle Blackett**  
**Research Assistant**  
*Research for country case studies on regulation of decent work for domestic workers in the wake of the new ILO Convention 189*
- 2011 – 2012 **McGill International Journal of Sustainable Development Law and Policy**  
**Associate Editor**  
*Reviewed submissions (first and second reads), substantive editing of articles*
- 2012 (summer) **Me Tatiana Gomez**  
**Intern / Assistant, Immigration & Refugee law (pro bono)**  
*Drafted permanent residency applications and appeal pleadings; prepared books of evidence for IRB refugee claims; research for refugee and immigration applications (jurisprudence and country conditions)*
- 2012 (summer) **Legal Information Clinic at McGill**  
**Volunteer**  
*Interviewed clients in English and French; researched and answered clients' legal questions; prepared and delivered presentation on Employment Law to at-risk youth*

2011 – 2012     **Association des aides familiales du Québec (AAFQ)**  
**Pro Bono McGill volunteer**  
*Provided legal information to live-in caregivers (under federal temporary Live-In Caregiver program); prepared a toolkit on immigration rules; gave organizational support including outreach, correspondence, Board meetings*

## **OTHER PROFESSIONAL EXPERIENCE**

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May 2012 --     **Coordinator, Young Leaders Forum**  
present         **McGill Centre for Human Rights and Legal Pluralism**  
Montreal  
*Designed and organized an international selection process; designed Forum program to maximize participation and ownership by participants; designed activities to build a virtual community leading up to the Forum*

2009 – 2011     **Program Management Officer / Research Officer**  
**International Development Research Centre**  
Ottawa (travel to Senegal, Mexico, France and The Netherlands)  
*Coordinated an \$8-10M per year global research funding program. Managed and analyzed program information; advised Program Leader on operational and programming issues, recruited and supervised interns; lead program reporting and communications strategy.*

2007 – 2009     **Program Officer**  
**CHF – partners in rural development**  
Ottawa (travel to Kenya, Vietnam and Thailand)  
(promoted from **Development Intern** in 2008)  
*Administered and monitored rural livelihoods projects in Asia and Africa. Prepared and administered contracts and funding agreements, wrote proposals and progress reports, analyzed financial reports, prepared budgets*

## **ACADEMIC RESEARCH & PUBLICATION**

---

2008             Perez-Aleman, P. and Sandilands, M. “Building Value at the Top and the Bottom of the Global Supply Chain: MNC-NGO Partnerships that Include Small Producers in Developing Countries” *California Management Review*, Fall 2008

2008             Sandilands, M. “Supermarkets and small farmers: A Value chain analysis of the impact of supermarket procurement strategies on smallholder farmers – the case of Kenyan fresh fruits and vegetables.” Master’s Research Paper, Norman Paterson School of International Affairs, Carleton University, 2008.

2006             “The Appearance of Consensus: Public Sector Capacity Building in Tanzania” *Latitudes*, Vol. 1 (McGill International Development Studies Undergraduate Journal), 2006.

## **HOBBIES & INTERESTS**

---

**Music & Theatre**     McGill Savoy Society, Cantata Singers of Ottawa; Montreal Symphony Orchestra Chorus, National Art Centre Orchestra Chorus, McGill Chamber Singers, Sock n Buskin Theatre

**Sports**             Field hockey, curling, tennis, running

**Travel**              Cambodia, France, Kenya, Thailand, The Netherlands, Senegal, UK, Vietnam

**Ontario Energy Board  
COST CLAIM FOR HEARINGS**



**Detail of Fees and Disbursements Being Claimed**

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Construct</u>
Party: <u>Council of Canadians</u>	Name: <u>David Hughes</u>
	Completed Years Practising/Years of relevant experience _____
Counsel/Articling Student/Paralegal: <input type="checkbox"/>	_____
Consultant: <input checked="" type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input checked="" type="checkbox"/>

**Statement of Fees Being Claimed**

	Hours	Hourly rate	Subtotal	HST (5%)	Total
Preparation	40.75	\$330.00	\$13,447.50	\$672.38	\$14,119.88
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference			\$0.00	\$0.00	\$0.00
Attendance - Oral Hearing	4.00	\$330.00	\$1,320.00	\$66.00	\$1,386.00
Argument			\$0.00	\$0.00	\$0.00
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>			\$14,767.50	\$738.38	\$15,505.88

**Statement of Disbursements Being Claimed**

	Net Cost	HST (5%)	Total
Photocopies		\$0.00	\$0.00
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier		\$0.00	\$0.00
Telephone		\$0.00	\$0.00
Postage		\$0.00	\$0.00
Transcripts		\$0.00	\$0.00
Travel: Air		\$0.00	\$0.00
Travel: Car	\$160.17	\$8.01	\$168.18
Travel: Rail		\$0.00	\$0.00
Travel (Other): <span style="margin-left: 20px;">Ferry</span>	\$102.74	\$5.14	\$107.88
Parking		included	\$0.00
Taxi or Airport Limo		\$0.00	\$0.00
Accommodation	\$370.00	\$18.50	\$388.50
Meals	\$48.67	\$2.43	\$51.10
Other:		\$0.00	\$0.00
<b>TOTAL DISBURSEMENTS:</b>	\$681.58	\$34.08	\$715.66



# GLOBAL SUSTAINABILITY RESEARCH INC.

PO Box 237, 780 Whaletown Road, British Columbia, V0P 1Z0

451-36<sup>th</sup> Avenue NW, Calgary, Alberta, T2K 0C4

GST/HST registration number 834974628

250-830-3662 403-276-3056

## INVOICE - #2014-010

January 13, 2013

**Steven Shrybman, Sack Goldblatt Mitchell LLP**

500-30 rue Metcalf St.

Ottawa, ON K1P 5L4

**RE: Preparation of Evidence, Response to Interrogatories, and Attendance  
at Enbridge, Union and TCPL Ontario Energy Board Hearings**

Total time spent per attached timesheet:

44.75 hours @ \$330.00/hour - \$14,767.50

Goods and Services Tax (5%) - \$738.38

**Total now due: \$15,505.88**

Please forward remittance to 451-36 Avenue NW, Calgary, AB, T2K 0C4

Thank You,

David Hughes

President

Date	Work	Time (hours)
Jun-25	Review applications to assess areas for response	1.00
Jun-25	Prepare evidence	3.00
Jun-26	Prepare evidence	8.00
Jun-27	Revise evidence and incorporate Union information	4.50
Jun-28	Revise evidence	1.50
Jul-10	Response to questions EB and Union	1.50
Jul-11	Response to questions EB and Union	5.75
Jul-12	Response to questions EB and Union	4.50
Jul-13	Response to questions EB and Union	4.00
Jul-14	Response to questions EB and Union	2.25
Jul-18	Review response to EB and Union and update	2.75
Jul-19	Finalize response to EB and Union	1.25
Aug-20	Response to TCPL queries	0.75
Oct-08	Preparation for hearing	1.50
Oct-09	Attendance and testimony at hearing	2.5
Total		44.75

Date	Item	Cost
Sep-29	Room in Campbell River - 1 night - first trip which was cancelled	\$83.62
Oct-03	Ferry Cortes Island to Campbell River return - first trip	\$58.05
Oct-07	Room in Campbell River - 4 nights (wife) - second trip for Oct 9 hearing	\$334.48
Oct-08	Taxi to airport Campbell River	\$31.00
Oct-08	Taxi to hotel Toronto	\$75.00
Oct-09	Lunch for T. Ingraffea, L. Sumi and myself including tip	\$55.00
Oct-10	Taxi to airport Toronto	\$60.00
Oct-10	Shuttle to motel from airport Campbell River	\$15.00
Oct-11	Ferry Cortes Island to Campbell River return - second trip	\$58.05
	Total	\$770.20

ROOM # 32 NAME

ROOM # 32 NAME

# GUEST REGISTRATION

# GUEST REGISTRATION

NAME DAVE HUGHES PHONE 250-330-3662

NAME DAVE HUGHES PHONE H B

STREET 780 Whaletown Rd. Center

STREET 780 Whaletown Rd. Center

CITY Whaletown PROV./STATE BC P.C./ZIP

CITY Whaletown PROV./STATE BC P.C./ZIP

COMPANY REPRESENTING

VEHICLE LICENSE NUM 478 PROVINCE/STATE

VEHICLE LICENSE NUM 478 PROVINCE/STATE

MAKE / COLOUR  YEAR

NOTICE TO GUESTS: This property is privately owned and management reserves right to refuse service to anyone and will not be responsible for accidents or injury to Guests or for loss of money, jewelry or valuables of any kind.

NOTICE TO GUESTS: This property is privately owned and management reserves right to refuse service to anyone and will not be responsible for accidents or injury to Guests or for loss of money, jewelry or valuables of any kind.

GUEST SIGNATURE X [Signature]

GUEST SIGNATURE X [Signature]

No. IN PARTY 2 ARRIVAL DATE 2/11/13 CHECK-OUT DATE 2/28/13

No. IN PARTY 2 ARRIVAL DATE 2/11/13 CHECK-OUT DATE 2/28/13

ROOM TOTAL \$ 296.00

ROOM TOTAL \$ 296.00

HST / GST \$ 14.80

HST / GST \$ 14.80

PROV ROOM TAX \$ 23.68

PROV ROOM TAX \$ 14.80

SUBTOTAL \$ 334.48

SUBTOTAL \$ 23.68

CHARGES CREDITS \$

CHARGES CREDITS \$

TOTAL \$ 334.48

TOTAL \$ 334.48

REC'D BY [Signature]

REC'D BY [Signature]

Check-out time is 11:00am  
The person registering is responsible for all damages caused to room, furnishings and fixtures.

Check-out time is 11:00am  
The person registering is responsible for all damages caused to room, furnishings and fixtures.

2603

2576

ABOVE TIDE MOTEL  
361 Island Highway  
Campbell River, B.C. V9W 2B5  
(250) 286-6231 Fax (250) 028-6029

THANK YOU  
This is your Receipt  
Please Retain

ABOVE TIDE MOTEL  
361 ISLAND HWY  
CAMPBELL RIVE. BC  
Term ID: 28683145

THANK YOU  
This is your Receipt  
Please Retain

Purchase  
XXXXXXXXXX6125  
VISA Entry Method: C

ABOVE TIDE MOTEL  
361 ISLAND HWY  
CAMPBELL RIVE. BC  
Term ID: 28683145

Total: \$ 334.48

Purchase  
XXXXXXXXXX6125  
VISA Entry Method: C

2013/10/07 14:15:20  
Seq #: 0014970100 Appr Code: 056412  
Resp Code: 01/027

Total: \$ 334.48

VISA  
0000000031010  
1C EB 2A FA CB 37 BE 15  
00 00 00 00 00  
74 91 6B 5B 87 EB 7A 47

2013/09/29 14:10:44  
Seq #: 0014950030 Appr Code: 013595  
Resp Code: 01/027

APPROVED  
Thank You

VISA  
0000000031010  
94 46 02 3D 5B 24 04 EB  
00 00 00 00 00  
10 04 0E 04 2F EE 6E 62

APPROVED  
Thank You

APPROVED  
Thank You





**PURCHASE**  
**BCFerries**

2013/10/11  
Campbell River  
To  
Cortes Island  
**PURCHASE**

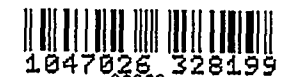
20'	Undersize Vehi	47.95
2	Adult	41.10
1	UH Savings	15.60
2	Adult Savings	15.40

Total 58.05  
BCF Experience 58.05  
\*\*\* \*\* 335  
CHANGE DUE 0.00  
Today's Savings 31.00

Stored Value  
Savings:VEH & PASS Savings  
Balance:56.65

**LANE 00**

CAM 11 Oct 2013 13:30



1047026 328199  
SEE REVERSE SIDE OF TICKET

13-09-13

3 11:50

01 14.05

02 41.10

03 15.60

04 15.40

2 5.5

-218.1

30.4

0.4

-49.50

Leah P -	14
Sm Car.	6
Leah P	11
Leah P	7
U CANADA	5.50
<b>TAX</b>	

**PLEASE PAY CASHIER**

37795

GUESTS

WAITER

49.16

ART PRINTING CO. • (416) 751-9111 • TORONTO

**PURCHASE**



2013/10/03  
Campbell River  
To  
Cortes Island  
**PURCHASE**

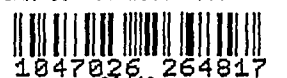
20'	Undersize Vehi	47.95
2	Adult	41.10
1	UH Savings	15.60
2	Adult Savings	15.40

Total 58.05  
BCF Experience 58.05  
\*\*\* \*\* 335  
CHANGE DUE 0.00  
Today's Savings 31.00

Stored Value  
Savings:VEH & PASS Savings  
Balance:564.70

**LANE 00**

CAM 03 Oct 2013 11:52



1047026 264817  
SEE REVERSE SIDE OF TICKET

ABOVE TIET  
TO  
AIR PORT  
8 Oct 13  
31.00

RECEIPT  
FOR CAB FARE

Date 00ct 13

Amount 7.5

From Airport

To Best west end

Cab No 109

Driver

THANK YOU

ABLE-ATLANTIC  
TAXI  
298-1111

**TORONTO PEARSON AIRPORT - PRE ARRANGED PICKUP GUIDE**

Clear customs and pick-up luggage and proceed to Pre-Arrange post.  
Terminal 1 Proceed to Door B - Terminal 3: Proceed to Post 29.  
See Commissionaire at designated Pre-Arrange post.  
Please give your name to the commissionaire and  
King Tours & Limousine Services  
If Commissionaire tells you that there is no King Tours & Limousine Services  
registered under your name, please call our office immediately to assist you at  
647-776-8337 or toll free 1-866-5464-999.  
King Tours & Limousine Services monitor each flight.  
Date: 10/13/13 Amount \$ 31.00 Driver: [Signature]  
Thank You

THE 287-TAXI CO.  
 GST#121705926 RT

*July 10*

NOM NAME				
ADRESSE ADDRESS				
VENDEUR PAPE VEND BY	C.R. CCID	FACTURE CHARGE	CREDIT COMPTANT	QUANTITE AMOUNT PAVE
1				
2				
3				
4				
5				
6				
7				
8				
9				
01				
N° DE TAXE TAX REG. No:		TPS/GST TVH/HST		
		TVP/PST		
		TOTAL		
RECU PAR RECEIVED BY				

*Shuttle / 500*

*Cam /*

*August /*

LIVRET DE VENTE  
 SALES BOOK

# Ontario Energy Board COST CLAIM FOR HEARINGS



## Detail of Fees and Disbursements Being Claimed

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Construct</u>
Party: <u>Council of Canadians</u>	Name: <u>Lisa Sumi</u>
Completed Years Practising/Years of relevant experience	
Counsel/Articling Student/Paralegal: <input type="checkbox"/>	_____
Consultant: <input checked="" type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input type="checkbox"/>

### Statement of Fees Being Claimed

	Hours	Hourly rate	Subtotal	HST	Total
Preparation	34.00	\$230.00	\$7,820.00	\$1,016.60	\$8,836.60
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference			\$0.00	\$0.00	\$0.00
Attendance - Oral Hearing	4.00	\$230.00	\$920.00	\$119.60	\$1,039.60
Argument			\$0.00	\$0.00	\$0.00
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>			<b>\$8,740.00</b>	<b>\$1,136.20</b>	<b>\$9,876.20</b>

### Statement of Disbursements Being Claimed

	Net Cost	HST	Total
Photocopies		\$0.00	\$0.00
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier		\$0.00	\$0.00
Telephone		\$0.00	\$0.00
Postage		\$0.00	\$0.00
Transcripts		\$0.00	\$0.00
Travel: Air	\$1,188.57	\$154.51	\$1,343.08
Travel: Car		\$0.00	\$0.00
Travel: Rail		\$0.00	\$0.00
Travel (Other):		\$0.00	\$0.00
Parking		included	\$0.00
Taxi or Airport Limo		\$0.00	\$0.00
Accommodation	\$212.35	\$27.61	\$239.96
Meals	\$25.51	\$3.32	\$28.83
Other:		\$0.00	\$0.00
<b>TOTAL DISBURSEMENTS:</b>	<b>\$1,426.43</b>	<b>\$185.44</b>	<b>\$1,611.87</b>

**LISA SUMI**

1846 C.R. 207 DURANGO, COLORADO 81301

TELEPHONE: 970-799-1326 • EMAIL: lsumi@earthworksaction.org

**INVOICE****Date:** January 11, 2013**To: Council of Canadians**

Attn: Steven Shrybman, Sack Goldblatt Mitchell LLP

500-30 rue Metcalf St.

Ottawa, ON K1P 5L4

**From:** Lisa Sumi**For:** Testimony prepared on behalf of Council of Canadians for Ontario Energy Board Hearing (Re: Enbridge/Union Applications EB-2012-0451/EB-2012-0333).

Date	Details	Amount
June	Research and writing of report prepared for Council of Canadians as part of their submission to the Ontario Energy Board hearing regarding Enbridge/Union Applications EB-2012-0451/EB-2012-0433. (32 hours)  Total: 32 hours @ \$230/hr	\$7,360.00
July - August	Preparation of interrogatory responses, and responses to new TCPL evidence. (2 hours)  Total: 2 hours @ \$230/hr	\$460.00
October	Conference calls and in-person meetings with Council of Canadians in preparation for the OEB stakeholder meeting (3 hours)  Oct. 9, 2013: Appearance at Ontario Energy Board Oral Hearing for cross-examination related to testimony on Applications EB-2012-0451/EB-2012-0433. (1 hours)  Total: 4 hours @ \$230/hr	\$920.00
<b>Invoice Total</b>		
		<b>Total \$8,740.00</b>

Please send a cheque for this invoice to Lisa Sumi at:

1846 C.R. 207

Durango, CO 81301

---

**LISA SUMI**

1846 C.R. 207 DURANGO, COLORADO 81301

TELEPHONE: 970-799-1326 • EMAIL: lsumi@earthworksaction.org

US dollars  
- exchange rate = 1.11  
(Bank of Canada rate  
as of Feb. 4/13)

## INVOICE

**Date:** October 15, 2013

**To:** Steven Shrybman, Sack Goldblatt Mitchell LLP  
500-30 rue Metcalf St.  
Ottawa, ON K1P 5L4

**From:** Lisa Sumi

**For:** Air fare, ticket change and meals related to the October 9, 2013 Ontario Energy Board Hearing (Re: EB-2012-0451 and EB-2012-0333).

Details		Amount (US\$)	
9/5/13	Original ticket for air fare from Durango, Colorado to Toronto, Ontario. (Receipt attached)	680.81	755.70 Cdn.
10/1/13	Ticket change for rescheduled OEB hearing (Receipt attached)	529.18	587.39 Cdn.
10/9/13	Supper Oct. 9, 2013 (19.95 Cdn = 19.17 U.S.) <sup>1</sup> (Receipt attached)	19.17	21.28 Cdn.
10/10/13	Hotel Oct. 9, 2013 (224.87 Cdn = 216.17 U.S.) <sup>2</sup> (Receipt attached)	216.17	239.95 Cdn.
10/10/13	Meals during travel back to Durango (Receipt attached)	6.80	755 Cdn
	<b>Total</b>	<b>\$1,452.13</b>	<b>1611.87 Cdn.</b>

Please forward payment as a \$US money order, to:

Lisa Sumi, 1846 C.R. 207 Durango, CO 81301

<sup>1</sup> Supper of \$19.95 paid in Canadian dollars. Exchange rate for that day was 0.9608 (Bank of Canada: <http://www.bankofcanada.ca/rates/exchange/can-us-rate-lookup/>), so in U.S. dollars  $19.95 \times 0.9608 = \$19.17$ .

<sup>2</sup> Hotel fee of \$224.87 was charged in Canadian dollars. Exchange rate for that day was 0.9613 (Bank of Canada: <http://www.bankofcanada.ca/rates/exchange/can-us-rate-lookup/>), so in U.S. dollars  $224.87 \times 0.9613 = \$216.17$  U.S.



A STAR ALLIANCE MEMBER

Confirmation: EN1T0X Check-In >

Issue Date: September 05, 2013

Traveler SUMI/LISAMS eTicket Number 0162379037591 Frequent Flyer UA-AGT7XXXX Seats 14C/38F/---/---/32B/---

FLIGHT INFORMATION

Table with columns: Day, Date, Flight, Class, Departure City and Time, Arrival City and Time, Aircraft, Meal. Includes flight details for UA4922, UA358, UA8403, UA8134, UA675, and UA4875.

FARE INFORMATION

Table with columns: Fare Breakdown, Form of Payment. Lists various fees like U.S. Customs, Immigration, and taxes, along with payment details for VISA.

eTicket Total: 680.81USD

The airfare you paid on this itinerary totals: 532.94 USD

The taxes, fees, and surcharges paid total: 147.87 USD

Fare Rules: Additional charges may apply for changes in addition to any fare rules listed. NONREF/OVALUAFTDPT/CHGFEE Cancel reservations before the scheduled departure time or TICKET HAS NO VALUE.

**UNITED**



A STAR ALLIANCE MEMBER

Confirmation:

**EN1T0X**

[Check-In >](#)

Issue Date: October 01, 2013

<b>Traveler</b>	<b>eTicket Number</b>	<b>Frequent Flyer</b>	<b>Seats</b>
SUMI/LISAMS	0162381979717	UA-AGT7XXXX	---/---/---/---/---

**FLIGHT INFORMATION**

Day, Date	Flight	Class	Departure City and Time	Arrival City and Time	Aircraft Meal
Thu, 19SEP13	UA4922	S	DURANGO, CO (DRO) 5:45 AM	DENVER, CO (DEN) 7:00 AM	
Thu, 19SEP13	UA358	S	DENVER, CO (DEN) 8:17 AM	NEW YORK, NY (LGA - LAGUARDIA) 1:59 PM	
Thu, 19SEP13	UA8403	L	NEW YORK, NY (LGA - LAGUARDIA) 3:30 PM	TORONTO, ON CANADA (YYZ) 5:14 PM	
Flight operated by AIR CANADA doing business as UNITED AIRLINES INC.					
Thu, 10OCT13	UA3452	H	TORONTO, ON CANADA (YYZ) 1:59 PM	DENVER, CO (DEN) 3:45 PM	ERJ 170 Purchase
Flight operated by SHUTTLE AMERICA AIRLINES doing business as UNITED EXPRESS.					
Thu, 10OCT13	UA4927	H	DENVER, CO (DEN) 5:43 PM	DURANGO, CO (DRO) 6:56 PM	Q400
Flight operated by REPUBLIC AIRLINES doing business as UNITED EXPRESS with turboprop equipment.					

**FARE INFORMATION**

<b>Fare Breakdown</b>		<b>Form of Payment:</b>
Airfare:	846.87USD	VISA
U.S. Customs User Fee:	5.50	Last Four Digits 3643
U.S. Immigration User Fee:	7.00	
U.S. APHIS User Fee:	5.00	
U.S. Federal Transportation Tax:	63.52	
U.S. Flight Segment Tax:	19.50	
September 11th Security Fee:	10.00	
Canadian Security Charge:	12.10	
Canada Harmonized Sales Tax:	3.20	
Canada Airport Improvement Fee:	23.80	
U.S. Passenger Facility Charge:	13.50	
Per Person Total:	1,009.99USD	

**eTicket Total: 1,009.99USD**

The airfare you paid on this Itinerary totals: 846.87 USD

**The taxes, fees, and surcharges paid total: 163.12 USD**

Fare Rules: Additional charges may apply for changes in addition to any fare rules listed.

NONREF/OVALUAFTDPT/CHGFEE  
Cancel reservations before the scheduled departure time or TICKET HAS NO VALUE.

~~Add/Collect:~~ An additional amount for the difference in fare was charged to VISA VXXXXXXXXXXXX3643 on Tuesday, October 01, 2013. \$329.18 USD per ticket for an additional total of ~~\$529.18 USD~~ was collected.

~~Additional Charges:~~ Tue, Oct 1, 2013/Visa:3643 was charged;200.00USD for the following: Change Penalty Fee / EDD 01629264245814





33 Gerrard Street West, Toronto, Ontario, M5G 1Z4  
Tel: 416-595-1975 Fax: 416-581-8934

Ms Lisa Sumi  
1846 County Road 207  
Durango CO 81301  
United States

Room: 2425  
Folio: 1953191  
Cashier: 24  
Arrival: 10/09/13  
Departure: 10/10/13  
Reference:  
Booking Ref. #:

Date	Description	Additional Information	Charges	Credits
10/09/13	Room Charge		199.00	
10/09/13	Room - HST 13%		25.87	
10/10/13	Visa	XXXXXXXXXXXX3643 XX/XX		230.84
10/10/13	Visa	credit back due to DMP adjustment XXXXXXXXXXXX3643 XX/XX		-5.97

HST Summary  
Registration No: 887925881  
Room 25.87  
F&B 0.00  
Other 0.00  
Total 25.87

Total	224.87	224.87
Balance Due	0.00 CDN	

Queen Mother Cafe  
203 Queen Street W.  
Toronto, Ontario  
416 596-4719  
HST #R104547781

Table #206  
Trans#: 653218 Serv: Liz  
10/09/2013 10:16:29 PM #Cust:z

Qty	Description	Cost
2	Organic Chara gis	\$20.00
2	Mill St. Organic	\$11.50
1	Sticky Rice	\$5.95
1	Iacos	\$13.95
1	PadThai Vegetarian	\$13.95
Net Total:		\$71.35
HST		\$9.28
<b>TOTAL:</b>		<b>\$80.63</b>

Food: \$39.85  
Liquor: \$31.50

Amount Due: \$80.63

Guest Signature: \_\_\_\_\_

I agree that my liability for this bill is for any part of or the full amount

SSP America  
Boccone Pronto T1  
Lester B. Pearson Intl Airport  
GST # 825875560RT001  
416-776-2477

477 GURMIT W

Chk 6289 Oct10'13 10:43A Gst 0

**\*\*TO GO\*\***

1 Breakfast Panini	6.00
Cash	7.00
Food	6.00
HST Tax	0.78
Payment	6.80
Change Due	0.20

FEEDBACK

Dish Up Your Experience.

We appreciate feedback

## LISA SUMI

ADDRESS: 1846 CR 207 DURANGO, CO 81301  
TELEPHONE: (970) 799-1326 • EMAIL: lisasumi@gmail.com

### EDUCATION AND TRAINING

---

*Managing Environmental and Social Concerns in Mining* – 3-week course, Royal Roads University, Victoria, BC (June, 2000)

*Master of Science* – Physical Geography/Soil Science, University of Toronto (1997)

*Bachelor of Science* – Environmental Science/Physical Geography, U. Toronto (1995)

### WORK HISTORY

---

ENERGY/EXTRACTIVE INDUSTRIES RESEARCH CONSULTANT, 2007 - present.  
The majority of recent work involves the production of research reports used internally or published by clients. Areas of expertise include: analysis of regulatory and policy measures related to energy and extractive industries (hardrock minerals, coal, tar sands, natural gas, oil); analysis and synthesis of scientific data, government records and industry or academic reports; and production of information related to environmental, social and health impacts and options for minimizing effects related to energy and extractive industries.

Recent clients include: As-You-Sow; Council of Canadians; Earthworks; ForestEthics; Initiative for Responsible Mining Assurance; Massachusetts Institute of Technology Center for Future Civic Media; MiningWatch Canada; and Natural Resources Defense Council.

RESEARCH DIRECTOR, EARTHWORKS OIL AND GAS ACCOUNTABILITY PROJECT, 2004 – 2007. (Durango, CO). Responsibilities included researching oil and gas impacts and technologies to minimize impacts; preparing technical materials on oil and gas regulations and development proposals; and providing community support on water, air and soil contamination, noise, and landowner rights.

ENERGY/EXTRACTIVE INDUSTRIES RESEARCH CONSULTANT, 2002-2004 and part-time COORDINATOR OF THE WESTERN MINING ACTION NETWORK.

RESEARCH DIRECTOR, ENVIRONMENTAL MINING COUNCIL OF BRITISH COLUMBIA. 1998 -2002 (Victoria, BC). Responsibilities included research on mining and its effects on the environment and communities; creation of policy documents and educational materials; community outreach; and technical review of mine proposals and projects.

### PUBLICATIONS AND REPORTS

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Steinzor, N., Subra, W. and Sumi, L. 2013. "Investigating Links Between Shale Gas Development and Health Impacts Through a Community Survey Project In Pennsylvania," *New Solutions: A Journal of Environmental and Occupational Health Policy*, Vol. 23(1). Available at: <http://baywood.metapress.com/link.asp?id=k243k37712348302>

Gestring, B. and Sumi, L. 2013. *Polluting the Future – how mining companies are polluting our nation's waters in perpetuity*. (Prepared for Earthworks) Available at: <http://www.earthworkSACTION.org/files/publications/Health-Report-Full-FINAL-sm.pdf>

Steinzor, N., Subra, W. and Sumi, L. 2013. *Gas Patch Roulette*. (Prepared for Earthworks). Available at: <http://www.earthworksaction.org/files/publications/Health-Report-Full-FINAL-sm.pdf>

Sumi, L. 2012. *Breaking All the Rules -- the crisis in oil and gas regulatory enforcement*. (Prepared for Earthworks) Available at: <http://www.earthworksaction.org/files/publications/FINAL-US-enforcement-sm.pdf>

Sumi, L. 2012. *Report on the Shortcomings of Exxon Mobil's "Basis for Exclusion" of As You Sow's Shareholder Resolution on Hydraulic Fracturing and Related Natural Gas Development* (Prepared for As You Sow) Internal document.

Sumi, L. 2012. *Draft Standard on Free, Prior and Informed Consent*. (Prepared for the Initiative for Responsible Mining Assurance) Internal document.

Sumi, L. 2010. *Environmental Concerns and Regulatory Initiatives Related to Hydraulic Fracturing in Shale Gas Formations*. (Prepared for Council of Canadians) Available at: <http://canadians.org/energy/documents/fracking/report-fracturing-1010.pdf>

Sumi, L. 2008. *Mining and Health: A Community-centred Health Assessment Toolkit*. (Prepared for MiningWatch Canada) Available at: <http://www.miningwatch.ca/publications/mining-health-community-centred-health-assessment-toolkit>

Sumi, L. 2008. *Shale Gas: Focus on the Marcellus Shale*. (Prepared for Earthworks) Available at: <http://www.earthworksaction.org/pubs/OGAPMarcellusShaleReport-6-12-08.pdf>

Sumi, L. 2007. *Report on Air Sampling Conducted in Monroe, Conecuh and Escambia Counties, Alabama*. (Prepared for Earthworks) Available at: <http://www.earthworksaction.org/publications.cfm>

Sumi, L. 2005. *Our Drinking Water at Risk - What EPA and the oil and gas industry don't want us to know about hydraulic fracturing*. (Prepared for Earthworks) Available at: <http://www.earthworksaction.org/publications.cfm?pubID=90>

Sumi, L. 2004. *Oil and Gas at Your Door? A landowner's guide to oil and gas development*. (Prepared for Earthworks) Available at: <http://www.earthworksaction.org/publications.cfm?pubID=91>

Moodie, S., Sumi, L. and Thomsen, S. 2002. *Lesson Learned on Community Involvement in the Remediation of Abandoned Contaminated Sites*. (Prepared for the Canadian National Orphaned/Abandoned Mines Working Group).

Campbell, K., Young, A. and Sumi, L. 2001. *Undermining the Law -- Addressing the Crisis in Compliance with Environmental Mining Laws in BC* (West Coast Environmental Law/Environmental Mining Council of British Columbia) Available at <http://www.wcel.org/wcelpub/2001/13569.pdf>

Sumi, L. 2001. (Contributed chapter on environmental impacts) *Beneath the Surface -- Aboriginal Law and Mining Rights in British Columbia* (Prepared for Environmental-Aboriginal Guardianship through Law and Education)

# Ontario Energy Board COST CLAIM FOR HEARINGS



## Detail of Fees and Disbursements Being Claimed

File # EB- <u>2012-0451-0433-0074</u>	Process: <u>Hearing re: Application for Leave to Construct</u>
Party: <u>Council of Canadians</u>	Name: <u>Anthony Ingraffea</u>
Completed Years Practising/Years of relevant experience	
Counsel/Articling Student/Paralegal: <input type="checkbox"/>	_____
Consultant: <input checked="" type="checkbox"/>	_____
CV attached: <input checked="" type="checkbox"/>	CV not required: <input checked="" type="checkbox"/>

### Statement of Fees Being Claimed

	Hours	Hourly rate	Subtotal	HST	Total
Preparation	8.50	\$330.00	\$2,805.00	\$364.65	\$3,169.65
Attendance - Technical Conference			\$0.00	\$0.00	\$0.00
Attendance - Settlement Conference			\$0.00	\$0.00	\$0.00
Attendance - Oral Hearing	6.00	\$330.00	\$1,980.00	\$257.40	\$2,237.40
Argument			\$0.00	\$0.00	\$0.00
Case Management		\$170.00	\$0.00	\$0.00	\$0.00
<b>TOTAL LEGAL/CONSULTANT FEES</b>					
			\$4,785.00	\$622.05	\$5,407.05

### Statement of Disbursements Being Claimed

	Net Cost	HST	Total
Photocopies		\$0.00	\$0.00
Printing		\$0.00	\$0.00
Fax		\$0.00	\$0.00
Courier		\$0.00	\$0.00
Telephone		\$0.00	\$0.00
Postage		\$0.00	\$0.00
Transcripts		\$0.00	\$0.00
Travel: Air	\$953.53	\$123.96	\$1,077.49
Travel: Car	\$117.88	\$15.32	\$133.20
Travel: Rail		\$0.00	\$0.00
Travel (Other):		\$0.00	\$0.00
Parking	\$8.64	included	\$8.64
Taxi or Airport Limo		\$0.00	\$0.00
Accommodation		\$0.00	\$0.00
Meals		\$0.00	\$0.00
Other:		\$0.00	\$0.00
<b>TOTAL DISBURSEMENTS:</b>			
	\$1,080.05	\$139.28	\$1,219.33



February 4, 2014

**Invoice # 1**

**TO: Steven Shrybman, Esq.**

**FROM: Dr. A. R. Ingraffea**

**REF: EB-2012-0451: Enbridge Gas Distribution Inc.; and EB-2012-0333 and EB-2013-0074: Union Gas Limited**

Below I claim my time spent for my preparation for, and attendance at, the hearing before the Ontario Energy Board, October 9, 2013:

- I. Preparation of my report entitled, "The Carbon Footprint of Shale Gas Development and the Remedial Measures Necessary to Address It", and for responding to resulting interrogatories:  
8.5 Hours
  
- II. Meeting with you on the eve of hearing and again the following morning, and for attending the hearing itself:  
6 hours

**TOTAL HOURS CLAIMED BY THIS INVOICE**

**14.5**

**Thank you.**

US Dollars  
-exchange rate = 1.11  
(Bank of Canada  
rate as of  
Feb. 9/14)

**From:** Steven Shrybman  
**Sent:** October 14, 2013 7:26 PM  
**To:** 'ari1@cornell.edu'  
**Cc:** Lisa Purdy  
**Subject:** Re: receipts

---

**From:** Anthony R. Ingraffea [mailto:ari1@cornell.edu]  
**Sent:** Sunday, October 13, 2013 09:19 PM  
**To:** Steven Shrybman  
**Cc:** Anthony R. Ingraffea <ari1@cornell.edu>  
**Subject:** receipts

Hi Steven

I am sending you by surface mail receipts for:

1. Air Fare \$730.71 = 811.09 Cdn
2. Taxi (2) \$ 120.00 = 135.20 Cdn.
3. Parking in Ithaca \$7.79 8.64 Cdn.

→ 266.40 Cdn

I would also appreciate reimbursement for the cancellation and re-booking fee of \$240.00 which I will be charged when I use the cancelled airfare (notice is included with receipts).

ALREADY SENT

This brings a total of US \$1098.50

Please send to

A. R. Ingraffea  
309 Cayuga heights Road  
Ithaca, NY  
14850  
USA

WRT a fee, as we discussed a donation to

Physicians, Scientists, and Engineers for Healthy Energy, Inc.

a 501c.3 not-for-profit, would be greatly appreciated. One can use the DONATE button at

[www.psehealthyenergy.org](http://www.psehealthyenergy.org)

or send a check to

PSE, Inc.  
C/O Dr. Adam Law  
404 North Cayuga Street  
Ithaca, NY  
14850  
USA

Again, thank you, and look forward to seeing the final documents and hearing of the outcome.

best

tony

A. R. Ingraffea, Ph.D., P.E.  
Dwight C. Baum Professor of Engineering  
Weiss Presidential Teaching Fellow  
Cornell University  
[www.cfg.cornell.edu](http://www.cfg.cornell.edu)  
President: Physicians, Scientists, and Engineers for Healthy Energy, Inc.  
[www.psehealthyenergy.org](http://www.psehealthyenergy.org)  
607-351-0043

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AEROFLEET SERVICES  
 30-2601 MATHESON BLV E  
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 www.aerofleet.ca  
 1.800.268.0905  
 416.449.4990  
 CAB#25

**SALE**

IID: IEMV000000  
 TID: PS472425 REF#: 00000006  
 Batch # 104 SEQ: 001104006  
 10/08/13 22:54:30  
 Invoice #: 6  
 APPR CODE: 544665  
 AMERICAN EXPRESS Swiped  
 \*\*\*\*\*3008 *tr/pt*

AMOUNT \$53.00  
 TIP \$6.00  
 TOTAL \$59.00

APPROVED

Thank You for Choosing  
 Aerofleet  
 HST #100067164RT0001  
 www.payplus.ca

CUSTOMER COPY

ALLPRO PARKING TOMPKINS  
 72 BROHN RD  
 ITHACA NY 14850  
 716-849-7275


Merchant ID: 430186450  
 Term ID: 2525

**Sale**

ANEX  
 XXXXXXXXXXXX3008  
 Entry Method: Swiped  
 Apprvd: Online Batch#: 000004  
 10/09/13 22:48:01  
 Inv#: 00000022 Appr Code: 585831  
 Total: \$ 7.79

Customer Copy  
 THANK YOU

NE PAS ENREGISTRER LA DATE D'EXPIRATION, UTILISER LA CASE APPROPRIÉE.  
 DO NOT CHECK EXPIRATION DATE, USE BOX BELOW.  
 VALID AND EXPIRY DATES CHECKED.  
 A R INGRAFFIA  
 DATES DE VALIDATION ET D'EXPIRATION  
 UTILISER LA CASE APPROPRIÉE  
 NE PAS ENREGISTRER LA DATE D'EXPIRATION, UTILISER LA CASE APPROPRIÉE.  
 DO NOT CHECK EXPIRATION DATE, USE BOX BELOW.  
 VALID AND EXPIRY DATES CHECKED.  
 A R INGRAFFIA

SIGNATURE DU CLIENT - CUSTOMER'S SIGNATURE  
  
 CONSIGNER CETTE COPIE POUR VOUS-MÊME.  
 PLEASE RETAIN THIS COPY FOR YOUR RECORD.

QTE.	QTY	DESCRIPTION	MONTANT - AMOUNT
			55.00
			6.00
			6.00
		TOTAL	67.00

5729256

FACTURE - SALES SLIP

COPIE DU CLIENT - CUSTOMER'S COPY



# Travelocity Confirmation

Travelocity Customer Support [travelocity@travelocity.com]

Sent: Tuesday, October 01, 2013 2:50 PM

To: Anthony R. Ingraffea

\*\*\*\*\*  
THANK YOU! Travel Reservation Confirmation  
\*\*\*\*\*

Dear Anthony R,  
Thank you for booking your travel through Travelocity.

Your trip to Toronto, ON Canada (YYZ) is confirmed. A summary of your reservation is provided below. Please be sure to:

- > Review your trip details
- > Confirm your special request or meal request with the airline
- > Read the instructions and policies listed below
- > Print this email for your records

Your Travelocity Trip ID is: 3327 4688 8988

Your phone number for this trip: 607-351-0043

Ticket(s) issued on Tue, Oct 1, 2013 at 01:49 PM CST.

This is an e-ticket, so no paper ticket will be sent. In addition, flight schedules may be changed by the airline.

What is an e-ticket? [http://svc.travelocity.com/info/info\\_popup\\_sa/0,,TRAVELOCITY:EN|ETICKETS,00.html](http://svc.travelocity.com/info/info_popup_sa/0,,TRAVELOCITY:EN|ETICKETS,00.html)

\*\*\*\*\*  
ITINERARY  
\*\*\*\*\*

Primary Contact: Anthony R Ingraffea

> Online check-in: <http://leisure.travelocity.com/Promotions/0,,TRAVELOCITY|1741|air main,00.html>.

> Lookup flight status: <http://dps1.travelocity.com/dparrqst.cntl?Service=TRAVELOCITY>.

> Change/cancel reservation: <http://www.travelocity.com/>

Flight: 1 Round-Trip Ticket  
All flight times are local to each city.

For your boarding pass, use reference code LYB9B9 for online or airport checkin.

Tue, Oct 8, 2013

Ithaca, (ITH) to Toronto Lester B Pearson International Airport, (YYZ)

Flight: United Flight 4828 operated by COMMUTAIR DBA UNITED EXPRESS (on De Havilland Canada DHC-8 Dash 8-200)

Depart: 04:55 PM, Ithaca, NY (ITH)

Arrive: 06:08 PM, Newark, NJ (EWR)

Requested Seats: 3E

1 Stop - change planes in Newark, (EWR)

Connection Time: 2 hrs 47 mins

Flight: United Flight 8567 operated by AIR CANADA EXPRESS - SKY REGIONAL (on Embraer EMB 175 Jet)

Depart: 08:55 PM, Newark, NJ (EWR)

Arrive: 10:28 PM, Toronto, ON Canada (YYZ)

Please check in with AIR CANADA

Total Travel Time: 5 hrs 33 mins

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For your boarding pass, use reference code BCZ5VZ for online or airport checkin.

Wed, Oct 9, 2013

Toronto Lester B Pearson International Airport, (YYZ) to Ithaca, (ITH)

Flight: US Airways Flight 3771 operated by US AIRWAYS EXPRESS-AIR WISCONSIN (on Canadair Regional Jet)

Depart: 05:59 PM, Toronto, ON Canada (YYZ)

Arrive: 07:41 PM, Philadelphia, PA (PHL)

Please check in with US AIRWAYS

Requested Seats: 7F

1 Stop - change planes in Philadelphia, (PHL)

Connection Time: 1 hr 59 mins

Flight: US Airways Flight 4188 operated by US AIRWAYS EXPRESS-PIEDMONT AIRLINES (on De Havilland Canada DHC-8 Dash 8 all models)

Depart: 09:40 PM, Philadelphia, PA (PHL)

Arrive: 10:44 PM, Ithaca, NY (ITH)

Please check in with US AIRWAYS

Total Travel Time: 4 hrs 45 mins

---

Passenger Name: ANTHONY R INGRAFFEA

Frequent Flyer Information: You can add your frequent flyer number at the airport.

Ticket Number: 0167310141116

\*\*\*\*\*  
TSA Travel Information  
\*\*\*\*\*

The TSA has determined that liquids, aerosols and gels, in limited quantities, are safe to bring aboard an aircraft. When packing, please follow these guidelines:

- >All liquids, gels and aerosols must be in 3.4 ounce (100ml) or smaller bottles.
- >All containers must fit in one quart-sized, clear, plastic, zip-top bag.
- >Each passenger is allowed only one bag.
- >Each bag must be placed in its own screening bin and X-rayed separately.
- >If you are carrying on larger amounts of prescriptions liquid medications, baby formula, and/or diabetic glucose treatments, you must declare these at the security checkpoint.

Arrive at the airport early. Enhanced security measures may mean longer lines at security checkpoints.

This new security policy applies to all domestic and international flights departing from U.S. airports. We always recommend checking the TSA Web site ([www.tsa.gov](http://www.tsa.gov)) for the most up-to-date information about security procedures. If you are departing from a non-U.S. airport, be sure to check that airport's security policies and pack accordingly.

\*\*\*\*\*  
COMPLETE YOUR TRIP PLANS!  
\*\*\*\*\*

Add a Hotel: <http://www.travelocity.com/Hotels/0,,TRAVELOCITY,00.html>  
Add a Car: <http://www.travelocity.com/Cars/0,,TRAVELOCITY|Y,00.html>

\*\*\*\*\*  
INSTRUCTIONS AND POLICIES  
\*\*\*\*\*

General Policies

- > Tickets cannot be refunded or transferred unless otherwise noted. Name changes are not permitted.
- > Valid, government-issued ID is mandatory for you to get through security and board your flight.
- > Initial prices subject to change before final payment. Post-purchase increases of government-imposed taxes or fees may apply.
- > Prices do not include any applicable baggage fees.
- > International flights may be treated with insecticides. Details.
- > Other rules and restrictions may apply to this fare. Read fare rules.
- > Please review important terms & conditions of travel which may limit your legal rights.

Valid, government-issued ID Link : [http://www.tsa.gov/travelers/airtravel/acceptable\\_documents.shtm](http://www.tsa.gov/travelers/airtravel/acceptable_documents.shtm)  
Baggage fee Link : [http://www.travelocity.com/info/info\\_popup/0,,TRAVELOCITY:EN%7CBAG\\_FEES,00.html](http://www.travelocity.com/info/info_popup/0,,TRAVELOCITY:EN%7CBAG_FEES,00.html)  
Insecticides details Link : <http://www.dot.gov/office-policy/aviation-policy/aircraft-disinsection-requirements>  
Fare rules Link : <http://travel.test.travelocity.com/flights>

/AirFareRules.do?fare basis cd=QA7FN&dep arp cd=YYZ&arr arp cd=YYZ&aln cd=UA&dep dt=10/08/2013

Terms & Conditions of Travel link : [http://www.travelocity.com/info/info\\_popup/0,,TRAVELOCITY:EN%7CABOUT ETKT,00.html](http://www.travelocity.com/info/info_popup/0,,TRAVELOCITY:EN%7CABOUT ETKT,00.html)

#### Change Policies

- > Your ticket is non-refundable.
- > If you change your reservation, airlines may charge a fee to use your ticket as credit for a new reservation. This fee varies by airline, market, and specific fare rules, and may be \$150 or more for domestic tickets and \$200 or more for international tickets.
- > Some tickets do not allow any changes.
- > Need to change or cancel your trip? Use our online calculator ([http://travel.travelocity.com/mystuff/MyStuffControllerInit.do?target\\_page=MyTrips&Service=TRAVELOCITY](http://travel.travelocity.com/mystuff/MyStuffControllerInit.do?target_page=MyTrips&Service=TRAVELOCITY)) to check the fees and rules before you decide.

#### Cancellation Policies

- > Your ticket is non-refundable.
- > If you cancel you will not receive any money back.
- > You may be eligible to apply part of your ticket price towards future travel (for a limited time, usually a year).
- > If you cancel your reservation, airlines usually deduct \$150 or more for domestic tickets and \$200 or more for international tickets before determining the amount that can be applied towards future travel.
- > Need to change or cancel your trip? Use our online calculator ([http://travel.travelocity.com/mystuff/MyStuffControllerInit.do?target\\_page=MyTrips&Service=TRAVELOCITY](http://travel.travelocity.com/mystuff/MyStuffControllerInit.do?target_page=MyTrips&Service=TRAVELOCITY)) to check the fees and rules before you decide.

#### Domestic Flight Notice

- > Air transportation to be provided between points in the U.S. (including its overseas territories and possessions) is subject to the individual contract terms (including rules, regulations, tariffs and conditions) of the transporting air carriers, which are herein incorporated by reference and made part of the contract of carriage.
- > Where this coupon is issued for transportation, or services other than air travel, specific terms and conditions may apply. These terms and conditions may be included in the ticket set or may be obtained from the issuing company or agent.
- > Please make sure you have reviewed the important legal notice entitled "Conditions of Contract", "Notice of Incorporated Terms", "Notice of Baggage Liability Limitations", and "Notice of Overbooking" in Terms & Conditions of Travel or the specific terms and conditions relating to non-air transportation or services.
- > The Terms & Conditions of Travel will also be available at the airport prior to your flight departure.

Terms & Conditions of Travel link: [http://svc.travelocity.com/info/info\\_popup\\_sa/0,,TRAVELOCITY:EN|ABOUT ETKT,00.html](http://svc.travelocity.com/info/info_popup_sa/0,,TRAVELOCITY:EN|ABOUT ETKT,00.html).

#### International Flight (Warsaw Convention) Notice

- > If the passenger's journey involves an ultimate destination or stop in a country other than the country of departure, the Warsaw Convention may be applicable and

the Convention governs and in most cases limits the liability of carriers for death or personal injury and for the loss of or damage to baggage.  
> See also the notices entitled "Advice to International Passengers on Limitation of Liability" and "notice of Baggage Liability Limitations" in Terms & Conditions of Travel

Terms & Conditions of Travel link: [http://svc.travelocity.com/info/info\\_popup\\_sa/0,,TRAVELOCITY:EN|ABOUT ETKT,00.html](http://svc.travelocity.com/info/info_popup_sa/0,,TRAVELOCITY:EN|ABOUT ETKT,00.html).

\*\*\*\*\*  
PRICING  
\*\*\*\*\*

1 adult:	\$626.72	
Taxes + Airline & Agency Fees		\$103.99
<hr/>		
Total:	\$730.71	

We have charged \$730.71 to your American Express&reg; Card xxxx-xxxx-xxxx-3008.

Taxes and fees link: [http://svc.travelocity.com/info/info\\_popup\\_sa/0,,TRAVELOCITY:EN|TAXS FEES,00.html](http://svc.travelocity.com/info/info_popup_sa/0,,TRAVELOCITY:EN|TAXS FEES,00.html)

> Travelocity fees and airline charges will be shown as separate line items on your credit card statements.  
ANTHONY R INGRAFFEA \$720.72

\*\*\*\*\*  
TRAVEL CHECKLIST  
\*\*\*\*\*

> Printed itinerary - As you will not receive a paper ticket, we suggest you print this email to take along with you on your trip.

> Photo ID - Every passenger must have a valid government-issued photo ID (such as a driver's license or passport). Please note that the name on your photo ID must match the passenger name in your reservation.

> TSA Secure Flight Information - Any information you provided has been added to your reservation.

> Special Services/Meal Requests - Please confirm your special request or meal request with the airline.

> Terminal/gate information - Check with the airline  
<http://travelocity.custhelp.com/cgi-bin/travelocity.cfg/php/enduser>

# Travelocity.com Cancellation Confirmation

memberservices@travelocity.com

Sent: Monday, September 30, 2013 11:54 AM

To: Anthony R. Ingraffea

\*\*\*\*\*  
Your airline reservation has been cancelled.  
\*\*\*\*\*

- You will not receive a refund since you purchased a non-refundable ticket(s).
- You will need to have the ticket number(s) listed in the passenger information section below when you are ready to use any remaining ticket value toward a new reservation. Please call us at 888-872-8356 to book your next trip.
- Please save or print this email for your records, because cancelled reservations are not viewable online at this time.

We're sorry you had to cancel this reservation, but we look forward to helping you plan your next trip!

\*\*\*\*\*  
Cancelled AIRLINE RESERVATION  
\*\*\*\*\*  
Trip ID: 132653438217

\*\*\*\*\*  
Passenger Name: ANTHONY INGRAFFEA  
Ticket Number (assigned by the airline to your e-ticket): 7308080433

\*\*\*\*\*  
Important Restrictions:  
\*\*\*\*\*

- Remaining ticket value of a fully unused ticket can be used toward future travel to any destination served by the airline on your original ticket.
- Partially used tickets normally require you to keep the original origin and destination
- Future travel must be completed within a limited time period, Carriers either require you to rebook before your original departure date or may allow 1 year from the date tickets were originally issued. It depends on the fare rules from the original ticket.
- Remaining ticket value can only be used by the individual named on the original ticket.
- If the fare of the new itinerary is greater than the remaining value of the original ticket, the airline will collect the fare difference. In addition, the airline will charge a fee to use your original ticket towards the purchase of the new ticket. You will be advised of the exact charges when you make your new reservations.
- An administrative service charge will be collected at the time of reissuance

## CURRICULUM VITAE

### Anthony R. Ingraffea

Dwight C. Baum Professor of Engineering  
Weiss Presidential Teaching Fellow  
School of Civil and Environmental Engineering  
Cornell University  
Ithaca, N.Y. 14853 USA

#### GENERAL

Born: April 4, 1947, Easton, Pennsylvania, USA  
Residence: 309 Cayuga Heights Road, Ithaca, N.Y. 14850  
Telephone: Home 607-257-1104 Office 607-255-3336 Cell 607-351-0043  
Fax: 607-255-9004 E-Mail: ar1@cornell.edu HTTP://www.cfg.cornell.edu

#### EDUCATION

University of Notre Dame  
B.S., Aerospace Engineering, *Magna Cum Laude*, June 1969.  
Polytechnic Institute of New York  
M.S., Civil Engineering, Grumman Masters Fellow, June 1971.  
University of Colorado/Boulder  
Ph.D., Civil Engineering, May 1977, University Fellow, 1974-1976.

#### AREAS OF EXPERTISE

Structural Engineering, Structural Mechanics, Computational and Experimental Fracture Mechanics,  
Microstructural Simulation of Fatigue and Fracture Mechanisms, Rock Mechanics, Numerical Methods,  
Engineering Education

#### PROFESSIONAL EXPERIENCE

June 1969 - June 1971

**Grumman Aerospace Corporation. Bethpage, L.I., N.Y.**

**Rotating traineeship** in the following areas: preliminary design on Navy F - 14; loads and dynamic studies, stress analysis, and final design on NASA Space Shuttle proposal. Two in - house technical publications.

July 1971 - June 1973

**Peace Corps. Bejuma, Venezuela**

**County Engineer.** Responsible for all technical services to a county of 40,000 people. Directed surveying, design, and construction of farmers' market, tourist hotel, and cemetery. Directed urban planning resource study. Co - directed urban renewal plan and data collection for section of state capital city.

September 1973 - August 1977

**University of Colorado/Boulder**

Department of Civil, Environmental and Architectural Engineering

**Instructor for Courses:**

Analytical Mechanics, Theoretical Fluid Mechanics

**Teaching Assistant for Courses:**

Mechanics of Materials

Materials Testing Laboratory

**Research Assistant in Project:** Constitutive Relations for Coal

September 1977 - June 1982

Cornell University, Department of Structural Engineering

**Assistant Professor**

---

- September 1979 - July 1983  
Cornell University, Department of Structural Engineering  
**Manager of Experimental Research**
- July 1982 - June 1987  
Cornell University, Department of Structural Engineering  
**Associate Professor**
- August 1983 - August 1984  
Lawrence Livermore National Laboratory Livermore, California  
**Visiting Research Engineer: Rock Fracture Simulation**
- January 1986 - September, 1986  
Cornell University, Computer Aided Design Instructional Facility,  
College of Engineering  
**Director**
- September 1986 - October, 1990  
Cornell University, College of Engineering  
**Faculty Coordinator for Instructional Computing**
- July 1987 - Present  
Cornell University, School of Civil and Environmental Engineering  
**Professor**
- September 1987 - April 1992  
Cornell University, Program of Computer Graphics  
**Associate Director**
- September 1988 - Present  
Fracture Analysis Consultants, Inc.  
**President**
- October 1990 - October 1994  
Cornell University  
**Director, NSF-Synthesis National Engineering Education Coalition**
- July 1993 - Present  
Cornell University  
**Dwight C. Baum Professor of Engineering**
- October 1994 - October 1995  
Cornell University  
**Associate Director, NSF-Synthesis National Engineering Education Coalition**
- December 1997 –August 2005  
Cornell Center for Theory and Simulation in Science and Engineering  
**Associate Director**  
**Coordinator, Computational Materials Institute**
- July 1998 – December 1999  
Cornell University  
**Coordinator, Infrastructure Group, School of Civil and Environmental Engineering**
- November 2002-Present  
Cornell University  
**Member, Graduate Fields of Mechanical and Aerospace Engineering**



May 2004-Present

Wright Patterson Air Force Base/AFRL/Air Vehicle Directorate/Structures Division  
Structural Sciences Center of Excellence  
Visiting Scientist

August 2005 – July 2007

Cornell University  
Acting Director, Cornell Center for Theory and Simulation in Science and Engineering

November 2005 – Present

Cornell University  
Weiss Presidential Fellow

July 2006 – December 2007

Cornell University  
Coordinator, Infrastructure Group, School of Civil and Environmental Engineering

August 2005 – Present

Cornell University  
Co-Editor in Chief, *Engineering Fracture Mechanics*

August 2010 – Present

Physicians, Scientists, and Engineers for Sustainable and Healthy Energy, Inc.  
President

#### AWARDS AND HONORS

- 3 - M Corporation Scholarship, 1965 - 1969
- Grumman Masters Fellowship, 1969 - 1971
- University of Colorado Graduate Fellowships, 1974 - 1976
- Cornell School of Civil Engineering "Professor of the Year," 1977 - 78
- National Research Council/U.S. National Committee for Rock Mechanics 1978 Award for Outstanding Research in Rock Mechanics at the Doctoral Level
- Cornell College of Engineering "Professor of the Year," 1978 - 79
- Cornell School of Civil Engineering "Professor of the Year," 1981 - 82
- Presidential Young Investigator Award, National Science Foundation, 1984 - 1989
- Dean's Prize for Innovation in Teaching, Cornell College of Engineering, 1989.
- Dean's Prize for Innovation in Teaching, Cornell College of Engineering, 1991.
- National Research Council/U. S. National Committee for Rock Mechanics 1991 Award for Applied Research for the paper, "Simulation of Hydraulic Fracture Propagation in Poroelastic Rock with Application to Stress Measurement Techniques", co-authored by Dr. T. J. Boone, *Int. J. Rock Mech. Min. Sci. & Geomech. Abstr.*, 28, 1, 1-14, 1991.
- International Association for Computer Methods and Advances in Geomechanics 1994 Significant Paper Award: One of Five Significant Papers in the category of Computational/Analytical Applications in the past 20 years, "A Numerical Procedure for Simulation of Hydraulically-driven Fracture Propagation in Poroelastic Media", co-authored with T. J. Boone, *Int. J. Num. Analyt. Meth. in Geomech.*, 14, 1, 1990.
- The NASA Group Achievement Award for contributions, with former students Drs. Paul Wawrzynek and David Potyondy, to the Fuselage Structural Integrity Analysis Team, NASA Langley Research Center, 1996.
- The First Society of Women Engineer's Professor of the Year Award, Cornell College of Engineering, 1997.
- J. P. and Mary Barger '50 Excellence in Teaching Award, Cornell College of Engineering, 1997.
- The MTS Visiting Professor Chair, Department of Civil Engineering, University of Minnesota, May, 1998.
- Aviation Safety Turning Goals into Reality Award, NASA Airframe Structural Integrity Program Team, NASA Langley Research Center, with Dr. Paul Wawrzynek, 1999.
- 1999 Premier Award for Educational Software for "Cracking Dams-HTTP://www.simsience.org", with Megann Polaha
- Daniel Luzar '29 Excellence in Teaching Award, Cornell College of Engineering, 2001.

- **Honor Award, University of Notre Dame, College of Engineering**, for “Significant Contributions to the Advancement of Engineering”, 2002.
- **Weiss Presidential Teaching Fellow, Cornell University**, 2005.
- **George R. Irwin Medal, American Society for Testing and Materials**, 2006.
- **Richard J. Almeida Award, Project High Jump**, given each year to an individual whose dedication and contribution to High Jump have been extraordinary, 2008.
- **Fellow, International Congress on Fracture**, 2009, “For his pioneering contributions to the advanced computational simulation of fatigue and fracture processes leading to improved understanding for practical applications to integrity assessment of engineering structures”.
- One of **TIME Magazine’s “People That Mattered”** in 2011.

#### HONORARY/PROFESSIONAL SOCIETY MEMBERSHIP

Tau Beta Pi (1967 -  
Chi Epsilon (1974 -  
Sigma Xi (1977 -  
American Academy of Mechanics (1988 -  
American Society of Civil Engineers (Fellow, 1991)  
Chairman, Committee on Properties of Materials (1983 - 1985)  
Member, Committee on Finite Element Analysis of Reinforced Concrete  
Member, Committee on Computer Applications and Numerical Methods  
International Society for Boundary Elements  
International Society for Rock Mechanics  
Society for Experimental Mechanics  
American Society for Testing and Materials  
Committee E - 8 on Fracture and Fatigue  
Committee D - 18 on Soil and Rock for Engineering Purposes  
Committee C - 9 on Concrete  
American Concrete Institute  
Committee 446 on Fracture Mechanics  
RILEM  
Committee 90 - FMA on Fracture Mechanics Applications  
Member, Committee 89 - FMT on Fracture Mechanics Testing  
American Rock Mechanics Association/Foundation  
Founding Member  
Member of the Board, 1999-2003

#### PROFESSIONAL REGISTRATION

Colorado PE No. 14837  
New York PE No. 081309-0  
Alaska Professional Fishing Guide

#### UNITED STATES PATENT

Number 481,826, Hand - held, direct reading, fully mechanical fracture loading device for short-rod/bar specimens

#### PROFESSIONAL JOURNAL EDITORSHIPS AND ADVISORY BOARDS

Co-Editor-in-Chief:  
*Engineering Fracture Mechanics*, August, 2005-present

Editorial Advisory Board:  
*International Journal for Numerical and Analytical Methods in Geomechanics*  
*Boundary Element Communications*  
*Engineering with Computers*  
*Engineering Computations*  
*International Journal for Multiscale Computational Engineering*

**PUBLICATIONS****TEXTS EDITED**

1. **Fracture Mechanics of Concrete: Material Characterization and Testing**, co - edited with A. Carpinteri, Martinus Nijhoff Publishers, 1984.

**PUBLISHED IN TEXTS**

1. Ingrassia, A R (co - author). Modelling of Reinforcement and Representation of Bond. Chapter 3 in **Finite Element Analysis of Reinforced Concrete, State - of - the - Art** report prepared by the Task Committee on Finite Element Analysis of Reinforced Concrete Structures, Structural Division, ASCE, 1982, pp. 149 - 203.
  2. Ingrassia A R (co - author). Concrete Cracking. Chapter 4 in **Finite Element Analysis of Reinforced Concrete, State-of-the-Art** report prepared by the Task Committee on Finite Element Analysis of Reinforced Concrete Structures, Structural Division, ASCE, 1982, pp. 204 - 233.
  3. Ingrassia A R. Numerical Modelling of Fracture Propagation. Chapter 4 in **Rock Fracture Mechanics**, H. P. Rossmanith, editor, CISM Courses and lectures No. 275, International Center for Mechanical Sciences, Udine, Italy, Springer - Verlag, Wien - New York, 1983, pp. 151 - 208.
  4. Ingrassia A R, Saouma V. Numerical Modeling of Discrete Crack Propagation in Reinforced and Plain Concrete. Chapter 4 in **Application of Fracture Mechanics to Concrete Structures: Structural Application and Numerical Calculation**, G. C. Sih and A. DiTommaso, editors, Martinus Nijhoff Publishers, 1984.
  5. Ingrassia A R, Gerstle W. Non - Linear Fracture Models for Discrete Crack Propagation. **Application of Fracture Mechanics to Cementitious Composites**, S. P. Shah, editor, Martinus Nijhoff Publishers, 1985, pp. 171 - 209.
  6. Ingrassia A R. Fracture Propagation in Rock. Chapter 12 in **Mechanics of Geomaterials**, Z. P. Bazant, editor, John Wiley & Sons, Limited, 1985.
  7. Ingrassia A R. Theory of Crack Initiation and Propagation in Rock. Chapter 3 in **Rock Fracture Mechanics**, B. Atkinson, editor, Academic Press, Inc., 1987.
  8. Ingrassia A R, Gerstle W H, Perucchio R. Fracture Analysis with Interactive Computer Graphics. **Boundary Element Methods in Structural Analysis**, D. E. Beskos, Editor, ASCE, 1989, pp. 235 - 271.
  9. Ingrassia A R, Sections 9.3, 12.3, 13.4, and 15.2, of **Fracture Mechanics of Concrete Structures: From Theory to Applications**, L. Elfgren, Editor, Chapman and Hall, London, 1989.
  10. Ingrassia A R, Boone T J, Swenson D V. Computer Simulation of Fracture Processes. Chapter 22 in **Comprehensive Rock Engineering**, J. Hudson, Editor-in-Chief, Pergamon Press, Oxford, 1993.
  11. Carter B J, Desroches J, Ingrassia A R, Wawrzynek P A. Simulating Fully 3D Hydraulic Fracturing. In **Modeling in Geomechanics**, Ed. Zaman, Booker, and Gioda, Wiley Publishers, pp 525-557, 2000.
  12. Ingrassia A R, Wawrzynek P A. Crack Propagation. In the **Encyclopedia of Materials: Science and Technology**, Elsevier Science, 2001.
  13. Ingrassia A R, Wawrzynek P A. Finite Element Methods for Linear Elastic Fracture Mechanics. Chapter 3.1 in **Comprehensive Structural Integrity**, R. de Borst and H. Mang (eds), Elsevier Science Ltd., Oxford, England, 2003.
  14. Ingrassia A R. Computational Fracture Mechanics. Volume 2, Chapter 11, **Encyclopedia of Computational Mechanics**, E. Stein, R. de Borst, T. Hughes (eds.) John Wiley and Sons, 2004, 2<sup>nd</sup> Edition 2008.
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15. Emery J, Ingraffea A R. DDSim: Framework for Multiscale Structural Prognosis, Chapter 13 in **Computational Methods for Microstructure-Property Relationships**, S Ghosh and D Dimiduk (eds), Springer Science, 2011.

## PUBLISHED IN JOURNALS

1. Ingraffea AR. Nodal Grafting for Crack Propagation Studies. *Int. J. Num. Meth. Eng.*, 11, 7, 1977, 1185 - 1187.
2. Lynn PP, Ingraffea AR. Transition Element to be Used With Quarter - Point Crack Tip Elements. *Int. J. Num. Meth. Eng.*, 12, 6, 1978, 1031 - 1036.
3. Ingraffea AR, Heuze FE. Finite Element Models for Rock Fracture Mechanics. *Int. J. Num. Analyt. Meth. Geomech.*, 4, 1980, 25 - 43.
4. Ingraffea AR, Manu C. Stress - Intensity Factor Computation in Three Dimensions With Quarter - Point Elements. *Int. J. Num. Meth. Eng.*, 15, 10, 1980, 1427 - 1445.
5. Blandford G, Ingraffea AR, Liggett JA. Two-Dimensional Stress Intensity Factor Calculations Using the Boundary Element Method. *Int. J. Num. Meth. Eng.*, 17, 1981, 387 - 404.
6. Beech J, Ingraffea, AR. Three - Dimensional Finite Element Stress Intensity Factor Calibration of the Short Rod Specimen. *Int. J. Fracture*, 18, 3, 1982, 217 - 229.
7. Perucchio R, Ingraffea AR, Abel JF. Interactive Computer Graphic Preprocessing for Three - Dimensional Finite Element Analysis. *Int. J. Num. Meth. Eng.*, 18, 6, 1982, 909 - 926.
8. Saouma V, Ingraffea AR, Catalano D. Fracture Toughness of Concrete:  $K_{Ic}$  Revisited. *J. Eng. Mech. Div., ASCE*, 108, No. EM6, 1982, 1152 - 1166.
9. Perucchio R, Ingraffea AR. Interactive Computer Graphics Preprocessing for Three - Dimensional Boundary Integral Element Analysis. *J. Computers Structures*, 16, 1 - 4, 1983, 153 - 166.
10. Ingraffea AR, Blandford G, Liggett JA. Automatic Modelling of Mixed - Mode Fatigue and Quasi - Static Crack Propagation Using the Boundary Element Method. *ASTM STP 791: Proc. of the 14th National Symposium on Fracture Mechanics*, June, 1983, I - 407 - I - 426.
11. Ingraffea AR, Gunsallus KL, Beech JF, Nelson PP. A Short - Rod Based System for Fracture Toughness Testing of Rock. *ASTM STP 855: Chevron - Notched Specimens: Testing and Stress Analysis*, 1984, 152 - 166.
12. Ingraffea AR, Perucchio R, Han T - Y, Gerstle WH, Huang YP. Three - Dimensional Finite and Boundary Element Calibration of the Short - Rod Specimen. *ASTM STP 855: Chevron-Notched Specimens: Testing and Stress Analysis*, 1984, 49 - 68.
13. Manu C, Ingraffea AR. Numerical Evaluation of the Growth Rate Material Parameters in Fatigue Propagation of Surface Flaws. *Nucl. Eng. Design*, 77, 2, March, 1984, 131 - 138.
14. Ingraffea AR, Gerstle W, Gergely P, Saouma V. Fracture Mechanics of Bond in Reinforced Concrete. *J. Structural Division, ASCE*, 110, 4, 1984, 871 - 890.
15. Perucchio R, Ingraffea AR. An Integrated Boundary Element Analysis System with Interactive Computer Graphics for Three Dimensional Linear - Elastic Fracture Mechanics. *J. Comp. Structures*, 20, 1985, 157 - 171.
16. Nelson PP, Ingraffea AR, O'Rourke TD. TBM Performance Prediction with Rock Fracture Parameters. *Int. J. Rock Mech. Mining Sciences*, 22, 3, June, 1985, 189 - 192.

17. Elices M, Llorca J, Ingraffea AR. Fractura del Hormigon en Regimen Elastico y Lineal. Un Ejemplo: La Presa de Fontana (in Spanish), *Informes de la Construccion*, 37, 372, July, 1985, 19 - 33.
  18. Ingraffea AR, Gerstle WH, Mettam K, Wawrzynek P, Hellier AK. Cracking of Welded Crane Runway Girders: Physical Testing and Computer Simulation. *Iron and Steel Engineer*, 62, 12, 1985, 46 - 52.
  19. Boone TJ, Wawrzynek P, Ingraffea AR. Simulation of the Fracture Process in Rock with Application to Hydrofracturing. *Int. J. Rock Mech. Mining Sciences*, 23, 3, 1986, 255 - 265.
  20. Abel JF, Ingraffea AR, McGuire W, Greenberg DP. Interactive Color Graphical Postprocessing as a Unifying Influence in Numerical Analysis Research. *Finite Elements in Analysis and Design*, 2, 1986, 1 - 17.
  21. Boone TJ, Wawrzynek P, Ingraffea AR. Finite Element Modeling of Fracture Propagation in Orthotropic Materials. *Eng. Fract. Mech.*, 26, 2, 1987, 185 - 201.
  22. Gerstle WH, Martha L, Ingraffea AR. Finite and Boundary Element Modeling of Crack Propagation in Two - and Three - Dimensions. *Eng. with Computers*, 2, 1987, 167 - 183.
  23. Hellier AK, Sansalone M, Ingraffea AR, Carino NJ, Stone, C. Finite Element Analysis of the Pullout Test Using a Nonlinear Discrete Cracking Approach. *Cement, Concrete and Aggregates*, 9, 1, Summer 1987, 20 - 29.
  24. Wawrzynek P, Ingraffea AR. Interactive Finite Element Analysis of Fracture Processes: An Integrated Approach. *Theor. Appld. Fract. Mech.* 8, 1987, 137 - 150.
  25. Wawrzynek P, Ingraffea AR. An Edge - Based Data Structure for Two-Dimensional Finite Element Analysis. *Eng. with Computers*, 3, 1987, 13 - 20.
  26. Llorca J, Elices M, Ingraffea AR. Analisis Lineal Y No Lineal De Propagacion De Fisuras En Hormigon," (In Spanish), *Revista Internacional de Metodos Numericos para Calculo y Diseno en Ingenieria*, 3, 3, 1987, 309 - 333.
  27. Swenson DV, Ingraffea AR. Using Combined Experiments and Analysis to Generate Dynamic Critical Stress Intensity Data. *ASTM STP 969: Fracture Mechanics: 19th Symposium*, T. A. Cruse, Ed., American Society for Testing and Materials, Phila., 1988, 405 - 426.
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  29. Swenson DV, Ingraffea AR. Modelling Mixed-Mode Dynamic Crack Propagation Using Finite Elements: Theory and Applications. *Computational Mech.*, 3, 1988, 187-192.
  30. Linsbauer HN, Ingraffea AR, Rossmannith H P, Wawrzynek PA. Simulation of Cracking in a Large Arch Dam: Part I. *J. Structural Eng.*, 115, 7, July 1989, 1599 - 1615.
  31. Linsbauer HN, Ingraffea AR, Rossmannith HP, Wawrzynek PA. Simulation of Cracking in a Large Arch Dam: Part II. *J. Structural Eng.*, 115, 7, July, 1989, 1616 - 1630.
  32. Ingraffea AR. Case Studies of Simulation of Fracture in Concrete Dams. *Eng. Fracture Mech.*, 35, 1/2/3, 1990, 553-564.
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  34. Boone TJ, Ingraffea AR. A Numerical Procedure for Simulation of Hydraulically - Driven Fracture Propagation in Poroelastic Media. *Int. J. Num. Analyt. Meth. Geomech.*, 14, 1990, 27-47.
  35. Grigoriu M, Saif M, El Borgi S, Ingraffea AR. Mixed - Mode Fracture Initiation and Trajectory Prediction Under Random Stresses. *Int. J. Fracture*, 45, 1990, 19-34.
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36. Boone TJ, Ingraffea AR, Roegiers J - C. Visualization of Hydraulically - Driven Fracture Propagation in Poroelastic Media Using a Super - Workstation. *J. Petroleum Tech*, June 1989, 574 - 580.
37. Wawrzynek PA, Ingraffea AR. An Interactive Approach to Local Remeshing Around a Propagating Crack. *Finite Elem. in Analys. and Design*, 5, 1989, 87 - 96.
38. Ingraffea AR, Barry A. Analytical Study of Transmission, Distribution Lines under Railroads. *Pipe Line Industry*, October 1989, 34 - 39.
39. Gray LJ, Martha LF, Ingraffea AR. Hypersingular Integrals in Boundary Element Fracture Analysis. *Int. J. Num. Meth. Eng.*, 29, 1990, 1135-1158.
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45. Bittencourt TN, Barry A, Ingraffea AR. Comparison of Mixed-Mode Stress Intensity Factors Obtained Through Displacement Correlation, J-Integral Formulation, and Modified Crack-Closure Integral. *ASTM STP 1131: Fracture Mechanics: Twenty Second Symposium (Vol. II)*, Philadelphia, 69-82, 1992.
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49. Martha LF, Gray, L J, Ingraffea AR. Three-Dimensional Fracture Simulation with a Single-Domain, Direct Boundary Element Formulation. *Int. J. Num. Meth. Eng.*, 35, 1992.
50. Gaisbauer H, Rossmanith H-P, Ingraffea AR. Der Einfluß von Talform und Schwächezonen im wasserstetigen Aufstandsreich aud das Tragverhalten einer Gewölbesperre. (In German) *Osterreichische Ingenieur- und Architekten-Zeitschrift*, 137, 9, 427-434, 1992.
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53. Martha L, Wawrzynek P, Ingraffea AR. Arbitrary Crack Propagation Using Solid Modeling. *Engrg. with Computers*, 9, 2, 63-82, 1993.

54. Sousa J, Carter B, Ingraffea AR. Numerical Simulation of 3D Hydraulic Fracture Using Newtonian and Power-Law Fluids. *Int. J. Rock Mech. Min. Sci. & Geomech. Abstr.*, **30**, 7, 1265-1271, 1993.
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  61. Bittencourt T, Ingraffea AR. Um Metodo Numericao para o Modelmento de Fraturamento Coesivo em 3D (In Portugese). *Revista Internacional de Metodos Numericos para Calculo y Diseno en Ingenieria*, **11**, 4, 1-10, 1995.
  62. Zehnder A, Ingraffea AR. Reinforcing Effects of Coverlayers on the Fatigue Life of Copper-Kapton Flex Cables. *IEEE Trans. Comp. Pack. Manuf. Tech.*, **18**:704-710, 1995.
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  65. Hanson JH, Ingraffea AR. Standards for Fracture Toughness Testing of Rock and Manufactured Ceramics: What Can We Learn for Concrete? *Cement, Concrete and Aggregates*, **19**:79-87, 1997.
  66. Riddell WT, Ingraffea AR, Warwzynek PA. Experimental Observations and Numerical Predictions of Three-Dimensional Fatigue Crack Propagation. *Eng. Fract. Mech.*, **58**: 293-310, 1997.
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73. TerMaath SC, Ingrassia AR, Wawrzynek PA. A Computational Fracture Mechanics Approach for the Analysis of Facesheet-from-Core Disbond of Honeycomb Core Sandwich Panels. *Fatigue and Fracture Mechanics: 30th Volume, STP 1360*, P.C. Paris and K.L. Jerina, Eds., American Society for Testing and Materials, West Conshohocken, PA, 169-182, 1999.
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81. Hwang CG, Wawrzynek, PA, Ingrassia AR. On the virtual crack extension method for calculating the derivatives of energy release rates for a 3D planar crack of arbitrary shape under mode-I loading. *Eng. Fract. Mech.*, 68:925-947, 2001.
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21. Ingraffea, A. R., Lin, S. C., "Effects of Elastomeric Rail Pad on Forces Transmitted to the Web - to - Flange Junction of Crane Runway Girders," Task II, Report No. 2, Document 85 - 2, AISE/Cornell University Crane Runway Girder Project, March 5, 1985, 45 pp.
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  30. Gerstle, W. H., Ingraffea, A. R., "Numerical Modelling of Forces Transmitted to the Web - to - Flange Junction of Crane Runway Girders Due to Wheel Loads," Task II, Report No. 1, in Final Report - Appendices. Volume 2 of 2. Document 86 - 1, AISE/Cornell University Crane Runway Girder Project, June 23, 1986, 108 pp.
  31. Ingraffea, A. R., Lin, S. C., "Effects of Elastomeric Rail Pad on Forces Transmitted to the Web - to - Flange Junction of Crane Runway Girders," Task II, Report No. 2, in Final Report - Appendices. Volume 2 of 2. Document 86 - 1, AISE/Cornell University Crane Runway Girder Project, June 23, 1986, 46 pp.
  32. Wawrzynek, P., Ingraffea, A. R., "The Effect of Stiffeners on the Forces Transmitted to the Web - to - Flange Junction of Crane Runway Girders," Task II, Report No. 3, in Final Report - Appendices. Volume 2 of 2. Document 86 - 1, AISE/Cornell University Crane Runway Girder Project, June 23, 1986, 49 pp.
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40. Boone, T. and Ingrassia, A. R., "Simulation and Visualization of Hydraulic Fracture Propagation in Poroelastic Rock," Department of Structural Engineering Research Report 89 - 6, School of Civil and Environmental Engineering, Cornell University, June, 1989, 430 pp.
41. Martha, L. and Ingrassia, A. R., "Topological and Geometrical Modeling Approach to Numerical Discretization and Arbitrary Fracture Simulation in Three-Dimensions," Department of Structural Engineering Research Report 89 - 9, School of Civil and Environmental Engineering, Cornell University, August, 1989, 331 pp.
42. Swenson, D. V., Ingrassia, A. R., "The Collapse of the Schoharie Creek Bridge: A Case Study in Concrete Fracture Mechanics", Department of Structural Engineering Research Report 90-4, School of Civil and Environmental Engineering, Cornell University, April, 1990, 39 pp.
43. Ingrassia, A., Grigoriu, M., "A Validation of Predictive Capability", Department of Structural Engineering Research Report 90 - 8, School of Civil and Environmental Engineering, Cornell University, August, 1990.
44. Wawrzynek, Paul A., Ingrassia, A. R., "Discrete Modeling of Crack Propagation: Theoretical Aspects and Implementation Issues in Two and Three Dimensions", Department of Structural Engineering Research Report 91-5, School of Civil and Environmental Engineering, Cornell University, August, 1991, 211 pp.
45. Lutz, E., Ingrassia, A. R., "Numerical Methods for Hypersingular and Near-Singular Boundary Integrals in Fracture Mechanics", Department of Structural Engineering Research Report 91-6, School of Civil and Environmental Engineering, Cornell University, August, 1991, 223 pp.
46. Sousa, J., Ingrassia, A. R., "Three-Dimensional Simulation of Near-Wellbore Phenomena Related to Hydraulic Fracturing from a Perforated Wellbore", Department of Structural Engineering Research Report 92-5, School of Civil and Environmental Engineering, Cornell University, May, 1992, 269 pp.
47. Bittencourt, T., Ingrassia, A. R., "Computer Simulation of Linear and Nonlinear Crack Propagation in Cementitious Materials," Department of Structural Engineering Research Report 93-3, School of Civil and Environmental Engineering, Cornell University, May, 1993, 303 pp.
48. Potyondy, D., Ingrassia, A. R., "A Software Framework for Simulating Curvilinear Crack Growth in Pressurized Thin Shells", Department of Structural Engineering Research Report 93-5, School of Civil and Environmental Engineering, Cornell University, August, 1993, 370pp.
49. P. Wawrzynek, Ingrassia, A., "FRANC2D: A Two-Dimensional Crack Propagation Simulator Version 2.7 User's Guide", NASA Contractor Report 4572, National Aeronautics and Space Administration, Langley Research Center, Hampton, VA, March, 1994, 59 pp.
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  53. Hwang, C., Ingrassia, A. R., Wawrzynek, P., "Virtual Crack Extension Method for Calculating Rates of Energy Release Rate and Numerical Simulation of Crack Growth in Two and Three Dimensions", Structural Engineering Research Report 99-2, School of Civil and Environmental Engineering, Cornell University January, 1999.
  54. Hanson, J. H., Ingrassia, A. R., "Proposed Standard Test Method for Round Double Beam Fracture Toughness of Concrete," *Research Report*, 00-1, Department of Structural Engineering, Cornell University, Ithaca, NY, Jan. 2000.
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  56. Lewicki, DG, Spievak, L, Wawrzynek, PA, Ingrassia, AR, Handshuh, R, "Consideration of Moving Tooth Load in Gear Crack Propagation Predictions", NASA/TM-2000-210227, ARL-TR-2246, DETC2000/PTG-14386, July, 2000.
  57. Iesulauro E, Ingrassia AR. "Computational Micro-Mechanical Investigations of Crack Initiation in Metallic Polycrystals", NASA Langley Research Center, Final Report on Project NAG-1-0205, July 21, 2006, 210 pages.
  58. Ingrassia AR, Tuegel E. "Structural Life Forecasting in Extreme Environments", Structural Sciences Center, AFRL/RBSM, Wright Patterson AFB, Dayton, Ohio, October, 2009.
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**FUNDED RESEARCH PROJECTS****Structural Engineering**

1. "An Investigation into Mixed - Mode Fracture Propagation in Rock," National Science Foundation Research Initiation Grant ENG78 - 05402, 4/78 - 3/80, \$25,000, Principal Investigator.
2. "Finite Element Analysis of Reinforced Concrete for Cyclic Loading," National Science Foundation Grant PFR - 7900711, 4/79-3/81, \$84,000, Principal Investigator. P. Gergely and R. N. White, Co - Principal Investigators.
3. "Laboratory Testing of the Crack - at - an - Interface Problem," Sandia National Laboratories Contract No. 13 - 5038, 5/79 - 5/80, \$42,000, Principal Investigator.
4. "Three - Dimensional Interactive Computer Graphics in Structural and Geo - Mechanics," National Science Foundation Grant CME79 - 16818, 1/80 - 6/82, \$500,000, Faculty Investigator. J. F. Abel, D. P. Greenberg, W. McGuire, Co-Principal Investigators; F. H. Kulhawy, Faculty Investigator.
5. "Interaction Between Steel and Concrete for Earthquake-Type Loadings," National Science Foundation Grant CME80 - 20925, 4/1/81 - 9/30/83, \$140,000, Principal Investigator. P. Gergely, Co - Principal Investigator.
6. "Interactive Color Display of Three - Dimensional Engineering Analysis Results," National Aeronautics and Space Administration, Grant NAG3 - 395, 3/1/83 - 2/28/87, \$133,285, Associate Investigator. J. F. Abel, Principal Investigator.
7. "Welded Crane Runway Girder Study," Association of Iron and Steel Engineers, 8/83 - 8/85, \$234,348, Principal Investigator. W. McGuire, T. Pekoz, Co - Principal Investigators.
8. Presidential Young Investigator Award in Structural Mechanics, National Science Foundation Grant 8351914, 6/84 - 6/89, \$500,000, Principal Investigator.
9. "Fatigue Behavior of Thick Steel Plates," Electric Boat Division/General Dynamics, PO# R2041 - 907, 1/86 - 12/88, \$233,218, Co - Principal Investigator. R. N. White, Principal Investigator.
10. "Probabilistic Fracture Mechanics," AFOSR, 4/87 - 4/90, \$269,624, Co - Principal Investigator. M. Grigoriu, Co - Principal Investigator.
11. "CISE Research Instrumentation: Computer Graphics Dynamic Simulation for Scientific Inquiry," National Science Foundation Grant CCR - 8717024, 4/1/88 - 9/30/89, \$145,600, Co - Principal Investigator. M. Cohen, D. Greenberg, and J. Abel, Co - Principal Investigators.
12. "Visualization for Supercomputing: A Graphics Workstation Approach," National Science Foundation, Grant ASC - 8715478, 8/1/88 - 1/31/90, \$202,532, Co - Principal Investigator. D. Greenberg, Principal Investigator. J. Abel, M. Cohen, D. Caughey, Co - Principal Investigators.
13. "Advanced Computational Fracture Mechanics," Digital Equipment Corporation, 7/89 - 7/90, \$100,000, Principal Investigator.
14. "Fatigue and Damage Tolerance", Northrop-Grumman Corporation, 6/89-12/00, \$249,000, Principal Investigator.
15. "Research in Fracture Mechanics", Exxon Education Foundation, 9/89-9/92, \$30,000, Principal Investigator.
16. "Crack Growth Prediction Methodology for Multi-Site Damage", NASA Langley Research Center, 9/90-9/98, \$926,147, Principal Investigator.
17. "Fracture Mechanics Life Analytical Methods Verification Testing", Nichols Research Corp. /NASA MSFC, 8/91 - 8/94, \$183,860, Principal Investigator.

18. "Mode I/III Fatigue Crack Growth Measurements in 2024 Aluminum Sheet", NASA Langley Research Center, 6/91-9/93, \$159,836, Co-Principal Investigator. A. Zehnder, Co-Principal Investigator.
  19. "A Study of Failure Mechanisms of Advanced Flex Cables", IBM Corporation, 1/20/92-1/19/93, \$25,000, Co-Principal Investigator. A. Zehnder, Co-Principal Investigator.
  20. "Detecting Cracks in Concrete Dams", U. S. Army Engineer Waterways Experiment Station, 4/1/94-1/1/95, \$39,339, Co-Principal Investigator. M. Sansalone, Principal Investigator.
  21. "Measurement of Fracture Toughness of Concrete Using the Short-Rod Procedure", NSF CMS 9414243, 9/95-8/98, \$203,854. Principal Investigator.
  22. "Simulation of Damage Tolerance in Honeycomb Core Structure", Boeing Commercial Airplane Co., 5/96-12/98, \$204,000. Principal Investigator.
  23. "Simulation of Crack Growth in Spiral Bevel Gears", NASA Glenn Research Center, 12/96-12/00, \$289,961. Principal Investigator.
  24. "Fracture of Steel Joints", CUREe SAC Phase II Subcontract No. 28, 9/96-12/96, \$23,000. Co-Principal Investigator. Prof. G. Deierlein, Principal Investigator.
  25. "Multidisciplinary Center for Earthquake Engineering Research", NSF, 10/97-9/02, \$1,500,000. Associate Investigator. Prof. R. White, Co-Principal Investigator; Profs. G. Deierlein, M. Grigoriu, Associate Investigators.
  26. "Simulation of Crack Propagation on Teraflop Computers", NSF, 1/98-12/00, \$1,800,000. Co-Principal Investigator. Profs. S. Vavasis and K. Pingali, Co-Principal Investigators.
  27. "Probabilistic Simulation of Fatigue Crack Initiation", AFOSR, 3/98-2/01, \$600,000. Principal Investigator. Profs. M. Grigoriu, M. Miller, P. Dawson, Co-Principal Investigators.
  28. "Development and Implementation of T-Stress Criterion", NASA Langley Research Center, 8/97-3/98, \$20,128. Principal Investigator.
  29. "Crack Turning and Arrest Mechanisms for Integral Structures", NASA Langley Research Center, 1/98-6/00, \$103,642. Principal Investigator.
  30. "Basic Research in Crack Growth Prediction Methodologies", NASA Langley Research Center, 1/98-11/99, \$185,000. Principal Investigator.
  31. "Fatigue Crack Growth in Aluminum Alloys", Alcoa Foundation, 6/97-5/98, \$10,000. Principal Investigator.
  32. "Multiscale Modeling of Defects in Solids", NSF 9873214, 10/98-9/01, \$1,500,000. Co-Principal Investigator. Profs. P. Dawson, and J. Sethna Co-Principal Investigators, C. Myers, Co-Principal Investigator.
  33. "A Two-Tier Computation and Visualization Facility for Multiscale Problems", NSF 9972853, 10/99-9/04, \$1,500,000. Co-Principal Investigator. Profs. K. Pingali, N. Chrisochoides, C. Cruz-Neira, Guang Gao, Co-Principal Investigators.
  34. "Finite Element Stress Analysis Subroutines for RAPID", Federal Aviation Administration, 9/99-4/2000, \$34,438. Principal Investigator.
  35. "Finite Element/Fracture Mechanics Simulation of Trajectories During Slitting of Plastic Films", Eastman Kodak Company, 1/1/99-12/31/01, \$110,000. Principal Investigator.
  36. "ITR: Adaptive Software for Field-driven Simulations", NSF 0085969, 9/1/00-8/31/04, \$5,000,000. Co-Principal Investigator. Prof. K. Pingali, PI, B. K. Soni, J. F. Thompson S. A. Vavasis, Co-PIs.
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37. "Developing Technologies for Modeling Damage in Stiffened Thin Shell Structures", NASA LaRC, 11/1/01-10/31/04, \$160,107. Principal Investigator.
38. "Computational Micro-Mechanical Investigations of Crack Initiation in Metallic Polycrystals", NASA LaRC, 2/1/02-1/31/05, \$230,182. Principal Investigator.
39. "The Institute for Future Space Transport", NASA Marshall RC University Research, Engineering and Technology Institute, 8/1/02-9/15/07, \$15,616,120, Co-Principal Investigator. W. Shyy, Principal Investigator, B. Soni, B. Davidson, J. Olds, Co-Principal Investigators.
40. "Structural Integrity Prognosis System-SIPS", DARPA, 10/1/03-8/31/08, \$1,288,400, Cornell Principal Investigator. J. Madsen, Northrop Grumman Corp. Project Manager.
41. "Fracture Mechanics Analysis of MANPADS-Damaged Aircraft Structures", NASA LaRC, 5/05-9/06, \$74,000. Principal Investigator.
42. "Advanced Digital Material Machine (ADMM) "AFOSR/DURIP, 2006, \$300,000. Principal Investigator.
43. "Multi-Scale Simulation of Cracking Processes in Metallic Materials", NASA LaRC, NNX07AB69A, 1/07-12/10, \$392,526. Principal Investigator.
44. "Constellation University Institute Project: Computational Simulation of Damage Tolerance for Composite and Metallic Structures", NASA, 10/1/07-9/30/10, \$450,000, Principal Investigator.
45. "Multi-scale Simulation of Fatigue Damage", Northrop Grumman Corporation, 1/1/07-12/31/09, \$55,000, Principal Investigator.
46. "Computational Methods in Physics-Based Modeling of Damaged Flight Structures", NASA LaRC NNX08AC50A, 1/1/08-12/31/2010, \$299,972, Principal Investigator.
47. "Collaboration between Cornell Fracture Group and Exponent, Inc.", Exponent Inc., 3/08-12/08, \$29,204, Principal Investigator.
48. "Geometrical Simulation of Complete Process of Microstructurally Small Fatigue Cracking" E DARPA, HR0011-09-1-0002, 1/09-12/09, \$150,000, Principal Investigator.
49. "Parallel File Serving R&D", IBM, \$20,200, 7/09-6/10, Principal Investigator.
50. "Prognosis of Long-Term Load-Bearing Capability in Aerospace Structures: Quantification of Microstructurally Short Crack Growth", Air Force Office of Scientific Research, \$750,000, 5/10/5/13, Co-Principal Investigator.

### **Geotechnical Engineering**

1. "TBM Performance Study," U.S. Dept. of Transportation, 3/80 - 3/82, \$164,000, Associate Investigator. T. D. O'Rourke, Principal Investigator; F. H. Kulhawy, Associate Investigator.
2. "A Study of Cast Iron Gas Main Replacement," New York Gas Group, 8/81 - 12/83, \$287,000, Associate Investigator. T. D. O'Rourke, Principal Investigator; F. H. Kulhawy, Associate Investigator.
3. "Uplift/Compression Transmission Line Structure Foundation Research," Electric Power Research Institute, RP1493 - 4, 1984 - 1988, \$2,450,000, Associate Investigator. F. H. Kulhawy, Principal Investigator; T. D. O'Rourke, M. Grigoriu, Associate Investigators.
4. "Numerical Investigations into Crack Propagation in Rock," National Science Foundation Grant CEE - 8316730, 6/1/84 - 5/30/86, \$150,000. Principal Investigator

5. "Workshop on Interactive Computer Modeling and Graphics for the Design and Optimization of Field and Laboratory Experiments in Geotechnical Engineering." National Science Foundation Grant CEE 8413471, 12/84 - 11/86, \$39,681. Principal Investigator.
6. "Evaluation of Cased and Uncased Gas Distribution and Transmission Piping Under Railroads and Highways, Gas Research Institute, 11/86 - 1/94, \$ 3,602,035. Co-Principal Investigator. T. D. O'Rourke and H. Stewart, Co-Principal Investigators.
7. "Influence of Perforations Upon Subsequent Hydraulic Fracturing," Digital Equipment Corp. and Dowell Schlumberger, 1/88 - 12/96, \$448,000. Principal Investigator.
8. "Computational Simulation of Hydrofracturing", NSF CISE Postdoctoral Associate Award for Dr. K. Shah. 11/95-10/97, \$46,200. Principal Investigator.
9. "3D Crack Initiation and Propagation in Transparent Rock Like Materials Loaded in Compression", NSF, 9/96-8/99, \$148,000. Principal Investigator.

### **Engineering Education**

1. "Study of Complementary Research and Teaching in Engineering Science - PROJECT SOCRATES," U. S. Department of Education, Fund for the Improvement of Post - Secondary Education, G 008642170, 9/15/86 - 9/14/89, \$236,496, Project Director.
  2. "Workstations For Instructional Computing in the College of Engineering," Digital Equipment Corporation, 5/1/88 - 4/31/90, \$664,000. Project Director.
  3. "Workstations for Project SOCRATES," Apollo Computer, Inc., June, 1989, \$87,105. Project Director.
  4. "Workstations for Project SOCRATES", Sun Microsystems, Inc., June, 1990, \$89,415. Project Director.
  5. "Synthesis National Engineering Education Coalition", National Science Foundation, 9/30/90 - 9/30/94, \$12,278,036. Project Director.
  6. "1992 Summer Institute for Computer Graphics", New York State Education Department, \$56,000, 7/19/92-8/8/92, Project Co-Director. C. Mink, Director.
  7. "Support for Educational Computing Equipment", Hewlett Packard, 6/92, \$427,318. Project Director.
  8. "Synthesis Coalition/GE Foundation Faculty Exchange Award", GE Foundation, Spring 1994 - Spring 1997, \$230,000, Principal Investigator.
  9. "Synthesis Coalition/Raytheon Company Student Award" Raytheon Company, 1994-1995, \$24,000, Principal Investigator.
  10. "Application and Infrastructure Linkage to Altoona Area School District and Manhattan Center for Science and Math High School", Synthesis Coalition/NSF/GE Foundation/Mr. A. Misciagna, 10/1/94-9/30/96, \$284,000, Project Director.
  11. "Integration of Information Age Networking and Parallel Supercomputer Simulations into University and General Science K-12 Curricula", NSF, 1/96-12/98, \$102,000, Co-Principal Investigator. J. Sethna, Co-Principal Investigator.
  12. REU Supplement to "Measurement of Fracture Toughness of Concrete Using the Short-Rod Procedure", NSF, 9/95-9/98, \$10,000, Principal Investigator.
  13. REU Supplements to "Integration of Information Age Networking and Parallel Supercomputer Simulations into University and General Science K-12 Curricula", NSF, 9/96-9/98, \$20,000, Co-Principal Investigator with Prof. James Sethna, Physics.
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14. "Tech City Exhibition", NSF, 7/98-6/01, \$639,543, Co-Principal Investigator. Dr. C. Trautmann, Principal Investigator.
15. "An Advanced Interactive Discovery Environment for Engineering Education" NASA/New York State/AT&T, 2/1/01-12/31/07, \$4,300,000, Co-Principal Investigator. Prof. B. Davidson, Principal Investigator, Prof. E. Liddy, Co-PI.
16. "An IGERT Training Program In Sustainable Energy Recovery From The Earth-Education At The Intersection Of Geosciences And Engineering". July 2010-June 2015, National Science Foundation, \$1,137,047. Co-Principal Investigator. Prof. Jeff Tester, Principal Investigator, Profs. Terry Jordan, Paulette Clancy, Co-PI's.

### **Co-operative Research**

1. "Co-operative Agreement between Cornell University and the Technical University of Delft", National Science Foundation Grant PFR-8020924, 1/81 - 12/82, \$25,800, Co - Principal Investigator. P. Gergely, Principal Investigator; R. N. White, Co - Principal Investigator.
2. "Scientific Visit to Plan Co-operative Research in Hydraulic Fracturing," Catholic University of Rio de Janeiro/Cornell University, National Science Foundation Grant INT - 8814466, July 1988, \$2,336, Principal Investigator.
3. "Fracture Mechanics Case Studies of Concrete Dams" Technical University of Vienna, Austria/Cornell University, National Science Foundation Grant INT-8814457, 2/89 - 2/92, \$8,080, Principal Investigator.
4. International Supplement to National Science Foundation Grant "ITR: Adaptive Software for Field-driven Simulations", to collaborate with Czech Technical University, Z. Bittnar, Czech Co-PI, 7/99-8/03, \$24,375, Co-Principal Investigator.

**THESES DIRECTED****Master of Science**

1. "A Fracture Mechanics Analysis of the Fontana Dam," John Chappell, May, 1981.
  2. "Mixed-Mode Crack Propagation in Mortar and Concrete." Manrique Arrea, January 1982.
  3. "The Fracture Mechanics of Bond in Reinforced Concrete," Walter Gerstle. May 1982.
  4. "Concrete Fracture: A Linear Elastic Fracture Mechanics Approach," David Catalano, August, 1982.
  5. "Interactive and Graphic Two - Dimensional Fatigue Crack Propagation Analysis Using Boundary Element Method," Kodwo Otseidu, January, 1983.
  6. "An Experimental Investigation of Fatigue Cracking in Welded Crane Runway Girders Due to Wheel Induced Stresses," Kirk I. Mettam, January, 1986.
  7. "An Investigation of the Failure Process of the STEM - PMMA Interface in Cemented Prostheses," Leonard Daniel - Timmie Topoleski, June 1986.
  8. "Interactive Finite Element Analysis of Fracture Processes: An Integrated Approach," Paul A. Wawrzynek, May 1987.
  9. "Analytical Study of Stresses in Transmission and Distribution Pipelines Beneath Railroads," J. Russell Blewitt, May 1987.
  10. "Case Studies of Cracking of Concrete Dams--A Linear Elastic Approach," Shan - Wern Steve Lin, January 1988.
  11. "Fracture Analysis Code: A Computer - Aided Teaching Tool," Maya Srinivasan, January 1988.
  12. "Two-Dimensional Numerical Evaluation of Near Wellbore Phenomena: Perforation Performance & Interacting Hydraulic Fractures", Stephen James Lamkin, May 1990.
  13. "On Finite Element Analysis of Face Sheet Cracking in Honeycomb Core Sandwich Panels", Kenneth Ferguson, January 1999.
  14. "Simulating Fatigue Crack Growth in Spiral Bevel Gears", Lisa Eron Spievak, August 1999.
  15. "Cracking Dams: An Interactive Web Site for K12", Megann V. Polaha, August 1999.
  16. "Experimental Investigations into Damage Tolerance of Honeycomb Sandwich Panels", Ani Ural, August, 1999.
  17. "Simulations of Crack Initiation in Aluminum Alloys with Inclusions", Ketan Dodhia, January, 2002.
  18. "Decohesion of Grain Boundaries in Statistical Representations of Aluminum Polycrystals", Erin Iesulauro, January, 2002.
  19. "An Evaluation of Surface Cracks in Welded Components of Nuclear Reactor Vessels", John Emery, May, 2003.
  20. "Microstructural Reconstruction and Three-Dimensional Mesh Generation for Polycrystalline 7075-T651 Aluminum Alloy", Michael Veilleux, May, 2007.
  21. "A Two-Dimensional Multiscale Method for Fatigue Crack Nucleation in Polycrystalline Aluminum Alloys ", Jeffrey Bozek, May, 2007.
-

**Doctor of Philosophy**

1. "Three-Dimensional Finite Element Analysis of Cyclic Fatigue Crack Growth of Multiple Surface Flaws." Corneliu Manu, June, 1980. Professor (Retired) University of Toronto.
2. "Automatic Two-Dimensional Quasi-Static and Fatigue Crack Propagation Using the Boundary Element Method." George E. Blandford, January, 1981. Professor, University of Kentucky.
3. "Interactive Finite Element Analysis of Reinforced Concrete: A Fracture Mechanics Approach," Victor E. Saouma, January, 1981. Professor, University of Colorado/Boulder.
4. "An Integrated Boundary Element Analysis System with Interactive Computer Graphics for Three - Dimensional Linear Elastic Fracture Mechanics," Renato S. Perucchio, January, 1984. Professor, University of Rochester.
5. "Finite and Boundary Element Modelling of Crack Propagation in Two- and Three - Dimensions Using Interactive Computer Graphics," Walter H. Gerstle, January, 1986. Professor, University of New Mexico.
6. "Modeling Mixed - Mode Dynamic Crack Propagation Using Finite Elements," Daniel V. Swenson, January 1986. Professor, Kansas State University.
7. "Simulation of Crack Propagation in Poroelastic Rock with Application to Hydrofracturing and *In - Situ* Stress Measurement," Thomas J. Boone, January, 1989. VP of Research, EXXON.
8. "Topological and Geometrical Modeling Approach to Numerical Discretization and Arbitrary Fracture Simulation in Three-Dimensions," Luiz Martha, August, 1989. Professor, Catholic University of Rio de Janeiro, Brazil.
9. "Numerical Methods for Hypersingular and Near-Singular Boundary Integrals in Fracture Mechanics", Earlin Lutz, May, 1991. Senior Research Engineer, Bentley, Inc.
10. "Discrete Modelling of Crack Propagation: Theoretical Aspects and Implementation Issues in Two and Three Dimensions", Paul A. Wawrzynek, August, 1991. Chief Engineer, Fracture Analysis Consultants, Inc.
11. "Three-Dimensional Simulation of Near-Wellbore Phenomena Related to Hydraulic Fracturing from a Perforated Wellbore", José Sousa, May, 1992. Professor, University of Campinas, Brazil.
12. "Computer Simulation of Linear and Nonlinear Crack Propagation in Cementitious Materials", Tulio Bittencourt, May, 1993. Professor, University of Sao Paulo, Brazil.
13. "A Methodology for Simulation of Curvilinear Crack Growth in Pressurized Shells", David Potyondy, August, 1993. Senior Research Engineer, Itasca, Inc.
14. "Experimental Validation Testing of Numerical Prediction Techniques for Three-Dimensional Fracture and Fatigue", William Riddell, June, 1995. Assoc. Professor, Rowan University.
15. "Crack Growth Simulation and Residual Strength Prediction in Thin Shell Structures", Chuin-Shan Chen, January, 1999. Assoc. Prof., National Taiwan University.
16. "Virtual Crack Extension Method for Calculating Rates of Energy Release Rate and Numerical Simulation of Crack Growth in Two and Three Dimensions", Changyu Hwang, January, 1999. Professor, Seoul University of Venture and Information.
17. "Crack Turning in Integrally Stiffened Aircraft Structures", Richard Pettit, August, 2000. Chief Engineer, FractureLab, LLC.
18. "An Experimental-Computational Evaluation of the Accuracy of Fracture Toughness Tests on Concrete", James Hanson, August, 2000. Assoc. Prof., Rose-Hulman Institute of Technology.



19. "Interface Modeling of Composite Material Degradation", Tong-Seok Han, May, 2001 (with Prof. Sarah Billington). Research Engineer, Korea Electric Power Research Institute.
  20. "Modeling and Simulation of Fatigue Crack Growth in Metals Using LEFM and a Damage-Based Cohesive Model", Ani Ural, May, 2004 (with Prof. Katerina Papoulia). Assistant Professor, Villanova University.
  21. "Decohesion of Grain Boundaries in Statistical Representations of Aluminum Polycrystals", Erin Iesulauro, May, 2006. Staff Engineer, Los Alamos National Laboratory.
  22. "A Hierarchical, Probabilistic, Damage and Durability Simulation Methodology", John Emery, May, 2007, Staff Engineer, Sandia National Laboratory.
  23. "Finite Element Simulation of Fatigue Crack Stages in AA 7075-T651 Microstructure", Jacob Hochhalter, May, 2010, Staff Engineer, NASA Langley Research Center.
  24. "Geometrically explicit finite element modeling of AA7075-T651 microstructure with fatigue cracks", Michael Veilleux, August, 2010, Senior Member of Technical Staff, Sandia Livermore National Laboratory.
  25. "Microstructural Simulation of Fracture Processes in Cortical Bone", Erin Oneida, December, 2013 (expected).
  26. "Residual Strength of Damaged Aerostructures", Ashley Spear, NSF Graduate Fellow, May, 2013 (expected).
  27. "DDSim for Composite Structures", Brett Davis, May, 2013 (expected).
  28. "Geometrical Simulation of Complete Process of Microstructurally Small Fatigue Cracking", Albert Cerrone, December 2013 (expected).
-

# TAB 2



**EB-2012-0451**  
**EB-2012-0433**  
**EB-2013-0074**

**IN THE MATTER OF** an application by Enbridge Gas Distribution Inc. for: an order or orders granting leave to construct a natural gas pipeline and ancillary facilities in the Town of Milton, City of Markham, Town of Richmond Hill, City of Brampton, City of Toronto, City of Vaughan and the Region of Halton, the Region of Peel and the Region of York; and an order or orders approving the methodology to establish a rate for transportation services for TransCanada Pipelines Limited;

**AND IN THE MATTER OF** an application by Union Gas Limited for: an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Parkway West site; an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the Town of Milton; an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Brantford-Kirkwall/Parkway D Compressor Station project; an order or orders for pre-approval of the cost consequences of two long term short haul transportation contracts; and an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the City of Cambridge and City of Hamilton.

**BEFORE:** Cynthia Chaplin  
Presiding Member

Marika Hare  
Member

Peter Noonan  
Member

**DECISION AND ORDER ON COST AWARDS**  
**Issued on March 31, 2014 and revised on April 3, 2014**

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**Background**

Union Gas Limited ("Union") and Enbridge Gas Distribution Inc. ("Enbridge") filed three applications with the Ontario Energy Board requesting approval to construct major system expansion projects. The applications were filed separately, but the Board combined the proceedings and heard them together ("Combined Proceeding").

The Board granted intervenor status to a number of organizations and individuals, and authorized cost award eligibility to the following parties:

- Association of Power Producers of Ontario ("APPrO")
- Building Owners and Managers Association - Toronto ("BOMA")
- Consumers Council of Canada ("CCC")
- Council of Canadians ("COC")
- Canadian Manufacturers and Exporters ("CME")
- Energy Probe Research Foundation ("Energy Probe")
- Environmental Defence ("ED")
- Federation of Rental-housing Providers of Ontario ("FRPO")
- Green Energy Coalition ("GEC")
- Industrial Gas Users Association ("IGUA")
- London Property Management Association ("LPMA")
- Markham Gateway Inc. ("Markham Gateway")
- Mississaugas of the New Credit First Nation ("MNCFN")
- School Energy Coalition ("SEC")
- Six Nations Elected Council ("Six Nations")
- Vulnerable Energy Consumers Coalition ("VECC")

The Board previously determined that intervenors would track their costs for the related issues separately from the costs for the project-specific issues and that the applicants would share the costs for the related issues equally, and bear the project-specific costs individually.

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On January 30, 2014, the Board issued its Decision and Order, in which it set out the process for intervenors to file their cost claims, for Union and Enbridge to object to the claims and for intervenors to respond to any objections raised by Union and Enbridge.

The following eligible participants submitted cost claims: APPrO, BOMA, CME, COC, CCC, Energy Probe, ED, FRPO, GEC, IGUA, LPMA, Markham Gateway, SEC and VECC. Both Union and Enbridge responded to the claims. Enbridge noted that there was a wide variation in the hours claimed for the Enbridge portion of the Combined Proceeding. Enbridge requested that the Board take a “normalizing view” of the number of hours claimed in determining cost awards. Union raised concerns with respect to the number of hours claimed by BOMA and the allocation of costs between Union and Enbridge.

GEC responded that it had presented two expert witness reports, covering the demand side management aspects of the case and addressing the need for the pipeline components including, the pressure issues and electricity generation gas demand. GEC maintained that the scope of its evidence was broader than either COC or ED. GEC argued that the total hours, including witness hours, are proportionately in line with the other parties. GEC submitted that Enbridge’s suggestion of a “normalizing view” of the number of hours claimed, if taken without regard to the breadth, complexity, and intensity of interventions, would not result in a fair consideration of the intervenors’ cost claims generally, and it would not lead to a decision based on the facts.

COC responded that it sponsored evidence from three expert witnesses concerning the reliability and cost of supply of gas from U.S. shale deposits.

BOMA responded that it had incorrectly combined its hours for preparation and argument together under the heading “Preparation”. BOMA spent 119.2 hours on argument, reducing the preparation hours to 508.9, as opposed to the 628 hours quoted in Union’s letter. BOMA stated that the argument was long, substantial and integrated and addressed all the issues in the case in considerable depth. BOMA provided additional information on the breakdown of time spent on preparation, indicating the amount of time spent with respect to Enbridge, Union and the combined issues.

CME responded that “normalizing” the number of hours claimed by intervenors would be inappropriate and unfair. CME noted that different parties may have had substantially different levels of involvement, and some intervenors took a lead role on one or more issues while other intervenors did not do so. CME also noted that the level of cooperation in the Combined Proceeding was very high, and that the total hours or total costs claimed by an intervenor should not be used as a mathematical basis to “normalize” cost awards.

### **Board Findings**

The fee claims for the following parties are approved in full: CME, CCC, Energy Probe, ED, FRPO, GEC, IGUA, LPMA, Markham Gateway, SEC and VECC. The Board finds that the proposed allocations between Union and Enbridge are consistent with the Board’s previous determination and will be accepted.

The Board has determined that the fees claimed by APPrO, BOMA and COC are excessive and will be reduced.

APPrO claimed \$190,610 in fees and BOMA claimed \$264,106. Both of these intervenors represent ratepayer interests and neither sponsored expert evidence. These two cost claims can be compared with the cost claims of other similar intervenors, namely the many ratepayer groups active in the proceeding. Cost claims for ratepayer group intervenors for fees (not disbursements) varied between a low of \$35,000 for VECC and a high of \$264,106 for BOMA. The Board finds that the claims which fall in the range of \$35,000 (VECC) to \$160,814 (CME) are reasonable on two measures: (1) the level of involvement by each party in the various processes related to the hearing; and (2) the level of contribution to the Board’s understanding of the issues to be decided. The claims by APPrO and BOMA are outside the range of what the Board considers reasonable. The level of involvement by these intervenors and their contributions to the Board’s understanding of the issues in the proceeding were not significantly superior to those of the other ratepayer intervenors. Therefore, the Board will reduce each of these claims to \$160,000 to be allocated for payment between Union and Enbridge in the same proportions as claimed. This level is at the upper end of the range which the Board considers reasonable.

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COC claimed \$206,572, of which \$30,789 was claimed for the experts who provided testimony. The Board finds the claims for the experts to be reasonable. The balance of \$175,783 is claimed for legal fees, and is driven primarily by the 451 hours attributable to Mr. Shrybman. This claim can be compared to the claims by GEC and ED, which claimed 284 hours and 244 hours, respectively, for legal fees. Each of these three intervenors is a policy advocacy group and each sponsored expert testimony. In some respects, COC's scope was narrower than either GEC or ED. The Board finds that the claim for 451 hours by COC for senior counsel is excessive. The level of involvement by COC and its contribution to the Board's understanding of the issues in the proceeding was not significantly greater than GEC or ED. Therefore, the significantly higher number of hours is not justified. The Board will reduce the fees for COC to \$144,777. This level reflects a reduction in the hours claimed for senior counsel to 290 hours. This adjusted level will be allocated between Union and Enbridge in the same proportions as the original claim.

The disbursements claimed by APPrO, BOMA, CME, COC, CCC, Energy Probe, ED, FRPO, GEC, IGUA, LPMA, Markham Gateway, SEC and VECC are approved as filed with minor reductions for the following reasons: errors in HST/Summary of Fees and disbursements calculations; lack of receipts; and non-compliance with the government's *Travel, Meal and Hospitality Expenses Directive*. The Board finds that the adjusted disbursement claims of APPrO, BOMA, CME, COC, CCC, Energy Probe, ED, FRPO, GEC, IGUA, LPMA, Markham Gateway, SEC and VECC shall be reimbursed by Union and Enbridge in the same proportions as the original claim.

**THE BOARD THEREFORE ORDERS THAT:**

1. Pursuant to section 30 of the Ontario *Energy Board Act, 1998*, Enbridge Gas Distribution Inc. and Union Gas Limited shall pay to the parties the awarded costs in the amount as listed in Appendix A;
2. Enbridge Gas Distribution Inc. and Union Gas Limited shall each pay 50% of the Board's costs and incidental to, this proceeding immediately upon receipt of the Board's invoice.

**DATED** at Toronto, April 3, 2014

**ONTARIO ENERGY BOARD**

*Original Signed By*

Kirsten Walli  
Board Secretary



**Appendix A  
Decision and Order on Cost Awards**

**Enbridge Gas Distribution Inc. EB-2012-0451  
Union Gas Limited EB-2012-0433 & EB-2013-0074**

April 3, 2014

<b>Party</b>	<b>Enbridge pays</b>	<b>Union pays</b>	<b>Total</b>
Association of Power Producers of Ontario	\$ 83,137.67	\$ 80,768.07	\$ 163,905.74
Building Owners and Managers Association - Toronto	\$ 80,021.54	\$ 80,021.54	\$ 160,043.08
Canadian Manufacturers and Exporters	\$ 85,379.14	\$ 85,379.13	\$ 170,758.27
Council of Canadians	\$ 76,303.13	\$ 76,303.14	\$ 152,606.27
Consumers Council of Canada	\$ 68,054.25	\$ 34,306.80	\$ 102,361.05
Energy Probe Research Foundation	\$ 56,316.62	\$ 44,638.89	\$ 100,955.51
Environmental Defence	\$ 145,712.58	\$ -	\$ 145,712.58
Federation of Rental-housing Providers of Ontario	\$ 59,904.17	\$ 51,599.54	\$ 111,503.71
Green Energy Coalition	\$ 287,183.14	\$ 32,773.41	\$ 319,956.55
Industrial Gas Users Association	\$ 49,061.74	\$ 42,442.21	\$ 91,503.95
London Property Management Association	\$ 24,660.85	\$ 35,176.64	\$ 59,837.49
Markham Gateway Inc.	\$ 79,435.12	\$ -	\$ 79,435.12
School Energy Coalition	\$ 50,437.00	\$ 40,218.00	\$ 90,655.00
Vulnerable Energy Consumers Coalition	\$ 20,094.80	\$ 16,150.29	\$ 36,245.08

# TAB 3

**EB-2012-0451**

**EB-2012-0433**

**EB-2013-0074**

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** an application by Enbridge Gas Distribution Inc. for: an order or orders granting leave to construct a natural gas pipeline and ancillary facilities in the Town of Milton, City of Markham, Town of Richmond Hill, City of Brampton, City of Toronto, City of Vaughan and the Region of Halton, the Region of Peel and the Region of York; and an order or orders approving the methodology to establish a rate for transportation services for TransCanada Pipelines Limited;

**AND IN THE MATTER OF** an application by Union Gas Limited for: an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Parkway West site; an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the Town of Milton; an order or orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Brantford-Kirkwall/Parkway D Compressor Station project; an order or orders for pre-approval of the cost consequences of two long term short haul transportation contracts; and an order or orders granting leave to construct natural gas pipelines and ancillary facilities in the City of Cambridge and City of Hamilton.

**AFFIDAVIT OF STEVEN SHRYBMAN**

I, STEVEN SHRYBMAN, of the City of Toronto, in the Province of Ontario, MAKE OATH AND SAY:

1. I am a partner at the law firm of Sack Goldblatt Mitchell LLP and was retained to act as counsel by the Council of Canadians ("COC") in these proceedings. As such I have knowledge of the matters hereinafter deposed to.
2. In deciding the costs awards that would be made in these proceedings, the Board substantially reduced the COC's claim for costs on account of counsel's fee, finding that its claim was excessive.

3. In light of the Board's findings and comments on the COC account in relation to those submitted by the Green Energy Coalition ("GEC") and Environmental Defense ("ED"), I have reviewed the costs claims submitted by those interveners. As reflected by the table attached as Exhibit "A" to this affidavit, the difference in claims related to counsel fees arises primarily in respect of the time spent in preparation for the hearing.
4. As a comparison of the costs claims submitted by these three parties reveals, these differences are the consequence of the very different division of labour that existed between COC witnesses and its legal counsel, than was the case for GEC and ED. The reasons why that difference was reasonable and in fact necessary in the case of COC are explained below. However, when the overall time claimed for both experts and counsel are considered, I believe the comparison fairly reflects the number of expert reports adduced by the three parties, and the nature of that evidence.
5. Each of the experts retained by the COC was highly or even eminently qualified in their fields, but did not have prior experience giving evidence in a regulatory proceeding before the OEB, or any other regulatory tribunal. They were unfamiliar with the hearing process, the Board's filing system, and the modalities for presenting or responding to IRs. In the case of Professor Ingraffea and Mr. Hughes, constraints on their availability also played a factor in limiting the time they could devote to reviewing the record of the proceedings, assisting counsel to assess that record, formulating Information Requests and assisting Counsel with cross-examination. As the report prepared by Professor Ingraffea explicitly acknowledges, he relied upon Counsel's summary of the record rather than conducting his own review, and relied on counsel as well for his understanding of the Board's jurisdiction and mandate. The same was true in the case of Mr. Hughes and Ms. Sumi.
6. In contrast, I believe the experts retained by GEC all had prior relationships with their client and each had considerable prior experience with OEB proceedings, including those concerning natural gas utilities. ED's expert, while less familiar with the OEB, had extensive prior experience in various Ontario fora in respect of the evidence he adduced.

For these reasons, I believe, and the dockets show, they were able to function far more independently of counsel in carrying out their tasks than was true for the COC's experts who relied on Counsel to:

- i. review and summarize the applications;
- ii. provide relevant documents for their review;
- iii. prepare IRs to solicit information to support their analysis;
- iv. provide guidance concerning the parameters for their analysis in light of the Board's jurisdiction and mandate;
- v. review and comment on their draft reports;
- vi. assist with the preparation of, and to review and comment on the responses to IRs from the Applicants, which in the cases of Professor Ingraffea and Mr. Hughes, were extensive; and to make necessary logistical and travel arrangements.<sup>1</sup>

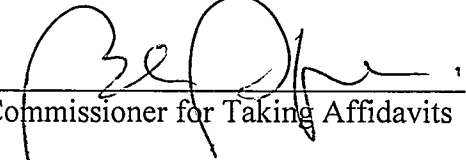
7. I also believe the ED and GEC experts would have clearly understood the parameters for, and relevance of the expert reports they prepared because these primarily concerned the role of DSM as an alternative to the system expansion projects, an issue that is often considered in respect of such undertakings. This was not the case for the COC experts, who were called upon to address issues that were novel in certain respects - namely, the regulatory and supply risks associated with shale gas supply (the development of which is very recent) to Ontario consumers from sources outside the province or country.
8. I believe that in the circumstances it was both necessary and efficient for counsel to play a greater role in providing support to COC experts and in taking on tasks that in the case of GEC and ED experts was unnecessary.
9. Notwithstanding the assistance I provided to the COC experts in respect of the preparation of their reports, each was instructed in respect of their obligation to provide

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<sup>1</sup> No cost claim was submitted by the COC in respect of the considerable assistance provided by administrative staff at my firm.

the Board with their independent and objectives views, and I believe they fully understood their responsibility in this regard.

SWORN before me at the City of  
Ottawa, in the Province of Ontario,  
this 17<sup>th</sup> day of April, 2014

  
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A Commissioner for Taking Affidavits

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STEVEN SHRYBMAN

# TAB 4



**uniongas**

A Spectra Energy Company

CELEBRATING  
100 YEARS  
Est. 1911

March 11, 2014

Ontario Energy Board  
2300 Yonge Street, Suite 2700  
Toronto, ON  
M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

**Re: EB-2012-0451 – Greater Toronto Area (“GTA”) LTC Project**  
**EB-2012-0433 – Parkway West Project**  
**EB-2013-0074 – Brantford-Kirkwall/Parkway D Project**  
**Union Gas Limited - Comments on Cost Claims**

Dear Ms. Walli:

Union Gas Limited (“Union”) has reviewed the cost claims of Association of Power Producers of Ontario (“APPRO”), Building Owners and Managers Association of Greater Toronto (“BOMA”), Consumers Council of Canada (“CCC”), Council of Canadians (“COC”), Canadian Manufacturers & Exporters (“CME”), Energy Probe, Environmental Defence, Federation of Rental-housing Providers of Ontario (“FRPO”), Green Energy Coalition (“GEC”), Industrial Gas Users Association (“IGUA”), London Property Management Association (“LPMA”), Markham Gateway, School Energy Coalition (“SEC”) and Vulnerable Energy Consumer’s Coalition (“VECC”) for the above noted proceeding. The cost claims for Union are summarized below by intervenor.

<u>Intervenor</u>	<u>Cost Claim to Union</u>	<u>Total Cost Claim</u>
VECC	\$ 16,227.53	\$ 36,399.58
GEC	\$ 32,815.03	\$ 320,195.01
CCC	\$ 34,306.80	\$ 102,361.05
LPMA	\$ 35,223.90	\$ 59,932.01
SEC	\$ 40,218.00	\$ 90,655.00
IGUA	\$ 42,442.21	\$ 91,503.95
Energy Probe	\$ 44,641.64	\$ 100,958.26
FRPO	\$ 51,635.94	\$ 111,567.04
CME	\$ 85,544.69	\$ 171,089.37
APPrO	\$ 95,871.28	\$ 194,583.77
COC	\$ 107,562.30	\$ 215,124.61
BOMA	\$ 165,287.93	\$ 264,153.83
<b>Total</b>	<b>\$ 751,777.25</b>	<b>\$ 1,758,523.48</b>



The cost claims of Environmental Defence and Markham Gateway were attributed entirely to Enbridge Gas Distribution (“EGD”).

Union observes that there is a wide range of cost claims for these proceedings. Union, however, is limiting its comments to the cost claim of BOMA. Union’s concerns with the BOMA claim relate to: 1) the number of hours claimed in relation to that of other intervenors; and 2) the allocation of the costs between Union and Enbridge.

### ***Magnitude of Hours Claimed by BOMA***

The BOMA cost claim included 628 hours for preparation for the combined projects. In Union’s view this is excessive. At 628 hours, BOMA’s hours of preparation are 27% higher than that of COC at 494 hours. Union notes that the hours of preparation for COC includes preparation time for consultants it retained to prepare intervenor evidence. BOMA did not retain any experts, nor did it call any evidence. Further, BOMA’s hours of preparations are 93% higher than that of CME, the next highest in hours claimed for preparation.<sup>1</sup>

### ***Allocation of Costs between Union and EGD***

In Procedural Order #2 at page 5, the Board determined that “intervenors will track their costs for the related issues separately from the costs for the project- specific issues. The applicants will share the costs for the related issues equally and be responsible for their own project-specific costs.” Union interpreted this determination by the Board to mean that in the absence of being able to directly attribute costs to projects, costs would be shared 50/50 between the applicants. BOMA has not taken this approach.

Both Mr Brett’s and Ms Fraser’s cost claims are submitted on a total combined basis for the projects. Union submits that these costs should be allocated 50/50 between Union and EGD as agreed to by parties and determined by the Board. In its cost claim, BOMA submitted additional spreadsheet backup for hours billed by Mr Brett allocated to each of the 3 applications. While broken out by project in these back up sheets, the vast majority of the hours billed do not appear to be specific to each project. Rather the hours are allocated equally between the 3 applications (1/3 to Parkway West, 1/3 to Parkway D/Brantford to Kirkwall and 1/3 to the GTA Project). This results in an overall allocation of approximately 2/3 to Union and 1/3 to EGD. In Union’s view this approach is not consistent with what was contemplated in Procedural Order #2 or with the cost claims

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<sup>1</sup> In preparing its cost claim APPrO did not separate costs between preparation and other activities. Accordingly, Union is not able to easily compare BOMA’s hours claimed to that of APPrO. The total hours claimed by APPrO was 569 which is less than the hours claimed by BOMA for preparation alone.

submitted by other parties. Further a 2/3 Union, 1/3 EGD split in costs without supporting documentation seems inconsistent with the constituency represented by BOMA i.e. the Building Owners and Managers Association of **Greater Toronto** (*emphasis added*).

Yours truly,

*[original signed by]*

Karen Hockin  
Manager, Regulatory Initiatives

Crawford Smith, Torys  
Mark Kitchen, Union Gas  
Edith Chin, Enbridge Gas Distribution  
*EB-2012-0451/EB-2012-0433/EB-2013-0074 Intervenors*

# TAB 5



500 Consumers Road  
North York, Ontario M2J 1P8  
PO Box 650  
Scarborough ON M1K 5E3

**Kevin Culbert**  
Senior Manager,  
Regulatory Accounting and Budgets  
Tel: 416-495-5778  
Fax: 416-495-6072  
Email: kevin.culbert@enbridge.com

March 11, 2014

**VIA RESS, EMAIL AND COURIER**

Ms Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street, 27th Floor  
Toronto, Ontario M4P 1E4

Dear Ms Walli:

**Re: Enbridge Gas Distribution Inc. GTA application  
Ontario Energy Board File Nos. EB-2012-0451  
(Combined hearing with Union Gas applications EB-2012-0433 and  
EB-2013-0074)  
Enbridge Comments on Intervenor Cost Claim Submissions**

Enbridge Gas Distribution Inc. ("Enbridge") has reviewed the cost claims from each of the following interested parties: Association of Power Producers of Ontario ("APPRO"), Building Owners and Managers Association ("BOMA"), Canadian Manufacturers & Exporters ("CME"), Consumers Council of Canada ("CCC"), Council of Canadians ("COC"), Energy Probe, Environmental Defence, Federation of Rental-Housing Providers ("FRPO"), Green Energy Coalition ("GEC"), Industrial Gas Users Association ("IGUA"), London Property Management Association ("LPMA"), Markham Gateway Inc. ("Markham Gateway"), School Energy Coalition ("SEC") and Vulnerable Energy Consumers Coalition ("VECC").

Enbridge has reviewed the claims in comparison to the allowances of prescribed rates within the cost assessment guidelines and finds they are within acceptable tolerances. Enbridge notes however, that there is a wide variation in submitted hours (please see table attached) with respect to claims on the Enbridge portion of the combined application process. Given the variance in hours claimed by intervenors, Enbridge has provided this analysis to inform the Board of this disparity and believes the Board should take a potential normalizing view of the number of hours claimed into consideration in determining eventual cost awards. Enbridge awaits the Board's cost awards and reserves the right to make submissions regarding any outstanding intervenor cost submissions which are subsequently received.

March 11, 2014  
Ms. Kirsten Walli  
Page 2

Yours Truly,

*(Original Signed)*

Kevin Culbert  
Senior Manager,  
Regulatory Accounting and Budgets

cc: APPrO, BOMA, CCC, CME, Energy Probe, Environmental Defence, FRPO, GEC,  
IGUA, LPMA, Markham Gateway Inc., SEC, and VECC (via email only)

March 11, 2014  
Ms. Kirsten Walli  
Attachment

Summary of time spent by Intervenors

Intervenor	Hours Claimed (EGD <sup>1</sup> )	Hours Claimed (Total <sup>2</sup> )
VECC	56.8	102.4
LPMA	63.2	154.5
FRPO	151.5	285.0
IGUA	151.6	280.8
CCC	182.5	274.5
Energy Probe	192.3	339.1
SEC	256.6	457.7
CME	259.3	518.5
Markham Gateway	260.4	260.4
BOMA	265.0	708.3
APP <sub>r</sub> O	288.0	569.4
COC	307.8	615.6
Environmental Defence	656.0	656.0
GEC	991.8	1083.1

<sup>1</sup>EB-2012-0451

<sup>2</sup>EB-2012-0451 and EB-2012-0433 and EB-2013-0074

# TAB 6

**Sack Goldblatt Mitchell LLP *Avocat(e)s/Lawyers***

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Our File No. 13-840

March 12, 2014

**Via E-mail**

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge St., 27th Floor  
Toronto, ON, M4P 1E4

Dear Ms Walli:

**Re: COC Costs Claim in EB-2012-0451/0433/0074 "GTA pipeline cases"**

We are in receipt of the comments of Enbridge and Union in regard to cost claims received in the above-noted matter. We also have Mr. Poch's letter of this date and we share his concerns.

As the Board will know, the COC adduced evidence from three expert witnesses concerning the reliability and cost of supply of gas from U.S. shale deposits. Accordingly, the hours claimed tally offered by Enbridge includes the time spent by counsel, COC experts and by our students (who bill at a more modest rate.)

As for the total cost claim tally provided by Union Gas we only note that this claim includes travel disbursements for our experts, two of whom travelled some considerable distance, to attend the hearing for cross examination. It also includes the costs of having to cancel flights when at the last minute the hearing needed to be rescheduled (one of our experts was in transit from British Columbia).

Please feel free to contact me should any further clarification be required.

Yours very truly,



Steven Shrybman  
SS/aaq



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12 March 2014

Ontario Energy Board  
2300 Yonge St., 27<sup>th</sup> Floor  
Toronto, ON, M4P 1E4

Attn: Ms Kirsten Walli, Board Secretary

Dear Ms Walli:

**Re: GEC Costs Claim in EB-2012-0451/0433/0074 "GTA pipeline cases"**

We are in receipt of the comments of Enbridge and Union in regard to cost claims received in the above-noted matter. We note that Union has raised a specific concern with BOMA's claim but has no specific comments about GEC's claim. Enbridge has not raised any specific concern in regard to GEC's claim. However, both Union and Enbridge have asked the Board to consider the wide range of claims made and Enbridge has suggested that "the Board should take a potential normalizing view of the number of hours claimed into consideration in determining eventual cost claims."

While the utilities have not specifically challenged GEC's claim, we are concerned that the manner in which the cost claim data has been presented could lead to a misconception about GEC's claim. In short, both Enbridge's tabulation of total hours and Union's tabulation of total dollars ignore the fact that GEC was one of the few intervenors presenting expert evidence, it brought forward two expert groups covering distinct matters, and both GEC's evidence and argument addressed a wide range of the issues before the Board.

Despite being one of only three intervenors that offered expert witness evidence and being one of the few parties that raised concerns about the entire Enbridge project in both cross and argument, GEC's counsel hours totalled only 284.25 which is comparable or lower (in some cases significantly lower) than the total hours of other intervenors that offered no evidence, such as IGUA (280.8), CCC (274.5), FRPO(285.0), Energy Probe(339.1), SEC(457.7), CME(518.5) etc..

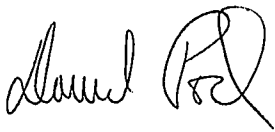
GEC presented two expert witness reports covering both the DSM aspects of the case and addressing the need for the Enbridge pipeline components (and to a lesser extent the Union components) including a review of the pressure issues, the electricity generation gas demand aspects etc.. COC's experts' reports addressed the contextual issues of fracking gas availability and impact, which did not require them to deal with the breadth and details of the utilities' applications. ED's experts dealt with a subset of the DSM issue (and worked with GEC's expert that provide avoided costs). GEC's total hours, including witness hours, are proportionately in line with these other parties that brought evidence before the Board, given that GEC filed

evidence in two distinct areas and particularly in light of the fact that the evidence of Resource Insight Inc. required our experts to digest virtually the entire case of the utilities.

Accordingly, while we agree that a comparison of claimed hours or dollars is a reasonable consideration for the Board, we submit that Enbridge's suggestion that the Board consider a "normalizing view of the number of hours claimed" if taken without regard to the breadth, complexity and intensity of interventions, would not result in a fair consideration of the claims of intervenors generally, or of GEC's claim specifically, and it would not lead to a decision based on the facts. We hope that the added comparisons discussed above will assist the Board in its consideration of the claims.

Please feel free to contact the writer if further clarification is required.

Sincerely,

A handwritten signature in black ink, appearing to read "David Poch". The signature is written in a cursive style with a large, stylized initial "D" and "P".

David Poch  
Cc: Enbridge and Union