ONTARIO ENERGY BOARD

FILE NO.:	**EB-2018-0305**	**Enbridge Gas Inc.**

VOLUME: **Technical Conference**

DATE: **May 2, 2019**

EB-2018-0305

THE ONTARIO ENERGY BOARD

Enbridge Gas Inc.

Application for approval to change rates and other charges for the sale, distribution, transmission and storage of gas for Enbridge Gas Distribution Inc. and Union Gas Limited effective January 1, 2019

Hearing held at 2300 Yonge Street,
25th Floor, Toronto, Ontario,
on Thursday, May 2, 2019,
commencing at 9:30 a.m.

TECHNICAL CONFERENCE

APPEARANCES

IAN RICHLER	Board Counsel
KHALIL VIRANEY DONNA KWAN	Board Staff
CRAWFORD SMITH VANESSA INNIS RAKESH TORUL	Enbridge Gas Inc. (EGI)
JOHN VELLONE	Association of Power Producers of Ontario (APPrO)
TOM BRETT	Building Owners and Managers Association (BOMA)
SCOTT POLLOCK *	Canadian Manufacturers & Exporters (CME)
JAYA CHATTERJEE *	City of Kitchener
JULIE GIRVAN *	Consumers' Council of Canada (CCC)
ROGER HIGGIN TOM LADANYI	Energy Probe Research Foundation
DWAYNE QUINN	Federation of Rental-housing Providers of Ontario (FRPO)
IAN MONDROW	Industrial Gas Users Association (IGUA)
RANDY AIKEN *	London Property Management Association (LPMA)
VALERIE YOUNG	Ontario Association of Physical Plan Administrators (OAPPA)
MICHAEL BUONAGURO	Ontario Greenhouse Vegetable Growers (OGVG)

* appearing by teleconference

A P P E A R A N C E S

MICHAEL McLEOD *	Quinte Manufacturers Association
JAY SHEPHERD	School Energy Coalition (SEC)
LINDA WAINEWRIGHT *	Six Nations Council of the Six Nations of the Grand River
MARK GARNER	Vulnerable Energy Consumers' Coalition (VECC)

* appearing by teleconference

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NO EXHIBITS WERE FILED IN THIS PROCEEDING.

U N D E R T A K I N G S

Thursday, May 2, 2019

--- On commencing at 9:30 a.m.

MR. RICHLER: This is Day 2 of the technical conference for Enbridge 2018-0305. Mr. Ladanyi, would you like to lead off this morning?

ENBRIDGE GAS INC. - PANEL 2, RESUMED

Mike Hildebrand

Erik Naczynski

Hilary Thompson

Tanya Ferguson

Ryan Small

EXAMINATION BY MR. LADANYI:

MR. LADANYI: Thank you, yes, I would. Good morning, panel.

ALL: Good morning.

MR. LADANYI: I am going to start off with a subject that I always raise with utilities, and it's the cost sharing of relocation costs. I raised it with Alectra in their cost sharing with York Region Rapid Transit, and I was disappointed to see that they are paying 50 percent of the cost and they are relying on the Public Service Works and Highways Act. And I raised it with Toronto Hydro in their cost sharing with Metrolinx, and I found out that Metrolinx is paying 100 percent of the relocation costs, which I thank Toronto Hydro for.

So I would like to know in relation to EP 29 there is mention of a cost sharing with a third party for the Don River relocation project. And who is the third party --

sorry, I will let you turn it up. EP 29.

MR. NACZYNSKI: So Mr. Ladanyi, so with respect to this project, the third party that they are in consultation with is the Toronto Waterfront Corporation, or Toronto Waterfront Society -- Toronto Waterfront, referred to as. They are still in negotiations with them on how that cost-sharing will be applied, and that has not been decided at this time, but that is the third party.

MR. LADANYI: So the third party, if it's Toronto Waterfront Corporation, whatever, it is not a road authority under the Public Service Works and Highways Act, so a 50 percent sharing would not apply there.

MR. NACZYNSKI: So as I mentioned, they are still working with that group, and they have not resolved that yet. So I can't speak to what the outcome of those conversations may be.

MR. LADANYI: Very good. Now that I have alerted you Toronto Hydro is getting Metrolinx to pay 100 percent of the relocation costs of the poles and streets, I urge you to get the Toronto Waterfront Authority to pay also 100 percent.

MS. GIRVAN: It's Julie here. I just had a question on this. What's the potential arrangement with this Toronto Waterfront Association or whatever it's called?

MR. NACZYNSKI: Yeah, so I think I can maybe address both questions at the same time, and as I said before, they are still in negotiations, and they haven't come to a resolution of what that cost sharing will be. And I don't know -- so as far as implications of the magnitude, I don't know. Somewhere between zero and 100 percent, I would presume.

MS. GIRVAN: And when will you know?

MR. NACZYNSKI: So that -- those conversations are active and ongoing at this time. As far as when the resolution is, it will depend on the scheduling and urgency of the organization that's, you know, making the work required, Toronto Waterfront, but, again, don't know when the conclusion of those will happen at this time.

MR. QUINN: Far be it from me to assist the utility, but wouldn't this be guided by the municipal franchise agreement, at least your discussions with the city? I understand and respect that it is a replacement that Enbridge needs to undertake for its integrity, not a roadworks type of relocation, but would your municipal franchise agreement not apply in this case?

MR. NACZYNSKI: So, Mr. Quinn, the conversations are ongoing. I don't know that I can speak to -- I mean, I am not fluent with the overall makeup of the Toronto Waterfront and how they -- because they represent certain, different groups across the city and others, and as far as how that relationship will work I simply can't speak to it.

MR. QUINN: Okay, thank you.

MR. LADANYI: Just as an aside, I don't think Enbridge has a municipal franchise agreement with the city of Toronto. It works under a different arrangement, but we will leave that aside.

Okay. Let's go to another subject, which is RNG, renewable natural gas --

MS. GIRVAN: Sorry, Tom, can I just jump in? What are the implications if, for example, 100 percent funding is provided?

MR. NACZYNSKI: So if 100 percent funding is required --

MS. GIRVAN: Provided, yes.

MR. NACZYNSKI: So if 100 percent funding is provided, then that party would pay 100 percent of the costs of the project.

MS. GIRVAN: Okay. So how does that impact your ICM request?

MR. NACZYNSKI: Right. So right now the ICM information is based on Enbridge right now paying for that project. If the financial arrangement of how that's being paid for doesn't meet the ICM requirements, then it wouldn't be an ICM project anymore.

MR. SMITH: Sorry, just, Julie, you may not have the benefit of this, but the project we are talking about is not an ICM project --

MS. GIRVAN: Oh, okay. Sorry, sorry.

MR. SMITH: -- for 2019.

MR. NACZYNSKI: Thank you --

MS. GIRVAN: Yeah, yeah, you are right. Okay. Sorry.

MR. NACZYNSKI: -- is not a project in 2019 for ICM. Thank you.

MS. GIRVAN: All right. Thank you.

MR. MONDROW: Sorry, Crawford, I have lost track. Is there only one Don River relocation project? Or --

MR. SMITH: The Don River project that is the subject of the ICM request is the NPS 30 pipe, I believe, and we are here talking about the NPS 20 relocation project.

MR. MONDROW: And is this NPS 20 in a different location now?

MR. NACZYNSKI: That's correct, so thank you for the clarification, Crawford. The 20-inch is a separate crossing, so there's two crossings of the Don River that Enbridge has and operates. There's the 30-inch, which is to the north, in the vicinity of Eastern Avenue, and the 20-inch crossing is slightly south at the King railway bridge where Lakeshore -- like the Gardiner Expressway, the very -- at the very bottom end of the King channel.

MR. MONDROW: And if Enbridge pays 100 percent of the NPS 20 relocation, which is the one that is the subject of this interrogatory on the screen, Energy Probe 29 -- well, sorry, let me back up.

The NPS 20 relocation is not a 2019 initiative, I gather.

MR. NACZYNSKI: That is correct. It is not a 2019 initiative.

MR. MONDROW: Okay, thank you.

MR. LADANYI: Everybody finished with NPS 20? Good. I can go on to renewable natural gas.

So we asked a group of interrogatories related to renewable natural gas. Perhaps we can first turn to Energy

Probe 36. So first, can you tell me how, do you interpret this response from the customer survey? What conclusion would you draw from that?

MS. THOMPSON: Mr. Ladanyi, there are no RNG costs within the asset management plans. So we are only covering what we consider to be regulated capital within the asset management plans. And neither one of the individuals on the panel are able to speak to the details of RNG.

MR. LADANYI: Fine. Since you do know about costs, so are you saying that in utility capital plans there is no plant investment in RNG? Because RNG, as we know from the OEB decision, one part of the investment is in utility assets and one part of the investment could be in non-utility assets, and obviously this is a utility hearing, so I won't ask anything about non-utility assets. I am only asking about potential utility assets, and you are saying there is no plant investment, as far as you know.

MS. THOMPSON: Currently we have no costs related to RNG in the asset management plans.

MR. LADANYI: In the asset management plans. Does asset management plan include all of your spending or is there some other spending somewhere else?

MS. THOMPSON: The asset plans as filed include the costs associated with our regulated capital.

MR. LADANYI: So it's 100 percent of regulated capital.

MS. THOMPSON: Correct.

MR. LADANYI: Thank you. So if we can move on to my interrogatory, in fact, I came up with a question, EP 16, Energy Probe 16. So in part A I had asked for line-by-line explanations of differences. And in your responses you give some of the explanations, but I would like a few more explanations if I can have it from you.

So let's go to the first project, Don River replacement. And this is the NPS 30 Don River replacement. And if you look at the table on page 2 -- thank you for having it on the screen -- you will see for example in item 3, external and regulatory costs. And they were filed at 860,000, and they are now at 1.43 million, an increase of $573,000. Can you explain what happened there?

MR. NACZYNSKI: Mr. Ladanyi, I won't be able to give you a specific explanation on that. I know that that project -- I would be speculating to give any answer at this time. I know that they are now dealing with a leave to expropriate, et cetera, with that project. But I'd have to get to -- undertake to get you a more detailed explanation of that $500,000.

MR. LADANYI: What I'd suggest is that there might be additional undertakings. So we just hold on and then we will get an undertaking for all of the numbers they cannot explain. Is that possible?

MR. RICHLER: Sure.

MR. SMITH: Yes, that's fine.

MR. LADANYI: Very good. I am hoping they'll be able to explain most of them, so you don't have to actually take an undertaking. But for that one, we will keep that essentially on the board for the undertaking.

So is the land cost then below that related to potential expropriation in item 4?

MR. NACZYNSKI: So I know that the project team is actively negotiating, working through the process with the impacted landowners in order to acquire the necessary easements and rights to construct that pipeline.

MR. LADANYI: Just so I understand what your categories are under each item, external and regulatory costs, that would be the costs of what -- the regulatory affairs department no doubt, and the cost of, for example, the leave to construct hearing.

But what are the other costs that would be inside item 3? Can you tell me that, and as compared to land costs? So let's say you are looking for new land. So you probably have lawyers engaged with that; you probably have land agents engaged with that. So where would these -- so would these lawyers be in land costs, the cost of legal services, or in external and regulatory costs?

MR. NACZYNSKI: So the cost of the lawyers would be in external costs.

MR. LADANYI: And the land costs would be just the dollar amounts you think you will have to spend to buy the land or whatever?

MR. NACZYNSKI: The acquisition of the necessary rights to be on that property, whether purchase, lease or easement.

MR. LADANYI: I am not to going to ask too much about overhead costs, except that from what I understand, the direct overhead costs would be the cost of the engineering department staff who are working on the project, and indirect costs would be like finance, and regulatory, and so on. Would that be right?

MS. FERGUSON: Direct costs would be your more operations and engineering direct overheads. But there will be some support costs in operations and engineering that would be in the 9.2 as well.

MR. LADANYI: Okay. Then I can ask about interest during construction. The project -- that is related to how long the project is in the construction, isn't that right? So that seems generally unchanged. You are saying the project will be -- you are claiming it will be the same duration?

MR. NACZYNSKI: That's correct. The scope of the work hasn't changed, and the duration of the construction is not anticipated to change.

MR. LADANYI: Then we go to item 7, contingency costs, and there we see the contingency costs have gone down, which I would expect as the project matures and you are eating into contingency. Could you explain to me how you decided to use up some of the contingency and how much you decided -- why you decided to use up that amount, which is $2 million.

MR. NACZYNSKI: So at the -- you identified it correctly, Mr. Ladanyi, that at various stages of the project, as the certainty and understanding of the project increases, the contingency, as you would expect, would come down. And you can see here that the, you know, the land -- sorry, the contingency cost is very similar to that of the increase in the land costs.

Again, at the time of defining it, they were unsure of what would be the land cost. They included a contingency and as they become more aware of what the anticipated costs will be, it's predominantly the land.

MR. LADANYI: So before I finish, I will turn to the other project. Perhaps I can ask any of the other intervenors if they have a question on this table. No one?

Okay, let's turn to the Sudbury project, which is on page 3. Can you explain to me why item 2, construction and labour, has gone up by $8.9 million?

MR. HILDEBRAND: I do not have the specific information that resulted in that increase to the construction and labour item in the table.

MR. LADANYI: We will have that one on the undertaking as well. Okay, and let's go down.

Overheads; well, we discussed that yesterday, so I will leave that aside. I am actually surprised a little bit here, and perhaps it has to do with the differences in accounting or categories between Union Gas and legacy Enbridge Gas distribution is that there was no direct overheads. So I presume that the cost of engineering and planning and so on was somewhere else in these categories. But do any of you know where it was? It wouldn't have been in the materials. Was it in construction and labour?

Where would the cost of planning for this project, surveying and so on, which would have been -- Enbridge would have had it in direct labour, direct overheads. Where would it be in this table?

MS. FERGUSON: It would be in, let me see, construction and labour, and there probably is a portion in materials related to warehousing and that type of thing.

MR. LADANYI: Okay. Now, interest during construction appears unchanged, and contingency are unchanged. So maybe I can ask an inverse of the previous question, as we saw from the Don River bridge replacement, there they were using up contingency.

I am surprised here that contingency is not being used up. Can you find out for me why contingency is not being used up here as they are doing more work on the project? Actually, if they have done more work on the project, I am still surprised they have not claimed more contingency. The project is pretty well finished, isn't it, that they would have not taken any contingency.

Particularly -- and this is in the question that I actually have, and I think this really requires more thought and you probably won't be able to answer. The project is $21 million more than what the OEB had approved, yet no part of contingency has been used up.

MR. HILDEBRAND: I think as part of the undertaking you are asking for, we will take that away.

MR. LADANYI: Very good.

MR. SMITH: So do we have a number for that, or are we going to save it to the end?

MR. LADANYI: You can keep the number, start with the number, yes.

MR. RICHLER: All right. So JT2.1 is the undertaking dealing with the contingencies for Sudbury replacement and then, Mr. Ladanyi, you can come back to anything that hasn't -- that you want to have covered by another undertaking.

UNDERTAKING NO. JT2.1: TO ADDRESS THE CONTINGENCY INCREASE FOR SUDBURY REPLACEMENT

MR. LADANYI: And I think we also have that same one would be, let's say -- I would put it as explanations about capital projects, because we should include the information on Don River replacement that they were going to tell me about, why the external regulatory costs specifically had gone up by 500,000.

MR. SMITH: I think we should be specific about the request so that we are being responsive. So I have, Mr. Ladanyi, two requests thus far. The first relates to the $538,000 figure and the second is the one we just talked about in relation to contingency. Have I missed something?

MR. LADANYI: Sudbury project contingency is the second one, and the first one actually is relating to 573,000. But that's all right.

MR. RICHLER: So let's try to parse this out and be clear for the record, and to make it easier for the applicant to respond.

So the first one we have already marked as the increase in contingency for the Sudbury replacement project. Let's make the second one, JT2.2, the one dealing with the 500-and-some thousand dollars for the Don River project.

UNDERTAKING NO. JT2.2: TO ADDRESS THE $573,000 FOR THE DON RIVER PROJECT

MR. LADANYI: Yes, $573,000 for external and regulatory costs for the Don River project.

MR. RICHLER: Okay.

MR. LADANYI: And if the applicant wants to comment on some other things about the Don River project, that would be appreciated. I don't want to limit it to that. If they want to talk about some of the other item lines, that's fine.

MR. RICHLER: And was there a third one? I heard you asking about an increase in construction costs for Sudbury.

MR. LADANYI: Yes, I have. I asked about increase in the construction and labour for Sudbury and that was going to be also part of the Sudbury, if you like. If you want to give it a third number I am happy with that too.

MR. RICHLER: Is that okay, Mr. Smith?

MR. SMITH: Sure.

MR. RICHLER: JT2.3 is --

UNDERTAKING NO. JT2.3: TO ADVISE WHY THE CONSTRUCTION LABOUR HAS INCREASED BY 8.9 MILLION FOR SUDBURY PROJECT.

MR. LADANYI: Which is why the construction labour has increased by 8.9 million for Sudbury project.

MR. RICHLER: Okay, are we clear now?

MR. SMITH: We are.

MR. RICHLER: Okay, please proceed.

MR. LADANYI: Any other questions from any other intervenors on Sudbury before we move to Kingsville?

Now, in Kingsville my only question is, this project is under development. Why are there no updated cost estimates? You would think they would have -- now that more work has been done, why are there no more refined cost estimates? Time has gone by. I am sure staff are working on this project, it's not sitting on some shelf, so there must be updated cost estimates. I mean, apart from the overheads, there should be probably more construction and labour or contingency, could be changes. Why is there no change here at all on Kingsville?

MS. THOMPSON: Mr. Ladanyi, our understanding of the question was to do a reference between the leave to construct and the numbers as filed through this application.

MR. LADANYI: All right.

MS. THOMPSON: And the only difference that has been identified for this project is the application of indirect overheads.

MR. LADANYI: Can you provide us the current estimate for Kingsville, as an undertaking, not right now? Would that be possible?

MR. SMITH: Well, I think, let's just do this in pieces. I think the first question would be is this the current estimate or is the revised -- or is there a more current estimate, and if there is a more current estimate than we will provide it to you. But let's see what the panel says to the first part.

MS. THOMPSON: We can take that away.

MR. SMITH: Okay.

MR. RICHLER: So JT2.4.

UNDERTAKING NO. JT2.4: TO PROVIDE THE MOST CURRENT ESTIMATE FOR KINGSVILLE.

MR. LADANYI: Okay, let's move on to Stratford. So just like in Kingsville, there is no difference between what was filed and what is here in evidence. And I note that Stratford was approved by the OEB on March 28th, so we have a recent decision on it, so I am actually not expecting there were a lot of changes here. But construction is about to start so you might have some updated costs. If there are -- are you aware that there are any updated costs for Stratford?

MR. HILDEBRAND: Again, as you mentioned, the approval was received very recently. I am not aware of any updated costs, but we can put that into our -- into the undertaking and take that away and report back.

MR. LADANYI: Do we need a special number for this or can we combine it with Stratford?

MR. SMITH: Why don't we give it a special number.

MR. RICHLER: JT2.5.

UNDERTAKING NO. JT2.5: TO PROVIDE THE CURRENT ESTIMATES FOR STRATFORD.

MR. LADANYI: Okay. I am going to leave this for now, unless there are any intervenors who have additional questions on this.

MR. MONDROW: I just have one question on the Stratford reinforcement project. In the leave to construct for that project there was some evidence that cited one of the drivers for that project being to support downstream community expansion. That was Milverton Lambton Shores. It's my understanding that that community expansion application is currently in abeyance; is that correct? Do you know?

MR. HILDEBRAND: I am sorry, could you repeat the last part? I just didn't catch.

MR. MONDROW: It's my understanding that the community expansion application for Milverton and Lambton Shores is currently in abeyance, it was filled with the OEB but is currently in abeyance. Do you know anything about that application? I just wanted to know what the status of that application was now that the community expansion funding has been resolved. This is not one of the projects on that list.

MR. HILDEBRAND: I am actually not aware of the status of that application.

MR. MONDROW: Okay. Thanks.

MR. LADANYI: If I can move to Energy Probe 20. This is another area that I like exploring with utilities that come before the Board. So I want to know what exactly you do when you review a budget. So there are two directors on the panel, and I don't need answers from both. If one wants to answer my questions it's fine. It says here "director review submission from manager and makes modifications".

So can you tell me what modifications you would make? Perhaps this is for -- either one of you. You decide.

MS. FERGUSON: When I -- so this is specific to O&M -- when I review the budgets of my managers for O&M I am looking to make sure that the staffing makes sense, and if perhaps they have a request to add a resource or move a resource around that's the part that I may change. I also look at specifically employee expenses, that type of thing, that they have allocated for their areas and question them on that, and I may change something like that.

MR. LADANYI: So would you be comparing from previous years' budget or something? Like, what criteria do you use?

MS. FERGUSON: In practice I would use prior years' budget. I would also think about perhaps any new initiatives that are coming up in the next year that we may need increased costs for.

MR. LADANYI: Are you operating within a certain envelope, saying you cannot spend more than, I don't know, a million dollars or whatever?

MS. FERGUSON: When we do our budgets at the highest level for the corporation we do look at that, but usually at this manager/director level we are putting forward our individual department budgets, and then at the highest level we then may tweak based on overarching, you know, how much we can afford to spend.

MR. LADANYI: And if you're too high what do you do then? For example, it's too much and you are told to cut, do you cut budgets then yourself, or what do you do --

MS. FERGUSON: We would have to stop doing certain work in order to afford what we can do.

MR. LADANYI: Okay, anybody else on this area? No.

Okay. And now we are going to move to my last area, which is the lifetime risk return on investment. And first can we turn to Energy Probe 24. And there, actually, I tried to understand what is the -- what is a lifetime risk return investment. And I admit I am not familiar with the term, and I am not familiar with the calculation.

And you point me to your answer to VECC 12. And I looked at VECC 12, and I am not really any brighter for it. I looked at it, and I looked at it. Can you simply explain to me what exactly you are doing when you do this calculation?

MR. NACZYNSKI: So happy to explain for this one, Mr. Ladanyi. So lifetime risk return on investment is the calculation -- the concept, if you will, was developed by legacy Enbridge Gas Distribution. We use it as a part of our assessment and review of projects and programs that go into our asset management process. I think you probably gathered all that from the IR.

The formula there of course is provided. So we are looking at in the numerator here what is the discounted lifetime risk return on the investment. So when we explore an investment, we explore a project, we are looking to try to mitigate a risk or capture an opportunity with that. We look at what the current state of that widget or whatever that, you know, that asset is. And we consider that the R0, the current status and the current risk.

We then look at what is the post project risk. So you replace the piece of pipe or whatever the circumstances are, and you have a risk after the piece of work is done. And the difference between those is the, that risk -- the risk reduction that we would expect to achieve. I think that -- is that -- if I stop there for a second, does that make sense to yourself?

MR. LADANYI: Yes, it does. So let me just -- I want to see it as a real example.

MR. NACZYNSKI: Okay.

MR. LADANYI: So you mention Don River replacement. So the current Don River crossing is on a bridge, isn't it?

MR. NACZYNSKI: That's correct.

MR. LADANYI: And that bridge has certain risks. So how would you evaluate the current risks of the Don River installation? Who determines the risk? Give me like a number. A bunch of people sit around and say this is high risk? What happens?

MR. NACZYNSKI: So the Don River is a great example of that. And a lot of this was -- even though it's already on the record through the leave to construct application for the Don, the 30-inch Don River crossing that was approved last fall. And in that, there was a number of studies that were done by various consultants where they looked at -- in the case of the Don River bridge, it is a bridge, it is above -- you know, an above-ground crossing.

The bridge was constructed in, I think, 1929. So it's whatever age that is, fairly old as far as a bridge is concerned, I guess, if I can use that. And they looked at what is the, you know, the probability of a certain, you know, a weather event and this is detailed in that application. And I think they said, look, I think it was, you know, 40 flood events over the last 200 years that would impact that. And I think they talked about the amount of ice build up that you would have.

So if you're picturing the risk that we are looking at is, you know, a flood situation on the Don Valley River, which we have seen in the last several years with ski-dos going up and down the Don Valley Parkway. If that was in the springtime and you had any amount of debris, ice, trees, whatever other debris would be in the river at that time, that the flood waters could impact the side of that bridge structure.

And again, they go through some more discussion on the leave to construct. But ultimately, the lateral forces on that bridge structure may not be able to support that level of debris coming down the river, and the resulting failure of the bridge would inevitably result in the failure of that particular pipeline.

MR. LADANYI: They give you a number; that's what I am looking at. So you have an equation here.

MR. NACZYNSKI: Yes.

MR. LADANYI: Do you get a number for them and plug it into this equation?

MR. NACZYNSKI: Well, when we are talking -- what I started to describe to you is what is the frequency. So risk is probability times consequence, if we were to kind of look at the math, if you will, from a risk perspective.

So what I just described for you just now is what is the frequency of occurrence or ultimately leading to what is the probability that that could happen. So if we were saying a 40 year flood in 200 years, is that a 1 in 5 at the end of the day, does that look like. So a 20 percent chance probability.

Again, I won't go through all the math on that right now, but ultimately what is the frequency that that event could occur.

If the bridge was to fail, and we talk about that in our bowtie diagram when we get into the risk section -- I won't necessarily go there right now for just ease of going through that. If you have a failure of that bridge, then what are the consequences of that failure.

MR. LADANYI: So can you turn to page 2 of this? I am still trying to understand. It sort of makes sense, but still I don't understand it.

MR. NACZYNSKI: Okay.

MR. LADANYI: So when you see the values -- can you go a little further down to the table? Yes.

So when it says safety risk mit -- must be mitigation; is that right?

MR. NACZYNSKI: Correct, mitigation of that risk, yes.

MR. LADANYI: What are these numbers? What units are they in?

MR. NACZYNSKI: So those are in risk units.

MR. LADANYI: What is a risk unit?

MR. NACZYNSKI: So a risk -- so again at legacy Enbridge Gas Distribution, we monetize the risk so that we can make assessments across various assets and across various asset classes. So it's a monetization of that risk.

MR. LADANYI: So it's dollars over something, or something over dollars, or what is it?

MR. NACZYNSKI: When we are looking at risk mitigated, it would be the monetization of that risk mitigation. So I won't say that it's dollars necessarily, but it is a dollar equivalent of what that risk is.

MR. LADANYI: So let's say, to understand in the mitigation, a high number is better than a low number?

MR. NACZYNSKI: What it --

MR. LADANYI: So just for comparison before you go further, because I am looking at financial risk mitigation for Don River versus relay blanket all areas. So one has got 2-million-413, and relays have 299.

MR. NACZYNSKI: Yes, so let's -- if we are going to stick with a singular example, because right now on the screen you are seeing the NPS 20 versus relays, and we were just talking about the 30-inch bridge. So maybe it will help if we just kind of keep a singular example there, right.

MR. LADANYI: Sure.

MR. NACZYNSKI: So if I just described for you now when I was going through that line of explanation, I was explaining here’s what the current situation is, right. The bridge gets washed out and some bad things will presumably happen. You may have health and safety impacts with the gas release. And you certainly have, you know, reliability issues, which will be under our customer satisfaction. And I think we describe in the Don Valley Bridge replacement project something like 92-some- odd thousand customers that would be out of gas service. So that is speaking to the system reliability, which is under customers satisfaction, or CSAT here.

And then we have the financial consequence, so what does it take to, you know, replace the bridge in an emergency scenario or some sort of crossing, as well as other factors like relay costs or other costs that will be associated with actually repairing the damage and dealing with the aftermath of that.

These categories of what is included in safety, financial and customer satisfaction are detailed in the asset plan as well in section 4 of the plan. Again, I don't know if we want to go there now, but there's 12 categories that sum up to make those. The point being is that there are a number of categories of risk that we're reviewing, and we are able to aggregate those together to say here's the current risk that this -- in the case of the 30-inch bridge crossing, this is what the current risk would be. And then we look at the what the proposed solution was to, you know, do an essentially a tunnel under the river and replace that. So your risk of a flood damage to the bridge, if the pipe is no longer on the bridge and under the river, essentially mitigates that risk.

And we would then look at financial safety and customer satisfaction. We have the current risk and if the risk is mitigated, in the case of the bridge it is, so we would have full mitigation of those risks related to the flood hazard on the bridge.

I think you are nodding your head, Mr. Ladanyi. Are you are getting where I am coming from?

MR. LADANYI: I am happy with your answer, that's fine. But I am still struggling and I am trying to understand. And I am always concerned, by the way, I must tell, you because have I seen a lot of this. There is a complicated equation and there’s wonderful calculations, but the source data is kind of rough, okay. So we are dealing with very accurate calculations, but potentially inaccurate numbers.

And so for the Don River bridge, you are saying you got these numbers from your consultant and that's in the leave to construct.

MR. NACZYNSKI: Yes.

MR. LADANYI: In the comparison here, there is a relays project which VECC asked about in this interrogatory. Would you have also a consultant who work worked on the relays project as well to come up with these numbers? Or you yourself would have come up with the risk on the relays project?

MR. NACZYNSKI: So with the example of the relays project, I myself didn't come up with those numbers. But we have a group of risk engineers, risk analysts at EGD that look at those projects and programs and they, you know, yes, may work with subject matter experts. But they would also look to the data that we have internal to our systems. Again, much of this is detailed in section 5 of our asset plan and how we came up with that. So there's not always a consultant report.

In the case of the Don Valley bridge, there was, to bring in the that specific expertise. But if not, we are looking at our internal data that we have and/or working with our subject-matter experts as well to help the risk engineer identify what that risk would be.

MR. LADANYI: So the relays, for example, you would be working on your own data on failure of service lines? Is that what it is?

MR. NACZYNSKI: Yeah, correct. So we have a history of failure information again, including section 5 of this asset plan under the pipe asset class, where we have looked at the frequency of the leaks, the total population of the assets, and they are able to come up with a probability of failure and work through what the consequence would be of that failure.

MR. LADANYI: So all of this, just to kind of wrap it up, is used to prioritize projects. Is that -- or is the main prioritization, let's say, indexed, or is there something else?

MR. NACZYNSKI: So --

MR. SMITH: Sorry, just one second. I am going to ask the witness to go a little slower, because it's very hard, I suspect, on the reporter.

MR. NACZYNSKI: Oh. Thank you, Mr. Smith.

MR. LADANYI: So let me repeat my question. Thank you. We don't want to stress the court reporter. I sometimes speak too quickly also.

Is that -- it's all used to prioritize projects so we can decide which one is the most urgent project, and that would be the one, and then you would look at possibly whether it meets the ICM criteria? Is that how it works?

MR. NACZYNSKI: No, I wouldn't -- I wouldn't characterize it that way, Mr. Ladanyi. We want to understand -- I think we are fairly clear in the description here that it's -- it doesn't necessarily mean that one project is better than another project. When we put together the portfolio for our asset plan we are looking at a multi-year view of the project and programs that need to be done, and it allows us to understand, because even if all the work that we have in the asset plan is all important work that needs to be done, it's kind of a matter of when as we try to work through the asset management process on that.

So a project that has a lower lifetime risk return on investment simply -- the higher the lifetime risk return on investment, it's a measure of how efficient that project is at reducing risk, but I wouldn't characterize it as a prioritization of those projects.

MR. LADANYI: So it's kind of like biggest bang for the buck. Is that what it is? Or risk bang for the buck?

MR. NACZYNSKI: Umm... It's -- I won't use the word, you know, the biggest bang, but the -- for your dollar, but it is a measure of the efficiency of that. So the higher the risk return on investment the more -- the more efficient that project would be at reducing risk. It does not necessarily mean that it's the highest priority project that we have to do.

MR. LADANYI: So Enbridge Gas Inc. now has one shareholder. It is essentially an integrated company, and the shareholder no doubt has scarce dollars to allocate to projects.

How do you assure -- in fact, maybe you don't even do it -- that the projects you have selected are in fact better projects than the projects, for example, in the legacy Union Gas system?

MR. NACZYNSKI: So at this time, as we sit here today, we have had two legacy organizations that have come from different points in the maturity and in how asset management was conducted. All the examples and all of the explanation that I have just given are directly related to legacy Enbridge Gas distribution.

The -- my colleague, you know, Mike, Mr. Hildebrand here, can certainly speak to how things were done at legacy Union Gas, but, you know, as we go forward we are certainly looking to, you know, bring those asset management processes and systems together as we work towards a single asset plan for the 2021 rates, which we are working through at this time.

MR. LADANYI: So just to wrap it up -- this is probably my last question -- at some point in time legacy Enbridge Gas distribution will bring their projects to the corporate senior management team, and Union Gas -- legacy Union Gas team will bring theirs as well. So is there some kind of discussion at this level where somebody, some senior person, says, no, I don't want to do this project, I want to do a different project? Does this happen at all?

MS. THOMPSON: So as Erik had mentioned, each of the processes that the legacy companies have had have strong similarities, but there are some differences in how the strong similarities are -- alignment with ISO 5500 (sic) principles, which ultimately strives to balance cost, risk, and performance. And the processes that each of the legacy companies undertook to establish the principles, work through the processes, pull together all the inputs, and formulate the plans, there are strong consistencies there.

So as we move forward we will be looking at each of the legacy company's approaches, we will be looking at ISO 5500 principles and requirements, other industry practices, and then using all the different inputs to find the approach that we would have going forward. We are only very early at this point, so we are not in a position to say we will have an approach or another or something completely separate to that. And we are striving to have all of this work complete to be in a position to file a combined asset plan by the 2021 rates application.

MR. LADANYI: So this is going to evolve over the years, and what you currently have in the utility system plan might actually be different as we move forward, so what you are getting is --

MS. THOMPSON: It may not be different --

MR. LADANYI: It may or may not be different. We don't know --

MS. THOMPSON: May or may not. We don't know enough at this time, but it may not be different.

MR. LADANYI: Okay, these are all my questions.

MR. RICHLER: Thank you, Mr. Ladanyi.

Mr. Brett, are you ready to proceed?

MR. BRETT: Yes, I am --

MR. MONDROW: Tom, could I jump in just for one minute to clarify? Thank you, sorry. I should clarify in particular, since Mr. Hildebrand, I think, started to look in response to the question I asked about Milverton and Lambton Shores, I have since discovered that I was mistaken, so just to clarify the record. The Milverton and Lambton Shores community expansion was one of the original community expansions filed by Union that then developed into a generic hearing, following which the Board reinstituted the particular community expansion request. So that community expansion to Milverton and Lambton Shores and others that I referred to was actually approved in August 2017. It's EB-2015-0179.

So I was mistaken. I just wanted to correct the record and preclude you from having to go around and satisfy yourself, because you won't find what I was asking for, so I apologize for that. Thank you.

MR. RICHLER: Thank you, Mr. Mondrow --

EXAMINATION BY MR. QUINN:

MR. QUINN: Before Mr. Brett starts, if you don't mind, Tom, it's on the same topic -- I had asked some questions in FRPO 17. I don't know that we really -- we can turn it up anyway. I had asked about KPM -- well, the concerns we had are getting some information that may have been provided by KPMG, which is not available. I respect that. But I think Ms. Thompson said cost, risk, and performance is what KPMG is going to be evaluating you on in their audit, and you align it with ISO 5500.

MS. THOMPSON: So this response was -- had a specific reference to the material that was provided in the EGD rate zone asset plan.

MR. QUINN: Yes.

MS. THOMPSON: That included the reference to the KPMG assessment that was completed. So the purpose was to have KPMG come in and evaluate our maturity in relation to the ISO 55000 principles. So we have not established if and when we would bring a consultant back in to support that maturity, but we will be considering the ISO requirements and ISO maturity in the development of our approach going forward as a combined entity.

So we will ultimately -- so if you remember, if you can think back to the maturity scale, that as we build the combined processes we will be striving for the manage to leading practice range over the years.

MR. QUINN: I appreciate that, and possibly I should ask this question directly to the legacy Union Gas representative, Mr. Hildebrand. Did Union do anything like this in terms of evaluation of its asset management plan?

MR. HILDEBRAND: The legacy Union rate zone asset plan was not assessed by any external third parties to the same degree that the EGD plan was.

MR. QUINN: That's fair enough. I just didn't want to repeat the history if it's already there. But would the panel's opinion -- I am not sure who on the panel is best to ask -- two companies are coming together. We as engineers take pride in what we do and we think we do it well, but it's always nice to have a third party evaluate. Is the opportunity there for KPMG to evaluate either -- like, both plans and try to take the best of the best, such that the synergized plan comes together in a way that there's an objective input into the assessment of these plans and what works best for the ultimate integrated utility?

MS. THOMPSON: When we undertake the work, we will definitely take a look at all the different categories for ISO 55000 and use that to start to formulate our plan. We haven't decided whether we will lean on any external consultants, or not at this time.

MR. QUINN: Okay. No, that's a decision that may be undertaken. I guess as a ratepayer representative in getting value for dollars, we would think that an objective third party voice into it -- no disrespect, but it's just natural when you have taken pride in an asset plan and then you are integrating another plan into it, you are going to tend to favour what you have historically had confidence in, whereas an objective third party might look at it little differently with just -- they have the ability to be a little bit more objective in the process.

So that's feedback, there is no undertaking or further questions to it. But we would be looking for that when you bring forward your plan is how did you, as organizations, come together to take the best of the best. Thank you. Thank you, Mr. Brett.

EXAMINATION BY MR. BRETT:

MR. BRETT: You are welcome. Good morning panel. Just before I get into the meat of these questions, I wanted to pick up on one point of Mr. Ladanyi's, and that had to do with RNG, just to make sure I heard you accurately, Ms. Thompson.

I think what you said to Mr. Ladanyi was that there were no expenditures in this, in 2019, no CAPEX or O&M, I suppose for that matter, that relates to the -- that involves the conditioning, the conditioning assets for RNG which are utility regulated assets. And I think you have used the term regulated assets. You'd agree with me that those assets that have, that you would put in place to condition the gas coming from your RNG producer before it goes into the distribution system are regulated utility assets, I take it? Is that right? And what I want to know is in particular, I just really need to know are there any assets of that nature that are -- are there any of those assets in this 2019 budget?

MS. THOMPSON: I can confirm that there's no RNG assets that are included within the capital portfolios for each of the legacy companies. So EGD rate zone and Union rate zone for 2019.

MR. BRETT: Okay. Thank you. I'd like you to turn up BOMA 22 if you could, please, page 2. Maybe we could have page 2? Yes, there we go.

I just want to read you a passage here and then ask you a couple of questions about it. I am reading from the first paragraph, and you say:

> "It should be noted that Enbridge Gas in the EGD rate zone optimizes capital by maximizing the risk reduction of a portfolio of work, subject to a constraint such as cost. As such, it is not possible to assign a numerical ranking to each business case."

That, we had asked you, I had asked you in that IR, among other things, part C of BOMA 22 was:

"Please provide a prioritized list, for example from 1 to 20, of the projects listed in response to subsection A."

In subsection A, we had asked for the business cases for each capital project in the 2019 capital budget. And you provided that in attachments 1 and 2 to BOMA 22, and I will get to that a little later.

But the question I am asking -- I would like you to help me with is why is it that it's not possible to rank order your projects for 2019 from highest priority to -- I am speaking with respect to energy to the legacy Enbridge part of the budget -- why is it not possible to rank those in order of highest priority to lower priority?

MR. NACZYNSKI: So this certainly goes back to some of the exchange that I had with Mr. Ladanyi, in that the lifetime risk return on investment is really a measure of the efficiency of the ability to -- that project or that investment would bring to reducing the risk.

So at legacy in the EGD, legacy EGD rate zone in our asset management plan it's -- the concept of the optimization here is not that we start with the high priority project and work your way down the list of priorities until you run out of money, or whatever that constraint is, and then draw that proverbial and say no more projects.

At legacy Union -- sorry, legacy Enbridge Gas when we did this, we use an optimization process by which we are looking at maximizing risk reduction for, for example, dollars that we are constraining on.

So what comes from that is a multi-year plan where we are looking at trying to, you know, balance and/or maximize that risk reduction over a period of time. So at the end of the day, we've tried to be as helpful as possible in our response to A and C as you have indicated in this by providing not only, you know, many business cases that were more than $2 million; those were all included in the appendix to the asset plan. But we also provided a, you know, a summary of all the projects that are in the plan for the next five years.

But because it's a portfolio of work, we are not able to say that this project is more important than any other project. So there's not a priority listing.

MR. BRETT: So when you say it's a portfolio of work, you're saying it's a portfolio over a ten-year period, to be done over an a ten-year period, or five-year period?

MR. NACZYNSKI: What I am saying is that we have come today, or we are here at this proceeding to talk about the 2019 portion of what we are asking for in rates right now.

The asset plan has attempted to provide an understanding of what we anticipate to see over the next five and even ten years. And, you know, within section 5 of that plan, even outwards of 40 years in some cases about how assets perform. But what we are looking at now is essentially that first year from that plan for 2019 rates.

MR. BRETT: Okay. So looking at that first year, the 2019, you have listed all of the projects in the Enbridge rate zone that are going to be done, in whole or in part, that have expenditures associated with them for 2019. And there are a lot of projects, and some have an a significant amounts of money being spent in 2019 and some have very little in 2019.

And I guess the -- what I just, I guess I just -- you have answered -- I understand your concept of efficiency. You have said we have more efficient projects and less efficient projects. In your conversation with Mr. Ladanyi, you did say that that doesn't mean that the most efficient project is the highest priority project, or the most important project.

Now, if we focus just on 2019 and forget about for the moment the latter years, would you give me an example of that, of you -- let me just make sure I kind of have your idea right.

You do this calculation which gives you the risk reduction efficiency of the various projects that you place in 2019. Then you -- I assume that you, the reason you put projects in 2019 rather than in later years -- well, let me come back to that.

Let's just talk about 2019. Let's talk about the relative importance or relative efficiency of projects that are in your 2019 project list.

Could you give me an example of a situation where you have got a project that has a lesser efficiency, risk reduction efficiency, but it's superceded, but it's not the most important project, and I should -- maybe I should just add here -- and correct me if I am wrong -- I am assuming that your ultimate choice of projects for 2019, you know, once you've sort of laid it all out and looked at your five years or your ten years, your ultimate choice of projects to do in 2019 is you are going to take the most important projects first and lesser projects -- you're going to take the most important projects that need to be done where there's a sense of urgency about it in 2019.

In other words, it's not just a random -- it's not just a random selection of projects, nor is it saying, I think you are telling us, we are just going to do the most efficient of all the projects, the most risk reduction efficient projects in 2019, you are saying something different from that, and I am just trying to get a handle on how you -- how you make that final decision of what to include in 2019 in Enbridge?

MR. NACZYNSKI: So the risk return on investment or the lifetime risk return on investment is one of a number of things that we are looking at. So the optimization tool and the optimization work that we do is a decision support tool. It doesn't preclude common sense and good engineering judgment at the end of the day. But it gives us a framework from which we can start having those conversations that you alluded to, Mr. Brett.

MR. BRETT: Right, and then can you tell me what would be some of the other considerations? You mentioned common sense.

MR. NACZYNSKI: Yeah.

MR. BRETT: Which I can understand. And you mention good engineering judgment. And I take it that those would -- those would go, for example, to the urgency of projects?

MR. NACZYNSKI: Yeah, so again, in BOMA 22 we provided a listing of -- listing of those projects, and one of your subsequent IRs that you had -- and the number for it escapes me right now, but you asked for, you know, is the project mandatory.

MR. BRETT: Right.

MR. NACZYNSKI: So there is also -- as an example. So there's those other works -- you provide your definition -- your definition of mandatory, therefore, examples. That's another factor that gets brought into that decision-making as well.

MR. BRETT: What would you consider -- could I ask you, what would you consider mandatory? I looked, and I am kind of skewing over a little bit into the tables you provided, but the -- let me give you an example, perhaps, to help.

One of the things -- one of the -- a project category that I have always understood to be mandatory are relocations where you have been told essentially by -- whereas a matter of law you must do a project, and it might be for different legal sources, but the easiest one perhaps to deal with is the one Mr. Ladanyi talked about, which is, you have been told by a municipality or the province that you must relocate this pipeline, because they are doing some business on highways. They want to change some highways, relocate some highways, and so on.

That -- I take it that would be viewed as mandatory? Is that fair? And I guess maybe just generally could you tell me what your -- what your -- how you define mandatory? I have looked at your list of projects, the 13-page appendix, and just as -- most of your projects are actually listed as -- and we are talking about mandatory for 2019. And perhaps you could address that. In other words, I notice a number of cases where you have said a project is not mandatory, and there aren't too many of those, to be fair. You have no expenditures in 2019, but you have expenditures in later years. So I am reading that -- and you can correct me if I am wrong -- I am asking you this: I read that to be saying, well, it's not mandatory this year, and what they're answering really is, is it mandatory in 2019? Could you comment on that?

MR. NACZYNSKI: So could I take you, Mr. Brett, to BOMA 32?

MR. BRETT: Yes. Just give me a minute here. Okay, I have that. Yeah.

MR. NACZYNSKI: So this was that question that I was referring to. We chose to answer it by including the response and the listing of projects in BOMA 22, but, you know, to include a single project list. But in this response, part way down, I think, the second paragraph, we identify the rationale or the -- I guess the definition of mandatory as it relates to the EGD rate zone, legacy EGD rate zone and the AMP.

So those projects -- projects are considered mandatory if they are compliance-related, so code and compliance, where they exceed the risk limit that we have identified, and then the one that you cited as an example, third-party relocation work, we have been asked by a municipality to relocate a widget out of their way, for example, and the last one, programmatic work that has sufficient history to continue, continuation.

So those are the, I guess, the types of projects that could be made -- would be made mandatory within our EGD asset management plan.

MR. BRETT: Okay. That's helpful. And could you just comment on the second one, "exceeding a risk limit where the risk limit is assessed within EGD's intolerable risk region"? I know that is within your plan. I recognize those phrases, that phrase, but could you just summarize what that means?

MR. NACZYNSKI: So what that means, so in my earlier conversation with Mr. Ladanyi I had talked about health and safety, I talked about financial, and I talked about customer satisfaction. And for those, for those components, for those components of the risk, we have identified the level at which Enbridge Gas distribution would say this project is a mandatory project that is exceeding the comfort level of the organization.

MR. BRETT: It must be done in 2019?

MR. NACZYNSKI: It must be done to mitigate that risk. So in the case of -- let's go back to the Don Valley bridge, and again talked about in the leave to construct, and it was, you know, interrogatories with respect to that application on what that means.

So in that particular application it talked about -- so as I had mentioned in the, you know, the risk discussion that I had with Mr. Ladanyi, you know, the loss of that bridge, and we talked about presumable health and safety impacts that would come from that if there was a large gas release at that, you know, pressure from a diameter, from a pipeline of that size, and we have noted that in that case there could be some detrimental effects to the public safety, and we did talk about that safety risk in that application. And we've noted in there that that would exceed a risk tolerance for us that we need to proceed with that piece of work because of that, in this case, health and safety concern.

And so -- sorry, before, let me -- what that means is that work needs to be mitigated as soon as we can practically mitigate it. So also in that Don Valley project there were other costs before the actual replacement. We actually did some temporary mitigation, so we determined that this was an urgent concern. We can't get all the permits, approvals, and all -- everything else that has to happen to build that tunnel or that micro-tunnel under the Don Valley -- under the Don River, and in the meantime some mitigation work was done -- again, this is all outlined in that leave-to-construct application.

So what I am saying is that the organization is urgently trying to deal with it and it will be based on the project planning and timing would be allocated to the year where we can most suitably do that work.

MR. BRETT: Okay. So that -- that goes to your -- that's helpful.

So you were talking earlier about how you used the tool, the risk reduction lifetime risk reduction tool, to decide -- help you decide what projects must be done in 2019 and must be -- and you also talked about engineering judgments that you would make and common sense.

Are there any other factors that go into deciding what the list of 2019 projects would be?

MR. NACZYNSKI: So you may also have, for example, system requirements. So within our investments we, and again noted in those business cases that are included in the appendix, timing. So you may have a reinforcement project that dictate as certain timing that has to be done. So that would also be included in there, specific timing requirements whether an internal in the case of system planning, or from a third party relocation, for example. They are doing the road widening in two years. We are not going to do it necessarily this year. We will continue to work on that project and it would be in the plan for the year of the work that's when it's expected to occur.

MR. BRETT: So in other words, completion of a project already begun, or the doing of a project that's triggered by another project to be done conjointly with the other project.

MR. NACZYNSKI: So that would be an example. It would be also work that had perhaps been started in the previous year and that work is continuing. That work would continue into the subsequent year as well.

MR. BRETT: As a practical matter, you use all of those tools and you make up your list, and you have your various categories of investment that you have discussed in the two attachments.

But you're saying, you're really -- you're still saying that as a result of all of that, you can't really prioritize the projects? In other words, if we were to say, if it were to transpire that -- and you use cost as a constraint, which is reasonable. But let's say it were to transpire that you weren't getting all the money that you wished, you know, you were getting somewhat less, let's say 10 percent less. You'd have to drop something from the 2019 budget.

The question that one would ask, or I guess that I'm interested in is how would you deal with that, if you don't have a prioritized list? You would have to cross something off; how would you make the decision of what to cross off?

MS. THOMPSON: So if something were to change, we would have to understand what that change was and the reasons behind it, and then consider it within the whole context of the planning process.

So it is something that would likely take weeks, or perhaps months to do, depending on what it is, to be able to go back through that process and identify next steps from there.

MR. BRETT: Right. But you'd have that same issue, you'd have that -- you'd have that same issue -- that same exercise you would carry on in setting up the list initially, right? You'd have to go over everything and you decide this is what's got to go in there. Some of it's very urgent, some of it's required by law, some of it's -- some people are screaming to be connected and therefore must be connected and so on.

MS. THOMPSON: That's right. So when we do an update to our asset plan, it starts at the top with the high-level principles and processes, and then we use that approach to make sure that all the projects and programs that are identified follow that same principled approach.

MR. BRETT: And your ICM projects are -- the projects that you had proposed to be financed through ICM, the ICM mechanism, they are also evaluated as part of this mix. Is that right?

MS. THOMPSON: Correct. So the ICM projects that are eligible, they were identified independent of the funding mechanism.

MR. BRETT: Yes, that's what you said yesterday, that there were two separate processes. So their priority, if you like, to use my word -- I understand you use a different terminology -- but they would be assessed just along with everything else?

MS. THOMPSON: They would be assessed using the same set of principles, correct.

MR. BRETT: Okay, thank you. Now just going down a little bit in -- just give me a moment here, if you would, please.

MR. QUINN: Tom, while you are doing that, if you don't mind, I will interject a question if I may.

MR. BRETT: Yes, go ahead.

MR. QUINN: Because we were asking about this phrase "intolerable risk" in FRPO 16. Again there's nothing significant in turning it up, I don't think. But if you want to, that was the reference.

What we were interested in is, is there a threshold that says once you cross -- now I understand your safety number a little bit more, the risk number, sorry. Is there a threshold, once it crosses this it is in the intolerable risk area? Or is it a change over time where it's increasing in risk substantially one year to the next?

What does Enbridge define as intolerable risk?

MR. NACZYNSKI: So I -- thank you, Ms. Adams, for bringing this up. So the definition of intolerable risk is on the screen here right now and included in that response, in that IR response.

MR. QUINN: But it says the risk using a risk assessment process -- which you walked through earlier with Mr. Ladanyi, and that was helpful to understand. But is there a criteria? Once you hit 100,000 risk units, that's now intolerable?

MR. NACZYNSKI: So what I would -- so to answer your question, I would actually have us refer to the asset plan in section 4 of the asset plan.

MR. QUINN: You have table -- sorry to interrupt. I just want to make this fairly quick. But you have table 41-2 on page 72. I have it in front of me on screen; I don't know if Ms. Adams wants to pull it up.

But there are no numbers on this table. There are all these great things, and hear me when I say I believe this is a rigorous process. I am encouraged by what the company's doing. This all seems good.

But when you throw out the phrase intolerable risk, Ian and I would have different ideas of what intolerable risk would look like if we were assessing a project. What does Enbridge use?

MR. NACZYNSKI: Bonnie, if you were to scroll down a little further here, Ms. Adams, there’s the ALARP triangle in here, if we go down a little further.

So this would be that definition, Mr. Quinn, as we look at broad -- so risk limits, risk targets. So that would be the graphical representation that you are looking for there.

MR. QUINN: So is there a number that goes on the risk limit so that now you are in the intolerable region? Is there a number? That's what I am trying to get at.

MR. NACZYNSKI: Mr. Quinn, there are numbers that we have that we have reviewed internally and are approved by the legacy EGD executive management when this document was put together. I can provide you some more insights.

If we scroll down a little bit further, you will see a number of risk matrices that are in here. Keep going down there, sorry.

The diagram, the page number escapes me right now.

MR. QUINN: Okay, again, I --

MR. NACZYNSKI: It's a pictorial representation, Mr. Quinn, that has total risk, health and safety, financial; it’s in this section of the asset plan.

MR. QUINN: Would you just, by way of undertaking, provide that page number after this? I don't want to take up people's time. I just thought, when you define something, is it actually measurable, or is it just a qualitative statement of intolerable?

MR. NACZYNSKI: You have the reference here now. This is it, Ms. Adams. So it’s on page 82 of 1459 of the Enbridge Gas or Enbridge rate zone AMP. So again --

MR. QUINN: Those are risk units?

MR. NACZYNSKI: Those are -- you have likelihood and consequence in risk units here.

MR. QUINN: Okay. So that's the same -- those are the same numbers that were on that table that fed into your --

MR. NACZYNSKI: Absolutely, Mr. Quinn. So if you went through any of the business cases that are in the appendix, you will see those R0s, those R1s. You will see their placement on the risk matrices and where it went from one to the other, yes.

MR. QUINN: That's very helpful. I was trying to understand how quantitative versus qualitative this is. This is quantitative. That's appreciated, and that's all my questions in that area. Thanks, Tom.

MR. BRETT: You're welcome. I think I am going to move on to the -- just before I do, how long have you been -- how long have you been using this risk reduction lifetime process or tool? When did you start using that to evaluate projects?

MR. NACZYNSKI: So we started revamping our asset management practice in and around 2014 at legacy Enbridge Gas distribution, and the tool was initially implemented in 2015 and has evolved through several iterations leading up to the asset plan that you see in front of you here today.

MR. BRETT: And you may have said this in your conversation with Mr. Ladanyi, but did you -- did the -- when you were in the process --

MS. GIRVAN: I can't hear the question.

MR. BRETT: Sorry?

MS. GIRVAN: Can't hear your question.

MR. BRETT: I am speaking into the mic.

MS. GIRVAN: Yes, it's really hard to hear.

MR. BRETT: Well, maybe the problem is at your end.

MS. GIRVAN: No, no.

MR. BRETT: Well, in any event, I am doing the best I can. I am speaking English and I am speaking into the mic.

Let me ask you this: Did you have an outside firm recommend this plan to you? In other words, did you retain a risk engineering firm or financial firm to assist you in the preparation of this approach, or was it done entirely internally?

MR. NACZYNSKI: When -- so Mr. Brett, when you say "the approach", what do you --

MR. BRETT: This tool, the tool that you -- the risk reduction -- lifetime risk reduction tool that you were discussing with Mr. Ladanyi and a bit with me, was this tool recommended to you in a study by an outside firm or is this a tool that you developed entirely within Enbridge?

MR. NACZYNSKI: It was not a tool that was recommended by a third party. However, as we look to ISO 55000 and/or other leading practice, I know that many of the other electric utilities, for example, use a similar type of tool for helping to support asset decision-making as well. So there is no third party that said "you should go out and get this tool", but the organization -- the company believed that this was a prudent means to be able to implement asset management practice effectively at Enbridge.

MR. BRETT: Thanks. So can we go down a little further, back to BOMA 22, and the third paragraph down. I am talking at -- I want to talk a bit about -- the third paragraph deals with Union's approach, legacy Union's approach for prioritizing projects. And I just want to read it briefly here and then ask a question about it. It says:

> "In exhibit such-and-such and such-and-such, the Union AMP outlines the need for a mix of high-priority and lower-priority projects, allowing for adjustments to be made in the portfolio as

circumstances change. For example, when high-risk or emergency situations arise, the ability to reallocate funding from lower-priority work is beneficial. Maintaining some lower-priority work in the portfolio also allows the organization to be proactive in mitigating risks that if repeatedly deferred will become more significant risks until such time as the organization is compelled to address them in a reactive fashion."

So could you advise -- now, would you confirm, first of all -- and this is reflected in the -- could you confirm that Union's -- Union's approach is somewhat different. And I know you have discussed this at some length in your evidence, but Union does have a priority system for projects. If we look -- as we will look in a moment -- at the Union list of projects in attachment 2 to this document, they have each project listed as either 1, 2, 3 or 4 priority.

So they have a different approach, and the two of you have somewhat different approaches. Is that fair?

MR. HILDEBRAND: That's fair to say. But, again, we believe we have built both of our plans and our processes on a very similar foundation with very similar principles, and, you know, drawing back to standards such as the ISO 55000 standard upon which both of our processes are built. So we see a lot of similarities.

MR. BRETT: With respect to the paragraph I just read, could you -- could you give an indication of roughly what percentage of your 2019 projects are low-priority projects, and is that representative? Is that a normal sort of -- a normal year in terms of the split between high-priority projects and low-priority projects?

MS. THOMPSON: So the question that you're asking about the mix, that is something that is common between each of the legacy companies but also good practice for asset management overall. So one of the objectives that we have is to not only look at the individual year that we have but to look over the long-term and even look through to the full life cycle of our assets. And that's an important part to consider at any given point to make sure that we are making the right decisions at the time.

So as mentioned in the evidence, that lower-priority work is used at times to help address changes that may happen at any given point within the portfolio. So if we have an emergency that we need to address, we will look at what the decision point is at that time and make a decision.

But in terms of the plan, it is good practice to have that full complement so we are able to accommodate changes as they happen throughout the course of any given year or over a number of years, and the reason why we do that, so all of the projects that have been identified we consider to be essential expenditures, and identifying them in any given year not only supports that individual year but it supports the long-term. So we don't end up carrying a higher level of risk as an organization with moving lower-priority work further into the future, which would be the case if we made those types of decisions.

MR. BRETT: So are you able to tell me roughly what percentage of the projects that you have got listed for 2019 are low-priority projects in Union? Or could you give me an undertaking to look up to determine what the split is for Union? I am interested just in Union here. I am not talking about Enbridge. I appreciate your comments. You can speak to both of them. But I am interested in Union, because you have the priority system 1, 2, 3, 4, so I am interested to know what percentage of your 2019 projects in your 2019 plan, because we are just looking at 2019 in this case, what percentage of those projects where you list in the attachment 2 -- that's the 29-page attachment that has Union's projects in it -- what percentage -- what percentage of those projects that are listed that have expenditures in 2019 would be considered low-priority projects? And you could use an undertaking if you wish.

MR. SMITH: Maybe we should take a look at that over the break and see what we can do, and we will come back with a position, and if it requires an undertaking we will give you an undertaking, and then just looking at the clock, maybe we can just take the morning break.

MR. RICHLER: I think that's a good idea. Now is the time for our break, so let's come back at 11:15.

MR. QUINN: Mr. Brett, how much longer might you have?

MR. BRETT: Well, I am going to go through at the break and just see what I have got here, but I would estimate probably no more than about a half an hour, max.

MR. QUINN: Okay, all right, thank you.

MR. RICHLER: All right. 11:15. And just a reminder to everyone on the phone to please mute your line. Thanks.

--- Recess taken at 11:00 a.m.

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

MR. RICHLER: Okay, let's resume. I think, Mr. Brett, before we turn it over to you, I think, Mr. Smith, before the break you said you would consider Mr. Brett's request.

MR. SMITH: Yes, I think we can just provide the information now. I don't think we need an undertaking. So I think the question was, I believe, to provide the proportion of lower-priority projects and I will just turn it over to Mr. Hildebrand.

MR. HILDEBRAND: Thank you. So, yes, so you will notice in the project listings that we have provided, we have shown two potential views related to the priority scale that you alluded to that the legacy Union rate zone uses as part of the process in determining the relative priority of our projects.

And we also attempted to answer the question about mandatory versus non-mandatory.

If you go back and review the selection and prioritization processes outlined in the Union Gas asset management plan, you will find we don't have a definition of mandatory versus non-mandatory. So we have attempted to answer that question that you have asked.

What we do have is definitions around what priority 1 and priority 2 are, and subsequently priority 3. So I think to answer your question of what we would consider lower-priority projects, which would be, I think to answer your question, priority 3 projects.

So priority level 4 projects, we have very few that ever make it into any budget for execution. But priority 3 projects, that breakdown is shown in the tables we have provided. That breakdown would represent roughly 10 to 12 percent, just going from memory a little bit, but roughly 10 to 20 percent -- sorry, excuse me, 10 to 12 percent of the by dollar value of all the projects identified in the base capital plan.

MR. BRETT: Thank you. And I meant to ask earlier, but those schedules, or your schedule 2, is it all projects or all material projects? I seem to recall reading that it's projects that are over 2 million over the relevant five-year period, like not 2 million in 2019, but 2 million in total. Or am I -- is this not right? Is it everything, essentially?

MR. HILDEBRAND: The tables that we have provided include every expenditure in 2019.

MR. BRETT: Okay. Ms. Ferguson, you're a director of financial planning, is that right?

MS. FERGUSON: Yes, that's correct.

MR. BRETT: And that's for EG -- that's for the new company?

MS. FERGUSON: Yes.

MR. BRETT: Okay. The new company, some of this, I guess, is perhaps obvious to many of us -- or many of you, but I am just want to get it on the record and kind of get my head around it.

Enbridge Gas Distribution Inc. is a wholly-owned company. It does not have public shareholders, correct? It is wholly-owned by another entity in the Enbridge group?

MS. FERGUSON: Yes, that's correct.

MR. BRETT: And so as such, in order to -- in order to get your capital, your equity capital, you rely on -- you rely, as I understand it, on either retained earnings or infusions of capital from your parent company, right?

MS. FERGUSON: Yes, that's correct.

MR. BRETT: And you then also, you may not have already -- you may have not done so to date as the new company, but you will presumably -- or I am asking, you will pay dividends to your parent company, right?

MS. FERGUSON: Yes, from time to time.

MR. BRETT: And have you paid any dividends in 2019 yet?

MS. FERGUSON: I don't believe so, but I would have to check.

MR. BRETT: Okay. Would you mind checking on that, just to advise whether you paid dividends to the parent?

MR. SMITH: Maybe, Mr. Brett, you can help me with the relevance of that question.

MR. BRETT: Well, the relevance is, in my view, I am trying to -- I guess two steps. The ICM project -- the ICM financing mechanism -- the company is seeking to access the

ICM financing mechanism for some of its projects. The ICM financing mechanism is available, deemed to be available to the company. But it's there to finance projects that the company does not have the financial capacity to pay for through its rates at a given point in time.

And so, what I am trying to get a bit of a handle on is the company's -- the company's financial capability is a function in part of -- particularly its equity, if you like, which is the basis for its total capitalization under the 40/60 sort of practice, is essentially provided -- or is a function of its earnings, but also investments made by its parent company and dividends paid out to its parent company.

So I am just trying to understand or reassure myself, I guess, that there aren't -- that there is an established, that there's an established dividend policy or there is isn't, and that the company, this company, Enbridge Gas Distribution Inc., has the capability to receive equity injections from its parent, which would allow it to grow because it could then borrow more.

So I am trying to get a sense of how that would work. In other words, if it were a public company and had to go to the market for equity, it would have a constraint, in my view, that this particular company, given the structure of its ownership, does not have. And I think that amount -- that financial capability is relevant ultimately to the question of -- or could have a bearing on the question of the extent to which the company requires supplementary financing via the ICM mechanism. That's sort of how I see it.

MR. SMITH: That's helpful. We are not going to provide the information. The Board's policy with respect to ICM and when it's available from a financial perspective is set out in the Board's reports and in Enbridge's evidence.

There is, as you'll know, a constraint where a utility has earned more than 300 basis points above its allowed return. But there is no constraint or criteria that relates to the nature of the ownership of the utility in question, whether municipally owned, publicly held, or part of a larger organization. And the capital constraint, as you've put it, is not a criterion.

MR. BRETT: Okay. So I think you are not prepared to provide any information with respect to the dividends or the capital injections from the parent company, as I understand what you have said. So I will accept that; I have to accept that at the moment.

Just give me a moment here, folks. Yes, just a couple of loose ends to finish this off.

We had asked you a question, and I think you discussed this with Mr. Ladanyi, that your guidance that you took for preparing your asset management plan was the ISO documents, number such-and-such. And I think you told me in an interrogatory response that there were a package of three documents that you got.

I had asked you to supply copies of those documents and you said -- and I apologize, I can't call up the exact, I can't call up the IR as I speak here. But you had said, well, we can't do that because there's copyright protection, or there's some legal reason why we can't give you those documents, which means that if I wanted to have a look at them we have to go to the ISO organization and purchase them.

I wondered if you could give me a -- you have obviously purchased them. I wonder if you could tell me approximately what they cost.

MR. SMITH: Mr. Brett, this is entirely my fault, for which I apologize. Which documents in particular are you referring to?

MR. BRETT: Well, in the -- I am referring to these guidelines -- these documents set out by the ISO organization, ISO standards organization, that sort of establish the -- establish the gold standard or establish the correct process for developing an asset management plan. And I think the company has testified or has spoken about the fact that they use those documents to guide them, and I had asked to get a copy of them, and the company said, "Well, no, we can't do that, because they are copyrighted and you have to get them from the ISO." I think you mentioned a package of three documents that you used.

Are you -- Ms. Thompson, are you aware of the documents I am speaking of? Or somebody's aware of them?

MS. THOMPSON: Yes.

MR. BRETT: Okay. And the question I have is what do they cost?

MR. NACZYNSKI: So Mr. Brett, the documents are relatively inexpensive, a few hundred dollars. The challenge when we saw your question in asking us to simply submit them, they are PDF copyright, not for distribution when you purchase them, and the way they have the PDFs in today's day and age you can't even forward them via e-mail to people. So they are available. They are not expensive, hundreds of dollars --

MR. BRETT: Okay, fair enough.

MR. NACZYNSKI: And Mr. Brett, I think if you Googled, if you went online and looked at it, I think you can find a synopsis that is publicly available that would go through the outline of what's included in each document without having to go through all the details and acquisition of the documents, so if I could provide that advice.

MR. BRETT: Thank you. And let me just check something here --

MR. LADANYI: Tom, can I ask a question on ISO 55000 while you're looking?

MR. BRETT: Yes, certainly.

MR. LADANYI: Yes. So as you know, other utilities come before the OEB and some of them do mention ISO 55000, for example, Toronto Hydro, which is also currently before the OEB. They filed their asset management plan, and they also referred to ISO 55000, which they are meeting. It looks different than yours.

So what I understand first is that you have these standards and then you interpret the standards and how they apply to you, and then you design your own asset management plan which you hope will meet ISO requirements. Would that be right?

MR. NACZYNSKI: That's correct. So we used ISO 55000 as well as other publicly available standards, and, yes, that was the expectation, that we were largely compliant with what was in that standard.

MR. LADANYI: And Toronto Hydro also discusses ISO 55000 certification. Can you tell me about certification and the significance of ISO 55000 certification and whether you actually have it?

MR. NACZYNSKI: So the Enbridge Gas Inc. is not certified in ISO 55000. It is something that we did explore at Enbridge Gas distribution and something I think that has probably come up in previous stakeholder conversations, but we are not certified in ISO 55000 at this time.

MR. LADANYI: Would that provide you -- certification -- any advantage, or it would really not be significant in any way?

MR. NACZYNSKI: Well, I know this question has come up amongst, you know, certainly the electric utilities or even other gas companies within North America on, does it make sense, is it to our advantage to be certified in asset management, or is it simply quote-unquote good enough to say that we are compliant with ISO 55000. I think that's, I guess, kind of what I wanted to say. We have to look at if that makes sense or, you know, if it is requested or -- et cetera, but at this point I think we have looked at, can we be largely compliant and demonstrate we are meeting the principles of ISO 55000 with good asset management practice.

MR. LADANYI: Thank you.

MR. BRETT: Okay. Thank you. I have -- Ms. Thompson, I have a question for you, I guess pretty much a final question I have. It's, you mentioned, I think, in your conversations with Mr. Ladanyi that you were talking about -- and we talked earlier about the different processes that Enbridge and Union have used to develop their particular plans, asset management plans. There are now two of them.

My question is sort of two parts. The first is, I thought I heard you say that you may -- the question I believe was -- this question arises, you know -- an obvious question, I suppose, is when is it that you're going to provide a unified system plan, asset management plan, and utility system plan that incorporates the legacy plans of each of Union and Enbridge so as to be able to on a corporate-wide basis effectively prioritize and plan -- most efficiently use your capital on a corporate-wide basis in projects.

And I thought I heard you say you were working on that, that you may or may not -- I may have misheard you, but I -- that you may or may not actually come to the conclusion that you require -- that you want to do a unified -- or a utility system plan.

And the corollary is -- I guess I have got this back to front, but are you under any requirement -- is Enbridge Gas Distribution Inc., the new company, under any requirement from the OEB to provide a unified system plan by a certain date?

MS. THOMPSON: We made the commitment as part of the MAADs proceeding that we would file a combined USP and asset management plan by the 2021 rates application.

MR. BRETT: Okay. So effectively that's coming.

MS. THOMPSON: Correct.

MR. BRETT: That's not a -- it's not a -- and you're interpreting that -- are you -- you're interpreting that to mean that -- or are you -- that you must have a single system plan that provides for the -- that it absorbs the legacy plans of the previous legacy plans and puts them together in a single plan? Is that your interpretation?

MR. SMITH: That's the interpretation. It wasn't -- from memory, I am not sure if it was put as explicitly as a directive, but I believe the way it was written is the companies had committed to doing a USP by 2021, and the Board accepted that, I think is the way, roughly, it was put. And so that's what the company intends to do.

MR. BRETT: Okay. So just to be sure I understand that, so it will be a single unified system plan? It will not have two pieces, one for Union, one for Enbridge?

MS. THOMPSON: We will have a single utility system plan and a single asset management plan.

MR. BRETT: Sorry?

MS. THOMPSON: We will have a single utility system plan and a single asset management plan for the combined entity.

MR. BRETT: Thank you, those are my questions.

MR. RICHLER: Thank you, Mr. Brett. Mr. Quinn?

EXAMINATION BY MR. QUINN:

MR. QUINN: Yes, thank you. Good morning, panel. Dwayne Quinn on behalf of FRPO. As committed to a couple of people, I will be brief.

If I can ask you to turn up FRPO 19, please. Thank you. And this is the -- an area of your asset management plan that you are replacing the risers. And maybe, Erik, as opposed to putting the words in your mouth, can you just describe simply what Enbridge is doing here and why?

MR. NACZYNSKI: Yes, so this -- so maybe just start with the copper riser, and in particular you may have heard it called an AMP fitting as well. It's a connector that connects a plastic to a copper pipe and then rises above ground and makes the connection to the meter.

As -- you know, in the interrogatory here, there's about 280,000 of these things in our system, and they have some certain failure modes associated with them that anyway causes them to start to leak.

MR. QUINN: Okay, thank you. And I was curious about your answer, and I reread it last night, but you referred to in your evidence about this as little as 30,000 BTUs per hour at 5 PSIG. That's the criteria that was in the evidence and it's actually written in the preamble up above, just for people to refresh their minds.

So it says analysis determine the turbine flow be reached in copper riser at a pressure as low as 5 PSIG at 30,000 BTUs.

Now I was hearing that as that’s the point turbulent flow starts. And I guess to give you context to the question, if you have got a higher pressure and the minimum pressure in most of your systems would be 20 pounds or more, between 20 and 60 for most of your system.

MR. NACZYNSKI: That's correct. If you are talking about an IP pressure class where most of these fittings would be, yes.

MR. QUINN: So between 20 and 60. So if the minimum is 20, you’ve got a minimum of 20, the velocity of the gas would actually be reduced at 20 PSIG versus 5 at any kind of flow, in this case 30,000 BTUs.

MR. NACZYNSKI: Yeah.

MR. QUINN: Are you saying that you still experience this phenomenon at 30,000 BTUs and 20 PSIG?

MR. NACZYNSKI: So, yes, absolutely. So Dwayne -- Mr. Quinn, so of course with higher pressure, your gas velocity of course does decrease. But the mass of the gas also of course increases, because you are compressing more gas together. So as the density increases on that, on that gas flow, the mass flow is of course increasing and that is actually what's driving that Reynolds number above, of course, Laminar flow at 2300 fully turbulent at 40,000, of course, and 30,000 BTUs at 5 PSI will put you over 4000 of, of course, Reynolds number, a non-dimensional number for folks in the room.

So yes, at any pressure above 5 PSI, you will have a fully turbulent flow in that AMT fitting. And of course that turbulent flow creates that vortex shedding we talk about in question 5, and that's where you get the flaking of the copper sulphides inside that source, which causes that internal erosion.

MR. QUINN: Okay. That's well answered, thank you. This is more a practical question, but do you salvage these copper pieces and does that go back to the cost of the project?

MR. NACZYNSKI: Sorry, the associated scrap cost on a per dollar basis?

MR. QUINN: Yes.

MR. NACZYNSKI: I can make an -- I honestly don't know where -- if it ends up in a bucket at the depot and they salvage it and where it goes. It may get donated somewhere or whatever. I don't know what they do with the copper pieces that think salvage from the ground.

MR. QUINN: I am trying to do a math on that, and there would be fair amount of recycled copper that would come out of that.

MR. NACZYNSKI: I am sure our organization deals with it in the most environmentally means possible, as they deal with the copper that comes out. It's a three-foot section of copper that comes up out of the ground at each one of these. And yes, times -- you know, half-inch copper or 3/8ths copper at 280,000, I guess we could figure out what the tonnage of that would be over 25 years of replacement.

MR. QUINN: I know it's not a material number, but I appreciate your answers. There's good thought going into this, Erik, and so thanks very much. Those are my questions.

MR. RICHLER: Thank you, Mr. Quinn. Staff has some questions, but first let me just ask if anyone on the phone would like to ask questions. And maybe I'd ask you to speak up only if you do have questions. I will take silence as a no. Hearing none, I will turn it over to Mr. Viraney.

EXAMINATION BY MR. VIRANEY:

MR. VIRANEY: I just have a couple of questions on IT spending, and this is with respect to Staff 67. And in that, it states that Enbridge Gas will complete a detailed review of EGD and Union IT business applications by the end of 2019. So what will be the outcome of this review? Will you determine what IT infrastructure is required, not required?

MS. THOMPSON: So the work that's underway currently is exploring the hardware and software that each of the legacy companies use, and what our integration plan is going forward.

MR. VIRANEY: So at the end, will you kind of know what IT software and systems you need, what you don't need, what you will discontinue? Is that what will be -- is that what the report will determine?

MS. THOMPSON: By the end of 2019 when that plan is complete, we will have greater visibility to the core work that continues as is, as it would have in each of the legacy companies, and what the plan is going forward to bring together and harmonize hardware and software.

MR. VIRANEY: So then you will determine spending for the future years, from '21 onwards? Or will it remain the same as in the USP now?

MS. THOMPSON: So based on what we know today, I don't want to assume that the cost will be different. I think we need that process to go through and identify the spend that would be required in future years.

MR. VIRANEY: So I am now looking at your evidence, and I will just give you the reference, it's your total spending for 2019, that's EGD and Union. So the reference here, and this is EGD's evidence -- that's Exhibit C1, tab 2, schedule 1, page 360. And for Union, it is Exhibit C1, tab 3, schedule 1, page 125.

So just correct me if I am wrong. The total spending is 68 million for 2019. Is that -- do you accept that, subject to check?

MS. THOMPSON: Subject to check.

MR. VIRANEY: So is your view that all of the 68 million is absolutely required and mandatory, or can you defer some of the spending until the review is completed at the end of 2019?

MS. THOMPSON: The spend that's been identified and included as part of the plan for 2019 is essential for 2019, and that was recently confirmed within the company and that through the course of the work and planning that's underway, it will build on the work that's done in 2019.

MR. VIRANEY: Okay, thank you, that's it. That's all I have.

MR. RICHLER: Thank you, Mr. Viraney… That brings this technical conference to a close. I would like to thank the witnesses and I would just remind the applicant that pursuant to procedural order Number 2, the undertakings are due on May 8th.

Unless there are any other housekeeping matters, we are adjourned.

MR. SMITH: Thank you.

MR. RICHLER: Thank you.

--- Whereupon the conference concluded at 11:45 a.m.