

ONTARIO ENERGY BOARD

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| FILE NO.: | EB‑2014-0299 |  |
| VOLUME:  DATE:  BEFORE: | 1  January 16, 2015  Ken Quesnelle  Cathy Spoel | Presiding Member  Member |

**EB-2014-0299**

THE ONTARIO ENERGY BOARD

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

**AND IN THE MATTER OF** an application by Greenfield South Power Corporation for a certificate of public convenience and necessity, pursuant to section 8 of the Municipal Franchises Act, R.S.O. 1990, c. M. 55.

Hearing held at 2300 Yonge Street,

25th Floor, Toronto, Ontario,

on Friday, January 16th, 2015,

commencing at 9:02 a.m.

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VOLUME 1

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BEFORE:

KEN QUESNELLE Presiding Member

CATHY SPOEL Member

MAUREEN HELT Board Counsel

ZORA CRNOJACKI Board Staff

MIKE RICHMOND Greenfield South Power Corp.

LAURA BRAZIL

CHARLES KEIZER Union Gas Limited

MARK KITCHEN

PAT McMAHON

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Friday, January 16, 2015

### --- On commencing at 9:02 a.m.

MR. QUESNELLE: Good morning, everyone. Please be seated.

The Board sits today on the matter of an application by Greenfield South Power Corporation for a certificate of public convenience and necessity. Greenfield's application is made to the Board under section 8 of the Municipal Franchise Act and was filed on September 18th, 2014.

The Board granted intervenor status to Union Gas Limited and Ontario Power Authority. A notice of application was issued September 26th, 2014 and was served and published as the Board directed.

The Board issued Procedural Order No. 1 on October 28th, 2014, establishing an issues list and setting the timeline for a written discovery process, including opportunity for intervenors and Board Staff to file evidence.

An interrogatory process on evidence filed by both Greenfield and Union respectively has been conducted.

The purpose of today's hearing is to allow for further testing of the evidence and to hear final oral submissions. The Board has allowed for cross-examination of witnesses this morning in response to a request from Union.

My name is Ken Quesnelle, and I will be presiding over today's hearing, and with me on the Panel is Board member Cathy Spoel.

I will now take appearances.

# Appearances:

MR. RICHMOND: My name is Mike Richmond from McMillan, representing Greenfield South.

MR. QUESNELLE: Mr. McMillan, good morning.

MR. RICHMOND: Good morning.

MS. BRAZIL: And I am Laura Brazil, also for Greenfield.

MR. QUESNELLE: Okay. Yes, the microphones -- one button will turn off both mics.

MS. BRAZIL: So also on for Greenfield South.

MR. QUESNELLE: Thank you.

MR. KEIZER: Charles Keizer, counsel on behalf of Union Gas Limited. With me is Mr. Mark Kitchen and Mr. Pat McMahon, both from Union Gas.

MR. QUESNELLE: Mr. Keizer, good morning.

MS. HELT: Good morning. Maureen Helt, counsel with the Board, and with me, Zora Crnojacki, who is the case manager for this matter.

MR. QUESNELLE: Okay. Thank you very much, Ms. Helt.

Okay, Mr. Keizer, we are going to deal with some evidence that was filed last evening. We will ask Mr. McMillan if you have any -- Mr. Richmond, if you have any other preliminary matters that you would like to discuss first.

# Preliminary Matters:

MS. BRAZIL: Good morning, members. My name again is Laura Brazil, and I am on for Greenfield South. You may know that we received this supplementary evidence from Union at 5:35 last night, so we necessarily had a very limited opportunity to review it and practically no opportunity to work with our client to gather responding materials and become informed about the steps that our client took in respect of the allegations that were made in that material.

Our position is that, given this extremely late filing, that that material really should not be considered by the Board. We haven't had any of the opportunities that were afforded to both parties in respect of the other evidence that was filed in this matter.

But in any event, we recognize that the Board may wish to consider it, and we would like to propose that our client be given an opportunity today to respond to some of the allegations that were made in the supplementary evidence.

So our proposal would be that we have our client, Mr. Gregory Vogt, provide some direct evidence prior to beginning the cross-examination, so we will just ask no more than 20 or 30 minutes of questions, and given the limited time, we have located some responding material that we have printed in hard copy. We have brought a copy for everyone that's represented today and participating in the hearing, so we would propose to work through that material with our client and just rely on the hard copies that we have brought today.

MR. QUESNELLE: Thank you. Well, thank you for that, Ms. Brazil. I will consider that, but I would like to hear from Mr. Keizer.

Mr. Keizer, the cover letter of the evidence that was submitted last night, you provided the supplemental evidence on behalf of Union to assist the Board's deliberations. I wonder if you could just tell us how you feel that this evidence would assist us in our deliberations on the matter that we have before us today.

MR. KEIZER: Effectively what the evidence says is that the section 8 of the Municipal Franchises Act is that a certificate is required to construct works to supply gas. The evidence shows that the pipe in question with respect to this particular facility that is actually the subject nature of the certificate has been constructed, has been constructed within the proximity of Vector for purposes ultimately of carrying out that connection once the work is done between Vector and this particular pipe.

So I guess for two things for your deliberation. One, it would be our submission that the construction of the pipe without a certificate is effectively a breach of the act and therefore is a matter of non-compliance with respect to the Municipal Franchises Act, given the fact that in order to construct the work you have to actually have a certificate.

Secondly, the second issue is obviously the subject matter of this proceeding is the actual construction of works, and so therefore, the fact that someone has constructed the work in question is a fairly material fact with respect to the proceeding and therefore should form part of what the Board considers with respect to whether it should grant a certificate or not in light of the circumstances that brought about the pipe's creation, as well as the timing of its creation and the manner in which it was created.

So I think all of those things make it relevant to your deliberations. In Union's mind, it was only information with respect to my friend's concerns about timing. Union only was aware or became aware of the circumstance based on the evidence on January 14th. They then went, based upon their obligations as an operator of Vector Pipeline, because they do carry on that obligation, and they also have adjacent pipelines to investigate the situation yesterday to confirm what had happened and what was going on with respect to the site, and so it was only after that fact-checking was done, given the fact that the our view is because it's a non-compliance issue it's a serious matter and therefore the facts had to be confirmed to be what they were.

Those facts were confirmed through the morning, into the afternoon. Once it was understood what we believed and what Union believed the situation to be, the evidence was prepared and filed.

That is the nature of why the timing was what it was. It wasn't for any other reason other to ensure that the situation was correct and understood.

The other reason -- and I think, you know, even if you go back to the Greenfield Energy Centre case, where the certificates were actually considered, in that case it's very clear that in this situation the construction of this pipe is in breach of the act, given the fact that that case says there is two things that involve this certificate in this situation.

One is that you actually are constructing a work, because the legislation used to be a certificate to supply gas and to construct work, but now it is simply to construct work. It has been -- the act was amended in advance, actually, of that case in Greenfield Energy Centre to only relate to the construction of the work.

And actually, as referenced in that case, it's recognized that not every circumstance would have a leave to construct, but every circumstance would have a certificate, so the Board has to check as to where pipelines go.

The second matter is that a certificate is also required even where you serve yourself, which was the key fact within the Greenfield case.

So our view on why it's important for your deliberations is for those reasons. It is a breach, and it is also relevant because it is the actual work that we are here today to actually consider.

With respect to the timing, I have given you indications with respect to that. I don't think my friend is asking for an adjournment. If they are, well, we obviously oppose any form of adjournment.

The concern with respect to putting additional information in, we have not seen the information that they will be putting to their witnesses through direct evidence. We will be seeing it at the same time as you. That may leave us in a position where we would have to request that we be able to put our witness forward to the extent that there’s anything in the direct evidence that would need to be responded to, and we would obviously ask for leave in respect of that at that time having heard the evidence.

We do have, today, as well, present one of the people who did visit the site who would be able to speak to the evidence that we filed yesterday.

MR. QUESNELLE: Thank you, Mr. Keizer.

I just have to ask Ms. Helt: Does Board Staff have any submissions on this matter?

MS. HELT: Yes. Thank you, Mr. Chair.

The first thing is just by way of housekeeping. I do have additional hard copies of the letter filed by Torys last night with the updated evidence. Do the Panel require a copy?

MR. QUESNELLE: We have copies here. Thank you.

MS. HELT: Right. I think it may be helpful and useful for the record to mark it, however, as an exhibit so that, when one is looking at the transcript, they can see that it’s the letter from Torys dated January 14th, 2015, and if we can mark that as Exhibit K1.

EXHIBIT NO. K1: Letter from Torys dated January 14, 2015

MR. QUESNELLE: Thank you.

MS. HELT: With respect to the comments made by both Union and Greenfield, I would agree with what Mr. Keizer has set out in terms of the relevance of this being perhaps one of whether or not there has actually been any breach of any enforceable provision. It may be the case that it is; it may be the case that it isn't, but that is not something I would say is up to this Panel to determine. The Board has been made aware of this allegation now, and it can be dealt with through the appropriate complaints procedure whereby the complaint is the subject of an inspection where Greenfield would have an opportunity to respond to the particular allegations and a full inspection completed with respect to this matter.

In terms of how it bears on today's proceeding, I’m not quite sure other than with what Mr. Keizer indicated: It is the very subject matter of this proceeding, the construction of the works.

I’m not aware of how this would impact your determination today with respect to whether or not a certificate ought to be granted based on the considerations that this Board has considered in other proceedings with respect to whether or not it is in the public interest to construct the work based on a number of various criteria.

It may be something that the Board can be aware of and give it whatever weight it deems appropriate, but in terms of the actual, specific test as to whether or not a certificate ought to be granted, it's Board Staff's submission that the construction of the work, be it a compliance matter or not, is not necessarily relevant to your deliberation in that regard.

MR. QUESNELLE: Thank you, Ms. Helt.

Mr. Richmond.

MR. RICHMOND: Thank you, Mr. Chair.

So I apologize. Now that we understand where counsel for Union is going with this -- and we frankly had no clue until he spoke now, but now that we are aware of the intent of the supplementary evidence, I would say a couple of things.

First of all, it’s a bit interesting that he would suggest that, if we were to put up some responding evidence, he would need time -- he would want an adjournment and need time to review it when the evidence that we are responding to was delivered to us after business hours last night. We have had literally zero business hours to review it. And he has said just this morning that we don't deserve an adjournment to review it, so just in terms of the consistency there is interesting.

We are prepared to proceed with zero minutes to review his evidence, and I think that should go both ways.

Secondly, in terms of the proper forum, I agree with Board counsel. Now that I understand now that the purpose of this is to suggest that there has been a contravention of the act, I agree this is not the forum for a complaint about a contravention of the act. This is a forum for a decision or whether a certificate should be granted and whether it’s in the public interest.

The suggestions that counsel, my friend, has put forward are of a legal nature, not of a factual nature, and, therefore, it may not be necessary for our witness to respond because he would be responding to factual issues.

We would be prepared to respond to the legal issues. If this Panel determines that it has jurisdiction, then I would suggest the proper response to that would be, in our legal submissions, we will respond to that legally. As counsel, I would do that, but, again, I agree with Board Staff: This is not the forum. This Panel doesn't have jurisdiction to rule on a complaint about a violation of a provision of legislation.

This is a Panel determined -- that has been established to determine whether a certificate should be granted, yes or no.

MR. QUESNELLE: Thank you, Mr. Richmond.

Mr. Keizer, this is your client's evidence, so if you have any more submissions, I will hear them now.

MR. KEIZER: I do. Well, first of all, I don't think it should be a surprise as to why the nature of the information was provided, since at the second page of the evidence -- the second paragraph, we say that and clearly state what the act says, which is that no person shall construct any works to supply natural gas in a municipality without approval of the Board. That’s the nature of what the evidence is about, and that’s clearly stated in the evidence that we filed.

With respect to the fact that we should proceed on with and ignore that this situation has happened, I don't agree with those submissions.

You are the Ontario Energy Board. You administer the Ontario Energy Board Act. You administer the Municipal Franchise Act, and the very aspect that you are considering today is whether or not a certificate should be granted to this particular party to construct a work. In our view, the fact that they have actually pre-empted the Board and constructed the work is a directly relevant fact, since I don't know how you can actually issue a certificate to a party who is in breach of the act for the very aspect that they seek approval for.

And I don't know how you can disregard the fact that there is a breach of the act or to not take it into account when you are making a decision as to whether to issue or to not issue a certificate.

And, in fact, if you make a deliberation today with respect to that certificate, what you effectively will do is remedy the breach without ever having considered the facts associated with the breach.

So in my mind, it is a directly relevant fact because the words of the legislation are clear and the precedent is clear with respect to whether or not the fact should be considered. It's not a provision in the act, and it's not a provision in the OEB Act. Go ahead and construct your work. Take a risk. We may not find out about it, or if we do, we may not consider it. It's okay. I haven't seen that provision in the legislation.

So with respect to the importance of it, I believe that it should be considered.

With respect to my friend's view about an adjournment, I didn't say I would want an adjournment. What I had indicated was I had not seen the documents that he had yet -- was going to put to his witness if we actually hear this matter and that, to the extent that I needed to, I would -- because I have someone here today, I would call somebody to, you know, put a witness forward to respond in direct if necessary.

It may be that it's not going to be necessary, but I would ask to reserve my right in that regard to ask for that based upon the evidence that we ultimately do see, but I don't want an adjournment. We are here today to deal with the matter. We are here today to deal with it in one day, and I would like to -- and I will try my absolute best to move as efficiently as possible to make that happen.

MR. QUESNELLE: Thank you, Mr. Keizer.

We will take a short recess. The Panel will deliberate on this and return shortly with a ruling on the issue before us and determine how we are going to conduct ourselves today. Thank you.

### --- Recess taken at 9:22 a.m.

### --- On resuming at 9:30 a.m.

MR. QUESNELLE: Thank you. Please be seated.

# DECISION

The Panel has come to a conclusion that we will carry on today. The evidence that was filed by Union yesterday is noted by the Board.

This Panel is not authorized to deal with issues of compliance. This Panel intends to hear the evidence as it originally anticipated and make a ruling on the granting of a certificate. The matters of potential breach will be reviewed by the compliance department of the Board, and that process will carry on independent of what we do here today. Okay?

Okay. With that, Mr. Richmond, you have -- I believe the intent was to have your witness up and available for cross-examination by Union, as requested by Union.

MR. RICHMOND: Yes, Mr. Chair. I believe we are going to start with Mr. Todd.

MR. QUESNELLE: Okay. Good morning, Mr. Todd. We will have Mr. Todd affirmed, Mr. Richmond, at this point.

# GREENFIELD SOUTH POWER CORP. - PANEL 1

**John Todd, Affirmed.**

MR. KEIZER: Excuse me, Mr. Chair, is that the only panel that Greenfield South is putting forward, is Mr. Todd?

MR. RICHMOND: No, Mr. Vogt is here from Greenfield as well.

MR. KEIZER: So will they be sitting as a panel or independently?

MR. RICHMOND: We had envisioned them speaking independently, as there seem to be different issues addressed, but...

MR. KEIZER: I mean, it would be more efficient if we just -- I mean, I intended to cross-examination them as a panel, as typically would be done. I guess my friend can do direct independently, but if -- with your leave, we would like to be able to cross-examine Mr. Todd and Mr. Vogt as a panel.

MR. QUESNELLE: Thank you, Mr. Keizer.

Mr. Richmond, any --

MR. RICHMOND: A moment, Mr. Chair?

MR. KEIZER: Certainly, yes.

MR. RICHMOND: Mr. Chair, so we had understood that they were being called for different purposes, that Mr. Todd was being questioned on his expert report and then Mr. Vogt was being questioned on -- was asked to appear to talk about storage and transportation issues. Neither one of them is capable of discussing the other. Mr. Vogt can't discuss Mr. Todd's expert report. He is the only author of that report, and vice versa; Mr. Todd is -- can't discuss the transportation and storage plans for the plant, which is why we envisioned them to be separately, because they're here to discuss separate issues.

We are not averse to putting them together if that makes sense to the Panel. That's fine. I am just explaining to you why we envisioned it this way, but we are open to your discretion.

MR. QUESNELLE: Okay. Thanks, Mr. Richmond.

Mr. Keizer, I take it you've crafted your cross that you are going to be dipping into each subject matter as you go through? Is that your intent?

MR. KEIZER: Yes, I am.

MR. QUESNELLE: For that reason then perhaps we can have both witnesses at the same time. It may be more efficient. Thank you.

**Gregory Vogt, Affirmed.**

MS. BRAZIL: So members, before the cross-examination begins, I believe that there was some provision made for us to just settle in the witnesses and ask them introductory and background questions, so with your permission I propose to do that now.

MR. QUESNELLE: Please do.

# Examination-In-Chief by Ms. Brazil:

MS. BRAZIL: I will start with Mr. Todd, and Mr. Todd, I'm going to make reference to the evidence that you prepared in your expert's report. I am just going to turn to tab A, which is your CV. Hopefully you -- do you have a copy available?

MR. TODD: Yes.

MS. BRAZIL: So I am just at tab A of your evidence. And Mr. Todd, I understand that you received an electrical engineering degree in 1972?

MR. TODD: You didn't have to mention the date, but, yes.

MS. BRAZIL: And also an MBA in economics and management science from the University of Toronto?

MR. TODD: Correct.

MS. BRAZIL: And that was in 1975.

MR. TODD: Yes.

MS. BRAZIL: And so after graduation you worked as a research officer with the Ontario Economic Council?

MR. TODD: That's correct.

MS. BRAZIL: And what was your position there?

MR. TODD: My recollection of those decades ago is research officer.

MS. BRAZIL: Okay. And then in 1980 you founded Econalysis Consulting Services Inc.?

MR. TODD: Yes.

MS. BRAZIL: And what was your position there?

MR. TODD: President.

MS. BRAZIL: And what kind of responsibilities did you have in that role, briefly?

MR. TODD: When it was first set up it was a one-man consulting firm, so I made the coffee and I did the consulting work.

MS. BRAZIL: So overall you have had over 35 years of experience in the energy sector.

MR. TODD: No, I started doing energy proceedings from a regular perspective in 1990. I have done regulatory work for over 35 years, and my work at the Ontario Economic Council, I was responsible for research in the area of regulation, so it really goes back to '76, '77.

MS. BRAZIL: I just have two more questions for you. First, is it true that you have given expert evidence in over 100 hearings nationwide?

MR. TODD: Yes.

MS. BRAZIL: And I just ask you before we continue on whether you adopt the evidence that you have filed in your expert report today and whether there is any corrections that you need to make or whether you stand behind what you have already submitted.

MR. TODD: I adopt the evidence and in the subsequent aspects of proceeding, IRs and additional evidence, there are corrections that have been made. A couple of typographical errors and numbers were identified, and the numbers have evolved as new information has come forward.

MS. BRAZIL: Thank you.

Mr. Vogt?

MR. VOGT: Yes.

MS. BRAZIL: I would just like to ask you a few introductory questions as well, just a little bit about your background.

So you appear today on behalf of Greenfield, the applicant in this matter.

MR. VOGT: That's correct.

MS. BRAZIL: And I understand that you also have a degree in applied science?

MR. VOGT: In engineering; that's correct.

MS. BRAZIL: Yes. And you are a professional engineer?

MR. VOGT: I am.

MS. BRAZIL: And that you have had over 25 years of experience in the energy sector.

MR. VOGT: I have.

MS. BRAZIL: IN 1986 is it true that you helped found Eastern Power?

MR. VOGT: I did.

MS. BRAZIL: And that's an affiliate of the representative -- or of Greenfield.

MR. VOGT: Eastern and Greenfield are affiliated; that's correct.

MS. BRAZIL: Thank you.

So what is your current position at Greenfield?

MR. VOGT: I am president.

MS. BRAZIL: And what type of responsibilities do you have as president of Greenfield?

MR. VOGT: Senior management responsibilities. I -- ultimately the buck stops on my desk. All the senior engineers report to me, senior managers report to me as well.

MS. BRAZIL: Mr. Vogt, have you had an opportunity to review all of Greenfield's evidence that was submitted in this matter?

MR. VOGT: I have.

MS. BRAZIL: Do you adopt that as being true?

MR. VOGT: I do.

MS. BRAZIL: Thank you. We don't have any further questions.

MR. QUESNELLE: Okay. Thank you very much, Ms. Brazil. Mr. Keizer?

# Cross-Examination by Mr. Keizer:

MR. KEIZER: Thank you, Mr. Chair.

Can I start first with your, I guess it's the original filed evidence of Greenfield at tab 34. Do you have that, Mr. Vogt?

MR. VOGT: I don't, no.

MR. KEIZER: Maybe your counsel can provide you with the evidence.

MR. QUESNELLE: Mr. Keizer, I believe that you had put together a compendium. I believe --

MR. KEIZER: Yes, it's actually -- this part is not in the compendium.

MR. QUESNELLE: Oh, okay.

MR. KEIZER: What the compendium holds -- and I will deal with this -- maybe I can deal with this right now, actually. I should have dealt with it at the outset, I apologize. The compendium that I produced actually -- and I can deal with it as we go through -- is various pieces of information that are available to the public except for one, which is a calculation which was provided, but the rest of this actually appears either on public websites or otherwise, which I may refer to, but it's not material that necessarily appears within the filing of the evidence currently.

MR. QUESNELLE: Thank you. Understood. Okay. Shall we give that compendium an exhibit number at this point, Ms. Helt?

MS. HELT: Yes. And do members of the Panel have a copy of the compendium?

MR. QUESNELLE: We do not. Or do we? Oh, perhaps we do.

MR. KEIZER: You have the compendium?

MR. QUESNELLE: Yes, yes.

MS. HELT: Yes? Okay. And we will mark that the compendium of Union, Exhibit K2.

EXHIBIT NO. K2: Cross-examination Compendium of Union

MS. SPOEL: Mr. Keizer, you were referring to tabs in the evidence, but we don't seem to have tabs in ours. We have tabs but they don't go into numbers that are that high. There was various.

MR. KEIZER: Well, in the original material that was filed by Greenfield South by way of, I believe, a letter which is -- or maybe it's the supplementary material. I apologize. It's material filed as of November 5th, 2014, and attached to that, I think, which is a continuation of the tabbed material which was originally filed in September of Greenfield, there is one document that I have which has a series of tabs, and then there is the supplementary material that was filed in November.

At the time it was filed, they actually had tabs for each of the documents, so that's what I was referring to actually.

MS. SPOEL: Okay. Yes. Our copies don't seem to have tabs, but there are appendices and various things, so --

MR. KEIZER: Yes, sorry. So it's appendix 34, page 1 of 2.

MS. SPOEL: Oh, okay. Great. Thank you.

MR. KEIZER: No problem. I will refer to it as appendices from now on.

Do you have that, Mr. Vogt?

MR. VOGT: I do.

MR. KEIZER: That document that's at tab 34 is a letter which is from Vector Pipeline to Eastern; is that correct?

MR. VOGT: That's correct.

MR. KEIZER: And as you indicated in your direct examination, Eastern Power is an affiliate of Greenfield; correct?

MR. VOGT: That's correct.

MR. KEIZER: And so, although the letter is directed to Eastern, this sets out the offer of service by Vector to Greenfield; is that correct?

MR. VOGT: That's correct.

MR. KEIZER: And it reflects the commitment of Vector to Greenfield; would that be fair?

MR. VOGT: That's fair.

MR. KEIZER: In the letter there are two services that there is a commitment to give. One is a firm hourly service, FT-H, and the other is operational variance services; correct?

MR. VOGT: There is an FT-H and an OVS service provided, yes. There is also a section on interconnection facilities.

MR. KEIZER: Right. And so if I go down further into the paragraph, which I guess is really the third paragraph down, it starts with "FT-H service allows a shipper"; do you see that?

MR. VOGT: Yes, I do.

MR. KEIZER: Midway through the paragraph, there is a statement that says:

"There are two main requirements for this service."

And one is the receipt and delivery volumes need to be equal and synchronous for each hour, and you would understand that to be the nature of the service that Vector would be able to provide under FT-H; is that correct?

MR. VOGT: That's correct.

MR. KEIZER: So I think what that means, then, is that there needs to be a matching between what's delivered by Greenfield to Vector, in other words delivered to a receipt point, and then what Vector would actually drop off or deliver to Greenfield.

MR. VOGT: That's correct.

MR. KEIZER: And then it says that:

"This demands that Eastern contract with a third-party storage provider that has a service that will match up to FT-H."

And so, as a result, effectively, storage is an essential service, then, for Greenfield if it's going to be able to operate under the Vector commitment; is that correct?

MR. VOGT: Certainly storage is a requirement to make this all work, yes.

MR. KEIZER: Well, it's effectively a condition of obtaining service; correct?

MR. VOGT: Yes. It states under the FT-H you do need to have storage, yes.

MR. KEIZER: But probably to operate your plant, you would have to say that, likely, storage is essential whether you took service from Vector or Union.

MR. VOGT: Or some other mechanism to make sure that you do meet the requirement that FT-H demands that you do have the amount of gas put in and taken out that balance every hour.

MR. KEIZER: So some requirement in addition to storage or some requirement other than storage?

MR. VOGT: I guess the comment is that the primary requirement is to create that balance. If you can create that balance and you can do it without storage, then I think -- or certainly our discussions with Vector is that they are good with that. Like, that's the issue that they have, but they clearly see that storage is a way to accomplish that, and certainly we have adopted the position that we will be availing ourselves of some storage, as others have done in the industry.

MR. KEIZER: So it would be in addition to the storage that you have?

MR. VOGT: I didn't follow that comment.

MR. KEIZER: Or an addition that you would contemplate in contracting for?

MR. VOGT: I didn't quite understand the question.

MR. KEIZER: Well, your comment was that you might have some other way to avoid using storage, and I guess my comment was: Is that a substitute entirely for storage or that you would actually be using storage, but you may use other mechanisms?

MR. VOGT: The requirement to balance is the primary requirement. As Vector has indicated, storage is one way that you can balance that. There has been, of course, a lessening of this requirement in the OVS service that's then provided. So whereas they say that you have to balance every hour, then the OVS storage basically says but not really.

MR. KEIZER: So that would avoid you using storage because you use OVS. Is that what you are saying?

MR. VOGT: Certain under certain circumstances where you are within the amount of OVS that you have, yes, you would not need storage if the OVS was sufficient to get you there.

MR. KEIZER: Do you know of any other generator in the province that doesn't use storage?

MR. VOGT: I'm not aware of generators that -- I'm not intimately familiar with all of the products that they use and don't use. I know, for instance, that, at our other facilities, which are contracted differently, we don't use storage, for instance, at our Keele Valley facility, for instance.

MR. KEIZER: Are they 300-megawatt facilities?

MR. VOGT: No.

MR. KEIZER: And they are not under a CES contract?

MR. VOGT: They are not.

MR. KEIZER: And so any other generator that you are aware of that's under a CES contract -- which is a clean energy supply contract through the OPA -- that they would use storage?

MR. VOGT: I think they all have -- certainly any of the ones that we have looked at have used storage and we have tried to understand how much storage they use and how well that works.

MR. KEIZER: Because, without storage, you would have to have gas there, because if you were called upon to run or in the event you had a dispatch instruction from the IESO or if you had a potential, as you highlight in your evidence, some kind of exposure to a financial penalty, you would want gas there.

MR. VOGT: I think generally the concepts that you are describing are correct. I think in certain circumstances you would attempt for that, but, yes, I think the general concept is you want to balance up every hour using the allowances that you are allowed under OVS as well as any flexibility that you get the way that -- in terms of your run profile allows.

MR. KEIZER: And then, if the OVS provisions were exhausted, then you would then look to some other alternative, or you would then look to storage? Because the OVS doesn't last forever; right? I'm looking at page 2 where it actually talks about that, you know, you have got -- the hour hourly variance quantity is either 1,000-gigawatt hours per hour for up to five hours, or you have got basically 5,000 GJs per day. So it's not infinite.

MR. VOGT: It's more like 10 because you get to go over and under, so you get to have some nice swing on that. It's a very nice feature, the OVS. So it lets you -- for instance, if you do get a call and you think you are going to be running that day, you can actually start flow gas even though you are not burning any gas. It's a very nice feature that this particular service has, and we found it so attractive. I think other CS contract holders have found it attractive as well.

MR. KEIZER: But that's only a balancing provision. It's not if the gas doesn't show up.

MR. VOGT: Well, ultimately you do have to nominate and purchase gas and put gas into the system. But the hourly requirement, which is what we were talking about, this is how you then meet that requirement, through a combination of the various services that are available to you, storage being one, OVS being another, as well as other provisions such as the nomination windows that you have, intraday gas, and others.

MR. KEIZER: Now, you indicated in your evidence -- in actual fact you indicated that you had an estimating storage amount of 16,459 gigajoules per day of storage deliverability is what you think your storage amount would be.

MR. VOGT: That's correct.

MR. KEIZER: And I just want to talk to you about the way in which you got to that calculation so I understand it. And I think, actually, although I won't go into the answer there, but I think it may be helpful to look at just the introductory or preamble part of the interrogatory that was posed to Union Gas at -- which is interrogatory GSPC number 11. And I'm really using this, I guess, as an aid or illustrative purpose. I just want to make sure that I understand and confirm the way you have got to that number.

So I think, as I understand it, what has happened is that you -- and let me go -- let me run through the calculation and you tell me whether I actually have got it right or wrong.

But -- so you looked at these two websites for Enbridge and Union Gas and you determined that for Green Energy -- Greenfield Energy Centre, which is a neighbouring -- or a facility that's close by, that they have a publicly stated storage of 54,862 megawatt capacity, and that there is -- if you take that megawatt capacity -- let me just make sure I have got this myself.

Sorry. Sorry. They have -- sorry, let me back up. So they have 54,862 gigajoules per day of storage capability based on those websites, and they have a certain megawatt amount, and that enabled you to derive a gigajoule per day, per megawatt number, which in this case for Greenfield was 54.

And then you also looked at St. Clair Power LP, and that was a 577-megawatt plant. Based on these websites there was 28,000 gigajoules per day of storage, and if you did the division you would get 49 gigajoules per day per megawatt.

And then based on those numbers, looking at the approximate megawatts for Greenfield Power -- Greenfield South, it was at 300 megawatts, and so looking at those approximate gigajoule per day, per megawatt numbers, it roughly comes out somewhere in the range of 16,459 gigajoules per day of storage that you'd be looking for; is that correct?

MR. VOGT: I -- the calculation you talked about, I generally agree with that, but the preamble that you sort of tacked on the front of that, I'd probably take a little bit of issue with that. It seemed to suggest that that is how we established how much storage we would need.

MR. KEIZER: Well, that is what you actually say, though, is it not, in your interrogatory response? You take issue with the amount of storage that Union actually has put forward in its calculations, and you actually say, no, that's not. The new tables above reflect an annual cost of storage of 500 for 16,459 gigajoules per day, and you actually say that Union's number is wrong and that Greenfield South has determined that it can operate as necessary with approximately 16,459 gigajoules per day of storage deliverability.

MR. VOGT: And I guess it's that sentence that I wanted to make sure that you read, is that the way we established how much storage we needed, we looked at the capacity of the plant. We looked at the restrictions under our Vector contract. We then developed a strategy to purchase, store, manipulate gas, operate our plant. We then came up with a number that we thought would be sufficient to allow our facility to flexibly and competitively and with maximum number of online run-time hours run in this market as a competitive market. It is very important to do this well.

After having developed that strategy, we then looked at what other players were doing, because it's always wise to look at what everybody else is doing in the market, because ultimately you are competing with them. And so using those two things as a reference is why we make the comment that we did, and we found it was consistent -- our strategy looked an awful lot consistent with the most competitive players in the market.

MR. KEIZER: Well, Mr. Vogt, I looked and looked and looked and looked and looked in your evidence, and I have not found your strategy. What I did find is a calculation based upon a website and based upon the storage numbers, which are gigajoule per day of storage. So I don't see your strategy in this evidence.

MR. VOGT: And I don't disagree that our detailed strategy has not been laid out, because that is commercially sensitive, and so we have not broadcast, and we have been advised by our consultants that are working in the space not to broadcast the details of your strategy, because ultimately other people can adopt it, but the flexibility that we have built into our strategy using the OVS, the storage capacity, the intraday gas, the nomination windows that are available to us, all of the various techniques that are available, the strategy that we have developed seems to be very consistent with what the most competitive players are doing, and that was really our point on the interrogatory.

MR. KEIZER: You had discussions with Greenfield Energy Centre, St. Clair Pipeline?

MR. VOGT: We have a relationship with them, yes.

MR. KEIZER: But you haven't had detailed discussions with them about storage --

MR. VOGT: We have had some discussions about storage, and they have shared some ideas with us and concepts with us.

MR. KEIZER: Now, you have indicated that you require -- would likely require a third-party storage provider to operate the Greenfield facility for purposes of providing storage, right? You will have to contract with a third-party storage provider, not with Union, but a third party.

MR. VOGT: We have indicated that we will need storage, and we have actually previously had some discussions with Union about them providing storage for us as well, and they provided us some pricing on what that market-based storage would be like, as well as other third parties, so we have -- we've canvassed the market for storage.

MR. KEIZER: So you had discussions with other suppliers?

MR. VOGT: We have.

MR. KEIZER: And have you signed any letters of intent or any kind of commitments to those storage providers?

MR. VOGT: Not yet.

MR. KEIZER: But you would agree you have certainly full access to upstream storage providers to carry out whatever operations you will have at your facility.

MR. VOGT: With the strategy, with the Vector connection, we believe we can access storage to meet our needs here as well as other upstream service, yes.

MR. KEIZER: And you would be able to do that even if you connected to Union.

MR. VOGT: In terms of the flexibility, in terms of providing the different features and whatnot, there are some things that you couldn't do. So like, for instance, we would like to be able to utilize our storage and resell that storage back to third parties. That is something that is not easily done through the Vector service, that is easily done.

MR. KEIZER: But you could acquire third-party storage even if you were connected to Union and you could sell your storage to someone else, could you not? If you're not taking storage from Union but you are actually taking storage from a third-party provider, you could do that.

MR. VOGT: Certainly some features you could flip back into the market through the Union service.

MR. KEIZER: You couldn't do it at Dawn. You couldn't do -- which is a trading hub -- you couldn't -- if you have a third-party contract, what does Union have to do with it?

MR. VOGT: The storage itself, depending on what the details on it were, would determine whether you could flip that stuff back. Because Union's got certain storage already built in, you could -- I do not believe you can flip that back under the T2 rate.

MR. KEIZER: But even if the T2 rate enables you to go and buy market storage from third party?

MR. VOGT: No, the third-party storage, depending on the details of that contract, I don't disagree that there are ways to flip some of that storage back. I'm talking about some of the embedded storage that's within the T2 rate. I don't believe we can flip that back, as far as I know.

MR. KEIZER: But you are not required to contract for storage under T2. Are you aware of that?

MR. VOGT: I don't think we could operate our plant without storage under the T2 rate. I think we need effectively the similar amount of storage, because storage does more than just balance hour to hour under the Vector rate. I mean, that is the beauty of the unbundled service that we have from Vector, is that the very storage that we need to deal with things like weekends when the gas markets are closed and whatnot, that storage can do double duty meeting the needs of the Vector connection. So you get the benefit of the less expensive transportation but also meet your needs that you have to in terms of balancing.

So this killing two birds with one stone is something we pride ourselves in being able to do, and I think we have found a very effective way to do that here.

MR. KEIZER: But if I go to the Union T2 rate -- and maybe I can take you to Exhibit K.2 that was marked this morning, which is the compendium of Union Gas, and I provided this to your counsel on Wednesday. If you could provide the document to him, I will take the witness to the tab.

MR. VOGT: Thank you.

MR. KEIZER: So if I could take you, then -- you have the document in front of you?

MR. VOGT: I do.

MR. KEIZER: And if I could take you to the first tab. And at the first tab of that document are the storage and transportation rates for contract carriage customers, which is a T2 rate, which is the rate that's currently in question here. And if you look at that, in actual fact, as I understand it, you can effectively contract for transportation or you can contract for storage or you can contract for both. Are you aware of that?

MR. VOGT: There is flexibility in terms of storage and transportation, yes.

MR. KEIZER: And to the extent that you want a deliverability of storage at a different rate or additional storage, you can go to the market to get that storage under the T2.

MR. VOGT: My understanding is that you can go to the third parties to get additional storage, yes.

MR. KEIZER: Or you can get all of your storage from third parties under T2.

MR. VOGT: I think there are some built-in features of storage like elements in the T2 rate. I mean, I think that's why it's priced more. Like, you don't have to balance every hour. So there's something that looks like storage built into the rate, but I don't know how Union would call that internally. I sort of call it storage, but...

MR. KEIZER: It's a balancing provision versus say -- like an OVS versus the storage itself where you are actually, you know, going to Dawn and buying storage from somebody or from Tecumseh or whatever; is that fair?

MR. VOGT: It sounds okay.

MR. KEIZER: So you are able to deal with your storage issue. I mean, one of the big issues you have with service under the T2 rate is just the cost.

MR. VOGT: Certainly the economics and the flexibility of the T2 rate are our issues.

MR. KEIZER: Sorry, I just have a problem. I'm trying to understand what you mean by the flexibility of the T2 rate. If you are able to go and only take transportation from Union and you are able to go and acquire whatever storage you want from third parties at market rates, what is inflexible with respect to that?

MR. VOGT: When you compare that to the Vector rate, which is more unbundled than this T2 rate, that requirement, for instance, to meet the hourly demand that Vector puts on us isn't broken out separately. Union in a sense provides that bit of storage intrinsic to its transportation. It says you don't have to balance every hour. We will take care of that storage bit for you.

And so in that sense it's bundled, and, therefore, it's not as flexible.

So competitive products that are out there in the field -- and we have seen that storage field to be very, very competitive, and the products that are available out on the market change rapidly -- so we are looking at making sure we can play in that space, because the most competitive plants do. And we would like to be one of the most competitive plants because every extra hour that we can get our facility on, if we can be a little bit better on the heat rate, a little bit better on the costs so that the unit comes on more hours during the day, it lets us then deliver more megawatts, more services into the market. Otherwise, you know, the warm-up time and whatever else starts to eat into your ability to generate profits.

MR. KEIZER: Isn't that the balancing service you have just described? Isn't that OVS service you are taking from Vector? It's the same kind of thing?

MR. VOGT: Well, I have described how we are going to meet that balancing requirement through a number of features, not just the OVS.

MR. KEIZER: But the OVS is something similar; right?

MR. VOGT: The OVS is part of it, but it doesn't do all of it.

MR. KEIZER: But you -- you know, typically is it fair to describe storage where you would actually have storage reserved within the storage facilities of Union or Enbridge or someone else, Michigan? Because I know your evidence talks about going to Michigan where you actually have a block of storage which you will draw on, and that block then is being able to be drawn on at a particular rate. I mean, within the industry, isn't that how storage is mostly described, not necessarily as balancing provision but as a block of gas available for you sitting in storage in inventory?

MR. VOGT: Well, considering that the whole issue on this file has been more deliverability as opposed to storage --

MR. KEIZER: Well, I'm asking you whether or not --

MR. VOGT: -- so I would describe storage as being two things, both those two things, and, therefore, deliverability of storage is so fundamental and one of the flexible items that we need to address. So that's why we have taken the approach that we have, because deliverability is so variable under the various services that you can buy.

MR. KEIZER: Which you are entitled to get under T2, going back to the compendium, which says, if you want a deliverability rate higher than this -- I will take you to paragraph -- it's note 4 on page 3 of 8 on T2 which talks about the deliverability that's available. And it says:

"Additional storage or deliverability in excess of the allocated entitlements are available at market prices."

You can go to the market and get greater deliverability than what Union can offer; is that correct?

MR. VOGT: That is available.

MR. KEIZER: So just taking another area, so will you agree that -- you are sitting there as a generator to generate electricity, so the rate that you use the gas is actually connected to the amount of energy that you produce. In other words, the more you are on, the more gas you will actually use. And usually you are generating that electricity on an hourly basis. Is that fair?

MR. VOGT: I think that' a fair statement.

MR. KEIZER: And so the rate you use the gas is in a way, as you describe, tied to your storage commitment?

MR. VOGT: I don't understand the question.

MR. KEIZER: Well, in other words, if you have to actually use gas over a 10-hour period, you would want to make sure that, to the extent that there was an issue with your gas supply as a result of nomination or otherwise, you would have storage that actually would be able to sustain you over the 10-hour period.

MR. VOGT: I don't think that's the way we would characterize it. The 10-hour issue, in other words, anything that's less than a day, has more to do with deliverability than it does with, you know, cubic metres of storage.

MR. KEIZER: So if no gas showed up, what would you do? You didn't get your nomination for whatever else didn't work. For the issue, you have a deliverability issue. There is no gas but you have to run. Where would you get the gas?

MR. VOGT: The deliverability -- when I refer to the word "deliverability," I'm talking about that word the way it's used in the storage contracts. Deliverability is a word that refers to how fast you can take gas in and out of storage. So there is -- you know, you can buy 1.2 percent deliverability. That means that it delivers very slowly. You can only take it in and out of storage very slowly. You can buy a 10-day storage, which is a lot faster deliverability, or a five-day storage, even faster yet, and I believe there are products that are even quicker than that. So there is a variety of deliverability. So when I'm using the word "deliverability" now, I am using it in the way that people who are selling storage services are using.

MR. KEIZER: So you would be -- and I think, as I recall from your interrogatory answers, you are a high -- would require a high-deliverability service.

MR. VOGT: Certainly there is a deliverability that is on the high end. I don't think it's the highest end, but certainly, yes, I think it's a fair statement to say we want high deliverability storage. I mean, we have looked at the five-day and the 10-day, and it's interesting how we believe the sweet spot appears to be in between the two, and, you know, we may be contracting probably more on the slightly longer end than that, but I mean that's -- we are still fine-tuning that strategy, but it's interesting how Greenfield Energy Centre actually has a combination of peers of five-and 10-day deliverability.

MR. KEIZER: So you have high deliverability, and your reason why you are concerned about high deliverability is because you are getting called upon to generate electricity either because of instructions from the IESO or because of concerns under your contract; is that correct? Given that --

MR. VOGT: I would say the main point of deliverability is to meet your hourly balancing requirement, right? Certainly you also need to meet the day-to-day requirements so that if you, you know, have ten days' worth of storage and you run for three days and you need three days of that gas, yes, you need to get it out in a pace fast enough to be able to call on that, if that is what you are planning on doing with it. So --

MR. KEIZER: You would only be doing one thing with it, which is generating electricity, correct?

MR. VOGT: Right, right.

MR. KEIZER: So in fact, your ability to draw on it over that period of time is because you have a demand to actually meet on the supply side for electricity.

MR. VOGT: Right. But not all of the gas that you are going to use in any given day comes out of storage. You want to try to match up, because storage gives you an intrinsic risk. If you are constantly buying your gas in advance out of sync with the power market, you now are exposed to mismatch between gas pricing and power pricing.

The CES contract is structured so it uses the price of gas on that day with the price of electricity on that day, because they want to motivate generators to generate when it's economic.

So most of your gas you will be purchasing as live as possible; in other words, as close to the time of generation as possible. So in the background of all the storage requirements, which, you know, you do because things change. Even when you think you are going to run in the next three hours, maybe there is suddenly a change in price and you don't run, so the storage needs to be the buffer for all of that, but most of the gas that you are bringing in you are bringing in live, so in the morning when the market says, yes, you are going to be running today, you are actually in the market purchasing gas, having that gas delivered in the nomination windows that are available.

MR. KEIZER: Right.

MR. VOGT: So the storage runs a little bit in the background to help smooth out the bumps, because you may have thought at nine o'clock that I was going to run from 12:00 til 3:00, but suddenly at one o'clock the weather got warmer, the power price drops off, it doesn't make sense to run, and you shut down. You have now got two days' worth of gas that you just purchased. You need to put it somewhere. You put that into storage. So storage serves as a buffer to all of that hourly activity on the gas.

MR. KEIZER: So in fact, what you are saying is because you are running the way you are generation, you require the storage to be flexible, to be used the way you describe, and in actual fact, if I look at generation, what generation implies, there is two elements of it: energy or capacity. When you are making that decision of the fact you have to run that day, you are creating energy, and you are being paid ultimately on a megawatt-hour basis, so isn't the better indicator of storage not megawatts capacity but rather megawatt-hours energy? Is that fair?

MR. VOGT: I am not too sure what you are getting at with that. I mean, the difference between megawatts is how much power you are running at any instant period of time, and at megawatt-hours, then that megawatt running for an hour, so I am not too sure how -- the distinction you are trying to draw.

MR. KEIZER: Well, I think the distinction is you have established benchmarks for storage on the basis of a megawatt, but your facility yourself and your demands for storage are all tied to the operation of generating electricity and creating energy, which is on a megawatt-hour basis.

MR. VOGT: And I guess when we do that analysis, when we say a plant has a megawatt of capacity, we assume that when we are doing a calculation it would need the gas for that over that hour to generate the megawatt-hour.

So when you talk about a 300-megawatt plant, you don't talk about a 300-megawatt-hour plant, you talk about a 300-megawatt plant, because every hour it can run at that capacity.

MR. KEIZER: I understand that.

MR. VOGT: And so when you do the scaling between another plant and our plant and you say, how much storage do they have and how much storage do you have, you do the calculation based on that the Greenfield Energy Centre is three times bigger roughly than we are, so you scale the number 3 to 1 --

MR. KEIZER: Notwithstanding --

MR. VOGT: -- so you are not making a statement that you are trying to buy storage based on a megawatt, as opposed to a megawatt-hour basis.

MR. KEIZER: Given the fact that you just described the fact that storage is based upon what you actually are tied to, the needs of generation of that day, and the fact that it is related to the generation of electricity, I am not sure how you can actually say that it is related to an overall capacity of the plant.

The plant could sit there and not run for the entire year and still be a 300-megawatt plant. Why would you need storage? But if it actually ran during that day on a megawatt-hour basis you would still need -- you'd need storage.

MR. VOGT: I think whether the plant runs or not you need storage to meet the obligations that we have. I mean, the amount that we will run you can't actually predict, but you need to go in with a game plan that actually has storage and transportation and gas purchasing capability all lined up.

MR. KEIZER: And Mr. Todd, you in your original costing numbers included transportation costs, but you did not -- you did not include storage numbers. Is it my understanding that in the subsequent interrogatories that were filed that you adopted those storage numbers?

MR. TODD: I accepted those storage numbers, and they were not included initially because the storage numbers based on Greenfield South's plans was that storage would be the same under all the alternatives; therefore, it was not a comparative difference and was not part of either the Vector costs or the Union costs. It was outside and equal. Therefore, it simplified things to leave it out.

MR. KEIZER: Did you create the storage numbers or did --

MR. TODD: I did not create the storage numbers.

MR. KEIZER: So were you aware of the storage numbers at the time you originally created the report?

MR. TODD: I was not aware of the specific numbers. I was aware that the storage requirements were the same under the alternatives, was -- I was aware that Greenfield South's plan was that the storage requirements would be the same under the alternatives.

MR. KEIZER: Now, if I could just take you back to appendix 34, which was that letter from Vector to Eastern Power. So it states that there is an MDQ, which I understand as being the maximum daily quantity of 37,120 gigajoules per day. So that would represent the maximum daily quantity that Vector would receive or deliver at each receipt or delivery point; is that correct?

MR. VOGT: Correct.

MR. KEIZER: And so in a way that is your -- is that what you would consider to be your contract quantity under the contract?

MR. VOGT: I mean, we tend to think of it more as the 2,320 gigajoule per hour.

MR. KEIZER: So just going to the 2,320, so as I understand the Vector tariff -- and I don't think we need to turn it up, but is that you can chose between four and 20 hours, and actually, we should turn it up, because I think there is just a minor correction to the record, and that is I included at the end of my compendium -- you have it there in front of you -- tab 4, which is part of the general terms and conditions.

Those terms and conditions were filed by Greenfield in its original filing at Appendix 12 of the original filing, and the only thing I don't -- there is nothing major here. I just wanted to -- because when I was looking at this particular issue, I happened to pull up the tariff on the website, and I note that what I have included in my compendium is dated October 15, 2014, and effective November 1, 2014, and at 12 is the, I think, tariff with respect to 2009 for this particular aspect.

Nothing turns on it. I just wanted to be clear as to why I was asking this question that was different than what was in the evidence, and that is, I think the original, the tariff that you have filed, says zero to 16 hours. This tariff in the compendium says zero to 20 hours.

So you can specify that MDQ, that maximum daily quantity, over a four- to 20-hour period, as I understand it, and you have elected 16 hours.

MR. VOGT: Right.

MR. KEIZER: And so taking the 16 and dividing it into your MDQ, that is where you get the 2,320 gigajoules per hour.

MR. VOGT: I think the math works.

MR. KEIZER: Now, Vector's strict requirement is that there has to be a matching. There has to be a matching between the two of those things. So if you were actually considering storage and you are looking at it on an hourly basis, wouldn't you then be considering storage to enable you to deal with the maximum daily quantity of 37,127?

MR. VOGT: No.

MR. KEIZER: And if you didn't, aren't you otherwise in danger of breaching the tariff with Vector, the fact that you may not necessarily be able to match in certain circumstances if you had to run over a protracted period of time?

MR. VOGT: As long as we are comfortable that, under all scenarios, that we can achieve our balancing requirement, we are very comfortable, and the strategy that we have developed gives us a high degree of comfort that we are achieving the obligations that we have under the contract.

And we have consulted with Vector on that, and they are very comfortable with our approach. We have told them what we are going to be doing. They believe we are doing it well. Our consultants have indicated that we are doing it well, and in checking what our competitors are doing, we feel they are doing things very similar and developing similar strategies. The flexibility that that allows us is -- will just allow us to run that many more hours.

MR. KEIZER: And so what you are doing is basically saying, we will accept the risk of contracting for less storage than what our maximum daily quantity would be on the pipeline. Is that what you are saying?

MR. VOGT: I wouldn't put it that way. There is actually a risk if you take a too conservative view at this. At that point, you would run less hours because your costs put you out of the money for more hours during the year. That means your facility is not running as many hours.

If your facility is not hot and running, you can't then take advantages of bridges where you have got one hour where maybe you are no longer in the money, and you are forced to shut down. If you have a little bit better efficiency and better economics with the flexibility under the product, suddenly you are able to bridge that. You don't have to do another start-up. You then get extra hours paid into the market allowing the facility to be more efficient, producing more megawatt-hours, reducing the number of starts you have on the units.

So we actually think that not doing this increases risks. We are trying to minimize our risks, because all those other things are risks for us.

MR. KEIZER: But all of those things are, effectively, gas management services; right? I mean, you would have to have someone who has to manage your gas services, manage all of those aspects to accomplish what you are suggesting.

MR. VOGT: Absolutely.

MR. KEIZER: And so you haven't, in this filing, included those costs? They are not free. I mean, you do have them -- is that something you do in-house, or are you actually going to contract for somebody to go do gas management?

MR. VOGT: We have had offers to have it done for us, but I believe we are going to do it in-house. We tend to be a very integrated company. We like to do a lot of things ourselves, and so we believe at this point that we will -- we will continue to look at offers that people have made to us, but gas management is something that we have done in-house at our other facilities as well.

MR. KEIZER: To the degree that this is under a CES contract or the exposures that you have with respect to it?

MR. VOGT: This will be something new for us. We don't -- this is our first CES contract.

MR. KEIZER: Now, in the tables that you provided, I believe, in response to the Ontario Energy Board Interrogatory No. 1, you have estimated that the cost of storage service for Vector or Union is $500,000, no matter whether it's from Vector or Union, and --

MR. VOGT: Excuse me. Which tab are you at?

MR. KEIZER: Sorry. If you look at -- and I assume you have this in front of you. It's the responses of Greenfield South Corporation to various interrogatories.

MR. VOGT: Yes, I have that.

MR. KEIZER: And if you go to page 2 of 21 --

MR. VOGT: I'm there.

MR. KEIZER: -- there a table there, table 4A and 4B, and looking at those, you've estimated the cost of storage, regardless of service for Vector or Union, as being $500,000.

MR. VOGT: That's correct.

MR. KEIZER: And so if I understand how you got to that is that Union estimated in its evidence that you would be taking storage at a maximum daily quantity of 46,400 gigajoules per day, and they estimated that at a cost of $1.4 million, and you divided the $1.4 million by the 46,400. It gave you a dollar per gigajoule number, and you simply multiplied that by the 16,000 that you say you will need in storage, which is roughly about $500,000. Is that how you got that number?

MR. VOGT: My understanding is we got a quote from Union in terms of what they said their storage number would be, and we also got pricing from other third parties.

MR. KEIZER: No. I'm asking you: Is that where the $500,000 came from?

MR. VOGT: Well, I'm trying to describe that. So we then used the Union number because it was the highest number as a conservative basis to then multiply by the quantity of storage that we decided was appropriate, rounded the number a little bit to make it a nice even number.

MR. KEIZER: So effectively calculated it the way I have described?

MR. VOGT: Umm.

MR. KEIZER: Union said the storage was $1.4 million. You divided it by the quantity that Union said would be available. It gave you a dollar per gigajoule, and that, then, was applied to the 16,459 gigajoules per day that you think you will require.

MR. VOGT: Well, I think you get to the same number, but I think what we did was we took a 252 per gigajoule number that was quoted to us by Union. We then multiplied that by the quantity, which gets you to sort of the same number, but we didn't take the Union $1.4 million calculation, because we ultimately didn't know exactly how they did that. We could sort of guess, and it seems to be based on the same 252 per gigajoule number but -- or 255. Anyways, I may be -- I may need to check.

MR. KEIZER: And was that under the T2 rate?

MR. VOGT: No. This was something that they said they would provide to us when we asked what storage would cost, because I think it's market based. I don't think it's a fixed number they publish in the T2 rate is my understanding.

I think there was an e-mail from a Mr. Ries to James Fraresso in November of 2012.

MR. KEIZER: But, nevertheless, you would require high-deliverability storage or third-party storage, which would imply that you would be at a market rate, in any event. Is that correct?

MR. VOGT: Certainly the idea of buying storage at market rates, yes, that's certainly -- we plan to buy storage on the market, so, yes, we would be at market rates.

MR. KEIZER: So if I could take you to Exhibit K.2, and I have produced -- or Union has produced at tab 2 of that compendium a printout from a website, which is Union's website, and effectively what it reflects -- and it's for the period March 1st, 2014 to August 31st, 2014, and it actually identifies certain shippers, a unit rate, and revenue, and certainly what it does is reflect that those unit rates are storage rates at market, and you can take that subject to check, if you will.

And, so, what Union did is said, well, okay. Well, if that's, you know, particular market rates and looking at a CES type generator, which they identified at page 2 of 2 of those schedules, so at the very, very end of the list of shippers is the York Energy Centre, which has identified a market rate that existed in that time period.

So just to get a realm of a ballpark number, if we were to take the storage amounts that are at issue in this proceeding, which was -- and I have identified them on a small calculation on the next page, which is at tab 3. There are three storage amounts: the 46,000, which Union originally put within its evidence; the 16,000 that you indicate require in storage; and then 37,000, which is the maximum daily quantity.

So based upon that market rate, even with the 16,000, the actual total cost of annual storage is over a million dollars. And would --

MR. VOGT: So you are putting that question to me? Do I agree with that?

MR. KEIZER: Well, yes. I guess I'm trying to reconcile what you had indicated as being your view of what market was and what you have investigated. Obviously you must be investigating what the market is driving.

MR. VOGT: Yes.

MR. KEIZER: You are not simply just sitting back waiting, it seems, so I am asking you: In terms of the realm of possibilities relative to the market rates you see here, how can you say that the cost of storage remains at $500,000?

MR. VOGT: First of all, the York Energy Centre is a CES contract, I understand it, but it is a peaker plant. It's not a combined cycle plant, so it has unique storage requirements, even more rigorous, I would argue if I was running a peaker plant, than our facility. So the deliverability for such a facility when we looked at what their deliverability appears to be on other websites, I believe, that were published by Union, it appears that they have got the fastest and the highest deliverability of any service out there, and it looks like they have paid a premium price for that.

So they have got two-day deliverability, really high deliverability, I mean, not what a typical combined-cycle plant such as ours would be normally using.

So when you looked and compared them to any of the other CES type contracts, they were unique in terms of their product, so we looked at that and said, if you actually sort of scaled it, it sort of made sense that they pay a much higher price than anybody else.

But I can only go by the market pricing that we got, not only from Union but other players in the industry, which seemed to --

MR. KEIZER: What was the market price you were getting from other players?

MR. VOGT: Well, Union give us the 252, and others players were south of that, and we don't like to disclose their commercially sensitive numbers.

MR. KEIZER: Now, you have also indicated that there is this issue of interruptibility under T2, and there is a calculation that you have included with respect to the cost of interruption, and you have used as a proxy four occurrences, but as I understand it those four occurrences are tied only to your experience within the Enbridge territory; is that correct?

MR. VOGT: That is how we tried to get a handle on interruption, in terms of how typical utilities build their systems, how stiff before they start to say, Hey, we can't guarantee firm service anymore, so --

MR. KEIZER: But you haven't done an analysis comparable to looking at the Union system, for example.

MR. VOGT: We don't have as much experience with the Union system, so we were not able to do that. We took the best shot that we thought we could at understanding it.

MR. KEIZER: In other words, it is basically, I think, as Mr. Todd indicated in his analysis, it's simply an example; is that correct? I think you used that word, Mr. Todd.

MR. VOGT: Yes, you can use that example.

MR. KEIZER: It's just simply an example.

MR. VOGT: We can't accurately predict the level of interruption. We believe there is an intrinsic risk to interruption, as any of our financiers have identified, with not having firm service, so that is why we are very averse and feel that there is a risk dollar that has to be attached to that, because that risk will show up whether you get the interruption or not. The fact that you do not have firm service attracts that risk.

MR. KEIZER: If I could have a moment?

Mr. Vogt, I just have one follow-up question. Not maybe one, maybe more than one. I can't lie.

So you talked about the T2 service, and you talked about the Vector service, and you talked about flexibility, so as I understand the T2 service, it is a no-notice service, so you take as you need, and you don't have the intraday nomination issue, where for example in -- when you go to Vector you have to nominate Vector, you have to nominate in respect of all aspects of your service.

So I guess I am struggling with your comment that says Vector is more flexible, but you have to nominate for every aspect that you deal with on Vector, because it is a matching service, whereas on Union's, because there is intraday balancing and whatever else, you just take.

How does that -- how do they -- how does -- how can you say that the T2 is not flexible? It gives you the ability and comfort to know when you have to run you can run.

MR. VOGT: It doesn't let you take advantage of upstream services as they become available or competitive. So when you want to do those things you don't get the advantage of doing that. So if you basically have a fixed service and you don't need to do something, but you then don't get to take advantage of a service that could be more economic, more competitive, that you might want to take advantage of and therefore get your unit on sooner or for more hours, you don't get to do that.

MR. KEIZER: But if you get to run, what's the difference? I am trying to understand, if you have to nominate in every situation but you can just simply take on the T2, and your concern is about getting your unit on, your unit is on.

MR. VOGT: Well, no, your unit is not on, because what happens is you look -- have to do a calculation every hour and establish whether your unit needs to be on or not. The way the CES contract works is it's a contract for differences, so you need to understand what the market price for gas is going to be that day, what the market price -- an hourly market price for electricity is, and you have to monitor those every 15 minutes and respond every ten minutes to the IESO direction.

So you are constantly polling all of those markets to understand whether your unit should be running or not, and if you are uneconomic, you have got to come down, because otherwise you will be penalized for that --

MR. KEIZER: Right.

MR. VOGT: -- so you have got to be able to maximize the number of hours that you're on, so if there is an attractive upstream service available that day, you want to take advantage of it. If it gives you a chance to run or bridge a noontime period where other units are coming down, you are going to save yourself a start, you are going to generate extra megawatt-hours, your unit is going to run, your operators are going to be able to take advantage of that, and we want to be able to do that. I mean, that is -- the nimbleness in that market is how that market works. I mean, it is a very unique market that way, the electricity market.

MR. KEIZER: But I understand the electricity market. I understand your desire to run. What I am trying to get to is the input side of that running and the fact that, one, I think what you have said is the costs are different, so therefore you can't get as low a cost because you want to be able to pick and choose on a different cost basis; is that correct?

MR. VOGT: I think it is correct that we want to pick the most cost-competitive inputs, yes.

MR. KEIZER: And the other thing I guess I am trying to understand is, you are saying that every hour -- and the way the energy market works in Ontario, every 15 minutes, every, you know, five-minute interval, you are looking at pricing and deciding whether you are going to go or not going to go. But you would have had to have made some gas commitments ahead of the time if you are on a situation where you have to nominate, the gas has to be available, and you have to be there, and you would have had to have considered gas prices, floating gas prices, because I think your interrogatory talks about floating gas prices. You would have had to consider that in advance, and you would have had to nominate in advance.

So I guess my question is, if you have to do all of that nomination and other aspects in advance, and then you have to layer on all the gas management services that you need to deal with that balancing, why is that more flexible than if you just simply take?

MR. VOGT: It is like taking apart any service that you buy. If you go to the grocery store and buy the grocery basket and you can't take the celery out because it is part of the grocery basket and you are stuck buying it, you are stuck buying it.

We want to be able to unbundle the service as much as possible, because it allows the plant to be more nimble. It allows it to run more hours. That has been the experience in the marketplace.

MR. KEIZER: And the reason why you want to look at it to run more hours is because you are looking at the costs that enable you to run more hours.

MR. VOGT: That's correct.

MR. KEIZER: And so in --

MR. VOGT: And just to clarify that, even if you had a service that was costed the same, if it was available for hours that otherwise wouldn't be available because you were in a bundled rate, you would be able to take advantage of it in an unbundled situation.

I mean, Vector has described how their pipeline typically runs and the various services that are available hour to hour. You know, they have got OVS. They have got uncontracted OVS. So they have got a whole bunch of services upstream that are available beyond the ones that you are actually contracting for.

Similarly, there are other service providers, storage providers, that have uncontracted for deliverability. Again, you can't get your hands on that stuff if you are in a straitjacket, so to speak. The unbundling has been a movement that has happened a lot in gas rates, and we are a big proponent of it.

MR. KEIZER: But, you know, if you look at the T2 rate, I mean, effectively you can do transportation, and maybe it has an intraday aspect. You have contracted under OVS effectively the same service. Only difference is the pricing is different in your mind. And you can, if you wanted to, go out and get whatever storage you wanted to, and, you know, let's keep balancing separately from storage. If you wanted to have storage inventory, storage capacity, somewhere else, you can contract, as you said in your evidence, from anybody you want to, and you can do the same thing under the T2 rate. You are not obliged to take storage from Union under T2.

So when you talk about unbundling, you are talking even smaller slices than transportation and storage. Is that what you are saying?

MR. VOGT: That's correct.

MR. KEIZER: Mr. Chair, that's my questions.

MR. QUESNELLE: Thank you, Mr. Keizer.

Ms. Helt, anything from Board Staff?

MS. HELT: No, Board Staff has no questions.

MR. QUESNELLE: Thank you. Any redirect, Ms. Brazil or Mr. Richmond?

# Re-Examination by Mr. Richmond:

MR. RICHMOND: Just a couple of brief clarification questions.

From the line of questioning I seemed to get the impression that maybe the only way to make money or to make profit is to sell power. Is that an accurate statement, or are there other ways in your business to...

MR. VOGT: There are many ways when you have a facility like this to generate revenue for the facility, whether that's flipping back services that you have contracted for, selling them at attractive pricing, or taking gas that you have taken into storage because suddenly the market went against you and you now suddenly have gas available. If there is an opportunity to sell that gas at a mark-up, you take those advantages as well. So there is a number of ways to generate revenues that, my understanding is, most of the CES contract facilities across the province take advantage of.

MR. RICHMOND: Mr. Keizer referred you to, in his compendium, tab 1, page 3 of 8, and he was referring to the note. I think note 5 is the one he was referring to. If I can take you to that page 3 of 8.

MR. VOGT: Which?

MR. RICHMOND: It's the cross-examination compendium.

MR. VOGT: Yes. tab 1?

MR. RICHMOND: tab 1, page 3 of 8.

MR. VOGT: Yes.

MR. RICHMOND: So we reviewed note 5 on that page. I'm wondering if you could read note 6.

MR. VOGT: Note 6 says:

*"*Storage space and withdrawal rights are not assignable to any other party without the prior written consent of Union."

MR. RICHMOND: So my question would be: In your view, is there a value to having more freedom and flexibility to be able to deal with those rights without, you know, tying it inextricably to your transportation service provider and having to get consent?

MR. VOGT: That's correct.

MR. RICHMOND: My last question: You had mentioned that the primary obligation under Vector is to balance, and there are multiple ways to balance. You mentioned storage is one way to balance.

MR. VOGT: That's correct.

MR. RICHMOND: OVS is another way.

MR. VOGT: Correct.

MR. RICHMOND: You say the live, you know, real-time firm transportation of gas is a way to balance.

MR. VOGT: That's correct.

MR. KEIZER: Mr. Chair, I have given my friend some latitude, and my understanding is, if you are going to redirect, you ask it as an open-ended question. He is leading the witness, and my view is it's not cross-examination; it's direct examination by way of redirect. That's why it's called redirect.

MR. QUESNELLE: Mr. Richmond.

MR. RICHMOND: My open-ended to you, then: Is there value, in your view, to having the flexibility to choose amongst these options or any other options?

MR. VOGT: Yes, there is. By structuring the various services, it allows you to pick the most flexible option, again, to get your unit online to generate more hours to be able to get your unit running maximum hours during the year. That's the key in this marketplace. The facilities that have done the best are the ones that have found innovative ways to do that, and we would like to do all of those things.

MR. RICHMOND: That's all I have.

MR. QUESNELLE: Thank you, Mr. Richmond.

Okay. We have got -- our attempt today is to hear final oral submissions, and I would ask: Mr. Richmond, how much time -- are you prepared to go now? How long would you take? We have got some flexibility here as to how we arrange our schedule over the next couple of hours.

MR. RICHMOND: My estimate is probably around 90 minutes. I understand you may need a break at eleven. I would prefer not to do 10 minutes and then stop if, in fact, we have to break at eleven.

MR. QUESNELLE: So you would like to have until 12:30, are you saying? Is that...

MR. RICHMOND: If we were to start now, yes, I would be done by 12:30 for sure.

MR. QUESNELLE: I see what you are saying. Yes. Okay.

MR. RICHMOND: But I am also open to taking the break now and, when you are available, starting at one or whatever is appropriate.

MR. QUESNELLE: I did have a prior commitment at eleven. Just the way the day is going, I think I will cancel that, and let's just move ahead with the schedule on this.

So if we were to take a 15-minute break, why don't we start back up again at 10 after eleven, and we will hear argument-in-chief from you? Submissions from Board Staff, anything coming today, Ms. Helt?

MS. HELT: Yes. And we will take approximately half an hour.

MR. QUESNELLE: Okay. All right. And, Mr. Keizer?

MR. KEIZER: I anticipate being probably about an hour.

MR. QUESNELLE: Okay. And then will you need a break after you hear those submissions, Mr. Richmond, to prepare your final?

MR. RICHMOND: I would ask for a short break.

MR. QUESNELLE: Okay. Let's start again at 10 after eleven with your argument-in-chief, Mr. Richmond. Okay. Thank you.

### --- Recess taken at 10:46 a.m.

### --- On resuming at 11:16 a.m.

MR. QUESNELLE: Thank you, please be seated.

Okay, Mr. Richmond, just so everyone understands what our expectation is, we will hear from Mr. Richmond, and then we will break for an hour lunch, and then we will resume after that.

# Closing Argument by Mr. Richmond:

MR. RICHMOND: Thank you very much. And thank you for the opportunity to appear before you today and to present the facts supporting our position that Greenfield South Power Corporation should be granted a certificate under section 8 of the Municipal Franchises Act.

Much of Union's original evidence and I am sure the bulk of their submissions today have been and will be focused or may be focused on Union and its ability or inability to provide gas service to Greenfield.

With all due respect, however, I think it's important that we not allow ourselves to get sidetracked and that we not allow the parties to forget what this application is really about.

This is not an application about Union. This is not an application about any Union facilities. This is not an application about any Union service. This is an application about Greenfield South and the construction by Greenfield of its proposed 450-metre piece of pipe.

The Municipal Franchises Act says, and I quote, "no person shall construct any works to supply gas without the approval of the Ontario Energy Board", so this application is about seeking approval from the Ontario Energy Board for Greenfield to construct works consisting of 450 metres of pipe entirely -- sorry. This is Appendix 6 here -- entirely within its own property. It's this red line here from the power plant to the Vector gas line. And to move gas from one part of its open property to another part of its own property.

Now, as much as Union may want to make this application about Union's proposed pipe, it's not. Union has filed its own application, EB-2014-0147. That is the case in which the pros and cons of Union's pipe are at issue.

This case, EB-2014-0299, is Greenfield's application about Greenfield's pipe. The two applications have not been joined, and no evidence has been advanced or considered in respect of Union's proposed pipe.

And so this isn't about comparing two pipes which are the subject of this application. There is only one pipe which is the subject of this application, and the Board's mandate, I would submit, is to decide whether to approve that one pipe or reject that one pipe. No other pipe option is on the table today, even though Union may try to make this about a choice between the two.

Now, in 2006, in the Greenfield Energy Centre case, EB-2005-0441, there were two pipe options being considered by the Board in a single hearing, and so a comparison of the two was entirely relevant and appropriate in that case. That is not the case here.

So we would ask you to focus on Greenfield's application and Greenfield's proposed works. In our submission, regardless of whether Union's leave-to-construct application in EB-2014-0147 might also be in the public interest, it is clear that Greenfield's proposed pipeline is in the public interest.

So with your permission I would like to cover three areas in the next hour, hour and a half or so. First I would like to talk about flexibility and control. Issue number 1 in the procedural order essentially calls for a comparison between the economics of Vector's service and Union's service.

I will address that by demonstrating that there is no comparison to be had because, regardless of cost or economics, Union simply can't offer the services that Greenfield requires or, if they can, they haven't offered the services that Greenfield requires.

Greenfield has designed its power plant, its business structure, its power purchase agreement, its economic modelling, and its financing on the basis of a certain level of flexibility, control, reliability and access to upstream services, and a certain commissioning date.

The service that Greenfield needs is simply not available from Union. It is available from Vector. It is not available from Union.

Union isn't selling what Greenfield is buying. And Union can't provide the flexibility, control, reliability, access to upstream services, or commissioning date that Greenfield requires at any price.

The second thing I will want to talk about today in more detail, I would like to talk about macroeconomic inefficiencies. I will show that even if Union's services did provide the same flexibility, control, reliability, access to upstream services, and commissioning date as Vector, even if Union could sell the service that Greenfield is looking to buy, which they can't, it would make no economic sense to anyone at any level. I don't mean just to Greenfield. I mean at a macroeconomic level to society as a whole there is not an efficient or effective use of resources.

In brief, I will show that Union's ratepayers would see a $403,000 benefit and Greenfield would see a corresponding cost in the millions. There is no economic efficiency there. It is not economic or efficient for one party to spend millions so that another party can see a $400,000 benefit.

Thirdly, I will try to quickly take you through the, what I will term the less contested issues on the issues list. That's issues 2, 3, 4, 5, and 6, as set out in the procedural order. These are on the questions of environmental concerns, landowner concerns, construction competency, impact on Union's ratepayers, and impact on Union's system.

These issues are, I believe, largely uncontested, or else any concerns I think are fairly easy to deal with, so I think we can move through them fairly quickly and leave you satisfied that there are no outstanding issues.

So to summarize, I am going to start talking about flexibility and control by showing that Union can't provide the services Greenfield requires at any price. I am going to move to macroeconomic inefficiencies by showing that even if Union could provide those services the economics are not in the public interest. And third, I will address the less contested issues by showing that there are no lingering issues related to environment, landowners, construction, ratepayer impacts, or system impacts.

Let's start with flexibility and control. I said in my introduction that Union simply isn't selling what Greenfield is buying. I think this is the most important piece of this whole discussion today. It goes to two conclusions that the Board reached in its 2006 Greenfield Energy Centre decision.

I think -- have we distributed those? I am going to be referring to the 2006 decision quite a bit, so I have taken the liberty of printing copies so you can follow along.

So in the middle of page 35, okay, the middle of page 35, the Board concluded that it's in the public interest to allow generators -- the generator in this case -- the option to operate as economically, efficiently, and cost-effectively as possible by having as much flexibility, control, and access to upstream competitive services as possible.

The other conclusion the Board reached is on the very next page, if you turn to page 36 in the middle, in the first highlighted item. It's in the public interest for gas customers to have access to the services they require.

Greenfield South has certain service requirements and expectations in order to be able to run its power plant effectively and efficiently. Vector can deliver those services; Union cannot.

Those service requirements relate to heat rate, balancing, unbundling, and timing. Let's start with heat rate. When Vector delivers the gas, the pressure reduction will cause the temperature of the gas to cool. Greenfield has designed its plant and its systems so that it can use waste heat from the power plant to heat the gas. Doing that takes pressure off the power plant's cooling systems, so less cooling is required in the plant. The gas actually helps to cool the plant --

MR. KEIZER: Mr. Chair, I am sorry -- and I have never done this before, but I am going to do it now, and that is -- I have never interrupted a friend -- a colleague that is making a representation before the Board. I am struggling where this is in evidence.

MR. RICHMOND: To be fair, what I am describing is how a power plant works. This is an --

MR. KEIZER: You are describing how Greenfield works and how Vector delivers to Greenfield. Where is it in evidence?

MR. RICHMOND: I am describing how power plants work and cool, and heat and cool. If you will --

MR. KEIZER: Where is that in evidence?

MR. RICHMOND: So I didn't submit the entire blueprints of the power plant, to be fair. This is an expert panel, and I assumed that the expert panel understands the concepts of power generation.

If you are asking why I didn't submit the entire blueprints of the plant, I don't know that that is generally what happens --

MR. KEIZER: My objection has nothing to do with the blueprints or the footprint or what it looks like. My friend is embarking on an argument related to the operations of this plant and its heat rate and other aspects. I don't recall seeing anything in evidence with respect to any of those aspects.

MR. RICHMOND: I am not going to be getting into the specifics of the heat rate. I won't venture any specific facts. I am talking in general about the concept of how power plants use gas, and I would expect that this is an expert panel, and you have dealt with power plants before, without needing to see the engineering and understand.

MR. QUESNELLE: You did sound, Mr. Richmond, as though you were going to be making submissions on the mechanics and establishing a premise on a fact basis which hasn't been tested. I hadn't heard anything that came up this morning in evidence or anything that's been referred to that was that specific. Can you speak at a more general level and adjust your argument accordingly?

MR. RICHMOND: Yes. I will try to take this at a very, very high level. I won't get into specifics, but generally plants need to be cooled. I think power plants need to be cooled, and they have cooling systems, as a general concept. And the more you can do to take pressure off that cooling system, as a general principle, the more megawatts one can generate with using the same -- without having to upgrade your cooling system. Just a general principle of engineering.

So if you have --

MR. QUESNELLE: Are you going to be drawing -- asking us to draw an inference as to why the Vector solution would provide more flexibility than the Union proposal in your argument?

MR. RICHMOND: Yes.

MR. KEIZER: Chair, the only evidence that they really, as I understand, this morning was on the issue of flexibility. I don't recall engineering principles or heat rate issues or other things being raised either in the evidence that's been filed on direct or by virtue of what arose on cross.

MR. QUESNELLE: What we have heard so far, Mr. Richmond, is the financial flexibility and the market options as far as flexibility, and this does sound new to me. I don't know, Ms. Spoel, if you --

MR. RICHMOND: If I may, Mr. Chair. I believe in the evidence there is mention of boilers versus no boilers in the Union option versus Vector option, and that's really what this is about.

MR. QUESNELLE: If that's what you are -- if this is in evidence and that's what you are basing your evidence argument on, then, Mr. Keizer, I believe that would be acceptable, you know, based on your objection as to it not being in evidence, but if that is what we are confining it to, I think that would be acceptable.

MR. KEIZER: Yes. It would be helpful to understand the reference so that we could respond accordingly.

MR. QUESNELLE: Thank you. Yes. So, Mr. Richmond, if you are centring your argument on that reference in the evidence, if you could describe that, and that would be of assistance to the Board Staff and Union.

MR. RICHMOND: Sure. My apologies. Can I take a moment to try to find the appropriate reference for you?

MR. QUESNELLE: Please.

MR. RICHMOND: Sorry, Mr. Chair. So Union, in its own evidence, refers to its leave-to-construct application and makes reference to it throughout, which is application EB-2014-0147. In Union's response to GSBC IR No. 14, attachment 4, they provide a breakdown of the costs of their proposal, which includes station equipment. It gives a line item there, but that number is further broken down in that leave-to-construct application and does include boilers in that application. I'm trying to find it. I don't believe I have a copy of the leave-to-construct application here, but it is incorporated by reference in their own evidence.

MR. KEIZER: But that evidence for the leave-to-construct application, as my friend has already acknowledged at the outset of his submissions, is not at issue in this proceeding; that we are not here to hear that matter, and as I recall, even under the Statutory Powers Procedure Act, if we want to actually now incorporate all those evidence -- those aspects of that case in this case, he has to seek leave to do so.

MR. QUESNELLE: Mr. Richmond, it would be awfully late in the day to be doing that.

MR. RICHMOND: Mr. Chair, I will move on to the next point while my colleagues try to find the reference. I know the reference is in here.

MR. QUESNELLE: Okay. That's fine. Thank you.

MR. RICHMOND: We will come back to the heating of the plant in a moment.

The second point is balancing, and this really goes to providing services that Greenfield is not in the market for. So which is all I was going for in the first point, that they provide -- their proposal provides gas heating; Vector's doesn't, and they are not in the market for it.

So just as Union provides that, Union also includes a daily balancing service that Greenfield doesn't want. Greenfield's business plan has them relying on Vector's overrun service, nomination windows, and interruptible service to deal with balancing, as we heard this morning.

These are services that they can buy when needed and, perhaps more importantly, that they can sell when not needed. The plant economics rely on the ability to trade in these ancillary services. That ability to trade was factored into the price that Greenfield negotiated with the OPA. They modelled the plant to earn some revenues from the sale of electricity and some from capacity, but also some from these --

MR. KEIZER: Mr. Chair, I -- we didn't -- I don't recall hearing about their modelling and pricing today, like I don't -- this should have been filed at the outset of the proceeding.

MR. RICHMOND: With all due respect, I'm giving arguments. I'm giving my submission as to why Vector is better than Union. The Board can --

MR. KEIZER: But you should be making the argument based upon the evidence that either you have led or has resulted from cross-examination.

MR. RICHMOND: Well, this was dealt with specifically this morning. Mr. Vogt in response to my last question said there is value to being able to trade in these other items; that there are other ways. And my first question, in fact, was specifically: Are there other ways to make money other than selling electricity? We specifically discussed this this morning, so I'm not sure why the interruption. I am repeating, essentially, his answer from this morning.

MR. KEIZER: My point was really about the details of the modelling and other aspects that were brought about by these services. To date, we have not heard that these particular kinds of services that he has identified from Vector is somehow factored into their modelling, which related to their price provided to the OPA, especially because the contract was given in 2007 or '6, back in the original CES RFP.

MR. RICHMOND: It's precisely the content of this morning's discussion on the stand as to where the value comes from and how they make their money, and they did factor in dealing with storage and dealing with balancing, which was the --

MR. QUESNELLE: I think Mr. Keizer's point is that it was a new piece of information for me, Mr. Richmond, that the options being offered from Vector and upstream services were considered in the negotiation of the price with the OPA.

MR. RICHMOND: I will happily retract that.

MR. QUESNELLE: Okay. That's the type of thing I think Mr. Keizer is objecting to, so if you have any others, I would have rather not hear them and then have them retracted. I would rather you avoid them.

MR. RICHMOND: I apologize. These services and the pricing factored into their business, their modelling and how they make money, their business model as a whole, which I think is fair to say affects everything they do.

So their model is to earn some revenues from the sale of electricity, as we heard, and some from capacity and also some from trading in upstream and other services. Union's service takes that away, and a whole business line would be what typed out if they had to use the service that Union is able to provide.

On unbundling, similarly, Greenfield wants the ability to procure gas transmission and storage separately, and in an ever-changing an volatile market they want the ability to be able to capitalize on new developments and offerings and on market circumstances. Their business model relies on the ability to procure each element separately and sell each element if appropriate, as we heard this morning.

It also relies on ability to terminate different services within short time windows with little to no penalty. They need to be nimble and flexible.

Vector allows them to procure unbundled services; Union does not. Vector allows them to get out of one or more services at the end of seven years; Union does not. Vector allows them to get out of those services even sooner than seven years if they need to because they have paid the capital costs upfront so the termination costs are low; Union does not.

Again, Union just cannot offer the flexibility, control, choice, or access to buy or sell upstream services that Greenfield needs in order to operate its business. Vector provides those services.

I will note too for the record that not every power plant in the future will be able to make these same arguments. Not everyone will be excluded from billing contract demand. Not everyone will be close enough to Vector or another pipeline if this makes sense.

Really, Greenfield Energy Centre and Greenfield South are, in my view, the only ones in that position, but those two are in the same position. Greenfield Energy Centre is the closest competitor of Greenfield South, and we need the ability to compete with them on an equal footing. They have access to all these great services and markets I just described. Greenfield South should be allowed to compete on an equal footing.

In terms of timing, Greenfield needs gas to flow when the power plant is completed. It needs the gas to flow soon. Union simply cannot provide that service. I think we have shown in the evidence that the power plant is just about complete. And the desire for -- the need for gas commissioning is pretty close to immediate.

Now, Union can't provide that service. Union cannot flow gas within the time frame required. They have a leave to construct to obtain, a station to build, easements to negotiate, on and on and on. They can't deliver gas this year, in my view, let alone this spring or immediately. Vector can.

If I were to say I am hungry and I want to buy an apple, it would be like the Board not only ordering me -- it would be like the Board saying, You've got to buy a banana, but also ordering me to buy bananas from the Loblaws downstairs in this building, and if I were to say, There is no Loblaws downstairs in this building, it would be like as if you said, Well, just wait a few years. Maybe a Loblaws will open up, and then you can buy your banana. But I will starve to death by that point.

So that is essentially the question here before the Board. It's not just a matter of what services, but when will those services be provided. Greenfield needs gas now, and Union is not in a position to deliver that.

They are not in the market for gas whenever it happens to be convenient for Union. They are looking for gas now, and if Union cannot provide it now, then I am not really sure why they are here or why we are having this discussion.

So on balancing, and on bundling, and on timing, I am not sure if we found a reference on -- thank you. This is Union's evidence. I will turn now to Union's evidence at page 17 of 26 at line 12, talks about boilers being included in the pricing that they have suggested, and uses the word -- so the estimated capital cost includes a customer station containing telemetry, boilers, ordering systems, filters, meters, et cetera.

So in their own evidence they have confirmed and they've stated that the customer station contains boilers. Well, if I may -- if I may return to that point now -- sorry, let me find it. So by including boilers they are going to heat the gas. That makes the power plant as a whole hotter, puts more pressure on the cooling system, allows you to generate fewer megawatts.

So it means that Greenfield can't use the waste heat from the plant to heat the gas. It means their cooling system can't produce extra megawatts.

MR. KEIZER: Mr. Chair, we are back to where we were. I mean --

MR. RICHMOND: Yes, we are.

MR. KEIZER: -- I take the fact that we included boilers, and I guess boilers have a purpose in terms of heating. I am not sure that you can then draw the inference in terms of diminished megawatt usage and other things that this plant would have from the use of the word "boilers" on line 12 of page 17 of 26.

MR. RICHMOND: I submit that the panel, being expert, can take under notice that a plant that is hotter without extra cooling can't produce more megawatts. That is a general engineering principle. I didn't think it was necessary to submit engineering textbooks to provide evidence of that principle.

MR. QUESNELLE: Well, I think it is a level of detail that would have normally come up in a response or a submission prior to argument, Mr. Richmond. And the Board will -- I think we have heard enough of the point and the connection that you have made. I don't think we need to drill down any further on that area.

MR. RICHMOND: Very well. So on all these points and many other services, Union simply isn't selling what Greenfield is buying. They are providing a different service than Greenfield is in the market for. They are simply in different markets. Price is not the real issue. That the point I am trying to get to here, that price isn't the issue. The issue is the services that Greenfield is looking for and the timing of those services.

So I was going to give several examples. The heat issue was just an example. It doesn't matter. There were many more. That was just three of many. They are in different markets for different services. What they are selling isn't what my client is buying. The product is the issue, not the price, and Union doesn't have that product to sell.

So I started off the portion of my remarks by quoting two prior Board conclusions, that it is in the public interest to allow generators the option to operate as economically, efficiently, and cost-effectively as possible by having as much flexibility, control, and access to upstream services as possible, and that it's in the public interest for gas customers to have access to the services they require. That is the quote from the Board.

Union can't provide the flexibility, control, and access that Greenfield needs to be efficient. Union's service would result in a less efficient and less effective power plant and less efficient business.

They can't offer or they haven't offered the services that Greenfield requires, some of which I have named. Vector has. And Union, more importantly, can't offer those services when Greenfield needs them, and Vector can.

So let's move on to the second point, and that is the macroeconomic inefficiencies. And this is where I will be discussing the competing numbers and costs that were offered in the written materials and that were discussed -- some of which were discussed this morning in cross-examination.

But I want to put it in context first if you will allow me. None of these numbers really matter if you accept the submissions that I just made that Union can't sell what Greenfield needs to buy. It doesn't matter how much I want to charge for apples if I don't have apples to sell. If I only sell bananas, then my apple price is irrelevant.

So even for you to conclude that Union's service is cheaper or the same price as Vector's, which it's not, but if you were to conclude that it was, so what? To be honest, the whole dispute on line items, projected costs, is meaningless, in my view. It only matters if you conclude that Union's service offers the same flexibility, control, and access to upstream services and timing as Vector's service does for this specific power plant.

So everything I am about to say is said in that context. It assumes that you have concluded that Union and Vector's service are the same, which of course we submit that they are not. But even if they are, let's -- in the alternative argument, let's go through it.

So the starting premise is that the net present value to Union and its ratepayers of the ability to serve Greenfield is $403,000 over ten years. That is in Schedule 11 -- sorry, Schedule 1 of Union's evidence. It was also originally found in Schedule 11 of... Pull it up for you. We're having issues here, but this is Union's evidence. It's the chart you've submitted --

MR. KEIZER: Sorry, what page is -- what --

MR. RICHMOND: This is Schedule 1 of your evidence.

MR. KEIZER: Page 1 of 26?

MR. RICHMOND: Schedule 1.

MR. KEIZER: Okay, sorry, thank you.

MR. RICHMOND: We have it. Here it is up on the screen. You will see at the bottom the $403,000. So that in total over ten years is the benefit to Union and its ratepayers.

Now, in a postage-stamp rate environment we have to accept -- we fully admit we have to accept that some will pay more, some will pay less than the actual value of the service they are receiving. That is just the way the system works. No argument there.

We can accept the system where sometimes one person has to pay a dollar more so that everyone else gets a $1 or $2 benefit or savings. On a macroeconomic level that makes sense. It's not great for the guy who is paying a dollar more, but it is for the greater good. We get that. If customer A has to pay $1 more, and as a result, customer B ends up paying $2 less, that supports an economically efficient system. Spend one to make two.

However, if customer A has to pay $10 more so that customer B can save $1, that is not economically efficient from a system-wide perspective. That is a case where bypass is, in fact, economic and should be approved. You don't charge $10 in order to generate a $1 benefit. That is not in the public interest.

That is the principle that was espoused by the Board at page 28 of the GEC decision where the Board noted that an adverse impact on one group must be balanced by a benefit to another group, and in that case, the Board found that the adverse impact of foregone revenues to Union ratepayers was not as great as the adverse impact of lost revenues to Greenfield.

And I am coming back to the case before us. If the benefit that comes from Union having this particular customer is $403,000 over 10 years, roughly $40,000 a year, very roughly, then assuming it's for the same service, with the same flexibility and control and access and timing, which of course it's not -- but as I said earlier, this whole discussion only matters if you conclude that it is -- then you would conclude that Greenfield has to pay -- that, if Greenfield has to pay $400,000 more in order to generate a $400,000 system-wide benefit, that's just one of the consequences of a postage stamp model.

On the other hand, if Greenfield has to pay, say, $4 million or $6 million or $12 million over that 10-year period in order to generate a $400,000 benefit, then that is not efficient; that is not in the public interest, and it would in fact represent an example of an economic bypass, where it makes more sense at a system level to go forward with the bypass, to lose the $403,000 benefit but save the millions.

So in table 4B, as found in Greenfield's response to IR -- the Board Staff Interrogatory No. 1 -- and I just want to take a moment here. We do recognize that this was -- the annual costs here are set out at a 20-year value. The 403,000 is a 10-year value. So it may be a little difficult to compare, but there is math you can do to figure that out. Thankfully our friends at Union in their interrogatories asked us to provide a dynamic working model of the Excel spreadsheet so that changes can be made. I can put that up now if you like, but in the break, I have changed the numbers to make it 10 years, and if you allow me, I can give you the results, and I can walk you through the spreadsheet if you like, but the results are --

MS. SPOEL: No.

MR. RICHMOND: -- the 18 and 12 --

MR. KEIZER: Mr. Chair, I mean, is this a -- this is a calculation done by my friend on the basis of a 10-year number. It didn't arise through interrogatories. It didn't arise through cross-examination. I'm not sure -- I mean, I guess the subject goes to weight, but I don't necessarily think it should be taken as evidence, and it's not coming through his expert, through Mr. Todd or otherwise.

MR. RICHMOND: In fact, this is the -- this table was submitted in evidence. It was table 4B. In the interrogatories we were asked to provide a table with all the formulas and an actual working model on a disc of the Excel spreadsheet with the formulas. That hasn't changed. That is as submitted at appendix -- I believe it's appendix 16. We submitted a CD-ROM with this Excel spreadsheet in order to be dynamic.

MR. QUESNELLE: I think, Mr. Richmond, it suffices for the Board that you just draw our attention to that piece of evidence, and if you want to make argument on the extrapolation, I think that that's acceptable.

MR. RICHMOND: Thank you.

So what I would suggest is, in table 4, under the 20-year model, the differences are -- if you look here, the differences are -- it's about $12 million difference between -- if you compare Union interruptible to Vector firm, $18 million difference if you compare firm to firm. If you take that at 10 years -- excuse me -- it's not $12 million and $18 million, it's $8 million and $12 million.

MR. QUESNELLE: Thank you. If you can be mindful that we will be relying on a transcript of this which we're not -- it's going to be difficult to tie the visual to this, so if you can be explicit in your language, that would be helpful.

MR. RICHMOND: Fair enough.

So in table 4B, line D, in a 10-year world, the $12 million difference changes and becomes an $8 million difference, and in line E, in a 10-year world, the $18 million difference becomes a $12 million difference.

MR. QUESNELLE: Thank you.

MR. KEIZER: Sorry, can you just repeat that last point? Sorry. The $12 million becomes $8 million?

MR. RICHMOND: Yes. So the $12 million here, which was originally submitted as a 20-year in the evidence, if you take it to 10 years, it becomes $8,199,791.

MR. KEIZER: I see.

MR. RICHMOND: This $18 million figure, $18,480,798, which was in the original evidence, if you take it at 10 years, becomes $12,394,663.

MR. QUESNELLE: Thank you.

MR. RICHMOND: So just for the purpose of being able to compare 10 to 10, apples to apples, we are going to refer to those 10-year numbers.

So in table 4B, we see that the extra costs imposed on Greenfield associated with using Union's T2 interruptible service would be about $8 million over 10 years, and we see that the extra costs imposed on Greenfield associated with using Union's T2 firm service would be about $12 million over 10 years.

Now I know that some of these figures are in dispute. Some of the inputs that go into these figures are in dispute, and I will address those disputes line by line in a moment, but I just want to give you a roadmap as to where I'm heading.

If table 4B is accurate, then this bypass would be economic and in the public interest. And even if you conclude that parts of table 4B are not accurate but that the correct numbers are still materially above $403,000, then this bypass would still be economic and in the public interest.

So I have said it's $8 million and $12 million. To be honest, if we change the numbers, if it becomes $4 million and $8 million or $6 million or $3 million, it still vastly outstrips the $400,000 benefit that we will see as a corresponding benefit to Union ratepayers.

So when you look at this at a macroeconomic level, you have to compare the $400,000 benefit, which is in Union's evidence, to the cost to Greenfield.

So let's get into 4B and see what's in dispute.

In line A, you see the first item is $1.625 million, and that's the capital costs associated with the Vector connection. That is comprised of $1.125 million being the cost of the Vector tap. This is all in the spreadsheet behind, which was submitted.

Now, that $1.125 million cost is taken directly from clause 12 of the fully-executed interconnect agreement between Vector and Greenfield South, dated January 8th, 2014. That document is found at appendix 9 of our amended application, page 60.

So $1.1 million being the cost of the tap, $250,000 the cost of the 450 metres of pipe, and $250,000 for a meter station. That is how we arrived at the 1.625.

Union estimates it will cost over $5.2 million, not $1.6 million. That's in Union's evidence, page 17 of 26, line 11. They provide a breakdown of their $5.2 million estimate at attachments 2, 3, and 4 of their response to interrogatory -- Greenfield's Interrogatory No. 14.

So they say that the pipe itself, in those attachments, will cost $42,500. We have no problem with that. They say the installation of that $42,000 pipe will cost $573,000. This may be why some people get upset with utilities sometimes. That is a vastly, in our view, overpriced account. In our submission, the cost is about $200,000. That is the number we have provided.

In any event, it doesn't matter. We have applied the same $250,000 figure in our chart to the Vector scenario and to the Union scenario. So even if it goes up, it will go up for all -- for both.

And so it won't make any difference to the comparison as to whether one is more expensive or one is cheaper. Whatever price you put on that pipeline, it's going to apply to both because the pipeline, the 400 metres of pipe, has to be built in either scenario, Union or Vector.

They have got $137,000 for escalation, contingencies, and interest. We are ready to start construction tomorrow or as soon as we get the certificate from the Board, so no escalation. We are paying up front, so no interest. And a $122,000 contingency on a $42,000 pipe, I mean, that is literally padding. That's what contingency is. That's just padding the account.

For environmental they have got $10,000. We won't dispute that. For station costs they have 4-and-a-half million dollars, including another $1 million for escalation, contingencies, and interest.

So first of all, with the Vector connection there is no station. There is a meter, and it's cost is $250,000, and there is a Vector tap, which is priced at about $1.1 million in our signed contract with Vector. Union has to install a station for its proposed connection to include those boilers, for example, but as we said, we are not planning on doing that, so there is no station.

So if you count 42,000 for the pipe, as they suggested, 200,000 for labour, the 10,000 for environmental, the 250,000 for the meter, and the 1.1 million for the Vector tap as set out in the signed contract with Vector, that is 1.6 million, not 5.2 million. So we would suggest that this number as we have submitted it stands.

As you move further along to the right, the next number is $575,510. That is the annual cost of Vector transportation. Union says in their response to GSPC 12 that it should be $669,310. The difference is that Vector has added $93,000 for a letter of credit for $1.4 million of storage.

First, nobody is spending $1.4 million for storage. Second, Greenfield is going to want the same amount of storage, as we heard this morning, whether the gas comes from Vector or from Union. So anything you add to one scenario to Vector you must add as well to Union. So again, this has no impact on the final price comparison.

Third, in any event, this isn't material enough to change the conclusion. Even if you were to change the 575,000 to 669,000, as Union suggests, it means a total change of $600,000 to the net present value.

So instead of Union's firm service being $12 million more expensive than Vector, it's only 11 and a half. It doesn't change the conclusion that we are trying to reach at all. It is still uneconomic.

The next item is the $500,000, if you go further to the right, in storage costs, and we have included this in all scenarios. Union says that under a Vector option storage will cost 1.4 million and under a Union option it will only cost $342,000.

So first, the 1.4 million that Union proposes assumes the plant operates at 100 percent capacity 20 hours a day, seven days a week. It also assumes that 100 percent of the gas they use comes from storage, that no gas ever comes from transportation. Obviously both of those assumptions are wrong. The plant doesn't run all-out all the time. And if you have firm pipeline capacity you don't need 100 percent storage capacity.

Second, the 1.4 million, as we heard this morning, is based on a storage price of $7.28 per GJ. That is the number -- they took the number from the York Energy Centre, and they suggested that is the number you need to use to arrive at a true cost of storage.

But as we heard Mr. Vogt explain earlier, the actual price is closer to $2.55 a GJ, which, as he testified, is the written quote they received from -- the higher of the two written quotes they received from two storage providers, one of which was Union.

So since 2.55 is about a third of 7.28, give or take, you can just divide the 1.4 million by three and you get something close to, what do you know, $500,000.

So at a 2.55 rate, thereabouts, the 500,000 stands. You would only get 1.4 million if they were to use the highest price for storage paid by any of the power plants in the document that they submitted yesterday. If you look through that document -- sorry, the compendium which they submitted the other day, I'm not sure -- but if you look through that document, all the numbers in the first page and a half are below a dollar, and then suddenly there is one that is $7, and they said, Oh, that is the one we should use. That is not the market price for storage services for the average gas plant.

Let's move down a line now to B, and we see $250,000 being a capital cost of a lateral line under the Union firm and interruptibles options, so in B and C we see the same 250 for capital costs.

Union says in its response to Interrogatory No. 13 that it would build at its own cost a 59-metre lateral line from the Sarnia industrial line to a station on the Greenfield property. That is nice, but they didn't answer the question which we specifically asked: How does the gas get from that station to the power plant, which, once you have built your 59-metre line, is still another 400 metres away? Whatever cost we put on our 450-metre proposed line, you have got to allocate an equivalent cost to the Union option, because they also would require a 400-metre pipe to go from their station to the power plant.

So if it's 250, it's 250 all the way up and down. If you want to put in 150, 500, it doesn't matter. Whatever the price is of a 400-metre, 450-metre line, that price is required under all scenarios, Vector, Union firm, Union interruptible.

So again, this won't change the bottom line one bit regardless of whether that number is 250 or zero or a million.

Now, let's move all the way to the right in line B, and we have the $540,000 cost of interruption. This one is interesting, because Union assigns a zero dollar value to it in their chart. Now, we fully admit that the $540,000 figure is an estimate, although it's not a random one.

The fact is that Union interruptible service is subject to up to 42 days of interruption. Now, we didn't want to be unreasonable in providing our estimate. We didn't want to say -- give a cost assuming 42 days of actual interruption.

42 days is possible, but we admit it's unlikely. So is zero, just as unlikely. Why do I say that a zero-dollar cost of interruption is unlikely? First, because, as Mr. Vogt explained this morning, even if there were zero days of interruption in fact, the fact that there could be up to 42 days of interruption, that itself has a cost associated with it.

All risks have costs. The risk of interruption, even if it never materializes, has a cost. Lenders attribute a cost to that. Everyone attributes a cost to that. No risk is free. So even zero days of interruption has a cost if there is a possibility of interruption.

Second, the second reason I state that zero is unreasonable or unlikely is because Union states in its own evidence at page 14 of 26 that Union firm service would provide upgrades to the Courtright station and the Sarnia industrial station. Union can't provide firm service without upgrades, but they can provide interruptible service without upgrades.

So if Union can provide interruptible service with no interruptions, then they wouldn't require upgrades to provide firm service. They would be able to offer firm service right now using the current facilities. The fact that they have to build enhancements in order to be able to provide firm service means there is a capacity issue so there will be some interruptions without the upgrades.

How many? That is magic question. Greenfield's experience at its other facilities is that they see on average six days a year. We were conservative and we said -- we estimated four days a year for Union.

And we fully acknowledge that just because there are six days of interruption on Enbridge does not mean there will be four days on Union, but we had to base an initial estimate on something. Zero was not a reasonable number. We took an estimate of four days per year out of the 42 that are actually allowed. We believe that's reasonable.

Now, Union says in its evidence at page 17 that this is not a good basis upon which to estimate interruptions, but they didn't go on to provide any other basis. If they had a better estimate, one would have expected them to provide it. They didn't, for some reason.

Unfortunately, that means that the only available figures that this Board has on the record before it on which it can rely are the four days that Greenfield estimated in its submissions and the 42 days quoted in Union's materials. No one has ever suggested and they have never suggested even today that four days is wrong or that there is a better figure to use for this calculation.

So all we are left with is the four days and $540,000 as an estimate. No one can predict the future of how many interruption days there will be. We have got to take our best guess. That is the best guess that's on the record. In fact, it's the only guess that is on the record.

Moving down to line C, we look at the 2.6 -- the $2,612,000 annual transportation cost for Union firm service. Union has used 2,602,000 instead of 2,612,000. The $10,000 discrepancy is because Union failed to include the $10,000 annual operating costs that are included in each of the other two options. In any event, $10,000 is not material to the ultimate conclusion.

So those are all the places where Union's own figures depart from the Greenfield figures. Greenfield's figures are based on or supported by John Todd's expert evidence.

For most of those differences if you change the Vector or Union figure you have to change the other figures as well, because Greenfield is looking for the same service regardless of who delivers the gas.

So most of the discrepancies would not affect the bottom line at all, even if you used Union's numbers. That includes storage costs. We have used $2.55 a GJ, which is what Union itself quoted in writing, but even if you use $7.28 a GJ, you have got to use it for all three options because Greenfield will want the flexibility of additional third-party storage regardless of who delivers it.

The only two line items that do impact the bottom line are, first, whether the cost of interruption is zero or $540,000. At the end of the day, it doesn't matter. Even if we used zero, which I would submit is not a realistic estimate of the cost of interruption or the cost of risk of interruption, but even if we use zero, it would mean that Union interruptible is $4 million more expensive than Vector firm instead of $8 million more expensive. It doesn't change the final conclusion that I started with, which is that the benefit to ratepayers won't be enough to balance the loss to Greenfield, and, therefore, that this bypass is economic and in the public interest. It just changes the magnitude, not the answer.

And for Union firm compared to Vector firm, it actually has no impact at all because both of those already reflect zero days of interruption.

The second line item that might have an impact is whether the cost of the Vector tap is $1.1 million or over $5 million. Again, it doesn't actually matter. Even if you use Union's numbers, which contradict the signed Vector contract and also includes millions in contingencies and other buffers, but even if you did use that number, it would only serve to make Union interruptible $4 million more expensive than Vector instead of $8 million more extensive. So it would serve to make Union firm service $8 million more expensive instead of $12 million more expensive. So it doesn't change the final conclusion that this bypass is economic and in the public interest; it just changes the magnitude.

So the conclusion is that we have a foregone ratepayer benefit of $403,000, if you approve the certificate, but a loss to Greenfield of somewhere between $4 million and $12 million, depending on whose numbers you believe, if you reject the certificate.

As the Board has previously noted, there has to be a balance. If there is not, then we have to go with the more economic option.

Before we leave this area, I want to talk a little bit about NGEIR. A similar inefficiency or imbalance is what led the Board in 2006 to conclude that a Vector connection for Greenfield Energy Centre constituted economic bypass.

Union has provided a bit of a history lesson at pages 6 through 12 of their evidence regarding Greenfield Energy Centre and NGEIR in an effort to distinguish the present context from that which existed in 2006.

I would like to address that history lesson now, if I may, and the relevance -- or, in my submission, irrelevance of Union's narrative on this point.

In 2005, Greenfield Energy Centre submitted a similar application to the Board for permission to construct works which would connect their Sarnia power plant to the Vector pipeline. The Board granted Greenfield the certificate and, in so doing, reached the following conclusions. These are all found between pages 32 and 35 of the Greenfield Energy Centre decision.

"The Board found it is particularly important --"

I am quoting now from various places in those four pages.

"-- it is particularly important for generators to be able to control transportation and related service costs over the long term. It's in the public interest for gas customers to have access to the services they require. Our finding is that Union's current services do not meet those requirements. It is, therefore, in the public interest to allow Greenfield Energy Centre to pursue those services directly through the option of bypassing Union."

The Board goes on say:

"The public interest would be served if Union were able to negotiate a just and reasonable rate and package of services which met the needs of Greenfield. However, Union was not able to bring forward an alternative which is acceptable to Greenfield at this time. We believe that it is entirely possible for Union to develop an offering that is more robust against bypass, and following NGEIR, we expect distributors' tariffs to be more robust against bypass."

That last one is at page 32.

So the Board suggested that a goal of NGEIR was to develop such offerings but that, in the absence of such a tariff, it would be unfair to make Greenfield Energy Centre wait.

Then NGEIR happened and the outcome was, according to Union, new Union rates that better respond to bypass. This was in response to the Greenfield Energy Centre decision in which the Board essentially says that, until there's a more robust rate that can compete with bypass, we are not going to hamstring a generator. If there is no competitive Union rate, we will allow them to connect to Vector.

So Union, I would submit, got that message and went out and developed rates that were, they claimed, competitive and robust against bypass, and those were approved as part of the NGEIR settlement. Union lists the NGEIR rates at pages 8 and 9 of its evidence: billing contract demand, BCD, F24T, F24S, upstream pipeline balancing service, and downstream pipeline balancing service.

These are the robust and competitive rates that the Board wanted to see come out of NGEIR. These are the robust and competitive rates that the Board said, in the absence of these offerings, Greenfield Energy Centre should be allowed to connect to Vector. These rates were not available to Greenfield Energy Centre in 2006, and that's why Vector connection was approved.

Now let's fast-forward to 2015. NGEIR has happened. These rates do exist now, so you would think, as Union suggests, that you could distinguish the Greenfield South case because those bypass competitive rates are not unavailable to Greenfield South in the same way as they were unavailable to Greenfield Energy Centre.

Unfortunately, that's not the case. Yes, these rates now exist, but Union refused to make them available to my clients. They basically said, We have robust and competitive rates, but they are not for you.

Reading from Union's own evidence now at page 13, line 7, I quote:

"Although the BCD option is available in the Sarnia area to customers directly connected to a third-party pipeline, Union did not pursue this option for Greenfield South."

They decided not to offer it. Reading on at line 11:

"Union concluded that a connection to the Sarnia industrial line system was the best alternative for providing service to Greenfield South."

Union decided. No choice, no options. It's not possible that a customer could possibly know best what is best for themselves. We know best, so we will decide for you.

So instead Union offered the T2 rate, not any of the rates that were developed in NGEIR, not any of the rates that were developed for a specific purpose of being competitive for power plants and robust against bypass.

At the end of the day, even though NGEIR had occurred, for Greenfield South, it was as if NGEIR never happened. They were never allowed to even consider anything that came out of NGEIR. Despite it being 2015, Greenfield South finds itself today in exactly the same position as Greenfield Energy Centre found itself in 2006, waiting, waiting for Union to propose a rate and service that's competitive and robust against bypass. It's a proposal that never came. They waited 25 months, 25 months since the first discussions between Union and Greenfield South and still no BCD offer, no offer of any robust NGEIR rates.

To quote the Board from 2006, this is the second paragraph under conclusions on page 36:

"It is possible for Union to develop a tariff solution for customers the size and needs of Greenfield to permit the utilities offerings to be more robust against bypass."

They go on to say:

"But it is not in the public interest to require Greenfield to wait the resolution of an appropriate tariff."

These words apply equally today. Union did not develop an offer of tariff solution to Greenfield South to permit the utilities offerings to be more robust against bypass. If they had, we wouldn't be here today.

Union spends six pages in their evidence, almost a quarter of their entire evidence, going on about how wonderful NGEIR was and all the lovely robust things that came out of it, and then admits that not a single one of those was ever offered to my client. So I have to ask: What is the relevance of those six pages? It's an interesting story, but none of it is relevant to the case before us. None of it is relevant to Greenfield South.

In their response to interrogatory GSPC 4, they say that none of these tariffs are required for T2 customers, and we believe that T2 should be good enough for Greenfield South. So why did they go on and on about services that will never be offered to the applicant? How is that relevant at all? It forms the crux of their case. It's how they differentiate Greenfield Energy Centre from Greenfield South, but it's completely irrelevant.

So if you were to ignore all that, what you really get when you break down Union's own filings is the following. And I'm obviously paraphrasing here, but what you get is that the Board said to Greenfield Energy Centre in 2006 that it's possible for Union to offer a rate that's robust against bypass, but we are not going to make Greenfield Energy Centre sit around and wait until they do.

Similarly, I would suggest it's possible for Union to offer Greenfield South a rate that's robust against bypass, but you shouldn't make Greenfield South sit around and wait until they do.

You know what? They waited, but eventually they stopped waiting. After 14 months of fruitless, one-sided discussions with Union they went out and signed a contract with Vector.

So even if Union were to make the kind of offer today that the Board had envisioned in 2006, to be frank, it would be too late. The contract with Vector was signed in January 2014. The design work has been done, the equipment, including the raw piping, has been purchased and delivered to the site. The power plant is almost entirely built. They are ready to go. They are ready to complete the works which are the subject of this application and to start flowing gas almost immediately.

If you grant this application they will be able to complete the works and flow gas probably by May of this year, four months from now. If they could ever reach agreement with Union on a bypass competitive rate, if one were ever offered now, which it's not, Union would still have to pursue its leave-to-construct application.

If they got leave to construct, they would then have to take a few months to construct their station and tap, maybe a few more to complete the upstream upgrades they say are required, and then we'd still have to build the 400-metre lateral line from Union's station to the actual power plant.

So just what we are basically applying to do now, so I guess we would probably be right back here again applying for a certificate of public convenience and necessity all over again for that 400-metre pipe.

In Union's own leave-to-construct application at schedule 14 they themselves estimate that this will take at least 16 months between their LTC hearing, which hasn't even started yet, and commissioning, so about a year and a half from now.

To make Greenfield sit around with a fully constructed power plant while they wait for Union, the Board didn't consider that to be in the public interest in 2006, and it's not in the public interest now.

If the Board does not grant the certificate today, Greenfield South will have one of two options. On the one hand they can sit around and wait for Union to get its act together and make an offer, which it could have done as far back as 2012, and terminate a binding agreement with Vector, and redesign the gas intake and plant cooling systems, and scrap the gas utilization system equipment that's already been procured; and hope that Union eventually gets leave to construct, which of course is not guaranteed. That is subject to your discretion. That's option one. Option two, kill the power plant.

This is precisely the situation that the Board intended NGEIR to resolve, so when Union has the ability to offer the same service and rate that it would have offered pre-NGEIR is clearly no resolution.

Greenfield South is in exactly the same position that Greenfield Energy Centre was in, and I would submit that you should treat the situation the same way you did in 2006.

So that takes us through the history lesson, and I thank you for bearing with me on that. That history lesson essentially formed the heart of Union's evidence.

One further point I wanted to raise in this section. It seems that Union has tried to suggest in its evidence -- and they may do so again today -- that Vector's firm service is actually interruptible. I just want to put the brakes on that theory right now.

First of all, we shouldn't confuse force majeure with interruptibility. Every pipeline on earth is subject to a risk of force majeure: accident, terrorism, mechanical failure. Every pipeline can go down and lose service. But it doesn't mean that every pipeline is interruptible. It doesn't mean there is no such thing as firm service. The terms "firm" and "interruptible" don't describe the risk of a physical interruption due to an accident. They describe the risk of a contractual or commercial interruption.

If a service is firm, it means that if they are over-subscribed everyone else will be cut off first, not you; and if a service is interruptible, it means that if they are over-subscribed you'll be cut off or cut back in order to make room for firm customers.

Firm doesn't mean that the line will never go down, whether it's Vector or Union, and just because a line goes down doesn't mean the service isn't firm.

Second of all, if you have firm service from Vector or anyone, then it means that, barring force majeure, there is a firm contractual obligation to deliver. It doesn't mean that if they can't get enough gas that day then they can cut you off.

If the Dawn to Dawn-Vector connection is over-subscribed it doesn't mean Vector can cut off its firm service customers. It can't. That would be a breach of contract and a breach of their tariff.

If the capacity of the Vector pipeline is limited by the capacity of Dawn to Dawn-Vector connection, as Union suggests, although I question that assertion, but if it's true, then Vector won't offer firm service to its customers beyond the capacity of that interconnection.

If they did, if they signed up more firm customers than they had the capacity to serve, they would lose their licence. Firm is firm. And for the authority on that I am actually going to quote Union in its response to interrogatory GSBC 24. And I quote:

"Customers who contract for firm service receive firm service. Customers who contract for interruptible service are subject to interruption."

Agreed.

So let me summarize where we are so far. What we have demonstrated so far, or tried to, is that, number one, Union cannot provide the flexibility, control, access, or timing that Greenfield requires at any price. Number two, even if Vector and Union offer the same services, the Union service is not economic. It would demand a 4- to $12 million loss in order to generate a $400,000 benefit. Number three, the reason Union service is not economic is because Union's offers don't reflect or account for anything that came out of NGEIR, which was designed to address this very imbalance. It is as though NGEIR never happened.

So I submit that all of this suggests that approving this application is in the public interest.

In closing, I want to touch on some of the other issues that the Board indicated it wanted to consider in determining whether the proposed 450 metres of Greenfield pipe is in the public interest. This is what I called at the beginning the less contested issues. They are easier to deal with.

The questions that the Board asked are, first, whether there are any unacceptable or unmitigated environmental impacts associated with the construction of these 450 metres of pipe. Second, whether there are any outstanding landowner matters associated with the construction of these 450 metres of pipe. Third, whether Greenfield is competent to construct these 450 metres of pipe. Fourth, whether this 450-metre pipe will impact the way Union's system operates. And fifth, whether this pipe will cause Union's customer rates to go up.

So addressing issue number 2 from the list of issues first -- this is the environmental question -- are there unacceptable or unmitigated environmental impacts associated with the construction of these 450 metres of pipe. In short, the answer is no. The applicant has fully complied with Ontario Regulation 116-01 under the Environmental Assessment Act. The project underwent a full environmental screening and review process. All of the follow-up was done. All of the recommended mitigation measures were put in place. Union asked in their interrogatories about species at risk. An on-site study was conducted. No species at risk were observed; nonetheless, Greenfield implemented all of the mitigation measures recommended by AMEC. They consulted with the Ministry of Natural Resources. They were in full compliance, from an environmental perspective.

I don't plan to take up any more of your time in this subject, because I am not sure anyone is suggesting an environmental hazard from this specific piece of pipe. I assume Union is not suggesting it, since they would have to build almost the very same piece of lateral pipe if they were providing the service.

We provided the OEB with all the environmental screening materials as part of our pre-filed evidence, hundreds and hundreds of pages of it. I presume the Board doesn't want me to walk through that page by page, but I am happy to take any questions on it if you wish.

I will note that Union has tried to hint in their materials that perhaps Vector's federal licence isn't valid because of species-at-risk matters. They are wrong. The environmental screening report concludes that there are no unmitigated species-at-risk issues. This conclusion is stated as clear as day at page 29, section 8.1 of the environmental screening and review report.

But in any event, even if there were a species-at-risk issue, the effect of that on Vector's federal NEB licence is not within the jurisdiction of this Board. That would be a matter for the NEB to concern itself with, not the OEB. And even if it were within the OEB's jurisdiction, Vector's work is not the subject of this hearing. Vector is not a party to this hearing, and the Vector tap is not part of the work we're seeking approval for. Vector is an unrelated third party whose system happens to be connected to Greenfield.

Vector also happens to be connected to Union, so if the suggestion is that Greenfield shouldn't have a certificate because of concerns about an unrelated third party to whom they are connected, Vector, then I suppose Union shouldn't have a certificate either, because they are connected to the same pipeline.

In any event, it doesn't matter, because the evidence demonstrates clearly and the Ministry of Natural Resources has been satisfied that there are no unmitigated species-at-risk issues and there are no unmitted (sic) environmental issues.

Issue number 3 was about landowner matters: Are there any outstanding landowner matters associated with the construction of these 450 metres of pipe. Again the answer is no. The entire protect, all of the works that are before you for approval, are located on the applicant's own land. They are the only landowner. There are no issues.

I expect -- in the interests of time, I expect that should cover it, but please let me know if you would like to hear more on that issue.

Issue number 4 is competent -- goes to whether they are a competent builder. It asks whether Greenfield is a competent builder and operator of the proposed 450 metres of pipe. I can talk about both if you like, builder and operator, but with respect, the approval that is sought under the Municipal Franchises Act is only for construction of the works. We are not seeking approval today for operation because there is no such approval for operation under the Municipal Franchises Act. It only talks about the construction of a work for the supply of gas. It says:

"No person shall construct any works."

It doesn't say, "No person shall operate," and that's because operations are dealt with under the Ontario Energy Board Act, and with respect, the OEB has already considered and decided that matter. The OEB issued generation licence EG 2009-0023, which is found at appendix 1 of our materials, which authorized Greenfield South to own and operate the entire gas-fired power plant, which includes this 450-metre piece of pipe, which constitutes a critical part of the power plant.

If the Board has already determined that they are competent enough to operate the entire power plant, then that necessarily includes a finding that they are competent enough to operate this one section of the power plant.

In any event, this application only deals with competency to construct as the Municipal Franchises Act only deals with construction. So let's talk about construction.

MR. QUESNELLE: Mr. Richmond, can I just ask -- I just want to make sure. I believe you were quite clear, but I just want to the raise the point. So you consider the facilities intended to connect Vector to the plant part of the plant?

MR. RICHMOND: Yes. It's on the property. You can't have a power plant without all the components of it, and without the mechanism to bring gas to the burner tip, which is what this is, that is -- there is no plant.

MR. QUESNELLE: So if the -- if an agreement had been reached with Union and Union would have built facilities to connect to the plant, would they be part of the plant?

MR. QUESNELLE: Union isn't even proposing -- Union is proposing to build a 59-metre pipe to their own station.

MR. QUESNELLE: Or at least connection facilities to --

MR. RICHMOND: To their own station.

MR. QUESNELLE: Yes.

MR. RICHMOND: We would still then need a 400-metre piece of pipe, similar to this one, which we would build as part of the power plant.

MR. QUESNELLE: So you don't see anywhere along that facility between the plant and Vector a demarcation point that would -- or any -- it's either Vector's equipment or Greenfield's plant equipment; is that the -- at a point, at a demarcation point.

MR. RICHMOND: That's what I would suggest. I don't think anything turns on it, but, yes, I would suggest that every piece of equipment owned by Greenfield and operated by Greenfield on the power plant site for the purpose of running and allowing the plant to operate, I think you could call that part of the plant. I'm sure there's a way to describe it so it's not, and I'm not sure anything turns on it, but that's how I would see it.

MR. QUESNELLE: Thank you. Sorry, I didn't mean to interrupt.

MR. RICHMOND: No. That's fine. Please do. It will give me a chance to breathe.

So let's talk about construction competency, and my answer, of course, is that, yes, they are competent builders. They have engaged a highly qualified chief engineer. He has all the necessary TSSA certifications, including qualifications for the commissioning of gas turbine and piping systems, which is specifically what we are talking about here. A list of his certifications can be found at page 4 of our supplementary evidence. Copies of his certificates can be found at appendix 16 of our materials. He will oversee a team of engineers and welders who have TSSA welding certificates and have passed a series of other tests. A list of 14 licensed professional engineers who were involved in the project can be found at appendix 20. Copies of the team's welder certifications can be found at appendix 21.

They have a quality control system -- program that has been blessed by the TSSA. A copy of that qualify control manual can be found at appendix 24, and the associated TSSA certificate of authorization is found at appendix 25.

Who the specific individuals are who will do the work on any given day, whether it's Glenn or Trevor or someone else, that will depend own who is available that day. Whether they are engaged as direct employees or as subcontractors, that's a commercial decision that has yet to be taken, but one that has no effect on the competence question. Everything you would expect to be done to ensure that only competent qualified people are involved has been done, and the fact that these processes and requirements have been established is evidence itself that Greenfield and its parent, Eastern Power, are competent managers of the construction process.

But the best evidence that they are competent is to look at appendix 26, which is multiple pages long, but I have put them all up on the board, appendix 26 of our supplementary evidence.

They have already built almost an entire power plant. The evidence that they were able to build it is right in front of you. If they can build an entire power plant, I would submit that it's safe to say they can install the last remaining piece of pipe. I'm happy to provide any more information on that, again, if you have any concerns, but I don't want to take up any more time unnecessarily.

Issue No. 5 that you asked us to address is the impact on Union's ratepayers. Will this 450 metres of pipe adversely impact Union and its -- and Union's ratepayers? Will there be stranded assets, lower profit, or decreased revenues? Those are the questions that the Board asked.

Now, from the Board's wording in the list of issues, it seems clear to me that the Board is not asking about an absence of positive impacts, but rather about actual negative adverse impacts. The question is -- that you asked was: Will there be stranded assets? The question is not, as Union has tried to suggest: Will there be a failure to build new assets? It's: Will there be stranded assets?

Will there be lower profit? The question is not, as Union suggests: Will there be an absence of higher profit? It's: Will there be a lower profit?

Will there be decreased revenues is what you asked, not will there be an absence of higher revenues.

The answer to all these questions as you asked them is no. If you grant the certificate, Union's assets will be exactly the same tomorrow as they were yesterday. The act of granting the certificate, even the act of building the 450-metre lateral line will not strand any assets. There are no assets currently in the ground and being used which will suddenly stop being used and become redundant or stranded. Union wants to build new assets. It submitted a leave to construct to do so, but those assets don't actually exist. Those are fictional assets. Are we going to talk about stranding fictional assets which don't exist? That seems to be where they are going. But I don't believe it's in interest of the Board to embark on that discussion.

They did mention in their materials that the current Union connection to Vector which does exist would be made redundant. No, it wouldn't. That connection would continue to serve exactly the same number of customers as it serves today. If that number today is zero, then it seems that that Union connection to Vector is perhaps already redundant, already stranded, but nothing in this application is going to take a used and useful asset and put it out of service. Nothing in this application is going to make an asset stranded.

Union tried to make the exact same argument about its interconnection with Vector becoming stranded in the 2006 hearing, and at page 29 of the Board's decision in that case, the Board ruled, in response to Union's claim, that the issue of stranded assets does not arise. The present application is exactly the same as the Greenfield Energy Centre application in that respect.

The second question you asked in this issue was: Will there be lower profit? No. Union's customer list will be exactly the same tomorrow as it was yesterday. Union's revenues wills be exactly the same tomorrow as it was yesterday. Union's expenses will be exactly the same tomorrow as they were yesterday, except for the money that they are spending to intervene in this hearing. So their profit will be exactly the same tomorrow as it was yesterday. So the question: Will there be lower profit? No, not from this -- not as a result of this application.

The third question you asked was: Will there be decreased revenues? The same logic applies here. Union is not losing a customer here. They are not losing volume. They will have exactly the same customers tomorrow as they did yesterday, exactly the same revenues tomorrow as they did yesterday.

Now, Union has taken the creative position that, if you grant this application, they will lose $26 million annually. When we asked in Interrogatory GSBC 20 where this $26 million figure came from, they said it was based on the fact that there will be eight more power plants which will bypass the Union system if our application is granted, and in their response to Board Staff Interrogatory 2, which asked the same question, they actually provided a breakdown of the $26 million for each of the eight future bypass customers.

In response to our question about how much of the $26 million is actually attributable to Greenfield South, they responded, and I quote, "None of the $26 million estimate is directly attributable to Greenfield South bypass."

And, when we asked them to identify the eight power plants that will suddenly bypass Union once our certificate is granted, they could not name any. That is not surprising, because to be honest, I can't even name eight new gas-fired generators that are scheduled to be built in Ontario let alone name eight new gas-fired generators that are scheduled to be built in Ontario in Union's service territory; or eight new gas-fired generators that are scheduled to be built in Ontario in Union's service territory and which are close enough to another pipeline that it would even make sense for them to want to bypass; or eight new gas-fired generators that are scheduled to be built in Ontario in Union's service territory close enough to another pipeline that it makes sense to bypass and which are far enough from Parkway that they wouldn't qualify for BCD, or be offered BCD; or eight new gas-fired generators that are scheduled to be built in Ontario in Union's territory close enough to another pipeline, far enough from Parkway, and which would be assured of having their applications for bypass approved by this Board.

So for Union to ask you to assume that all of those things will happen and should be counted as fact, it's a bit of a stretch, in my view. Even if all those things were to happen, to say that that would happen as a direct result of Greenfield South getting its certificate and for no other reason, that is reaching.

We asked specifically how much of it is attributable to Greenfield South and this application. Their answer was, and I quote, "none".

The long and short of it is that if you grant the certificate as requested then Union's ratepayers won't see a single change in service, not a single change in rates, not a single change in assets, not a single change in costs or profits. There will be absolutely no change to Union or its ratepayers from what exists today.

It will be different than the fictional world that Union will inevitably paint for you this afternoon, but I urge you to remember that that is fiction. Those plants don't exist.

We are almost -- I am almost done.

In the 2006 decision, when responding to Union's predictions that the floodgates of bypass would open if the Board granted the GEC application, the Board wrote this at page 28:

"One approval to bypass does not necessarily result in a flood of similar applications."

As it turns out, that was a very wise statement by the Board, because we can now prove that the floodgates fear was misplaced. It's been nine years since the Board granted GEC bypass, the one Union warned could open the floodgates, and there have been no further bypasses in nine years, not a single one.

Since that decision came out, I believe in the neighbourhood of 15 plants were built in Ontario, none of which even applied for a bypass, let alone were granted bypass approvals: Goreway, Halton Hills, Lennox, Portlands, St. Clair, York, Birchmount, Bur Oak, Durham College, East Windsor, Great Northern, London, Thornhill, Warden, and Villa Colombo.

The owners of all 15 of those projects were aware of the GEC precedent, yet not a single one sought to ride the coattails and seek a bypass, zero.

So I urge you to set aside Union's predictions about eight more bypasses and consider whether there will be any actual adverse changes to Union's system of rates in the real world. As I have demonstrated, there will be none. Union's operations will be the same tomorrow as they were today.

The final item that you asked us to address is the impact on Union's system: Will there be an impact on the way Union's system operates. Again, it is a similar analysis than the one I just did. We are not proposing to touch Union's system. We are proposing no changes to any part of Union's system. Union wants to make changes, but we are saying, No, don't do anything, at least not on our account.

Union is suggesting that their connection to Vector will suddenly become duplicated or redundant. No, it won't be any more or less redundant than it is today, and it won't be any more or less efficient than it is today.

Again, Union tried to make this exact same argument about its interconnection with Vector being duplicated in the 2006 hearing, and at page 29 of the Board's decision in that case the Board ruled that:

"Any adverse impact of duplication in the Vector interconnect is so minute that it would not warrant denying the application."

The present application is exactly the same as the GEC application in that respect. Our proposal to do nothing that affects Union's line won't suddenly overnight make Union line operate in a less efficient manner than it did yesterday. There will be no equipment added to or removed from the system -- from Union's system as a result of the works which are the subject of this application. There will be no gas added to or removed from the system. There will be no customers added to or removed from the system. There will be no change to Union's system at all, and therefore, to go back to the specific wording in the list of issues, there will be no increase or reduction in Union's system efficiency.

So that addresses issues 2 to 6, and I trust you will conclude on the basis of the actual facts and not theory that these issues don't raise any deficiencies which would justify rejecting this application for approval to construct the 450 metres of pipe on their own property.

So just -- I have reached the end of my remarks, and just to summarize again, there is absolutely no right to exclusivity -- no absolute right to exclusivity. Bypass is considered on a case-by-case basis. In this case Union cannot offer the services that Greenfield needs to buy. They can't offer the flexibility, control, access, or timing that Greenfield requires at any price. Even if Union could offer what Greenfield was looking for, the Union service is not economic. It would demand a 4- to $12 million loss in order to generate a $400,000 benefit. This is the same now as it was pre-NGEIR. It's like NGEIR never happened.

And finally, there are no material or environmental, landowner, competence, ratepayer, or system reasons to withhold the approval. We respectfully request that this Board find that the application is in the public interest and grant a certificate of public convenience and necessity for the construction of the natural gas utilization system as requested.

I thank you for time and attention and for allowing me to go over by ten minutes, as well.

MR. QUESNELLE: Thank you, Mr. Richmond.

Just being mindful of the time, why don't we break for 45 minutes for lunch and resume at 1:30 if that sits well. Ms. Helt, you will be going next.

MS. HELT: That's fine, Mr. Chair.

MR. QUESNELLE: Okay. All right. So again, 1:30. Thank you very much.

### --- Luncheon recess taken at 12:41 p.m.

### --- On resuming at 1:33 p.m.

MR. QUESNELLE: Good afternoon, please be seated. Ms. Helt, I believe you are up next.

MS. HELT: Yes. Thank you, Mr. Chair.

# Closing Argument by Ms. Helt:

Board Staff has certain submissions, some of which will be repetitive of what has already been stated by Greenfield's counsel. However I will try and go over those particular points briefly so as not to take up too much of the Panel's time and to make this submission phase of the proceeding as efficient as possible.

Staff has broken down its submissions really into two parts. One is to look at what is the history behind the Board granting certificates in past proceedings and what has been said about the importance of certificates, and then the second component of the submission will really relate to what is the public interest and what are the components that the Panel should consider when determining whether or not this is actually in the public interest. And when making those submissions, Board Staff will be referring to the issues list which was set out by this Panel and was attached to Procedural order No. 1 as Appendix B to the issues list.

We have not prepared a book of authorities, because the references in these submissions will be largely to -- largely reference the previous Greenfield decision, which has already been provided to you, and there will be some references to the evidence, and I will indicate what those references are. However, I don't think there will be a need to turn up any of that evidence unless someone asks to do that.

So if I can just start, then. To reiterate, what this proceeding is all about is it's an application by Greenfield for a certificate of public convenience. The Municipal Franchise Act sets out in section 8.1 that a certificate is necessary before any person can construct works or supply gas in a municipality. The applicant must show that there is public convenience and necessity, and the Board has authority to issue a certificate pursuant to section 8.1 of the Municipal Franchise Act.

In the Board's decision that was dated January 6th, 2006 -- and this is in the combined proceeding that has been referenced previously -- the Board stated that the purpose of section 8 of the Municipal Franchise Act is to deal with construction of works to supply gas, not the supply of gas itself.

Further, the Board stated that:

"A purposive interpretation of the Municipal Franchise Act suggests that all persons who wish to construct pipelines to supply natural gas need a certificate."

The Board Staff states that it is important that the Board retain oversight of the construction of these types of hydrocarbon pipelines in Ontario for reasons including regulatory policy, safety, and the avoidance of the unnecessary proliferation of gas works.

When considering the question of bypass, a review of the fundamental principles that underlie regulation is helpful. Because of the substantial capital investment required to build, maintain, and operate the natural gas storage, transmission, and distribution systems in Ontario, it is less expensive and arguably more efficient to allow only one company to operate within a defined area.

Board Staff submits that this monopolistic nature of the utility has been encouraged through the statutory authority and the requirement of having a certificate.

Union has stated in its evidence that the Board has consistently determined that certificates are geographically exclusive because to grant certificates to two organizations for the same service area would make it very difficult to plan future expansions and avoid duplication.

In Union's response to Greenfield Interrogatory No. 17, Union makes reference to EB RLG 29, report to the Lieutenant Governor in Council, December 12th, 1986. In that report and in the response to the particular interrogatory, which was Greenfield 17, Union quotes from the report, and at 4.2 it states:

"Without a guaranteed share of the market, the utilities would not have attached the private sector investment needed to finance expensive pipeline construction. In exchange for freedom from competition, the utilities, in effect, gave up some freedom to set their own rates."

In the EB LO 226 decision with reasons, dated September 1st, 1998, the Board stated at paragraph 3.8.71:

"The Board finds as a fact that Union has a reasonable expectation that it will, in the foreseeable future, need to extend distribution lines into the area traversed by this line. This finding is reinforced by the evidence that the said area is zoned for industrial development as well as its proximity to other neighbouring industrial developed areas."

In the combined decision, the Board noted at page 23 in its decision that:

"While the incumbent may have a high expectation of being the only entity to construct and serve in its franchise area, it does not have an absolute right."

The result of those references which I have just stated for the Panel's consideration is that this application by Greenfield South for a certificate of public convenience and necessity should be considered on its own merits. There are important considerations for this Panel to take into account with respect to the history and the intent of why the statutory authority was set up as it is. However, it is also equally important for the Panel to remember that it is not an absolute right that, once granted a certificate, no other entity will be able to construct and serve in the franchise area.

With respect to considering the public interest and the factors to take into consideration when looking at the public interest, Board Staff submits that the issues set out in the issues list attached as Appendix B to Procedural Order No. 1, which was dated October 28th, 2014, are appropriate considerations, and I will go through each of those for the Panel.

But first just a few words of general application: In dealing with a bypass, as I have stated previously, the Board needs to look at the public interest. The Board's decisions related to gas regulation have reflected on the Board's consideration of the public interest on a case-by-case basis. The act also provides additional guidance as to what the Board may wish to consider and to consider whether or not this proposal is in the public interest.

One just needs only to look at the objectives of the act and to understand that, in protecting the interests of consumers, it is important to lock at prices, the adequacy, reliability, and quality of service that is to be offered to those consumers. Another important objective is to promote economic efficiency and cost effectiveness in the generation, transmission, and distribution, as well, in order to maintain a financially viable industry.

It has already been stated in the evidence that the Greenfield electron power plant is a key component of a project that was chosen by the Ontario government and included in the OPA's long-term energy plan to contribute to the security of electricity supply in Ontario. Construction of the GEPP is in the interests of ratepayers in Ontario, and it will enable fuel utilization by a new generating facility that will provide cost-effective and environmentally beneficial generation to the province.

In looking at the cost and economic factors relating to serving Greenfield, or the GEP by Greenfield or Union on both Greenfield and Union's other customers, I would just like to briefly summarize some of the evidence. Union has provided evidence that some of the potential impacts include foregone revenues. Union stated that there is no cost basis from a rate perspective or credit requirement on which to differentiate service or to justify bypass of Union's distribution system. In fact, if Union were to construct facilities, the services provided by Union would be comparable and competitive to any service offered by Vector Pipeline. This is set out in Exhibit A, tab 1 at page 1, lines 9 to 12.

Union has also submitted that if the Board approves Greenfield's application, the potential annual margin loss to Union and its ratepayers with respect to its existing customers is approximately 26 million.

In response to Greenfield South's Interrogatory No. 20(c), Union did, however, confirm that none of this $26 million estimate is attributable to a bypass by Greenfield South.

In response to Greenfield South's Interrogatory No. 20D, Union estimated the annual margin loss to Union and its ratepayers if the Board approves the Greenfield South application is to be 1.379 million annually.

Union further argues that the proposed bypass is an incremental load and there is a duplication of facilities -- for example, the connection to Vector -- and a negative effect on Union and its ratepayers.

Physical bypass of Union's system will result in foregone benefits to all existing and future ratepayers. As a result, Union argues that its customers, including existing electricity generators, currently taking service under rate T2 will pay a higher rate than otherwise.

Union has also stated it is concerned about precedent. That is, existing customers located in close proximity to natural gas transmission facilities could take advantage of their location, while other customers that have not had the good fortune to be located next to transmission facilities will continue to take service from the LDC at a higher cost.

These, in Board Staff's submissions, are the arguments that have been -- or the evidence that has been put forward by Union with respect to the economic cost factor.

Greenfield, on the other hand, has stated the following. In response to Board Staff Interrogatory No. 1, Greenfield stated that the net present value cost of the Vector service is about $11 million lower than Union had stated because Union had quoted an incorrect amount of storage that will in fact be procured.

table 4A, which has been referred to this morning -- and quite a bit of time has been spent on it -- this is 4A of Greenfield's response to Board Staff Interrogatory No. 1, and it's found on page 4 of 21 -- provides that Union's interruptible service is over 6 million more costly than Vector firm, and that Union firm is still over 18 million more costly than Vector firm.

table 4B, which includes the costs of interruptions to Greenfield South, shows that Union's interruptible service is 12 million more costly than Vector firm and that Union firm is 18 million more costly than Vector firm. Greenfield concluded that in either case Union's rates are more expensive.

Based on Greenfield's response to this Board Staff Interrogatory No. 1, Board Staff submits that it appears that the costs to Greenfield South to obtain service from Vector are significantly less than the firm and interruptible options from Union.

Greenfield also indicated and Board Staff notes that the uncertainty associated with an interruptible service offering would perhaps increase Greenfield's financial risk. Greenfield estimated that each day its gas supply is interrupted it's likely to result in a loss of net income of about 135,000.

Board Staff submits that, based on the evidence before you, there has been no evidence of stranded assets, and I don't think that is an issue that's being contested. While Board Staff agrees that the costs of the tap to Vector would be duplicative, Board Staff is of the view that these costs are and do not appear to be material.

It is Board Staff's submission that the approval of a certificate for Greenfield South would also not significantly undermine Union's expectations regarding the likelihood of it serving its customers in its franchise area.

Board Staff notes that in the combined proceeding Union estimated its exposure to annual margin loss with respect to other existing customers to be 29 million to Union were the Board to the approve the leave to construct. Board Staff is not aware of that or any margin loss materialized since 2006.

If the application is approved and the certificate is granted, the indirect adverse impact on other ratepayers, in Board Staff's submission, is balanced by a direct benefit to Greenfield South.

Rates for other customers will not increase, and there may be a lost opportunity in terms of foregone revenues, but not lost revenues.

With respect to the other factors that are set out and issues set out on the issues list that was established by the Board and which in Board Staff's submission should be considered with respect to the public interest, I will go through those now.

The second issue is with respect to environmental impacts. I believe Mr. Richmond has significantly dealt with this already, and Board Staff would support what Mr. Richmond has put forward, in that there are no environmental impacts associated with Greenfield's gas supply project.

With respect to landowner matters, Board Staff also agrees that there are no outstanding landowner matters associated with Greenfield's gas supply project. There are no land rights or municipal road allowances that would be required. The land on which the pipeline will be constructed is owned by Greenfield, and it is private property.

With respect to the fourth issue, is Greenfield a competent builder and operator of the proposed gas supply project, Board Staff takes a somewhat different position than what was put forward by Mr. Richmond with respect to whether or not a competent operator is something that is relevant to the Board's consideration in this case in granting a certificate. Board Staff submits that it is relevant with respect to considering the public interest.

Greenfield's supplementary evidence dated November 11th, 2014, in Board Staff's submission, confirmed that Greenfield's competence does exist as operator and builder of the proposed natural gas utilization system.

With respect to being a qualified operator, Board Staff notes the following. Greenfield has stated that it would comply with all the Technical Standards and Safety Authority's safety requirements applicable to the natural gas utilization system.

Greenfield employed a chief operating engineer to lead a qualified operation team. Copies of certificates held by the chief operating engineers are filed. The chief operating engineer holds a TSSA designation, operating engineer, first class, which means that all the requirements of the TSSA are fulfilled by the COE.

Other operation supervisors, according to Greenfield, also hold the TSSA's certifications. In addition, Greenfield has stated that it has access to an operations and maintenance organization of licensed professional engineers through its affiliate, Eastern Power.

In terms of being a qualified builder, with regard to the capabilities and qualifications of Greenfield as a builder of the natural gas utilization system, Greenfield has provided evidence that it would use the TSSA-certified welders.

The CEO has also TSSA certified qualifications with respect to power plant construction, commissioning, and decommissions of gas turbines and piping. Copies of all of these certifications and documentation are provided in the evidence filed by Greenfield.

Issue 5: Will granting a certificate to Greenfield in Union's service area adversely impact Union and Union's ratepayers? For example, will there be stranded assets, lower profit, et cetera?

Board Staff submits that the project will not duplicate or strand any of Union's facilities, other than perhaps a minor duplication regarding the tap to Vector for which the costs are not material given that a similar system would have to be constructed for Union to serve the GEPP.

Board Staff submits that the Greenfield system has no adverse impact on Union or its ratepayers. Rates for other consumers will not increase. As previously stated, Union's estimate of its annual margin loss if the Board were to approve the Greenfield South application is approximately $1.379 million annually.

Board Staff notes that the $1.379 million would be below a $4 million materiality threshold approved by the Board for a Z factor treatment in Union's IRM 2014-2018 application. Board Staff submits that this amount is not material.

With respect to if the certificate is granted to Greenfield, will there be any effect of increasing or reducing Union's system efficiency overall, Board Staff submits that there is no evidence to suggest Union's system efficiency will be decreased.

For all those reasons, Board Staff submits that, should the Board agree that the economics are such that, if a certificate is granted, it is seen to be more economically beneficial to the public interest than if the certificate were not granted, then Board Staff submits it would be in the public interest to grant the certificate.

If a certificate is granted, Board Staff submits it should be limited to a specific geographical zone, and that would be the -- in Board Staff's submission, an appropriate area would be the geographical zone that has been described in the application as being the property of Greenfield, and it should not go any farther than that.

Just one other comment that Board Staff would like to make, and it's in response to something that Mr. Richmond stated in his submission: One of the factors to consider that Mr. Richmond stated the Board should consider in looking at the public interest is the timeliness of being able to construct the pipeline.

Normally I would not comment on this, but I think the fact that, you know, Greenfield appears to have constructed this pipeline in advance, and I know, at the outset of today's hearing, the Panel has agreed that this matter should be dealt with in another proceeding, but that being said, I don't think it's appropriate to argue that this, if Greenfield is granted the certificate, there will be a more timely construction of the pipeline as a factor in support of its application, is one which should be advanced in light of the fact that it is clear, in Board Staff's view, that it's not contemplated that an applicant would come to the Board seeking a certificate when its -- and having already constructed the pipeline. In other words, I don't think it's appropriate for Greenfield to be putting forward timeliness as an argument which would in any way indicate that Greenfield's application is favourable in light of the fact of the actions it's already taken.

Those are Board Staff's comments.

MR. QUESNELLE: Thank you, Ms. Helt. Mr. Keizer.

# Closing Argument by Mr. Keizer:

MR. KEIZER: Thank you, Mr. Chair.

I have provided to Ms. Helt a basically a submissions brief, and I believe that that's going to be handed up to you now. So if I could, I'll use this more as a guide. I'm not going to slavishly follow it. I just -- I think it will be helpful though in terms of some elements of the submissions to refer to it, and I guess when I am, I will direct you to there accordingly.

Union's view is that this application, as others have said, that you have to look at it through the lens of the public interest.

My friend for Greenfield said this application is not about Union. It's, in his view, about Greenfield. In our view, in Union's view, it's not about Union or Greenfield. It's about a broader public interest issue that I think underlies the gas system as a whole and underlies the ratemaking as a whole, and that's something that I will touch on and deal with as part of our submissions.

But generally, in looking at that public interest, I think that the Board in this case should conclude, obviously, as Union's position is, that the certificate application should be rejected, and I'm going to try to get to that point by looking at a number of things. First I want to look at the approval that's sought. I want to look at the specific services that were offered to Greenfield, but also I want to look at the motivations that Greenfield has spoken about with respect to why it believes it needs to obtain a certificate or, by its other name, bypass the system.

I want to talk act the T2 service that Union has offered, the connection that's taking place, and also, obviously, deal with the comments of my friends with respect to the implications of bypass.

Having set that stage, then what I would like to do is actually talk about the legal parameters of what you, as a Board, need to consider and look at the precedent of the Board, not just referring and stopping at the Greenfield Energy Centre case that pre-dates this case, but actually looking at some of the thinking that the Board went into with respect to bypass previously.

This is not a new issue; this is a long-standing issue before the Board, and I hesitate to say this, but I was a staff member on the first bypass case, which is a long time ago.

But ultimately there is an underpinning here which I think is an element of the public interest that you should not ignore, and that's the element with respect to postage stamp rates. That's the element in which you base the overall operations of the utilities with respect to service territories and other things.

I don't think that that can be given too little weight. I think it's an element here that has to be seriously considered because partly of the nature of what this application is about.

This application, in Union's submission, is about economic gain. We have heard the mantra of the GEC case repeated continually: flexibility, control, access to service. As I will touch on through my submissions, the evidence is pretty light with respect to what the nature of the services that are being denied or the element of flexibility that is in question, but what is clear is that they don't like the cost of the service.

So I think the Board has to seriously consider that before departing from a world of postage stamp rates, which is effectively what a bypass does and effectively the result of this certificate, is that you are saying and potentially could say, if you approve this certificate, that, if it's economically good for you, you can leave. And that, in my view, is not a cry of fire in a false pretence. That is a circumstance that says -- you are effectively saying that the test to leave the system is one of economics; it is not one of which, as in the GEC case, a denial of service that you otherwise could have acquired, which is a fundamental difference. And I will deal with that in the legal submissions.

I also want to touch on briefly with respect to the relief that you, the Board, could grant in this proceeding, and it partly ties to discussions we had this morning, and I'm not going to debate, obviously, because you have made your ruling with respect to where that issue should be dealt with -- and you have decided it should be dealt with in a subsequent proceeding, but I want to talk about that element too, so I am kind of starting at the end first, but I will get -- I will close the circle, I hope.

So let me talk about the nature of the approval that you are actually considering today. Everyone has, I think, agreed and all counsel have quoted the section -- and clearly is that it's a certificate related to construct works to supply natural gas, and you can't do that, you can't construct work to supply natural gas, without approval of the Board.

And obviously that is public convenience of necessity, and effectively underpinning public convenience and necessity is the public interest, and there has been three, I think, descriptions of public interest that will come forward in this proceeding. My friend's description of public interest is the economic -- adverse economic consequence to him with -- to Greenfield with respect to having to take service from Union, a broad spectrum of issues, as identified in the issues list and, in my submission, issues with respect to the system as a whole with respect to the economics, postage-stamp rates, and other things. But effectively the public interest is there.

If in this circumstance you conclude that -- and I will dispense with this issue at the outset. If you do conclude that somehow granting a certificate is in the public interest, in my view, or you are yet to decide -- I think actually -- let's take it in two pieces.

If you are going to be deciding whether the certificate is in the public interest, in my submission, you should stay your decision until such time as it is clear whether or not Greenfield has breached the act.

It would not, in my submission, be appropriate to grant a certificate to an entity where the very question of whether they had breached the act to obtain -- or breached the act in respect of the aspect that the act was to grant them the authority to do got the relief they sought.

So in one track with respect to the approval it would be to delay your decision, defer your decision, until such time as this other proceeding has done its investigation and concluded one way or another as to whether the complaint is valid, whether or not a breach has occurred, and subject to that conclusion should then colour or impact upon your ultimate decision, because it effectively is a material fact.

So although submissions would end today, my submission would be that until that clear material fact is clear and understood that you shouldn't render your decision until such time it's understood from the other process as to where it had gone.

Obviously if you -- if you go forward in issuing a certificate, then you will deal with that in due course with respect to the other proceeding.

But I think also, putting that aside -- I wanted to deal with that issue up front and deal with that aside, but I think that is a very important issue that you must resolve in reaching your conclusion. I don't think you can ignore the fact that that investigation may take place under that complaints process.

In terms of dealing with it within the current proceeding as we have heard the evidence today, I think as we said that the public interest has to be considered, and I think obviously it gets considered within the context of a bypass proceeding.

So I want to talk then about what we have heard today with respect to what are the various reasons for why bypass is being sought. My view, simply put, Greenfield is seeking to be entitled to bypass based upon the cost and based upon the economic consequences.

And we've heard various things about various numbers. My friend spent a lot of time this morning with respect to schedule 1 to Union's evidence, where he raised the fact that the table had an end number of $403,000 and held that up as a contrast to the overall cost of service that Vector would incur -- sorry, that Greenfield would incur by taking service from Union, and that somehow there is a clear imbalance from a public-interest perspective.

In my submission, my friend has misinterpreted schedule 1. What that table does that actually is set out at Union's evidence at schedule 1 is called a discounted cash-flow analysis. What it actually is designed to do, and I think Union clarifies it within its context of its evidence at the outset -- and this is at page 5 of 26 of its evidence -- Union says:

"A discounted cash-flow analysis for interruptible service option requested by Greenfield South indicates that Union's proposed facilities project has a profitability index of 1.068 pursuant to the report of the Board in EBO-188 dated January 30, 1998. An overall PI of 1 means that the existing customers will not suffer a rate increase over the long-term as a result of the proposed project. The Board stated in EBO-188 report that it was of the view that an overall rolling portfolio of 1.0 or better is in the public interest."

So what it is is truly a rolling aspect, because what it does, if you look at the table, it says you're investing in this case a cash outflow of $5.9 million and you are actually earning a certain amount per year, and what this does is it says basically by year 10 over the long-term you will not cause ratepayers to suffer an adverse rate consequence because you will earn all your money back in year 10.

And when you get to year 10, after you have earned all your money back, the money you'll have, you know, that will be to your credit, is $403,000. That is not the annual revenue number that is associated with the service that -- if Greenfield was connected to Union. $403,000 is simply the net difference between the revenue you would have in year 10 relative to the capital that you had expended. You had paid for, effectively, the service by that point.

Completely different number than actually calculating what the revenue was. I think the clear number was, as my friend highlighted for Board Staff, is in Union response to interrogatory GSPC 20, which says it is 1.379 million annually.

So I think the whole issue of the 403,000 somehow setting up this -- the fact that there is this enormous difference is because the table in schedule 1 has been misinterpreted and misapplied.

We have also had lots of discussion about storage and what the right storage number is and what kind of services would actually be offered with respect to storage, and the evidence, there is some debate in the interrogatories as to what the right storage number is.

Ultimately, Greenfield puts forward a storage number roughly over 69,000 GJs per day, and the number is stated within the IRs. There is -- and I pointed this to him, an example of how the benchmarking to Greenfield Energy Centre and St. Clair Pipeline is done -- the numbers work out to be the same, but then we hear today in evidence that it's -- they have taken into account their operations and otherwise, none of which was ever stated in evidence other than today.

But I think the key thing is, is that if they are using that benchmarking, the benchmarking doesn't make sense, because this is a generation facility that's operated hourly, that actually produces energy, as we have heard, would be able to consider every hour as to whether you are making money or not, whether you are going to run or not, and you are not looking at it as a total capacity basis, because right now the measure -- benchmark measure they are using is a megawatt per GJ per day -- GJ per day per megawatt is actually on a megawatt-hour basis.

So effectively the benchmark doesn't make sense, because they are actually comparing apples and oranges. Effectively if the facility never ran at all and never had generation, why would you worry about storage if you were simply sitting there never running? It is the fact that you run, the fact that you create energy, the fact that you use gas implies that you actually need the backup of storage, which means the benchmark really should be somehow tied to the overall use of the facility, as opposed to its capacity.

So I think this issue of tying it to GJs per day per megawatt is not a benchmark which follows or does it make a logical sense to say that this is what Greenfield Energy Centre does, and this is what St. Clair does, and, therefore, our storage number is the right storage number.

I think also the fact is that we know that a precondition of this service from Vector is the fact that there has to be a matching, and, yes, there is the operational variance services which enables you to balance, to some extent, through the course of the day, but it's not a be all and end all, and in actual fact, the tariff for the Vector pipeline, which is in evidence and is at Appendix 12 of the Greenfield's original filing, says, at section 16.2 of the general terms and conditions, that:

"Unless otherwise agreed by the transporter, shipper, or the -- transporter, shipper and transporter shall manage the receipts and deliveries so that the difference between the receipt quantities and deliveries quantities shall be kept as near zero as practicable, taking into account fuel reimbursement and other deductions."

So effectively it is not a flexible service; it's a matching service. What you deliver to Vector to be delivered to you has to match. Receipts and what comes off have to match. And so if that is the case, the flexibility would entail that, when the gas doesn't show up, you are going to have to make sure that you have storage to deal with it, storage sitting in inventory, either bought at Dawn or bought at Tecumseh or Enbridge or some other third-party storage provider to get you there.

And what's the determining factor? What is your exposure with respect to the tariff? The exposure is the maximum daily quantity or your hourly quantity based upon the number of hours you select. In this case, they selected 16 hours, which is roughly 2,000 and some odd GJs per hour.

So somehow storage has to be tied to that number. Union tied it to that number and did a calculation. My friend said it's because we assumed that storage is going to be used all the time. I don't believe that that was the nature of the calculation. It may, in fact, be that the better calculation for an amount of storage would be the actual MDQ, which is, you know, in the range of the 34.

The bottom line is that here is an entity that has a matching service with Vector, with receipts and deliveries having to match. Here is a circumstance where the actual transmission line is saying you need to have storage, and we have no real justification on this record other than some of the comments that were made today as to why the storage is what it is.

We also have nothing on the record today as to why or who they are going to get the storage from. Timing, we have heard, is imminent. We have to get connected. We have to get going. But I don't know what the storage arrangements are, and no one has been able to give any degree of specificity with respect to what sort of storage arrangements are, so I guess I question any of the numbers that have been put forward as to whether the $500,000 is correct or not with respect to the value of the storage.

And if they are benchmarking that value of the storage from Union's number that was originally put in place, Union's number is calculated on the basis of a cost base, not on a market price storage, so none of the storage numbers here are calculated on a market price.

I know we heard reference to a market price of 255. That's the first time we have ever heard that somehow that was the calculation underpinning the $500,000. It didn't appear in the interrogatory response. It didn't appear in any assumptions with respect to Mr. Todd's evidence. It didn't appear in anywhere shape or form that said somehow we have already got a market rate from Union. It was only today that we actually heard that number.

We also heard about cost implications with respect to the cost of interruptions. In my view, you give no weight to that. I mean, effectively the number is premised upon an Enbridge arrangement. It's premised on experiences with respect to another system, and I think it is a best guess.

But I think one thing that does need to be discussed is this interruptible nature of the system and the service that's being provided. Union is providing T2 interruptible service, and we have heard evidence which says that the Vector service is a firm service, and it is a firm service because Vector says it's a firm service, and if Vector says it's a firm service, it must be. And if they didn't provide the firm service, they would be in breach of their obligations to us.

But in actual fact, if you go and look at the tariff for Vector, as soon as I find it, also in evidence -- and, in particular, this is actually their toll schedule for FT-H, hourly firm transportation service, and it's also at Appendix 12, and in particular it's at page 151 of Greenfield South's number.

It says:

"At no time shall the transporter be required to provide service under this toll schedule until the transporter has received appropriate confirmation from the upstream or downstream operators at the respective receipt points and delivery points, provided the transporter has elected to do so, to the extent operation conditions permit, and no other shippers are adversely affected."

So in other words, if you haven't got the transportation before you actually deliver it to Vector, Vector doesn't have to deliver it to you.

So the issue is, if Greenfield is taking service from Dawn to Dawn-Vector, Union's evidence is that -- which actually was included in the reply evidence at page 16, lines 8 to 12 -- that the Vector pipeline option would be considered interruptible if Greenfield South contracted with Union for Dawn to Dawn-Vector transportation service in order to transport gas from its supply source at Dawn to the Vector pipeline. The available Dawn to Dawn-Vector service is interruptible at this time.

So in effect, arguably, that, if the T2 service is interruptible, to be in comparison purposes, the actual Vector service, because of the nature of its toll schedule, that the obligation is -- renders the Vector service interruptible as well. And that's not a cost that has been factored in here, and that risk has also not been reflected with respect to this. And we don't know with respect to the arrangements because there is no evidence as to what their arrangements are, what they tend to be.

So I don't think that there has been evidence that enables us to accurately compare the cost differences between Vector and Union, partly because information with respect to storage commitments and other things that -- sorry, I keep saying Vector and Union -- Greenfield and Union, partly because we don't know what those storage arrangements are, what they will be, or what they want to do with respect to them in order to do a proper measure, which is curious given the immediacy of the project that they feel they need to do.

We have heard a lot about the need for the service and the fact that the service isn't available and that it isn't providing the service, but what I heard this morning with respect to evidence in cross-examination was that it's about taking part of the service and further compartmentalizing it and slicing it up to actually be more discrete than what it already is and that T2 somehow is inflexible and that Vector provides significantly more flexibility, and that there would be all kinds of other services they would be able to get with Vector that they can't get with Union. They can get many, many services, I think the quote was from my friends. But there is in the evidence -- if you actually go through the evidence and look for the nature of the services that they feel are lacking that are not available on an upstream basis, there is none said other than, I think, what was discussed today, which is that somehow, on the basis of the balancing aspect, that that could be further unbundled; that they have OVS. Then there are other kinds of OVS arrangements and other arrangements which they would like to be unbundled. But when we actually got down to the nub of it, and it was to be unbundled so they could actually generate electricity, and what was driving their desire to be further unbundled was the cost.

Union has an intraday balancing system. Effectively they don't have the same kind of rigidity that Vector has with respect to delivery and receipt you actually are able to take. It just so happens that that cost and that service is within the service. It's essentially the same types of arrangements that they could get with Vector.

The difference? The difference in Greenfield's mind is it's about cost, not necessarily about availability. And there is a difference with respect to that in your consideration of this bypass and the issuance of a certificate.

Let's talk about the specific services that have been offered to Greenfield by Union, and at tab 3 of the submissions brief I touch briefly on the fact that the profitability index is there and that effectively it does satisfy the test in EBO-188 and that there is a protection of the public interest in respect of that.

And then I also included at that brief an excerpt of Union's evidence, which is pages 12, 13, and 14, which set out the various kinds of service offering that Union went through and the arrangements it attempted to do.

It considered the firm service. It also considered the BCD service. You heard my friend talk about the various services that arose from NGEIR and post-NGEIR and that the BCD service would actually be considered, but the reason it's available in the Sarnia area but it wasn't offered is because, as indicated in Union's evidence, there is a capacity limitation on Dawn to Dawn-Vector, and they can't offer the firm service because of the fact that there is a requirement for significant capital investments on the Dawn to Dawn-Vector line, so as a result they can't offer the BCD firm-natured service.

So they are left with T1 and T2. The T1 rate was too high, according to Union's evidence as set out here in page 3, from Greenfield. Greenfield said, Give us a lower rate, and Union went away and created the T2 interruptible rate.

We heard about the fact that the T2 interruptible rate is inflexible and that somehow it doesn't provide the services that you need. Well, at tab C I set out excerpts from Union's evidence at page 10, 11, and 12 of page 26 which talks about the rate design changes that actually took place, but also talks about the fact that the T2 schedule is available and that there is, you know, parts -- certain things that I want to note.

One is effectively that the T2 service does allow for you to elect transportation. It does allow for you to elect storage. It does have a daily balancing service, which we have talked about, which is built in, but, quite frankly, some customers have looked at that because it actually means it helps their risk and that they actually -- the gas is available. They don't have the hourly balancing issues that Greenfield is going to have to take into account.

Also at page 11 -- sorry, the next page in on tab 3 -- tab C, rather which is at page 11 of 26, you will note that it's noted there at the top of line 1 the rate T2 service is the lowest distribution rate in Union South. It makes it bypass-competitive.

Later on, at line 6, the T2 service is offered to its largest industrial customers and, as indicated at line 10, the total includes all seven gas-fuelled electricity generator plants in Union's franchised service area in southern Ontario.

So obviously for purposes of generating electricity, for purposes of being able to accomplish what needs to be accomplished under existing clean energy supply contracts, of which some of these generators are, the T2 service does serve the need and does do what is required with respect to flexibility and availability. These generators are able to make it work. In my submission, it is not about the service itself, it's about the cost.

And I think just to highlight further for you, starting at line 21 and continuing on to the next page, there are other aspects of the T2 service that I think also demonstrate its element of flexibility, that this is not an obtrusive, inflexible rate, but you have the ability to tailor your service parameters that best suits your needs of the consumer. There's no requirement to nominate consumption at the plant or injections and withdrawals in and out of storage, so you have much more flexibility with respect to any nomination issues and not being able to nominate what you actually end up using. You can better control and predict costs, which is at page 12 at the top. You are not obligated to a daily contract quantity like you are on Vector, and that service permits gas, you know, to buy at Dawn and Dawn effectively is a liquid trading hub.

And to the extent that you don't need high deliverability storage, you actually need cost-based storage, it also is available if you so select that.

Let me actually touch on that issue with respect to the T2 tariff which was raised this morning, and I will just find my compendium.

My friend asked the witness in redirect about paragraph 6 of the T2 tariff, and it asked about "storage space and withdrawal rights are not assignable to any other party without prior written consent of Union". That is there because this represents regulated storage, not market storage.

So if you want market-based storage you negotiate that from the storage provider and the arrangements with respect to that storage provider as to assignment.

Paragraph 6 is part of a Board-approved tariff. It relates to the Board's regulated -- rates to Union's regulated storage service, and so the restriction on non-assignment and other things is in that bailiwick, not in respect of market storage, and we know that Greenfield needs market-based storage because it needs a high deliverability amount. It's indicated that in the interrogatories, and it's indicated it today, and it also wants to have that flexibility, and obviously it can acquire that market service even though it's receiving service from Union.

So the T2 rate has the flexibility and has the services available, but the ability then to tailor your service accordingly is available under that T2 rate.

With respect to the connection at tab D, highlight within the evidence of Union with respect to the actual differences between the Sarnia industrial line and the Vector connection, we heard a lot about the fact that the capital cost -- and I think that the clear thing is that Union has provided a certain capital cost estimate, and what does it base that estimate on? It is based upon its own experience in contracting and constructing related gas works in the Sarnia area, and so it is an experienced builder of pipelines. It has built many pipelines, and it is able to cost pipelines accordingly.

And so its estimates for the capital cost of a connection to Vector is in the range of 5.2 million to 5.4, and it compares to about 6 million for what it would believe its connection to the Sarnia industrial line, which is what it intends to do, which is to build that connection and serve Greenfield through the Sarnia industrial line, also enabling for the flexibility of being through Dawn and the Dawn storage.

We have talked also about the implications of bypass and the economic effect of bypass in this circumstance. It is an incremental load, and it is not somebody who is leaving a system and leaving a pipe. It is an incremental load, and everybody recognizes that.

But I think there is -- and everybody has touched on it -- the issue of duplication of facilities, and also the expectation to provide service.

I think underpinning all that is why we actually have the system that we have. I mean, effectively the system is designed to be an integrated one. It is designed to actually take customers as they are available and integrate them into the system. They actually plan for the peak, and you actually design your system for the peak as you continue to add services. And then you ultimately have to maybe do expansions, and the idea is that you actually recover those costs through postage stamp rates.

So to the extent that Greenfield bypasses the system, you have built-in capacity in a number of circumstances, although there may be some capital additions required. You have built-in capacity by virtue of the fact it is an integrated system and with the expectation that you will add new load, and the rates are set on that basis because one of the elements that drives rates is revenue. And so ratepayers actually within the system benefit as new revenue is added, and it's benefited because your fixed costs of that integrated system that you have created by the regulatory net construct that we have created that those fixed costs are now spread over more revenue.

So, yes, ratepayers benefit, and when they don't get the revenue, they continue to carry those fixed costs. It's not a phantom thing. It's an opportunity that otherwise would have been available that's no longer available, and so, therefore, there is a consequence to it.

In actual fact, the Board considered that in previous cases. There was a case before the Board -- and I will speak to it in other aspects -- which is the Cardinal Power case, EBRO-477, which Cardinal Power was an incremental load to the system. And the Board in that case -- and I will talk about it in more detail -- said this bypass -- in that case, it was a bypass competitive rate was for economic gain only, and we are going to deny it because of that purpose, because of postage stamp rates.

But what they also said was that there was a notional consequence when an incremental load does not connect because there is revenue that otherwise would have been recoverable, revenue that otherwise would be applicable to those fixed costs and that somehow would be lost. And actually that is touched on in Union's evidence in -- and which I have highlighted at tab E where we talk about the negative effects to Union and its ratepayers, and there a quote there from the Cardinal Power, which says:

"There have been submissions made that there is no cost shiftings for customers incremental. The Board does not agree. In the Board's view, where the load is incremental, there is a notional cost shifting, and there is a consequence of not connecting an incremental load."

It's effectively equivalent that, if some large industrial customer who is not going to be able to bypass you said, "I am not going to connect you," you have the same adverse consequence and obviously the same consequence to the ratepayer.

There has been discussion with respect to the $26 million and the amount of the estimate, and everybody said, well, the floodgates never happened. Well, I think that the element you have to consider here is: What are the elements of the test?

I mean, in the Greenfield Energy case, and I will talk about this further, I think the fundamental issue in that case was the availability to upstream competitive services. You had NGEIR. And you also have evidence that shows that there are other generators who are now connected and taking the T2 rate. So to some extent, NGEIR did work. And I think that part of it can be attributed to that.

But I think you have to be very careful that, if you make decisions in this proceeding about the basis of connection, and if it's only on an economic basis, that that ability for people to reach that threshold on a further precedent basis could be problematic with respect to any utility facing people who are connecting by virtue of convenience by location, which I think is also an element which I raise as a question, and that is this is not a brand-new facility that's come to light in Ontario.

Greenfield has been around Ontario now for a number of years, since the CES contract was originally awarded, and they were going to connect in Mississauga. We didn't hear about bypass when they were connecting in Mississauga. We hear about it now when they are adjacent to the Vector line.

So where does that take us? Well, for me, it takes us to tab F and where we can talk about the application of the Board precedent and policy.

And I want to take you through this because I think it's important that we don't lose sight of the context in which the rules relating to bypass came about and that the consideration of the bypass came about, and I actually want to deal with a case which I believe is on point to this case and, I think, leaves you with the pivot point that you have to make and a decision point you have to make in this case.

So at F, tab F, I -- and I have attached to this, for your convenience, four additional tabs. tab 1 is the Cardinal Power case, which is EBRO-477. I have also attached at tab 2 a bypass competitive rate case which is the Canadian Pacific Forest Products Limited case, EBRO-471. And I also make reference to the January 6th, 2006 case in RP 2005-0022, which is the Greenfield Energy Centre.

In Cardinal, they considered the public interest as well, and they considered the public interest by looking at the actual bypass decision that gave rights to and held that parties could consider bypass, and we are not going to reject bypass on an outright basis, but consider it on a case-by-case basis, but they also found in that Board a decision in Cardinal not only with respect to the consideration of bypass from a public interest case situation. They expanded the public interest in that case and said, not only do we have to consider the broad definition of public interest and some element that encourages ratemaking, but also considering it on its individual merits, which we are doing here, but also encourages ratemaking alternatives to bypass. In particular, they highlighted the fact you have to take into account class ratemaking techniques, and you have to consider what -- and customer specific rates at a last report. And in my view, bypass is a last resort.

In that case, in the Cardinal case, Cardinal was considered to be a credible bypass candidate, and the application was rejected since the underlying reason for the bypass was economic gain only. And I believe that's the case in this.

The Board has found in that -- this is a case of physical bypass that's currently before you. The cardinal case is a bypass competitive rate case. To avoid debate on that issue, the Board did consider whether or not its considerations of an economic bypass rate should apply to a physical bypass, and at the next page of tab F, I quote from a decision, which is the Canadian Pacific Forest Products case, in particular the underlying part which says that:

"Furthermore, these same concerns should be paramount in an application for actual bypass, and it should also be kept in mind that, except in the most unusual circumstances, appropriate bypass rate is preferable to an actual bypass."

But the key phrase there is that the considerations with respect to an economic bypass should also come to bear in an actual bypass case.

Cardinal also said, okay, we have to consider the public interest. We know that also, they said paragraph 5022 of the case, that public interest is the overriding consideration in an application by a customer, either existing or incremental.

And they also indicated that the Board has found in the past that postage stamp rates serve the public interest. That's why we have them. And it's accepted that they obviously do so.

They also highlighted the fact that -- at the next page, at tab F, they highlighted at paragraph 5.025 that postage stamp rates, the rate structure in Ontario is based on the principle of class ratemaking where customers who have common characteristics are treated alike, and they also very clearly stated the following proposition which I have highlighted from paragraph 5.026 is that in respect of bypass, they say:

"There is a burden of proof on an applicant to show why it should be outside the class rate system and obtain a special rate. An applicant must address both the private and public interest considerations, the former being a subset of the latter, for in the end, the application is granted on public, not private, interest grounds."

It's the public. Everybody talks, you know, Greenfield has talked about the public interest, and it has held up the economic consequences of being served by Union. Well, it's not that that's in consideration, it is the public that is concerned. The regime that you have established is set and prescribed rates. It was based upon the fact that you weren't benefiting from location, you weren't benefiting, you were actually being treated as a rate class, and it was smoothed across that rate, and you treated like customers alike regardless of location.

The Board also went on to say in considering the public-interest criteria at paragraph 5.028 that -- the Board indicated that an applicant for a bypass competitive rate would need valid, compelling reasons to persuade the Board to depart from traditional postage-stamp rates, and they are referencing the case in Canadian Pacific, and the Board stated that the heavy onus on an applicant to satisfy the Board that such rate was an appropriate response to the applicant's problem.

And I don't believe in this case -- this facts and the evidence that's been put forward in this case have been clearly articulated as to, one, what the applicant's problem is, because I don't believe the issue is with respect to the nature of the services, it's with respect to the cost of those services, and there isn't the compelling reasons to persuade the Board to do otherwise.

I also highlight the last part of the paragraph, which in the Cardinals case was the Board was of view that the increased profit was not a compelling reason. This was the first time that the requirement for transportation service was incremental. And that -- they adopted the reasoning in that regard from Canadian Pacific.

So the precedent would say that the applicant has to show a valid and compelling reason than -- more than the simple cost reduction. And this isn't -- this is -- continues to be consistent with Greenfield Energy Centre's case, and there is nothing different in the application of that same logic in the Greenfield Energy Centre case. There is a difference.

The only -- where it is consistent is that the Board was very clear in the Greenfield Energy Centre case, it was very, very clear why it was granting the leave to construct. And it first looked at the evidence, and it says -- it said at page 33 of that case that GEC's evidence is that the key concern is that Union's T1 services -- is that it impedes access to competitive upstream services, especially storage and load balancing services.

And then it said on the basis of that evidence, it said at page 27, it was very specific -- it said specifically:

"The Board concludes that it is in the public interest to allow GEC the opportunity to bypass Union's distribution service because the Board is not convinced that Union's distribution service as presently structured provides GEC the control, flexibility, and access."

And you have heard those words over and over today, but I don't believe you have heard the actual issues that underlie those. We have heard we want to slice and dice load balancing more, we want to do whatever else, but -- and I'll go back to this -- what we have heard from my notes -- what we heard was, yes, but we are really concerned about the costs of those things, not whether we have access to them because I think they are cheaper costs or better costs through Vector than they are through Union. So access to competitive upstream services.

So in that case the Board said, okay, there is a reason for it, but in my view in this case the issue is on purely economic grounds. And there isn't that impediment to upstream competitive services. If you are on a T2 interruptible rate, you can get storage from whoever you want to get.

If you have the flexibility to design your service, you have a flexible service, and it enables you to, as we have indicated already, those attributes with respect to T2.

So I believe and I submit that the current application is directly analogous to the Cardinal case, that they have presented no fact or reason other than, I believe, a cost reduction to deviate from those postage-stamp rates, and that the upstream services are available whether you are served by Union or Vector, and it's certainly available when you're served by Union.

I think the decision, as I have indicated before, is important because if you are making the decision based purely on economic grounds what you are ultimately saying is, Because I can get the service cheaper elsewhere, I have the ability to leave the system, I have the ability not to participate in the system, because I have a cheaper alternative. And I believe that that is not what the Board intended when it considered the ability to look at bypass on a case-by-case basis.

The assumption was we will consider whether we give you a rate or whether we allow you to bypass, but you have to have a compelling reason to not participate in this system that we have structured and the bypass and the postage-stamp rate system that we have created.

If I can just have one minute.

Just so I can deal with a couple of clean-up matters in reply. One, I think my friend, Board counsel, had mentioned about the Z factor and whether this was an issue because the Z factor is not triggered. The Z factor is for unusual circumstances. It is not that this isn't important. I mean, there's still the revenue, the $1.3 million of revenue per year that's generated. It's just not an unusual circumstance that would otherwise normally trigger a Z factor within the context of rate-making, so I think that is important, that just because the Z factor is not triggered doesn't diminish the importance of the revenue loss. I think that is important to clarify.

The other element I wanted to address is the issue of timing, and my friend's urging with respect to the timing, and I note from a fact that we are here before this Board as a result of -- ultimately of them making an application, and I think -- and I think it's important to note from Greenfield's amended application filed with the Board where in their amended application -- and I guess it actually isn't underlined or blacklined, so I am assuming it is in their original application as well, and in that application it states at paragraph 7 that:

"Greenfield South has engaged in ongoing discussions with staff at the Energy Board for several months in an effort to resolve the ambiguity of the Municipal Franchises Act and the application in this case."

In my view, the application in this case has always been clear, which is that a certificate was required. The Greenfield case was very clear with respect to whether a certificate was required. And it indicated, one, that you were to control and regulate the construction of work; and, two, you were also to, even if you were serving yourself, which is what the Greenfield case really stands for because the issue was raised, does the certificate apply. Yes; even when you are serving yourself you have to have a certificate, which is another important aspect.

So in my view, the delay about whether a certificate could have or could it not apply, this matter could have been dealt with based even on the application of Greenfield months earlier if they had just simply applied for the certificate rather than debating it externally.

Subject to your questions, those are my submissions.

MR. QUESNELLE: Okay, thank you. Just give us a moment here, Mr. Keizer. We may have something here. We're just...

Okay, thanks, it's covered off in the evidence we have, thank you. Thank you very much, Mr. Keizer.

Mr. Richmond, would you like a short break?

MR. RICHMOND: If we could take a brief break for --

MR. QUESNELLE: Okay. We --

MR. RICHMOND: -- and then come -- and we will be very brief.

MR. QUESNELLE: Perfect. We will resume at ten after 3:00.

MR. RICHMOND: Thank you.

MR. QUESNELLE: Thank you.

### --- Recess taken at 2:52 p.m.

### --- On resuming at 3:12 p.m.

MR. QUESNELLE: Okay, please be seated.

Okay, Mr. Richmond, reply.

MR. RICHMOND: Thank you, Mr. Chair.

# Reply Argument by Mr. Richmond:

So I just in reply, I just want to touch on five points, but I will only spend a minute on each, so we will be out of here fairly quickly.

The first thing I think I must address is the request for a stay from my friend. And I apologize that I didn't comment on this whole area earlier because we wanted to respect the decision of the Board that was made first thing in the morning, and so we didn't get into it, but I would hate for the Board to read in from my silence that there is some kind of a guilty mind here, and so I do want to state for the record that the allegations are completely untrue and that nothing has been built without a certificate that requires a certificate, and there has been no breach of the act. So I will just put that on there, but we haven't had a chance to present any evidence to support that or to make that case.

My friend has asked for a stay, he said, until the investigation results are in. I'm not sure what investigation he is referring to. There is no investigation currently. There are only allegations. I know my friend has suggested that there should be an investigation, but to ask for a stay pending an investigation that may or may not ever occur means, basically, it could be an indefinite stay, and so I would urge you to not concede to that request.

Even if there were to be an investigation, frankly the results of that investigation wouldn't be on the record in this hearing, and so it wouldn't add anything to your decision. So I urge you to deny that request. You have everything before you that you need, and I would urge you to proceed to make a decision in due course.

The second point I wanted to touch on is the question of the $400,000 that obviously I focused quite a bit versus the $1.3 million figure that my friend offered. And what he said in his comments was that the $400,000 is just the number you end up with at the end of the 10 years. It's not the revenue per year. He is correct. That's exactly what it is. He said the revenue per year is $1.3 million, and yet, if you look at this, the revenue per year is not $1.3 million. The revenue per year is about $800,000, declining every year, so $800,000 going down to 790, 785,000. So I'm not sure where the $1.3 million came from. That is the revenues per year, and, of course, you have to set that off against the $6 million capital cost up front, which is how you end up with the $400,000.

The $1.3 million, there is no support for that whatever. It was given in a one-word answer to an IR with no basis, no evidence whatsoever. It was just a number that was thrown out, and it directly contradicts the evidence that they provided earlier in their evidence.

The third point just on the public interest and the fact that you have to decide this based on the public interest, and my friend said that the public interest is not about what's in the economic interests of Greenfield, and I just want to affirm that point; that we are not in dispute on that point. We wholeheartedly agree, which is why I stated at the beginning of my remarks that, if we have to spend a dollar more so someone else can save a dollar, that makes sense, and we fully support the postage stamp rate. It's not the economics of Greenfield that matter. It is the global economics, the aggregate economics, the societal economics. The question before the Board is always: What is the most efficient use of global resources? And that is the question -- I fully agree with my friend. That is the question before you is that, when you look at everyone, including Greenfield and everyone else, at everyone's benefits and costs, what is the most efficient use of the global resources in the aggregate, and that is what I -- I think I spent a lot of time trying to explain that globally there is a cost in the millions and a benefit in the hundreds of thousands when you consider the entire public, including Greenfield and everyone else.

Fourthly, my friend referred at length to Cardinal Power and to other precedents which he provided. Those cases and precedents, Cardinal Power in particular, are -- you know, that one is from 1993, I would just want to point out. It's prior to the restructuring of the electricity market. There was no OPA. There was no IESO. There were no CES contracts. It was a completely different market. It was also prior to NGEIR, and NGEIR -- both market restructuring in 1998 and NGEIR changed things significantly. It changed everything for generators in particular, NGEIR did.

It might be that the principles enumerated in Cardinal still apply for industrial load customers of gas perhaps, but not for power plants. Power plants, the policy was changed in NGEIR and since. The world in which power plants operate was changed in 1988 significantly. The GEC decision in 2006 is not only the most recent decision, and it doesn't go back 20 years. It's the most recent decision on this point, and, frankly, it is exactly on point, which Cardinal was not. It is a plant almost next door to this one, connecting -- you know, debating between Vector and Union, the identical service. It is the identical case. It is the most recent case, and if you have to choose between two precedents, one which happened before market restructuring and before NGEIR, the other one which happened most recently for a plant next door, I would argue that the more recent case that is directly on point would be the one to follow since they clearly go in two different directions.

And my final point is -- my friend suggested that the T2 rate is essentially the same as Vector. It offers the same flexibility. He said, "We heard the words flexibility and control, but with no indication of what that meant."

I disagree. I think we heard quite a bit about what that meant, particularly on the stand from Mr. Vogt this morning, but just to clarify because apparently it wasn't clear enough, T2, you cannot divert gas. You cannot resell capacity. The delivery point is specific to a specific -- sorry, T2 service is specific to a specific delivery point, so you cannot resell it to another customer unless they are at exactly the same location you are. Balancing is included. That's why it's a no-notice service, T2, because they do the balancing for you.

My friend acknowledged that balancing is included, and he said that that is an argument as to why it's flexible, because they balance for you. It's not. That is an example of why it is inflexible, because you are forced to take that balancing service. You cannot do it yourself or go without it, if you choose, if market circumstances dictate.

And, of course, the other difference is one is has a boiler and one has no boiler, which is on the record. We glossed over that this morning, but that is on the record, another difference. There are many differences. So the storage, the boilers, the, divesting gas, the capacity to resell -- the ability to resell capacity, and the balancing, so those are five examples which we did speak about today as to where T2 differs in flexibility from a Vector service. So I would challenge the assertion that they are essentially the same.

And that's all I have, subject to any questions.

MR. QUESNELLE: Thank you very much, Mr. Richmond.

Ms. Helt, we have had a couple of compilations of reference material here. Perhaps we can just mark those before we leave.

MS. HELT: Certainly. If we could mark as Exhibit K3 the combined decision in Greenfield Energy Centre Limited Partnership from January 6, 2006.

EXHIBIT NO. K3: Combined decision in Greenfield Energy Centre Limited Partnership, January 6, 2006

MS. HELT: And K4 will be the submissions brief filed by Union.

EXHIBIT NO. K4: Submissions BRIEF filed by Union

MR. QUESNELLE: Great.

MS. HELT: Thank you, Mr. Chair.

MR. QUESNELLE: Thank you. Okay.

Thank you very much, everyone, for your submissions today and your evidence this morning.

The Panel recognizes that there are some time sensitivities and some other issues that will be dealt with, and we will render our decision in due course. Okay. Thank you very much.

### --- Whereupon the hearing concluded at 3:21 p.m.