MANITOBA CLEAN ENVIRONMENT COMMISSION

MANITOBA-MINNESOTA TRANSMISSION PROJECT

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MONDAY, MAY 15, 2017
UPON COMMENCING AT 9:30 A.M.

THE CHAIRMAN: Good morning, everyone. Welcome to our second week of hearings into the Manitoba-Minnesota Transmission Project.

Just a couple of housekeeping matters first, really all around the timing. Our secretary, Cathy Johnson, has had some communication with all of you. And we are a little bit behind in the hearings, somewhere in the order of half a day or maybe about three hours. So we are going to try and get them back on track, keep it efficient. We do have people coming to the hearings to speak on certain matters, and so we certainly don't want to ask people who are coming from out of town to hang around while we catch up. So we are going to try and get it back on track and keep it on track.

So we will go until 5:00 o'clock today. So the rest of the times will be the same, but we will add a half hour. And the other change we are going to make is tomorrow evening, Tuesday evening is primarily to hear from the public, so that will, of course, be our first order of

business. But any remaining time, we will use as well, either for a Hydro presentation or for questioning, depending on where we are in the schedule.

So with those two pieces of information, I think we should get started. And I believe we were part way through Hydro's presentation on the construction component of the hearings. So I'll turn it over to Hydro.

MR. PENNER: Thank you and good morning. I just had a quick clarification to the construction presentation that I made on Thursday. I had a slide that showed a January 2018 construction start, and I just wanted to clarify that in light of the letter that we received from the NEB, letting Hydro know that we would expect a decision in 2018, I wanted to just emphasize that we will not start construction without both the NEB authorization and the Environment Act licence. Thank you.

THE CHAIRMAN: Thank you.

MR. STUART: If I could make an additional clarification too, to the bio-security presentation. One of the slides for the presentation, in terms of lessons learned from

past projects and experiences, spoke to ensuring that bio-security is built into construction contracts. I do want to clarify that for Bipole III, elements of bio-security were built into our contracts, but some elements did come later, such as monitoring or the pre-construction sampling. So for clarification, there were already elements included in the contract.

THE CHAIRMAN: Thank you. All right. We'll turn the presentation back over to Hydro.

MR. MATTHEWSON: Good morning commissioners, good morning participants. My name is James Matthewson, with you again here. We're going to be talking about integrated vegetation management this morning.

So Manitoba Hydro has an integrated vegetation management program to manage vegetation on its existing transmission and distribution facilities. The goals of the program are to maintain the integrity of the transmission system, to ensure there is no outages due to interference or contact with conductors from vegetation. It's to provide access to all the structures for maintenance and inspection of the transmission system. It's intended to reduce the risk of fires

caused by trees contacting the line by managing that vegetation. Its goal of respecting traditional land uses and practices encourage, and strives to encourage a stable low growing plant community and minimize the environmental effects of the integrated vegetation management activities, while enhancing the biodiversity of the right-of-way.

So there are four primary methods of integrated vegetation management that Manitoba Hydro implements. So we have a selective control where we're targeting that tall growing vegetation, trying to remove it through a variety of different methods, or conversion of the right-of-way to more compatible land use or maintaining its existing land use, such as agricultural use of the land, or conversion to a pasture type land. Recreational opportunities, Manitoba Hydro has numerous different types of recreational opportunities, ball diamonds and soccer fields under its existing transmission right-of-ways as a way to manage the vegetation and provide secondary use.

No clearing required is another method. So in the construction process, no

removal of vegetation that does not impede access or those limits of approach. So limits of approach are a term that we use at Hydro, it's a safety term. It relates to how close in proximity either a person or an object can be to the conductors themselves.

The other, the final method of integrated vegetation management is altering existing vegetation. So this would be in an area, more of an urbanized or residential area where we're pruning or trimming trees in order to maintain those limits of approach or safe clearances.

So with planning integrated vegetation management program, we first have to start with some information. So Manitoba Hydro's line maintenance crew strives to control every span of the transmission system once a year. During these patrols, the following conditions are assessed. So they visually assess the tree height, the density, the proximity of that vegetation to that limits of approach. They are looking for imminent threats, so these are dead or dying, and leaning trees that are generally outside of the right-of-way that could fall on to the conductors.

Looking at the width of the right-of-way; as the right-of-way ages over time, it starts to narrow as the trees start to grow, vegetation starts to grow from the edge of the right-of-way, so it eventually grows and narrows towards the centre of the right-of-way.

Looking at terrain, accessibility, environmental conditions, is there flooding in the area? Are there nests on the structures? We have a fairly common practice of large osprey, or large hawks and eagles creating nests on the transmission structures; which are generally acceptable to have that nest on there. But if the nest were to somehow impede and get too close to the conductors, then removal of that nest may need to be required. And we would take that nest down and move it to another platform adjacent to the transmission line structure when, of course, the bird wasn't utilizing the nest.

But there are many, many transmission lines in Manitoba with nests functioning on the transit, with no safety risks at all with those, so we leave them in place.

We look at the relative priority of the work overarching the entire transmission

network, and we look at the efficacy of any treatments that may have happened in the previous years.

So then line inspectors and environmental staff, they use all this information to plan the integrated vegetation management program for the following years.

So there is numerous criteria that are chosen for treatment selection. So choosing which treatment, and I'm going to go into the different types of treatments a little bit further on, but the method by which we select a treatment is based on a variety of factors, some of which are the target species. What are we trying to target? Is this a coniferous understory? Is this a deciduous understory? What type of vegetation, how tall is it, how dense is it? What treatment timings may exist with respect to accessibility? The site accessibility itself, is it a wet area, are there access roads to get there, or is it otherwise an accessible area of land?

Now, we're looking at the existing land uses, the proximity of water sources, bodies of water, any environmentally sensitive sites. The timing of that treatment, as I mentioned, is

also taking into account those reduced risk timing windows, so riparian areas when there is fish spawning going on, or calving periods for moose, and/or concerns around bird nesting timing zones. So all those factors with respect to timing come into play in what treatment method can be applied. Of course, resource availability, are there staff available, are there contractors available, and what is the budget in any one particular year, all contribute to the different types of criteria.

So the access and terrain, as I mentioned, you know, steep slopes, rocky terrain, increases safety concerns of machinery. Here's some of the pictures of riparian area with a steep slope. That's going to affect what kind of treatments we can apply in that area, and the timing of those treatments and when.

As you'll notice, the conductors are going across the top towers fairly high up. So these trees may be allowed to grow to a higher height because they are that much lower than the conductors, so that limits of approach factors is taken as consideration.

So from an access perspective, these wet areas or remote locations where only

helicopter or frozen ground conditions will allow treatment to be conducted also play a part in the treatment selection.

Land use is also an important criteria for treatment selection. Often the land use dictates the type of vegetation management that will be used in the area. Where there is a harvested crop, typically no concern with any taller vegetation contacting the line. In pasture land areas, typically there's control through the grazing of animals cycling through there to control a lot of the vegetation. And the riparian areas, which are the wetlands, the rivers, the creeks and the streams, we're looking at buffers and more prescriptive measures with respect to reduction in environmental impact, like a low, very low impact type spraying application or mechanical removal of vegetation through hand cutting or low disturbance equipment that can reach in, like that feller buncher can reach in and grab the tree and pull it out of the way without entering the riparian zone.

Known traditional use areas may also have buffers associated with them, or work may be scheduled to reduce the conflict with the

gathering activities that may occur within those areas.

So the setbacks. So with riparian areas, we have a 30 metre setback on water bodies, that is from construction. We also do that in construction and follow through, through operations, with our activities, where we manage very closely the type of equipment and the activities that occur within that 30 metre buffer, recognizing the high value that public and First Nations and Metis, indigenous engagement processes have shared with us the importance of the water supply and any types of potential impacts to water.

With those traditional plants, looking at a 15 metre buffer around whatever point or polygon area of traditional use, or rare plants. So if there's a rare plant or gathering area, we'll put a 15 metre buffer around what we have delineated the area to be, so as a further mitigative measure.

Manual treatment methods are very labour intensive and time consuming. However, they are typically used on these smaller, harder to reach areas, or on sensitive sites where the

machinery is likely to cause some type of environmental damage, such as rutting or compaction. So manual methods are a key component to integrated vegetated management planning, but they are a component that -- they are very obviously high cost and they can cost upwards of 10 times of what a mechanical treatment can cost. So in those areas where we have sensitive sites and traditional plant gathering areas, or in areas where there is rare plants or riparian areas, manual cutting is a very viable treatment method for those areas. Sleep slopes as well.

And some examples that we have, there's a brush saw, chain-saw use, and then girdling. Girdling is a tool that you use to remove the outer bark of a tree and it reduces the -- eventually kills the tree, it reduces the whole flow of nutrients up and down the stem. So it does kill the tree, but the tree stays standing or the stem stays standing.

Mechanical treatments, so mechanical mowing, or shear blading, as Mr. Penner talked about on Thursday, he gave you a picture of a shear blade. This is another picture of a shear blade. These are best suited in areas where you

have really high density of treed species over large areas. It is also primarily used in winter months, in areas where there's that wet summer access where equipment can otherwise not travel. You go in there in the winter time and the shear blade tool, as a treatment method, is very effective.

The mechanical methods are generally considered non-selective in that it clears all the existing vegetation and habitat. The heavy equipment is subject to disturbing the soil. If the operator is not careful, the disturbed soil then can provide a seabed for a veesa (ph) species, or a tree species re-pioneering the site.

This can also, the shear blading in the winter time, when a lot of the nutrients of a tree, in particular a Poplar tree, the nutrients of that tree are stored in the root ball and root system in the winter time. So when you shear blade a tree, either during initial construction or during maintenance, the tree resprouts, re-suckers, because all of its nutrients are stored inside that root ball. So it's one of the disadvantages of a winter clearing method, although there are several environmental

advantages from a vegetation management perspective, there is a disadvantage in that it dramatically increases the amount of suckering that happens on those species the following summers.

A mulcher, again, another piece of equipment Mr. Penner showed us. Non-selective in nature, everything in its path gets mulched. A feller buncher is one of the selective mechanical methods that are used for removing danger trees. So this is a feller buncher removing, this is the edge of the right-of-way, the feller buncher is reaching in to remove the large Aspen tree, as it exceeds the height requirements for safe operating clearances.

We also use these in wildlife type corridors to remove individual trees. It leaves the surrounding vegetation. So one of the benefits of a feller buncher is it's just taking the tree. So any surrounding shrubs and vegetation around that tree are left intact. Typically, again, used in the winter time, they can be used on drier sites in the summer, but primarily in the winter in Manitoba.

Chemical treatment methods, so

herbicide use in Manitoba is overseen by Manitoba Sustainable Development through a pesticide use permit process under the Environment Act. The process requires Manitoba Hydro to advise through public notification and provide a 30-day opportunity for public to voice any comments or concerns to Manitoba Sustainable Development about Manitoba Hydro's planned vegetation management activities over the coming season.

Manitoba Sustainable Development may then issue a permit to Manitoba Hydro that stipulates what herbicides are authorized to be used, how they may be applied, where they can be used, that minimum setback distances from riparian areas, and other safety conditions.

At the conclusion of each treatment season, Manitoba Hydro is then required to submit a permit to Manitoba Sustainable Development detailing the herbicide use activities which includes quantities and areas of treatment.

The herbicides in general that Manitoba Hydro uses are for tree control. They are selective in nature in that they only affect the broad leaf plants and do not control grasses and sedges.

We have two examples of treatment methods. This would be an example of a flex track machine with a hose and handgun operation. So there would be one driver and there would be one to two operators on the back that have a hose and handgun that applies spot treatments. As they are driving, they are spot treating the treed vegetation.

The other option is a mechanical chemical application, where this mower has a chemical container on the top of it. So as it mows the vegetation, the chemical is released on to the blade of the mower, and as the blade cuts the vegetation, the chemical is wiped onto the stem that's left behind, the stump or stem, and it treats the tree that way from resprouting. So you can see this is generally for smaller vegetation, more of an operational vegetation management control tool versus an initial construction mowing or mulching tool. The mulchers that I showed before are much bigger mulchers than may be used during construction or larger vegetation during operations.

So, Manitoba Hydro uses these application techniques that target those

individual trees. And as the number of those individual trees declines, the low growing compatible vegetation, the shrubs and the grasses, they start to dominate the plant community on the right-of-way. And I'll show you some more pictures of that coming up. And this starts to form as a bit of a biological control, because those plants and grassing, they're all competing for the nutrients and the water supply better, and they are taking up more ground space than the trees, which are also trying to repopulate the area, pioneer species such as Aspen, Balsam, Poplar.

Over the years, we have continually refined our approaches to reduce our application rates, with as little herbicide as possible on the right-of-way, while still effectively controlling those target trees that we're looking for.

Another method that we use frequently are what we call cultural treatment methods. There's an increasing demand from the public for secondary uses of right-of-ways, so Manitoba Hydro is very supportive of these uses because it does reduce our overall cost of vegetation management, as long as they are compatible with the safe

operation and maintenance of the line. So examples are agricultural operations or livestock grazing as in this picture, native grass and seed production, garden plots, or as we have heard, there was a recent letter from a landowner about a U-pick. Manitoba Hydro is very supportive of U-pick type operations underneath the right-of-way, and there are places where we have those in place now, and they are compatible land use with transmission lines.

We also have those recreational facilities. As you travel around Manitoba, there are multiple trails, baseball diamonds and soccer fields that exist under transmission right-of-ways in Manitoba.

So I have a table here that kind of illustrates four different factors. So the cycle, which is the return periods, so how frequently we may have to do a vegetation management activity based on the two different mechanical or chemical treatments. Safety, wildlife and vegetation and traditional use plants.

So mechanical control, I'll talk about the mechanical control now and I'll show some pictures, and then I'll talk about the chemical

control. Mechanical control is suited for those areas, as I mentioned before, those high density vegetation, where you have a lot of stems of Aspen to control over a large area. Mechanical maintenance cycle is continuous and that will always need to remove vegetation on the right-of-way. So typically a mechanical cycle can take eight to 10 years, depending on the growing season and the site. Some may be a little faster, some a little slower. But it's continuous. We'll have to continually go back there and remove vegetation through mechanical methods. It's just the nature of resprouting of the pioneer species that exist in Manitoba, the tree species.

So on the safety side of things, there's obviously an increased risk of spills or releases of hydrocarbons because you have a lot more heavier equipment operating on the right-of-way, doing that mechanical clearing. There is a higher level of safety concern with safety of the public during the winter months on those access trails and access roads with machineries driving around. And all the numerous, in Northern Manitoba certainly, the numerous extensive trail network for trappers.

So those are all things we try to incorporate into our operational EPP, as I showed earlier, with the signage and awareness of working with those recreational and resource users.

The wildlife. So wildlife is displaced on the right-of-way for a little bit longer period of time, versus a chemical application. Because as I mentioned, we mow the entire right-of-way, and it's non-selective in nature in that all the vegetation is removed. So you have a different type of wildlife that starts to utilize that right-of-way after the initial clearing during construction and also after a mechanical clearing. And then as the right-of-way starts to grow back over that period from zero to eight years, you have more variety of wildlife use, but it does take them a little longer to start to reutilize the right-of-way because it was cleared of all vegetation. But once it does come back, it comes back pretty thick and provides a good food source for a number of wildlife as well.

Vegetation and traditional land use plants, so that continual cutting of vegetation creates that resprouting of vegetation which is primarily these pioneer species, such as the Aspen

Poplar and Balsam Poplar, which increase the frequency of the maintenance required, so we have to mow things more frequently. And because of the non-selective nature, those berry bushes and the blueberries and the other medicinal plants that may be non-trees, they're also removed at the time of mowing.

We also have a decreased diversity of species, when you have mechanical methods, because of that constant resprouting. Every time you cut these trees, every stump that you leave, it just resprouts into multiple stems. And if you're continually cutting multiple stems, it just expands and expands that -- the use, that expansion of the Aspen across the right-of-way.

So here is some examples of mowing in practice. So one of the rotary mowers, and you can see this is the example of vegetation that is left post the mowing. And this is a wheeled machine, and this one is a track machine. Similar in nature that you'll see that it's non-selective in nature. We are clearing in both these pictures a dense canopy of Aspen in both these images here, and how the mechanical mowing looks like in the winter and fall.

So the shear blade. So the shear blade method is typically used in Northern Manitoba, where you have a coniferous dominated landscape, because you have a variety of wetlands and typically more conifers in Northern Manitoba than Aspen, but it's a mixed wood in many places as well.

You'll notice that this is the winter, they go back and forth and shear blade the vegetation into windrows, and they just leave it there to decompose typically.

So the results of a right-of-way that's been managed by mechanical mowing in this example, you'll notice this hard edge. So you've basically got the right-of-way and then you've got your mowed area. There's no gradual tapering of vegetation in vertical height. They call it hard edge. So that is not as compatible for a variety of species. And one example on the MMTP project is the Golden Winged warbler. So in describing the Golden Winged warbler management plan, we're using a variety of different clearly techniques during initial construction and during operations to create an edge that is not a hard edge like this. And we'll show you some pictures of what

we're trying to achieve there.

So this is an example of a right-of-way that's been mowed a couple of years previously, and you can see the dense Aspen population coming back from what was previously a very dense Aspen stand when the right-of-way was initially constructed.

So it will, while this is providing a variety of wildlife habitats at this stage, in a matter of three to four years we'll have to come back and mow that vegetation again to maintain those limits of approach.

So from the chemical perspective, so diligent use of herbicides provides some advantages where it's appropriate to use them in an integrated vegetative management. That selective nature of the application allows you to create an advantage for those low growing compatible species, while allowing the development of what's called a wire zone, border zone approach, which softens that right-of-way edge. Because a lot of those right-of-way edge is those compatible shrub species that are growing in there. So by only targeting the tree species, we can increase that diversity of vegetation across

the right-of-way.

And as I mentioned, that competitive advantage, as the shrubs and grasses take over the right-of-way from the Aspen, through controlling of the trees, they start to dominate the landscape and become a very good biological control for Aspen growth. So we're able to use smaller and smaller and less and less chemicals over a period of time, as the rotation cycle period increases with each application. So over time it allows for less and less chemicals and much more selective nature in the treatments.

So we can move from a hose and handgun operation, as I showed you in one of the previous pictures, moving towards -- as we go through multiple cycles and this is over decades of time -- we're moving towards more of an ATV type mounted sprayer or even getting into a backpack application.

So since approximately, so 2003 to 2016, this graph illustrates the amount of herbicide active ingredient in kilograms applied per hectare. So this is a conservative estimate, as Manitoba Hydro does not use a broadcast application to apply to the right-of-way. We do

that selective application of herbicides. But there's no real effective way of measuring exactly how much chemical, when the hose and handgun spraying is squirting for three minutes in this spot and then four minutes over in that spot. We have a total amount of solution we've applied, but we can't calculate how much per hectare on a very accurate scale.

With some of the newer technologies Manitoba Hydro is investing in, we are moving towards that in really mapping exactly where on the landscape, on a very small metre by metre basis, where herbicide application has occurred. But right now we're measuring it on the entire right-of-way.

So instead of, while there have been small variances since 2014 and 2015, or we increased the amount of active ingredient, that was a trial where we were using a new herbicide formulation that had a higher active ingredient per hectare. The average use of herbicides, so this is the amount of kilograms of active ingredient in the herbicide, has decreased over time. One of the big things that's happened in 2016, and we expect to move forward, is with a new

herbicide formulation that we're using, we've dramatically reduced the active ingredient to less than one kilogram of active ingredient per hectare. And we expect that trend to continue into the future. But you can see where we were at 1 in 2005, and up to 2, and then we did spike up to 3.5 with that one formulation of herbicide that we used for two years. And now we're back and been trialing. The product that we are using here we had been trialing at this stage, and now we're moving towards much more broader use of that herbicide, as it's been shown to be very effective with a much lower reduced active ingredient per hectare.

So as with our active ingredient per hectare, Manitoba Hydro has had some variability in weed control in the area treated. So included in vegetation management is the weed control, and that weed control primarily has been in Manitoba Hydro stations. So as we have those limits of approach for transmission wires, where we're trying to manage the tree vegetations to maintain safe operating of the transmission lines, in a station we're trying to control the weed vegetation within the layer of insulating rock.

So in a station there's all this gravel, the engineers call it insulating rock, that provides insulation from the grounding grid, which is buried below the station and the electrical infrastructure above ground. And when you have that vegetation in there, it starts to break down the insulating properties of the insulating rock. So we have to control the weed vegetation in order to restore that grounding, capabilities of the ground grid below.

So there have been some highs and lows in the weed controls, some of the spikes are correlated to some heavy infestations we had back in 2007, in some of our very large transmission stations, such as the Dorsey Converter Station, where multiple treatments were required in that to control very invasive species that were dominating.

The other thing that the weeds can do is they can grow into the cooling fins of the transformers. So the vegetation can grow up and start to affect the cooling performance of the transformers themselves.

So new herbicide formulations and technologies over the past 10 years, as you can

see, have really stabilized that use of herbicides within the weed, for weeds within our station footprints. And when we control weeds in our stations, we're really controlling the area within the fenced boundary of the station and a one metre perimeter around the outside of the fence. Because the fence is also all fully grounded, so we need to maintain the grounding principles of the fence and can't allow vegetation to grow within the chain link fence.

So while the tree control, as you can see in red, has been fairly stable in area, few dips below, a few above. But we have on average ranged from 1,500 to 1,800 hectares per year. So that's the herbicide tree control for transmission and distribution. So this 1,500 to 1,800 hectares, this represents a small fraction of both the approximate 80,000 kilometres, or 64,000 hectares of distribution right-of-way that we have, that we're managing, and 11,000 kilometres or 50,500 hectares of transmission line right-of-way.

So 50,000 kilometres of just transmission, 50,000 hectares of transmission right-of-way, and we're on average treating 1,500

to 1,800 hectares. So that's totaling over 100,000 hectares, and we're treating 1,500 to 1,800. So we're not widespread use of herbicides across Manitoba in all our right-of-ways. We're very selective and prescriptive on where we utilize it to provide the most effective control mechanism for the trees, and also increasing while recognizing all those other environmental criteria and treatment control methods that I described previously.

So again, as an example, this is an example of a right-of-way. So this is a 360-degree picture. So this is one that you're in the middle of the span right here, and you're looking that direction and this direction to each one of those towers. So it's supposed to be 360.

Where the trees have been controlled, so that's where you'll see, this is your understory grasses and shrubs, and these are the trees that were treated on the previous year. So this patch had been cut. Instead of the understory of shrubs and grasses, we would have had much more Aspen coming back into that area. So by using a chemical treatment method, we have avoided that scenario and reduced that cycle

period, the return on why we need to come back in the future.

So this is an example of that, of where herbicides were used to control the right-of-way vegetation. You can see some of the vegetation that was treated a few years previous to the picture.

And again, this is that softer edge that I was talking about. So on a right-of-way, we have the shrubs that are still there maintained, because we're able to selectively just control the trees, whereas the mowing produce that hard edge.

Another example of a patch of trees, Aspen in the middle of a right-of-way where we are able to just go and selectively treat just this one patch of trees. You can see all the shrubs and everything else, all the grasses all maintained on the right-of-way, really targeting just that one set of trees in this particular scenario. It really reduces the amount of equipment that needs to come back and treat the area on a continuous basis.

So this is a picture of a right-of-way, so this is a smaller voltage

transmission line, so it has a narrower right-of-way. But this right-of-way has been managed through integrated vegetation management approach for multiple cycles. So it's probably about 20, 25 years worth of management. Keeping in mind with integrated approach, we are doing some mechanical, some chemical. We're not going in every year, it's five to 10 years, and we've come into this area probably twice over the last 20 years to treat. So we've got a lot of compatible shrubs and grasses on the right-of-way. The taller shrubs along the edges providing that softer transition on the right-of-way.

So when we talk about the Golder Winged warbler habitat, that we'll probably talk a little bit more in our monitoring presentation about, that's the kind of edges that we're trying to create on our right-of-way. And so it creates a habitat of low growing shrubs in the centre, still maintaining an access trail for line maintenance for patrolling and inspection. And as we get outside the wire zone, the wire zone is the area considered right underneath the transmission wires, and the border zone is that part of the right-of-way that is off to the side of the

conductors, as we can control and manage in an effective manner that allows all the shrubs and understory and diversity of species that integrated vegetation management approach allows for. Thank you.

MR. IRELAND: Commissioners, ladies and gentlemen, good morning. My name is Brad Ireland and I'm the Director of Corporate Services for Manitoba Hydro.

So five primary things that I'd like to share with you today, lessons learned most recently on the Bipole III project, building and maintaining landowner relationships. I'd like to speak, or spend a little bit of time talking about Manitoba Hydro's compensation program, our land acquisition strategy and property values.

So starting with lessons learned from past projects and experience, we have revised our compensation program. And in response to landowner feedback, we have changed the up-front payment at the time of signing from $225 to now 50 per cent of the land value. We've strengthened our communications with landowners, and to that effect, we have reached out by mail to all 126 landowners. We have had discussions with 107 of

126 landowners. And we have had in-person discussions with 50 of 126 landowners.

We have also established a dedicated contact staff, and we have studied the high voltage transmission line impacts on property values through the PRA phase 3 report.

Manitoba Hydro is engaged in building long-term relationships with landowners. All right. So just come back to that prior point, so we endeavour to ensure that landowners have the information that they need, and to that effect, it's talking about information with regard to land acquisition, construction, bio-security and the regulatory process that they need to make good informed decisions that are in their long-term best interest. And that, of course, allows them to participate meaningfully in the regulatory process, if they desire.

And I mentioned earlier about the dedicated landowner liaison being established to each landowner. And again, that's in direct response to landowner feedback. There's a lot of communication that comes out on a project like this, and Manitoba Hydro can be a big place, and I think a lot of landowners found that, depending on

the type of question that they had, they can get lost in Manitoba Hydro. So what we did is establish the liaison that is the principal point of contact for a landowner from front to back on the project.

There are four parts to Manitoba Hydro's compensation program for transmission lines 66 kV and up. And so there is the easement part that I spoke briefly about and that's -- we pay 150 per cent of market value for the easement, for voluntary easement. There are structure payments, and that's based on agricultural uses and tower types. Construction damages, which addresses the construction, the damages that occurred during the construction, and then ancillary damages. And so let's take just a bit of a closer look on each part of that.

So first on easement, Manitoba Hydro believes that easements are the best option for both the landowner and Manitoba Hydro. Easements provide Manitoba Hydro with the rights that we need to operate the right-of-way, and it gives Manitoba Hydro the responsibility to maintain that right-of-way. Ownership stays in the landowner's name and the landowner continues to use the land

in largely the same way that they always have.

And I had mentioned earlier that we pay 150 per cent of market value for the land, and for this project we have changed that to 50 per cent of the amount at signing, and landowners continue to use their land as they typically have.

Construction damages, two options here. Manitoba Hydro will return the land to pre-construction state or compensate the landowner to perform the restoration work on their own.

Ancillary damages, which is a one-time payment when Manitoba Hydro's use of the right-of-way impacts the use of property such as aerial application. And ancillary damages will not apply to every landowner. These damages typically refer to the damages that occur outside of the right-of-way, and is very much situationally specific and must be analyzed on its own merits.

And the last part of that four part compensation strategy is the structure compensation. And structure compensation is a one-time payment for each tower on agricultural land. It's based on the type of agricultural land and the tower structure and lotion. And this is

just an example of that, that a property classed as seeded hay with two towers can expect $25,460, so that's a little over $12,000 per tower, and as I said, that's just an example.

Now, the next slide is a good illustration of how that works. So in the centre on the drawing, you'll see the tower base. And that's illustrative of a 10 by 10 self-supporting structure. And then you'll see on each side of that tower base there is 6 feet outside of that that is considered to be 100 per cent crop loss. And then that's extended out front and behind the tower as well.

So that total area for the tower base and on each side of that tower, and then the two small triangles that extend front and back, the landowner is compensated for 100 per cent of crop loss for that area. And then you'll see on the outside of that there's a further 40 feet on either side of that where the landowner is compensated for 20 per cent of crop loss.

The photos demonstrate that in many cases, that in spite of the fact that there is that buffer zone right around the tower base, many landowners farm right up to the structure.

Shifting to early land acquisition. Acquiring land for long linear projects is a time-consuming, sometimes difficult task. And the sooner we can get started, the better for Manitoba Hydro, because it reduces the risk to project timelines. And much better for landowners as well because we start providing them with an opportunity to talk to us about their land before we start talking to others about their land.

Just a little bit of a status update of the work that has been done to date. And so the number of secured owners or easements is 43 of 126, or 34 per cent. And I can tell you that since filing of this presentation, that number is now 50 secured easements of 126. We are in discussions with 61 of 126 and, again, that number has been updated as well, so it's now we are in discussion with 57 landowners. We're in active discussion with 107 of 126 landowners. We have three landowners who have asked us to wait until a licence decision, and we have seven of 126 who have said that they are not prepared to have a discussion with Manitoba Hydro at this particular time. And of the 12 where we haven't been able to establish any contact, it's now down to nine

landowners. So although it's very early, we're very encouraged by the results to this date.

Shifting to property values, the impacts of high voltage transmission line on property values is a concern to landowners. Manitoba Hydro has commissioned a report, which was filed as part of these proceedings, and the report looks at the effects of transmission lines on property values using data and examples from Manitoba.

Now, just a little bit more on that. Unfortunately, the PRA report concluded that the statistical findings or the conclusions apply only to residential properties in the three subdivisions and cannot be applied to other types of residential properties in Manitoba Hydro communities that are in close proximity to high voltage transmission lines. The PRA report did conclude that high voltage line transition impacts on property values is situationally specific. Any value reduction typically declines over time. And last, any claim for compensation would be unique to each property.

The fact that it is difficult to develop a universal and precise rule around the

impacts of high voltage transmission lines on residential properties reinforces the need for flexible compensation strategies.

And lastly, we'll continue discussions with landowners throughout the project, and Manitoba Hydro will include MMTP in our property value monitoring studies.

Thank you.

THE CHAIRMAN: Does that conclude your construction and property presentation? It does?

MR. MATTHEWSON: Yes, it does.

THE CHAIRMAN: Okay. Then we'll commence the questioning then. And I'm going to get to my schedule. So first up today is the Manitoba Metis Federation.

MS. STRACHAN: Good morning everyone. This is Megan Strachan, counsel for the MMF. And this is going to be pretty quick because we don't have any questions for this panel at this time.

THE CHAIRMAN: Thank you very much. Is Manitoba Wildlands here today? No. All right. Then we'll move to the Southeast Stakeholders Coalition. Mr. Toyne.

MR. TOYNE: All right. Thank you, Mr. Chair. Just so it's clear on the record, my

name is Kevin Toyne.

So just so there's a bit of a road map for what I've got planned for this morning, we can't have a panel without me asking Mr. Matthewson a couple of questions, so we'll start there. I don't want to leave Mr. Stuart out, so I have I think I've got two questions for you. I've got a couple of questions for Mr. Penner. And then Mr. Ireland, you'll be surprised, I also have a couple of questions for you at the end. So why don't we start with Mr. Stuart, just to get that out of the way.

You had a slide, or a series of slides that talked about the different bio-security grades. Grade 1 is an absolute fail, grade 4 is effectively, at least it appeared to me, fresh off the rack at Canadian Tire, and then there's some grades in between.

You had one slide that talked about the percentages for each of the grades. And it seemed like most of the time the scores coming in were grade 3, and there weren't any grade 4, I guess, scores granted on that particular slide. And I'm wondering if you can take a minute to talk about how often or how frequent grade 4 scores

are, as opposed to say grade 3?

MR. STUART: That particular slide was, I think, one example from one particular tower site at a given point in time. So that was a pedestrian slide, and I believe it was from the early days of the project, likely in October or November. There have been literally hundreds of reports since then that we've received. We certainly do get grade 4's, I couldn't necessarily speak to the percentage of them that do come through, but they certainly do come through.

MR. TOYNE: And as I understand it, and you can correct me if I'm wrong, but a grade 3 score is, at least in layman's terms, pretty good, and with a bit of cleaning on site, it's fine to go in. Is there, from a bio-security perspective, a quantitative or qualitative difference between a grade 3, getting cleaned up, and a grade 4? Does that make sense? Maybe a different way to ask it is, is there a greater bio-security risk with a grade 3 being cleaned up before entry is granted, as opposed to a grade 4?

MR. STUART: I wouldn't say there's a greater bio-security risk. I think the reality is in Manitoba's conditions, grade 4 would more

typically be found in dry conditions or frozen conditions. It's just a reality of the conditions. A grade 3 would be, from a risk perspective, still considered low risk by the monitors and under our procedures. It just represents that it may be, as an example, a wet, you know, wetter day as opposed to a frozen day or dry conditions.

MR. TOYNE: At least based on the presentation that you made, it struck me that grade 3 is the most common score that's being granted. Is that safe to say, at least in your experience?

MR. STUART: I couldn't necessarily answer that without looking at all the reports. Grade 3 would be the minimum expected upon entry to site. Grade 4 would be preferred, but grade 3 certainly is a pass as well.

MR. TOYNE: And do the criteria that the scores are based on, do those change over time or have they been set in stone for a while?

MR. STUART: The criteria were developed by, I should note for the Commission's benefit, the criteria were developed by our independent bio-security monitors and they were

developed fairly early on in the monitoring process, and they have stayed relatively stable, particularly as the monitors themselves and staff became familiar with what exactly constituted a grade 3 versus grade 4.

MR. TOYNE: Are there any current plans to update or revise the criteria that underlie those scores, or the grades?

MR. STUART: Not at this point in time, no.

MR. TOYNE: All right. So Mr. Matthewson, I think just two questions for you.

You had showed a number of slides with pictures that showed the cleared right-of-way. As I understand it, one of the concerns that some private landowners have is that the right-of-way provides additional ease of access to their properties by people on say ATVs or snowmobiles, things of that nature. Whether or not you agree with those concerns or not, does Manitoba Hydro take any steps to try to address those concerns and to restrict access to the right-of-way from people that are, say other than Manitoba Hydro employees doing what they're supposed to be doing?

MR. MATTHEWSON: So on private land, Manitoba Hydro works with the landowner to identify those concerns if the landowner has those concerns. And we'll develop mitigation strategies. One of the primary mitigation strategy is a gate. So there would be a gate across and a fence across the right-of-way, and it would be gated and locked, and it would be double locked. So one lock owned -- the key would be held by the landowner and one lock key would be held by Manitoba Hydro.

MR. TOYNE: And then in the part of your presentation where you were talking about potential uses for this space under the right-of-way, I think you had made reference to, you know, animal grazing, gardens, I think you even referred to something called U-pick. And you had made reference to some sort of a communication that had recently been received with respect to a U-pick garden?

MR. MATTHEWSON: Yes, there was a filing from the public through the CEC process.

MR. TOYNE: Now, you'd agree with me that Manitoba Hydro's views on what might be an appropriate use of land underneath the

right-of-way would differ from some members of the public's views of appropriate uses of what's underneath the right-of-way?

MR. MATTHEWSON: It may differ. Manitoba Hydro does have to meet strict safety requirements for any type of land use under the right-of-way.

MR. TOYNE: Right. Because my understanding is that the letter that you're referring to is from a fellow, and I'm going to butcher the pronunciation of his name, Oleg Prus. He actually referred to it as a letter of dissatisfaction and raised concerns about who would actually go want to pick berries underneath the right-of-way?

So you'd agree with me that at least that particular individual, and potentially others, may have very different views from Manitoba Hydro as to what's an appropriate use of land underneath the right-of-ways and the power lines?

MR. MATTHEWSON: I don't have Mr. Oleg's letter in front of me to quote exactly what you, your interpretation of his letter, but certainly there are differing land uses, opinions

of land use of the right-of-way.

MR. TOYNE: Well, I'm not planning to take you through the letter. The Commission has got it, it says what it says.

So now, if we can turn to Mr. Penner. But of course as with the other panels, if other people want to jump in, please, by all means.

So sir, one of the very first slides that you had is the one that had the project schedule, the one that you provided a bit of an update on this morning. And at least the slide originally suggested that construction would start in January 2018, but you qualified that this morning that that would wait receiving all the necessary approvals, say from the Minister and from the NEB. But then there's also a reference to the end of construction in March 2020.

So are you able to tell the panel, is there a, for every month that the construction of the project is delayed, is there an equal amount of time in the delay of construction being completed? Does that make sense the way I phrased it?

MR. PENNER: I think best answer there, we would say that at this point we would

hold March 2020 date until we get into that timeline where there is a delay to the start of construction. Without knowing how long the delay is, we wouldn't speculate.

MR. TOYNE: So, realizing that there is limits to your ability to speculate on that, I take it that if there was say a month or a six week delay in getting the different approvals, that may not have that much of an impact on when construction ends. But if we're looking 12, 18, 24 month delay in actually starting, that could have a pretty significant impact on when the construction of the project would be complete?

MR. PENNER: I guess I hesitate to speculate on a completion date at this point, until we know when we can start, and when we will assess. And certainly we have the ability to put more contractors and resources. Obviously, at some point it takes what it takes, the timeline, you know.

MR. TOYNE: Now, the next part of that slide talks about two sections to the project, the Dorsey to Anola, which is the part of the line that travels through the existing Manitoba Hydro corridors, and then the new right-of-way from

where the line would turn south or southeast of Anola.

From a construction perspective, and this is a hypothetical so bear with me, from a construction perspective would Manitoba Hydro be able to start on the construction of the first section, say Dorsey to Anola, without starting on the construction of the new right-of-way? Is that something that's possible from a construction perspective?

MR. PENNER: Yeah, it is possible to start on Dorsey to Anola section. Our intent at this point was to have separate contracts in that area versus the Anola to the border sections.

MR. TOYNE: All right. And from a completion perspective, if the, and again this is a hypothetical, if the project was phased so the construction on Dorsey to Anola starts well before construction on the new right-of-way, would that have any larger impact on when the project completes?

MR. PENNER: I'm not sure I understand your question.

MR. TOYNE: Yeah. As it came out, it sounded bad. I'm sorry. Let me see if I can

rephrase it.

So as I understand it right now, the plan is two separate contracts start some time in 2018, end sometime in 2020. And I take it that the current plan is that work would start on both of those sections at roughly the same time, or is there going to be a bit of a lag for when construction will start on the new right-of-way.

MR. PENNER: I think we're delving into some speculation here. If we had an Environment Act licence and an NEB approval early, certainly we would probably start one section before the other. If it took a little longer, we would probably go out with contracts on both. In other words, I guess what we're saying is that if we had an early date, we would certainly start in owned corridor, because there's obviously a number of predications, we certainly wouldn't start in an area where we don't own the property and we don't have the NEB decision and we don't have the licence. We need those things.

MR. TOYNE: Right. So I think I may have figured out a way to ask it, and if it's still a bad question, I'll move on.

So again, if say the construction on

the new right-of-way starts, and this is a hypothetical, six months later than construction on the existing right-of-way, would that simply be a six-month delay in the completion of the project, or would splitting it up cause even additional delay? I hope that works from a comprehension perspective.

MR. PENNER: At this point we would not go beyond a March 2020 date for our speculation. We would not be speculating to complete any time other than March 2020, and we would look at all sorts of mitigation to ensure that we complete to that date. As we are doing on Bipole III, we are doing all sorts of things with contracts to ensure that we hit our ISD.

MR. TOYNE: Is there a deadline by which construction has to be completed?

MR. PENNER: I have my marching orders of March 2020.

MR. TOYNE: Are those marching orders tied to an actual deadline, or is that simply the arbitrary preference of those above you, to go back to an earlier line of questions I may have had?

MR. PENNER: Obviously, the schedule

is connected to a power sale agreement. I'm certainly not the person to discuss that agreement or timelines within that agreement.

MR. TOYNE: All right. If we can change direction a little bit. So there is the two types of towers that are going to be used on the project, we've got the self-supporting and the guy-wire. My understanding is that the self-supporting towers are generally used in areas near residences and in agricultural areas, is that a correct statement?

MR. PENNER: Yes, that is correct.

MR. TOYNE: Okay. And are they always used in those areas, or are guy-wire towers sometimes used near residences and in agricultural areas?

MR. PENNER: I would say for the most part, the self-supporting structures are typically in agricultural areas.

MR. TOYNE: And I'll tell you why I'm asking these next series of questions. So it strikes me that one potential licensing condition that could be placed on a class 3 licence would be the requirement that self-supporting towers must be used near residences and in agricultural areas.

And I'm just wondering if, from a technical perspective, if there would be issues with that type of a condition being imposed? Like are there technical problems that may require a guy-wire tower to be used, say in the vicinity of someone's residence or in the middle of an agricultural field, that would make that type of a licensing condition fatal to the project?

MR. PENNER: So for guyed structures for the most part, a technical reason may be where there's wetland or very poor soil conditions would be a better location for a guyed structure versus the self-supporting structure. So self-supporting structures are certainly agricultural lands where there's any kind of equipment that has to go around those towers, it makes much more sense to have a self-supporting structure. And the guyed structures in forested land or in swampier conditions where the ability for us to adjust the guy-wires to allow the ability to straighten the tower in softer and wetter land, that's typically an issue.

MR. TOYNE: All right. So just to make sure that I've got it. So if there's a landowner that has their residence close to one of

those areas of land that's wetter, maybe considered to be swamp, wetland, bog, the tower that may be close to that landowner's residence would be a guy-wire tower as opposed to a self-supporting structure, notwithstanding the fact that Hydro will try to use self-supporting towers near residences?

MR. PENNER: I think that's a reasonable statement.

MR. TOYNE: So sticking with the two different types of towers, and I think you were here for some of this earlier last week when I was asking questions about the tornadoes and the buffer. So Dr. David Swatek had -- just bear with me for a second -- had indicated in response to one of the questions that I had asked that towers, I may butcher sort of the technical aspect of this, but that towers can withstand straight line winds of about 105 kilometres an hour. And I didn't ask him this. And if I should have, I apologize. Is there a difference in the ability of say a self-supporting tower to withstand straight line winds as opposed to a guy-wire structure? Does that make sense?

MR. PENNER: Yeah. Let me just confer

with some of my people in the back row.

MR. TOYNE: Sure.

MR. PENNER: The guyed towers, as well as the self-supporting towers, are designed to the same loading criteria. So I would say no, that there really shouldn't be a difference in their ability to withstand straight line winds.

MR. TOYNE: Right. Now, my understanding from his presentation, which leads me to the question that I'm going to ask you is, is that the ability of these two different types of towers to withstand a certain amount of straight line wind doesn't really have a lot to do with their ability to withstand potentially weaker winds if those winds are in a tornado? Is that an accurate statement? Like did I understand that part of his testimony accurately?

MR. PENNER: Can you clarify? Did you say that straight line winds don't have any, or can't be compared to a tornadic type wind?

MR. TOYNE: Sorry, I've got a philosophy degree and a law degree, so some of the scientific stuff is a bit of a stretch for me. As I understood his evidence, it was a straight line wind of about 105 kilometres is what these towers

are designed to withstand. Tornadoes, even if the tornadoes have weaker wind speeds than that, the towers aren't designed to withstand, I think the phrase you just used was tornadic wind speeds? I just want to make sure that I understand it, that even though the wind speed might be slower because it's not a straight line wind, it will have a greater impact on the tower?

MR. PENNER: So the towers are not designed for the tornadic winds. But I don't think that a tower would come down if the winds in a tornado were weaker than the straight line winds that were designed. I mean, you would have to do some -- this would be, we're getting pretty technical, and in fact I think David would have to confer with some of our technical designers. But if the tornado winds are lower in wind speed than a straight line wind, I would speculate that the tower would stand.

MR. TOYNE: Okay. And I apologize if this is a question that I should have asked earlier, I thought that this was the appropriate panel. So if I'm asking the wrong groups, again, my apologies.

I take the point that the towers are

built to a certain design load, but is there anything else that could be done to make these structures more resistant to wind, or more resistant to tornadic winds? You know, it strikes me that, you know, we can send people to and from the moon, and if we can do that, there's got to be something we can do to make sure these things don't come down if it gets a little windy out there.

MS. MAYOR: Sorry, Janet Mayor on the record.

These were questions that were already put to Mr. Swatek. I think Mr. Penner has indicated this isn't his area of expertise. And I must say, as legal counsel, when a witness of mine says that he's speculating, I get a little queasy. So I thought I would interject at this point and indicate it's already gone to Mr. Swatek, who was the correct technical person. And I don't think Mr. Penner is in a position to answer these types of questions.

THE CHAIRMAN: Serge Scrafield, Chair. Are you saying that precise question was already asked, or not?

MS. MAYOR: Yes, that precise question

was already asked, and now he's asking Mr. Penner's opinion on the same question and Mr. Penner has indicated that he's not in a position to answer the technical nature of those questions.

THE CHAIRMAN: Okay. Well, given your preface to your remarks, then we won't expect this panel to answer that questioning.

MR. TOYNE: That's fine, Mr. Chair. I don't think I had asked that specific question, but I take the rest of Ms. Mayor's points.

So I did have a couple of other questions along the four engineers theme that I was going to ask you, sir. But given that we do have some new time constraints, why don't we see how Mr. Ireland and I do, and perhaps I can come back to those if you are anxious to answer them. Or even if you aren't anxious to answer them, we still may come back.

All right. So Mr. Ireland, I've got a handful of questions for you. Where should we start? Perhaps we could start with the part of your presentation on the slide, lessons from past projects and experiences. If you guys can pull it up on the screen, that would be great. That would

be slide number 4 from Mr. Ireland's presentation.

And then while we're looking, Mr. Chair, are we breaking at 11:00?

THE CHAIRMAN: We will unless you are not going to run much past 11:00.

MR. TOYNE: I suspect I'll go a bit past 11:00.

THE CHAIRMAN: All right. We'll break at 11:00.

MR. TOYNE: All right. So, sir, as I understood what you had to say, that the revised compensation program that involves the 50 per cent up-front payment of 150 per cent of market value, that resulted from what you've termed as feedback from past projects. And I take it the feedback was from the Bipole III project in particular?

MR. IRELAND: That's correct.

MR. TOYNE: And at the time, just so it's clear for the panel, the amount of compensation that was being offered up front was a $225 payment?

MR. IRELAND: That also is correct.

MR. TOYNE: And the feedback that you received, was it specifically, we'd like to receive 50 per cent of 150 per cent of market

value up front, or was it some other form of feedback that you received?

MR. IRELAND: The feedback with respect to the initial payment, I took a lot of those calls myself from landowners who reached out to me by phone. I also met with a number of landowners, and the issue in terms of $225 was an issue with a lot of landowners. In fact, I would suggest to you it became a little bit, kind of a little bit almost of a running joke. And I met with a couple of landowners just to illustrate that point. I met with a couple of landowners who initially hadn't signed a voluntary easement, and we were discussing the issue of ancillary damages. And at the conclusion of that, the landowner had suggested to me that the issue that got the deal done was the $225 payment, and she wanted to know when she could receive that $225 payment. In fact, she would take it all in large bills.

So it became a little bit of kind of a sticking point for a lot of people. Because in a transaction where we are looking for these voluntary easements, in a transaction where you're talking about many thousands of dollars, the $225 just became kind of a little bit of an issue. So

we took that feedback seriously and we had another look at it.

MR. TOYNE: So it's fair to say that for at least some landowners, the $225 payment wasn't enough to overcome their reluctance to sign the easement agreements?

MR. IRELAND: I don't know that I would say that it wasn't enough for them to sign an easement agreement. I think I'm suggesting to you, sir, that in conversations with landowners, this became a bit of a discussion around the initial payment. But I wouldn't agree that it was a barrier in terms of signing the easement.

MR. TOYNE: All right. Whoever is doing the slides, if you're still kind enough to follow along with what I'm doing, if you could pull up slide number 13? That's the one with the -- sorry, mine says 13 -- the one that's got the status update on it, the one with the different numbers. That's the one, yeah.

All right. So some of these numbers have changed a bit since mid last week, but just to go back to your point, sir. How does this compare to where things were at when Bipole III was before the Clean Environment Commission? Were

you having similar amounts of signed agreements, ongoing discussions with landowners, back when the amount that they got for signing an easement was $225?

MR. IRELAND: I'm sorry, sir, but I don't have that comparison available to speak to today.

MR. TOYNE: Would you agree with me that the status update, if one was available for Bipole III at the same stage of the licensing process, would show considerably less progress in those categories, even if you don't have the precise numbers with you?

MR. IRELAND: As I said, sir, I don't have that comparison available, so I'm just not able to speculate on that for you.

MR. TOYNE: So, I've got a number of questions about this slide, as I'm sure you're surprised to hear. So for the first, the first row, the number of secured owners, I think you had said that is now up to 50, which is close to 40 per cent of the total. Geographically, along the proposed right-of-way, are these primarily in one particular area? Are they spread throughout the proposed right-of-way? Is it a bit of a

patchwork? Do you know?

MR. IRELAND: Yeah, to the best of my knowledge, the easements that have been secured have been, they're spread out along the right-of-way.

MR. TOYNE: And to go back to one of the points that I had originally understood had an impact on payment and the ability to keep the payment, do you know how many of those secured owners, how many of those agreements have actually been registered at Land Titles?

MR. IRELAND: No, I don't have that information.

MR. TOYNE: Is that something that's easily obtainable? I don't like asking at a hearing like this for additional information if it's going to create a lot of work for a lot of people. Is that something that's an e-mail away, or is that hours and hours of work?

MR. IRELAND: We could provide, probably by this afternoon, the number that Manitoba Hydro has filed. But the registration process involves Land Titles office, and so we wouldn't be able to tell you when or how many are registered because that involves Land Titles. But

we could provide you with the number that we filed.

MR. TOYNE: Yeah, that's what I was going to ask. So once you file it with Land Titles, to some extent it's outside of your control, but someone should be able to let us know how many of those 50 have actually been sent for registration at Land Titles?

MR. IRELAND: That's correct.

MR. TOYNE: Mr. Chair, it's 11:00 o'clock. I can come back after the break.

THE CHAIRMAN: All right. We'll meet back here at 11:15. Thank you.

(PROCEEDINGS RECESSED AT 11:00 A.M. AND RECONVENED AT 11:15 A.M.)

THE CHAIRMAN: Okay, welcome back. We're going to start back. Mr. Toyne is continued questioning on the construction on property segment. Mr. Toyne.

MR. TOYNE: All right. Thank you, Mr. Chair.

All right, so Mr. Ireland, just sticking with the first row there, with the number of secured owners, as Hydro is referring to them. So each of those owners would have received the

first 50 per cent of the funds owing to them, now that they have signed an easement agreement?

MR. IRELAND: That's correct.

MR. TOYNE: And when we're talking about the money that's either being offered or paid to landowners, can you give the panel some sense as to how much we're talking? You know, earlier you had made reference to a farmer with two towers receiving a payment in the range of 25 or $26,000. But with respect to these landowners, how much money are we talking?

MR. IRELAND: That's a difficult question to answer because it depends on the amount of land that we're talking about. But some of the payments that have been made, as low as just a few thousand dollars, three, $4,000, and in a couple of cases upwards of $50,000. So it really does range and it really does depend on the amount of land that's taken.

MR. TOYNE: All right. And the examples on the higher end of the spectrum, so that would reflect Manitoba Hydro's estimate of 150 per cent of market value, being approximately $100,000 for the easement over that property?

MR. IRELAND: Yes, that's correct.

MR. TOYNE: All right. Now, just turning briefly to something that came up when I was asking Mr. Joyal some questions last week. I had asked him some questions about information that he was conveying to landowners about their right to keep the payments, if the project either doesn't proceed or if the route changes. And he had given us some evidence about what his understanding was and what he was telling landowners. I'd like to ask you a slightly different question, and that's sort of, you know, what the program actually says about this.

So is there any circumstance under which a landowner, say of those 50 who have already received funds, may have to return that money to Manitoba Hydro?

MR. IRELAND: I can't think of any situation where a landowner would be required to return funds.

MR. TOYNE: All right. So that's a little bit different, I think, from the question that I had asked. So is there any circumstance under which a landowner, who signs an easement agreement and receives funds, may have to give that money back to Manitoba Hydro; or once a

landowner receives a cheque from Hydro, that money is theirs no matter what?

MR. IRELAND: That's correct.

MR. TOYNE: And you'll agree with me, sir, that the fact that a landowner may have signed an easement agreement and accepted funds from Manitoba Hydro, that's not an indication that that landowner supports the proposed right-of-way?

MR. IRELAND: I would suggest that if we had a signed easement agreement with a landowner, that that's representative that the landowner is, at the very least, in agreement with the project for the portion of land that, you know, they own.

MR. TOYNE: All right. I may come back to that at the end, because I think that there is a bit of sunlight between that response and response that was provided to one of the Coalition's IRs, but I don't have it up here and I'd like to keep going.

So if we can look at the second row there, the ongoing discussions, that number has been revised down to 57 out of 126. These discussions, at least as I understand it, are landowners asking questions and Hydro providing

information to them as opposed to say active negotiations about an easement agreement. Is that a fair statement?

MR. IRELAND: I think it's reasonable to assume that it's a combination of both.

MR. TOYNE: All right. So for the part of the combination that's the negotiation aspect, how much above the 150 per cent of market value can landowners negotiate Hydro up?

MR. IRELAND: There is no opportunity to go beyond 150 per cent.

MR. TOYNE: All right. So I guess you and I are using negotiation in different senses. When you used the phrase negotiation, what were you talking about?

MR. IRELAND: The discussion and the negotiation that occurs between a land agent and a landowner is in the value of the land and highest and best use.

MR. TOYNE: All right. So the percentage of market value may not be at issue, but the market value is something that's up for discussion. Is that accurate?

MR. IRELAND: Can you repeat the question?

MR. TOYNE: Sorry. What's up for negotiation is the market value of the land, as opposed to the percentage of that market value that Hydro is going to pay? Is that less awkward phrasing?

MR. IRELAND: That's correct.

MR. TOYNE: And what happens if the landowner and Hydro don't come to an agreement on the market value of the land?

MR. IRELAND: We'll continue to work with the landowner, and we're hopeful that notwithstanding initial conversations with the landowner don't always result in us obtaining a signed easement, we'll continue to work with them.

MR. TOYNE: And as I understand the Manitoba Hydro process, if you are unable to obtain a voluntary easement agreement with a landowner, then Manitoba Hydro will attempt to resort to the expropriation process to acquire rights to that land? Is that a fair statement?

MR. IRELAND: Manitoba Hydro's preference, of course, is to always obtain a voluntary easement. And on this project, I think that it's probably too early to speculate if and when Manitoba Hydro would be required to go the

expropriation route.

MR. TOYNE: So of the 126 landowners that are being referred to there, how many of them -- let me try to rephrase that. So I take it if 126 out of 126 either sign easement agreements or have the expropriation process successfully carried out, the right-of-way construction can proceed. But what happens if hypothetically only 125 out of 126, Manitoba Hydro can get access to their property? What if there's one holdout? What happens to the project then?

MR. IRELAND: Well, again, as I stated earlier, our preference of course is to always work with every landowner with the objective of obtaining a voluntary easement. And if we end up in the situation where, as you said, we have one landowner that we can't obtain a voluntary easement, your question was what happens to the project? And I would suggest that that doesn't have an impact on the project, because we have less sufficient time frame in the schedule to be able to address those kinds of situations.

MR. TOYNE: My question was a little bit different than that, and I'm sorry if it wasn't clear. So I wasn't suggesting that you

were able to get say 125 easement agreements and there was one easement holdout. I guess the premise, I think is the right word, of the question was, you were able to obtain rights to the lands of the 125 of 126, but you can't get an easement and you can't expropriate one holdout, what happens to the project then?

MR. IRELAND: Again, I think that that's a situation that we'll deal with when and if that occurs. I can't provide you with a definitive answer right now, what we would do in a situation like that, but we'll deal with it when and if it occurs.

MR. TOYNE: I'm going to suggest to you that the reason that you're unable to provide that response right now is that there is no plan B? So that if Manitoba Hydro is not able to expropriate the number of landowners that don't enter into easement agreements, you actually don't know what you will do. And that's because Hydro has presumed that they will able to expropriate landowners who don't sign easement agreements. Do you agree or disagree?

MR. IRELAND: No, I don't think that I would agree with that, and I wouldn't agree with

it because, just because we haven't contemplated the exact scenario that you have put on the table, we have scheduled sufficient time, from a property perspective -- let me just back up. So from a property perspective, from a land acquisition perspective, we start with the in-service date and back up from there. And we have all of this fiscal year. So until the end of the year, we have all of that time available to pursue voluntary easements. And then we have an additional window of one year to be able to pursue any land that we haven't been able to obtain through voluntary easement, so we have an additional 12 month window.

And then from a construction perspective, and I think there were some questions on that earlier today, from a construction perspective, if we're dealing with a small number of landowners we're still in negotiation or we're still in discussion with, we have the ability to be able to start the project and skip over a parcel of land or two.

So we have sufficient time planned in the schedule to deal with kind of those unforeseen circumstances. So I wouldn't agree with you that

there isn't a plan B. I think that those exceptions to rule, if you will, are built into the schedule.

MR. TOYNE: All right. So what I took from that is there is a period of time within which Hydro has set aside in the construction schedule to make sure that you can acquire rights to the land, and that that period of time ends, I guess, at the end of 2018. What happens if you are still unsuccessful at that point?

MR. IRELAND: With all due respect, sir, we're talking over a year and a half from now. And I would suggest to you that if we have a situation that we're dealing with in the early part of 2019, we'll address that matter at that time.

MR. TOYNE: All right. So to go back to something you said a moment ago, you had said that if you are able to obtain a licence and you've got rights to most, but not all of the properties along the final preferred route, that you can get started. But are there certain parcels of land along the final right-of-way where, if you don't have access to them and if you can't get access to them, that whatever work

you're going to have to do will start to affect much more than just the parcels of land on either side, from a construction perspective?

MR. IRELAND: Not that I'm aware of.

MR. TOYNE: All right. So just so it's clear, if there's one particular landowner that you are unable to get rights to access their property through the easement or through the expropriation process, whatever work around Hydro may have isn't going to have significant ripple effects, either before that property or after that property, say from a tower placement perspective, a tower spacing perspective, where angle towers should go, you don't foresee any issues with that?

MR. IRELAND: I don't think the situation that you had alluded to would impact on our ability to be able to proceed with the project.

MR. TOYNE: Just to change tack for a second. The secured owners in the ongoing discussion rows, earlier you had talked about Hydro's concerns about the long-term best interests of the landowners. Does Hydro provide, either directly, or funding for independent legal advice for the people who are signing these

agreements so that they understand what they're getting into?

MR. IRELAND: Yes, Manitoba Hydro provides reimbursement for reasonable legal fees.

MR. TOYNE: And do you know how many of these folks take you up on that?

MR. IRELAND: I can't provide you with an exact number, but generally speaking, most landowners take us up on that offer.

MR. TOYNE: So just to go back to that IR that I had mentioned earlier, so it's Manitoba Hydro's response to Coalition IR 361. So we'll come back to some of the specific questions that are being asked there momentarily. But if you go over, it's the very last sentence over at the top of the second page, whoever drafted this response says, on behalf of Hydro:

"Further, the voluntary easement agreement does not preclude the property owner from participating in the regulatory process, nor does it indicate support for the project."

And earlier I had just asked you to confirm that signing one of these easement agreements does not indicate that the landowner supports the project.

And I didn't write down your answer, but it was, it was a bit different than this. And I just wanted to make sure that it's clear that if a landowner signs a voluntary easement agreement, that Manitoba Hydro's position is still that the signing of that agreement and the payment of those funds does not indicate the landowner's support for this project?

MR. IRELAND: I think my answer to that was consistent with the IR. What I had said is that the landowner signing an easement isn't taken to be support for the project. What I did say is that by signing an easement, it's demonstrating that they're supportive of the portion of that project that is going to impact directly on their lands. Otherwise I didn't think that they'd be signing a voluntary easement.

MR. TOYNE: All right. So it's support of the part of the project that directly affects them, but not the part of the project that does not directly affect them?

MR. IRELAND: Well, I can't speak for the landowner, so I don't know what they think. But what I am suggesting to you, sir, is that if they sign a voluntary easement for their property,

I'm suggesting that they at least support it to the extent that they're agreeing to have the project, or the right-of-way on their land. But I do agree with your comment that that can't be taken as unilateral support for the project.

MR. TOYNE: All right. So if you could flip back to the first page of this IR? So I've got a couple of propositions I'm going to put to you, and I'm going to ask you to say yes or no. Pause briefly before answering, just in case one of your counsel wants to jump in, or one of the other witnesses. But we'll start with what's up on the screen.

So we've got the row that says "Those declining discussion." So I'm going to suggest to you that if that number stays steady, so if seven of the 126 landowners refuse to engage in discussions with you, and if you aren't able to expropriate their property, that this project can't proceed along the current proposed right-of-way. Do you agree or disagree?

MR. IRELAND: No, I don't agree with the assumptions. There's a lot of assumptions made in that statement, and so for that reason I just can't agree with that.

MR. TOYNE: All right. So maybe a different way to ask it is, Manitoba Hydro's position is that they can proceed with the current right-of-way even if they don't have the right to access all 126 of the properties along the way?

MR. IRELAND: Yes, that's correct, that we would start construction on the remainder of the right-of-way and continue to work those seven properties for which we don't have a voluntary easement.

MR. TOYNE: All right. So to go back to this IR, so it's Coalition IR 361. So the premise of this IR is a series of questions about the payment of money to landowners along the proposed right-of-way before a final route has been recommended by the Commission and approved by the Minister.

So the first proposition there, I'm going to ask you for your views on whether you agree or disagree with it, is that the offering of all of this money to landowners along the proposed right-of-way is disrespectful to the Commission, the participants and this entire Commission process. Do you agree or disagree with that?

MR. IRELAND: I disagree with that.

MR. TOYNE: And I'm going to suggest to you that the payment of money to landowners along the proposed right-of-way, before the final route has been recommended and approved, presumes that the Commission and the Minister of Sustainable Development are simply going to give Manitoba Hydro what it's asking for. Do you agree or disagree?

MR. IRELAND: It does not presume that the Commission will rubber stamp the application, no.

MR. TOYNE: All right. So I appreciate the reference to something I had said earlier about rubber stamping, but that was just with respect to the Commission. There is also a question here about the Minister. And in particular, do you agree with me that paying money to these landowners along the proposed right-of-way presumes that the Minister is going to agree to allow Hydro to expropriate lands of landowners that don't enter into easement agreements?

MR. IRELAND: I'm sorry, sir, can you repeat the question for me?

MR. TOYNE: Yeah, sure. Do you agree

with me that paying money to landowners presumes that the Minister is going to grant Manitoba Hydro the ability to expropriate those landowners that don't enter into agreements?

MR. IRELAND: No, I don't agree with you.

MR. TOYNE: All right. And if the Minister or the Provincial Government or the Courts, I suppose, say that Hydro can't expropriate landowners that refuse to enter into voluntary easement agreements, what does Hydro do with the project at that point?

MS. MAYOR: Mr. Chairman, I think this question has been asked several different times, several different ways, and I think we have already provided that answer, both in IRs and in Mr. Ireland's testimony earlier this morning.

THE CHAIRMAN: Thank you. Mr. Toyne, you have asked questions around this subject.

MR. TOYNE: Yes.

THE CHAIRMAN: Is there something different you are getting at with this question compared to the ones before?

MR. TOYNE: It's being posed to someone that perhaps is in a better position to

answer it. But if Hydro is content with the answers that have already been provided, then I don't want to waste time arguing about it.

THE CHAIRMAN: Okay. Then my question to Hydro, is there going to be anything different about this answer, if it's to a different person?

MR. IRELAND: No.

THE CHAIRMAN: Okay. Then I suggest we move on, I think then. If it's not a different question and it's not going to be a different question, then we should probably move on, Mr. Toyne.

MR. TOYNE: All right. So going to C in this IR. So, sir, do you agree or disagree that paying money to landowners along the proposed right-of-way before a final route has been recommended and approved appears to be a bribe intended to minimize landowner opposition to the proposed route?

MR. IRELAND: I don't agree with that at all.

MR. TOYNE: And just to go back to my earlier question, you're still not in a position to provide us with the equivalent status of discussions with Bipole III landowners at this

stage in the licensing process, when landowners were only receiving $225 if they signed an easement agreement?

MS. MAYOR: Again, Mr. Chairman, that was asked and answered.

THE CHAIRMAN: For the benefit of the Chair, I was just making a note on something else. Could you repeat your question, Mr. Toyne?

MR. TOYNE: I don't think I can repeat it verbatim but I will try.

So after Mr. Ireland said that he did not agree that the payment to the landowners is a bribe intended to minimize landowner opposition, I asked if he was still, I think the phrase I used was unable, but the transcript will reflect, to provide the equivalent status update from Bipole III, when landowners were being offered a mere $225 for entering into the easement agreement, as opposed to the upwards of $50,000 that some of them have been paid on this project?

THE CHAIRMAN: Okay. Then my question to Hydro is, my recollection of the earlier answer is you could not provide it at this time, you don't have that information. Is that something that's easily provided or something that would

take some time to do?

MR. IRELAND: The Bipole III project, different project, different time, and dealt with a completely different set of rules in terms of where that was routed, and difficult to make the direct comparison to this project. And having said that, to be able to provide a status report, an alike status report, I'm not sure what the value would be, or how difficult. But suffice to say that it would take some time to put that together, if in fact we could put that together.

THE CHAIRMAN: Okay. Given that response, I think, Mr. Toyne, we'll move onto the next question.

MR. TOYNE: Bear with me for just one second, Mr. Chair.

THE CHAIRMAN: Yes.

MR. TOYNE: I'm almost finished.

THE CHAIRMAN: Thanks.

MR. TOYNE: I had a chance to speak with some of the folks from the Coalition while the panel was conversing, so I think that this will be my last question.

So, sir, I don't know if you were here during opening statements, but I trust you are no

doubt aware that one of the things that the Coalition is asking this Clean Environment Commission panel to do is to send Manitoba Hydro back to the drawing board, either entirely or at least for a significant part of the proposed new right-of-way. And in light of that request being made to this regulatory body, are you on behalf of Manitoba Hydro prepared to suspend all further discussions with landowners until this Commission has made their final determination on that request?

MR. IRELAND: Sir, I'll remind you that we're only speaking to landowners of which we have been in touch with and have expressed a willingness to talk to Manitoba Hydro. And the early land acquisition strategy that we have is to balance the risk for Manitoba Hydro with regard to project schedules. We believe that it is in the best interest of landowners, because when you have a land agent standing on a doorstep of a landowner, talking to a landowner about the project, that project goes from 126 landowners to one. And we believe that there is great value to the landowner in hearing firsthand how the project will impact upon their property. Not 125 others,

and not the stuff that you read from a brochure, but the stuff that they are actually hearing about their property. And so we believe that it benefits Hydro, we believe that it benefits the landowners who have indicated a willingness to speak to Manitoba Hydro about the project. And I personally believe that it benefits the Commission, because the Commission is hearing firsthand how landowners feel about the project.

So, I know that's a bit of a long answer to your question, but no, we are not prepared to suspend discussions with landowners.

MR. TOYNE: All right. Just to build on that very briefly, and then I'll stop because I've gotten better at estimating how long I'll take, but as Ms. Mayor will tell you, I'm still not hitting it with 126 out of 126-degree precision.

You'd agree with me, though, that those doorstep discussions, those are discussions that could happen after a licence has been obtained. And that from the landowner's perspective as opposed to Hydro's perspective, there is no reason that those have to happen before the project is actually permitted to cross

their property?

MR. IRELAND: Those discussions with landowners could, of course, occur after the hearing and will continue to occur after the hearing.

But going back to my original comment, sir, I believe that there is great value to the landowner to hear about the project as soon as possible, so it manages misinformation and they are getting information as soon as possible about the project.

MR. TOYNE: As much as I'd like to keep going, Mr. Chair, I think I'm done.

THE CHAIRMAN: Thank you, Mr. Toyne.

All right. Next up on our schedule is Dakota Plains Wahpeton Oyate. That will be Mr. Mills.

MR. MILLS: Thank you, Mr. Chairman.

Our client has asked us to pay particular attention to the Mother Earth and the quality of the environment that this project leaves it in. So we'd like to talk about that.

Mr. Penner, Glenn, good morning. Would you agree with me that Manitoba Hydro more than considers themselves leaders in this type of

work, that your team is, in fact, leaders in this type of work?

MR. PENNER: Referring to transmission construction?

MR. MILLS: Yes, what you do.

MR. PENNER: I think we have good expertise in the work that we do, yes.

MR. MILLS: We don't disagree. Could you describe your team size to me, in particular the number of environmental inspectors and construction supervisors that you would expect to be overseeing this work?

MR. PENNER: Just a moment. So it would vary a little bit depending on the number of contracts and the contractors that we have. Typically we will have a supervisor. So if we end up with two contracts, looking after two sections, we would have a supervisor looking after each, we would have an environmental inspector, we would have a safety officer, probably some admin. staff in each section in a field office, and then there would be a handful of inspectors that would be available to look after, they'd be part of the clearing, an inspector for the foundations. It really depends on the amount of contractors

working at the time.

MR. MILLS: The information seemed to be not included in the greenhouse gas life cycle analysis, and we're attempting to understand if you were in fact going to have any environmental inspectors or supervisors. So that will help us with that. Thank you.

We'd like to talk about procurement. Our concern is the environment, and although your presentation didn't touch on it, the greenhouse gas and air quality reports that we receive indicate that your team is looking to China and India as most probable steel sources for this project. Is that fair to say?

MR. PENNER: So you're getting into some of the greenhouse gas calculations, which is not my area of expertise.

MR. MILLS: No, I'm not getting anywhere near greenhouse gas calculations. The greenhouse gas report indicates that they base their decisions on information that your team provided. So I'd like to talk about the information that your team provided. I think that's fair for this panel.

MR. PENNER: Absolutely. And I was

just kind of pre-cursing the conversation, just to say that's where -- my understanding where you were going with this.

I think it's fair to say at this point that those are worst case projections that the greenhouse gas experts have done. We have not gone to market for our steel. So at this point, until we go to tender and find out what our best value is, we don't know where we're going to source our steel from.

MR. MILLS: We understand that you provided information to the greenhouse gas life cycle analysis. In fact, they tell us that's what their conclusions are based upon. Was there any information provided back to your group, your team, from the greenhouse gas analysis? As an example, did they give you any advice or direction with regards to what the different values would be if you procured steel from, for instance, China? Was there any information received to your team back from the greenhouse gas analysis?

MR. PENNER: No, there hasn't been feedback from the greenhouse gas experts.

MR. MILLS: We call it learning from our past mistakes. We looked up your Bipole III

tender for the manufacture and supply of transmission line steel towers, and it's not mentioned. So we ask you, when you go to market, as you say, to procure a product, is a value placed on the, shall we say cleanliness of the source that you use? For instance, to be specific, if you received a slightly lower price from a Chinese manufacturer as opposed to a German manufacturer, would your procurement process put any value on the GHG contributed by that decision?

MR. PENNER: Tenders are evaluated using a matrix, but there isn't an evaluation component for greenhouse gas emissions for the tower steel supplier.

MR. MILLS: Is there a value placed on any environmental contribution when you analyze your procurement sections?

MR. PENNER: When we evaluate contractors for their previous experience, we typically take into account their environmental experience. So I would say, yes, that is part of the evaluation criteria.

MR. MILLS: We were disappointed to discover that your procurement decision to proceed with Jyoti, I believe we pronounce it, on Bipole,

in light of the fact of the 64 galvanizers in the available catchment, they appeared to be the only galvanizer that were not environmentally approved in the United States, due to the manner in which they disposed of their galvanic wash.

Does your procurement team have any training or are they provided with any resources to allow them to analyze or consider the environmental effect of the decisions they make when they procure materials? As an example, Glenn, CSA offers a GHG analysis certification. Do any members of your procurement or construction team hold that certification?

MR. PENNER: I am not sure whether any hold that certification.

MR. MILLS: I searched the CSA site this morning and I don't believe any of them do.

As a go forward, and I'll move on, would it be something that Manitoba Hydro and your team could consider putting more emphasis on, that is including the effect that your work has on the environment, when you make procurement or contract award decisions?

MR. PENNER: I think I do need to correct that premise, that we do consider

environmental effect of our contractors. With respect to greenhouse gases, we don't make any decisions within the best value framework for steel towers. That's certainly something that we could consider as part of the calculation in the future.

MR. MILLS: It's an aside, but it's part of procurement and it's part of the work you do. Is any of your team familiar with the expression, when it comes to galvanized steel towers, dulling of galvanizing?

MR. PENNER: I do understand there is a method to adjust the finish of galvanized steel to -- when galvanized steel comes out it's quite shiny, and there is a treatment that you can do to dull the finish. I don't believe that's something that we have done.

MR. MILLS: Your Bipole supplier's website describes dulling as a process that reduces the reflectivity of galvanized material to better camouflage the tower with its surroundings. Is this a technique that you have considered in this work, that is Manitoba-Minnesota towers and your procurement process for it?

MR. PENNER: If you look at existing

transmission lines, typically after a few years of aging or weathering, that's where this galvanized steel gets to. So we have not considered putting on a dulling treatment to reduce the shininess of the steel in the first couple of years.

MR. MILLS: So you do not consider dulling in your procurement process.

Glenn, we're concerned about the environment and we're concerned about what these lines give off, both in terms of EMF and line loss. You certainly understand this much better than we do. But is it fair to say that a 500 kVa AC line has a significantly higher line loss than a 500 kVa DC line?

MR. PENNER: Just hang on a moment. That's not certainly an area of my expertise, but we may have the answer to that for you.

MR. MILLS: I'd be happy if we got close.

MR. PENNER: You know, I think in the best interest of getting an answer, and my understanding was you want to know the difference between a 500 kV DC line and a 500 kV AC line of this line length, what the differences in line losses would be?

MR. MILLS: Well, actually I'd be happy to go to the next question.

MR. PENNER: Okay.

MR. MILLS: Can you give me an approximation of what the line loss would be as a percentage over the proposed route of this project?

MR. PENNER: Again, what I'm reading from David Swatek, David Jacobson, is about a .5 per cent loss in line losses.

MR. MILLS: One half of 1 per cent is the line loss over the Manitoba-Minnesota 500 kVa line? That's your answer?

MR. PENNER: That's my understanding. If you'd like to get additional information, I think that we should do an undertaking that's clear, and we can get the technical people responsible to provide an answer.

MR. MILLS: Could I have that undertaking?

MR. PENNER: Can we be clear about what you're looking for?

MR. MILLS: I'd like to know what the projected line loss is over the Manitoba-Minnesota transmission project, assuming the preferred route

and reasonable loads? I recognize that the line loss -- I understand the line loss may well vary significantly over the loads the line carries. But as a tool for discussion, I'd like some advice as to what Hydro projects the line loss to be over this line?

MR. PENNER: Okay.

MR. MILLS: I'm sure someone has asked that question before.

(UNDERTAKING # MH-3: Advise what Manitoba Hydro projects line loss to be over transmission line)

MR. MILLS: I'd like to move now to the right-of-way clearing, a pet of ours. The document referred to as the summary of the Environmental Impact Statement provides us with some information, and I just find it easier than the EIS. It indicates that:

"Out of 213 kilometres of final preferred route, only 36 kilometres require forest clearing."

Does that number remain fairly accurate?

MR. MATTHEWSON: Yes, that's our current estimate.

MR. MILLS: Great. So my grade 10 arithmetic, 36 kilometres, let's use 100 metre

wide, we get 3.6 square kilometres, which is approximately 360 hectares. Is that an operating number we could talk about?

MR. MATTHEWSON: I think the approximate number is approximately 500 hectares, as in my presentation, of area that may be cleared.

MR. MILLS: Okay. Either my arithmetic is inaccurate or your 36 kilometres required clearing may need some adjustment. That number is larger than we expected.

Our experience, Glenn, on Bipole is that there was approximately 40 cords of salvageable timber came out of a hectare. Now, we recognize that the forest is certainly of a different quality. Has Manitoba Hydro put any rough numbers to the quantity of biomass that will be harvested on this right-of-way?

MR. MATTHEWSON: So with respect biomass, in the greenhouse gas calculations report, there was an assumption of the amount of biomass, and there are several IRs I think on this topic as well.

Manitoba Hydro is developing a clearing plan over the next few months, under

which it will identify the different methods of clearing of that forested land, the degree to which the land will be cleared. As I mentioned before, some of that land is covered by the Golden Winged warbler habitat, of which we will be undertaking a variety of different clearing options to retain as much biomass as possible. So there are a variety of different clearing methods, as I have described in my presentation, and as well as utilizations of biomass that Manitoba Hydro is considering.

MR. MILLS: The information provided makes two vague references to the burning of slash. We find a vague reference in the greenhouse gas report and we find a vague reference in the air quality report. It isn't mentioned specifically, and your presentation candidly specifically avoided discussing it.

Can we assume that there will be no burning of slash or biomass in this project?

MR. MATTHEWSON: No, we cannot assume there will be no burning of slash or biomass on this project. As I discussed, there's a variety of different methods that Manitoba Hydro will utilize, and talk with landowners to develop the

appropriate utilization of biomass where possible.

MR. MILLS: We would suggest that biomass and burning are matters that the Clean Environment Commission should have some knowledge of when they arrive at their permit recommendations. Would you not agree with me on that? James? Shouldn't what you're going to, how you're going to get rid of the biomass and what you're going to do with it, aren't those baseline environmental concerns?

MR. MATTHEWSON: Certainly the utilization of biomass was assessed as part of the Environmental Impact Statement, in a variety of different chapters. The greenhouse gas report talks about a scenario where the biomass is burned, and provides that information to the Commission for their consideration.

MR. MILLS: No, it doesn't.

MR. MATTHEWSON: I think with respect to the biomass, there will be another panel coming up with respect to the greenhouse gas report, and they will be able to further articulate the exact details of that report.

MR. MILLS: I appreciate that we have a greenhouse gas, but we may have someone who may

know something about greenhouse gas. I'm anticipating down the road that the author of the greenhouse gas report is not going to be present, and I am anticipating that we're going to be told that the greenhouse gas calculations are arrived at by the numbers and information provided to the Pembina Institute by the construction team. So I really think that there are some greenhouse gas issues and questions that this panel fairly should address.

We like to go, we call it shopping, and we went to the Lower Churchill project greenhouse gas emission and fuel consumption report, Glenn, and we'll come back to that.

So I'm not sure if I asked the question, and I'll try to keep moving. We understand from Stantec, with regards to the air quality report, and Pembina Institute with regards to the greenhouse gas life cycle analysis, that they based their conclusions on information that was provided to them from your team, Glenn. Is that fair to say? Amount of equipment, number of cranes, horsepowers, et cetera?

MR. PENNER: Yes, I think that would be accurate.

MR. MILLS: Okay. Is it fair to say that you provided them with a significant amount of information?

MR. PENNER: I think we provided the information to the greenhouse gas experts, a sufficient amount of information for them to conduct the analysis.

MR. MILLS: When we spoke with Shane Mailey, I believe he's your boss?

MR. PENNER: Yes, he is.

MR. MILLS: When we spoke to Shane on day one, he indicated that the decision as to whether or not helicopters would be used for lifting towers into place would follow with a construction tendering and pricing. Is that your understanding?

MR. PENNER: Typically that's means and methods, and it will depend on schedule and what contractors propose in terms of whether they would want to use helicopters, or traditional more crane method of putting the towers up.

MR. MILLS: Okay. In the substantial amount of information that you provided to the Pembina Institute with regards to greenhouse gas, in their conclusion we find no reference

whatsoever to the greenhouse gas contribution of helicopters used to lift towers. Did you provide them with a helicopter solution analysis?

MR. PENNER: I believe that our staff have talked to our greenhouse gas experts around helicopter usage and typically how long helicopters need to be in the air to put towers up. So I would say, yes, they have had discussions.

MR. MILLS: Thank you. We contacted Erickson Helicopters and we researched the genesis of that, of the BABA, the machine I think you referred to in some of your Youtube presentations on the use of copters on Bipole. We looked up the fuel burn on those helicopters and we extrapolated the hours that would seem to be required from the GHG analysis. And when we extend a copter's solution, the amount of greenhouse gas produced by just the helicopters appears to exceed the entire amount of greenhouse gas that your construction team's equipment information extended seems to contribute. So we have concerns about the contribution of your helicopter conclusion.

Could I ask you to undertake to provide the Pembina Institute with what your

expectations of the helicopter solution in terms of flight hours would be?

MR. PENNER: I think that is a discussion at this point for the biophysical panel, when they can speak specifically to greenhouse gases. And we have provided our information on construction and the methodologies that we expect to use, and they can speak to that better. So I think before we head down the path of an undertaking, I think they need the opportunity to have that discussion.

MR. MILLS: Mr. Chairman, if the greenhouse gas panel advises us that they can't answer questions because they do not have the quantity of equipment hours from the construction team, can I have some latitude to come back to this?

MR. BEDFORD: I agree with Mr. Penner. I'm personally aware that they do have the information. So Mr. Penner's suggestion is the correct one. Let's be patient. We're calling a biophysical panel. We have said that one of the people who is in the back row will step forward, can be sworn in, and can address a variety of questions on greenhouse gases, including the

interesting concept of using helicopters to put steel towers in place.

MR. MILLS: That's great. Thank you.

THE CHAIRMAN: Okay. It's the Chair. So we'll leave it at that. You can pursue that questioning further with the greenhouse gas panel. And we will judge the results of that at the time.

MR. MILLS: Thank you, Mr. Bedford.

So to be clear, although burning of slash wasn't touched on anywhere in your presentation, Hydro will consider that as a possible means of biomass disposal.

MR. MATTHEWSON: Yes, as referenced in IR DPWO IR 005, that the clearing plan will determine use, how to use the biomass, disposal of it, and the clearing method for the biomass in both a practical and environmentally conscious manner.

The IR does further go onto talk about the life cycle assessment analysis that made a conservative assumption that all cleared biomass would be combusted in its analysis. So that was in the greenhouse gas life cycle assessment.

THE CHAIRMAN: This is the Chair.

Mr. Mills, we're at 12:30. Unless

you're going to finish in the next few minutes, then we'll call it time for lunch and reconvene.

MR. MILLS: I could finish in 10, if you'd like to.

THE CHAIRMAN: Ten minutes?

MR. MILLS: Yes.

THE CHAIRMAN: Then we'll do it.

MR. MILLS: Glenn, if you choose to burn the residue, will Manitoba Hydro consider itself bound by the Manitoba Residue Burning Program?

MR. MATTHEWSON: So Manitoba Hydro will follow any and all applicable laws with respect to the burning of residue. It is my understanding, although I'm of the legal opinion, that the Crop Residue Act does not apply to these activities.

MR. MILLS: The Crop Residue Act says:

"Why is night-time burning illegal? Temperature changes after sunset limit smoke dispersion. At night smoke tends to linger close to the ground where it can cause health and safety concerns rather than mixing with clean air higher up in the atmosphere."

Why would you not consider yourself bound to that clear environmental and public safety concern? I consistently hear Manitoba Hydro say that it all starts with safety.

MS. MAYOR: I think Mr. Mills is asking for a legal conclusion as to the applicability of the statute. And Mr. Matthewson has put forward Manitoba Hydro's position, with which we agree. We're not going to get into a legal argument right now as to which portions of the Act apply and which ones don't to various different types of crops and land use.

MR. MILLS: Well, let's talk about safety. I don't think that's a legal opinion. I received correspondence from Mr. Keil, sitting behind you, Glenn. Every e-mail I have ever read of his, it all starts with safety.

The Province of Manitoba says that it is not safe to burn after sunset because smoke tends to linger close to the ground where it can cause health and safety concerns. Would Manitoba Hydro respect that concern and not burn at night, should you choose to burn?

MR. PENNER: Certainly I think burning crop is different than burning the piles that

we're talking about. And we certainly take into consideration location of residences. And I think in Bipole III, there was a licence condition around location of residences and where burn piles were and where that took place. And where those situations were, we looked at other methods of disposal.

The burn piles are substantial for trees. The trees are much bigger than a crop and cannot be extinguished over, like every evening and relit in the morning.

MR. MILLS: We agree with that statement, and we're hoping we can direct you towards consuming the biomass and/or mulching it, as opposed to burning it and wasting it and causing the safety and health issues that that would do.

Ideally, and where we're going with this, Glenn, is we'd like Manitoba Hydro to stop burning. We refer to the Muskrat Falls site that says burning of slash or debris will be prohibited. Debris releases stored carbon as CH4 and releases n2o, both of which are the more powerful GHG's than CO2. We see the safety concerns of burning mulch and we ask you candidly,

why does Manitoba Hydro still in the 21st century burn their slash on the right-of-way clearing project? That's a rhetorical question and I'll keep moving.

We read information from EMF, GHG and Air, in which conclusions are reached, but we don't find any recommendations coming back to you from any of those three contributors. As an example, Stantec compares what you do to the 2010 City of Winnipeg Transit bus fleet. But did they provide you with any recommendations as to how you could improve upon your air quality protocol, or how you could do a better job of managing air quality? We didn't find any, and we were wondering if they came to you at some other --

MR. PENNER: Can you just repeat the question, sorry?

MR. MILLS: Okay. The EMF, GHG and Air reports do not appear to contain any recommendations as to how a better job could be done. They all appear to draw conclusions, but they don't seem to provide your group with any advice or direction as to how to do a better job. Am I missing something? Did you receive any feedback from Pembina, Bailey, or Stantec, as to

how your protocol could be improved upon, or is it assumed that you're doing a great job now?

I'm going to be longer if you'd like to cut me off now. Your call.

MR. PENNER: I guess I'd like to add something to answer the question that was just asked. We are certainly not at the construction stage at this point. Manitoba Hydro looks for ways to utilize the clearing of the right-of-way for reasonable purposes for sure, in providing firewood for people, whether it's -- or biomass, if it's reasonable in terms of, if someone is interested in picking it up. We made those offers on Bipole III and lots of wood was utilized that way.

MR. MILLS: Yes, it was.

MR. PENNER: But at some point, it's just not feasible to get some of this material away from the right-of-way where it is. And we still need to be able to dispose of this right-of-way.

So on Bipole III, we did a fair amount of mulching, we do expect to do mulching on this project as well. It's just that I don't think that mulching always gets everything. And so

there needs to be a variety of tools in our tool box to get this work completed. But certainly if we have, if there's an opportunity to utilize the material in some way, we certainly will look at that.

THE CHAIRMAN: Okay. We're going to leave it there and we will reconvene at 1:30. Thank you.

(RECESSED AT 12:39 P.M. to 1:30 P.M.)

THE CHAIRMAN: So this is the Chair, and we will start in one minute.

Okay, welcome back, everyone. And we will resume the questioning from Mr. Mills.

MR. MILLS: Thank you, Mr. Chairman.

Glenn, did you have any success with the question as to the possible line loss?

MR. PENNER: They are still working on it.

MR. MILLS: Okay. Thank you. I guess, to -- we are close to the end, and I thank you for your patience.

When confronted with comparisons or analogies that we can't understand, it causes us to ask questions. As an example, the executive summary of the Bipole III greenhouse gas

assessment, which as well indicated that it took the anticipated materials and construction technique that your team gave to the Pembina institute, multiplied it by universally agreed-upon values, and it arrived at a greenhouse gas life cycle assessment. And the identical process we understand, now takes place for Manitoba-Minnesota transmission.

We are simple guys. We are not foresters; we are not scientists. But we look at the Bipole III route, and the complex and the difficulty of construction, and we look at the Manitoba-Minnesota route, and we say we think the greenhouse gas will be less on the Manitoba-Minnesota.

But that isn't the information that we have been provided. My simple division tells me that the Bipole greenhouse gas life cycle analysis said that there would be 543 tonnes per kilometre created, and when we carry that identical per-kilometre calculation to Manitoba-Minnesota, we appear to get a number that's 43 per cent higher.

So we ask -- we wonder about that. We say we've got Bipole, which is heavy lifting,

remote work, tough forest, a lot of Cat time; and we look at Manitoba-Minnesota where, arguably -- well, where a substantial amount of the project requires very little construction input, and the greenhouse gas number we get appears to us to be 43 per cent higher on the project that seems to us should -- the number should almost have gone the other direction.

So we wonder, and we are trying to understand, with the questions that we ask you, how such a delta could occur. And it seems to us -- and I'll leave you with this, because we will be asking this of the greenhouse gas panel; but it seems to us that if the value that we multiply all of the quantities that you provide remains unchanged, then the only reason for such an anomaly in the numbers can be the quantities that your team provided.

Are you with me?

Land use change and construction materials, by and large, in both reports apply for, by and large, similar, almost identical values. Yet this project is creating on a per capita --- pardon me, on a per-kilometre basis -- 43 per cent more greenhouse gas.

Now, I don't know that greenhouse gas has an economy of scale. I think, and we are wondering, are the units of construction material that you provided to the greenhouse gas formula possibly more accurate, or less accurate, or I just throw it out?

Does your team -- can your team help me with any sense as to why MMTP is showing 43 per cent more greenhouse gas per kilometre of AV transmission construction than it is per kilometre of DV transmission construction, and -- when the complexity of the problem seems to be in fact reversed?

Am I missing something?

MR. PENNER: I'm not quite sure where to go with your calculations, other than to direct you to the biophysical panel to talk about the greenhouse gases that have been calculated. I don't know the premise that you are starting with in your calculations and the math that you talk about, whether there is -- the premises that you have in your calculations, because they are your calculations, I can't comment on that. I think the best thing will be is when the biophysical panel comes, we can talk about -- or they can talk

to you about how they calculated the life cycle greenhouse gases.

It is pretty straightforward, the kinds of information that we provide, as far as the construction methodology. So...

THE CHAIRMAN: Mr. Mills, it is Serge Scrafield, the Chair. I think we agreed before the break that this line of questioning will continue with the biophysical panel.

MR. MILLS: Yes.

THE CHAIRMAN: And we will make a judgment at that time if it has been adequately addressed or not.

MR. MILLS: Thank you, Mr. Chairman.

I'm getting close to the end. I would like to -- I'm told it is adaptive management; my mom told me it is learning from your mistakes. But I would like to talk about some of the conditions contained within the Bipole III project transmission project licence, and I would like to talk to you about whether your team, now that you've had to work under these conditions, feels that they serve the purpose, did the job, and I'd like to suggest that maybe we can improve upon some of those conditions.

We all remember game hunting area 19A, and there was the infamous eight kilometres; I'm referring to Condition 49 in the Bipole permit licence number 3055. And the Minister required that you clear only tower location danger trees and trees in excess of 17 metres in height within the transmission right-of-way along those eight kilometres.

Is that in fact what took place? And if it was modified or adjusted, that isn't my point, Glenn. My point is, did that condition cause Manitoba Hydro construction any undue cost or difficulty? And where that question is taking us is, is that a condition that could be more readily applied to this work?

MR. PENNER: So yes, we are familiar with game hunting area 19A, and certainly we worked together with the Manitoba government to make sure that we followed that condition number 49.

I think the question was, was there additional implications as a result of it; and certainly clearing, I think it was -- yeah, so trees in excess of 17 metres. So it was significantly more expensive to do.

There was reasons for it, in terms of the moose population in the area. And so, from a perspective of construction, it was more money; and towers, certainly it would be more money. It will be more difficult to maintain in -- going forward.

So, certainly that area was more costly than going the traditional approach. Is that what you were asking?

MR. MILLS: Yes, thank you.

In brief summary, the Bipole licence had three -- by my count, three clauses which affected or reduced the severity of the right-of-way clearing. And my client, and in our discussions, we believe that there is a lot yet that can be done to reduce the scar on Mother Earth.

Clause 16 of the Bipole licence indicated that you were to use terrain features and vegetation composition to limit access to and line of sight along the development right-of-way. Did implementing that clause or condition prove problematic or costly to Manitoba Hydro? Or is that something that could comfortably be carried forward to the MMT right-of-way clearing

conditions?

I could move on.

MR. PENNER: No, we want to provide you with a good answer, and so I think it is important that we ensure that we are giving you that.

MR. MILLS: Thank you.

MR. PENNER: Certainly there are costs, additional costs to construction for that licence condition as well. And -- you know, we strive to find ways to meet or to find ways that lessen the impact, and these are mitigation measures. Certainly leaving understory, and some of the approaches that we've already included in the EIS, are valuable to maintaining a right-of-way that's sustainable.

MR. MILLS: Maybe, to save some time, Article 16 of Bipole says you shall use terrain features and vegetation to limit access to line of sight. Further on, under Article 36, Hydro was obliged to manage vegetation along the transmission right-of-way in coniferous-dominated forest to retain the coniferous character, another apparent softening of the right-of-way.

Further on, under clause 49, was the

infamous 17-metre-high trees in game hunting area 19A, and also Article 50, Manitoba Hydro was instructed to leave wildlife trees where possible throughout the development right-of-way where they do not pose a hazard.

I assume, of course, that all of the conditions of the licence are met by Hydro, and I'm asking you -- now that the right-of-way clearing is done, I understand -- was the implementation of any of those conditions difficult or unreasonably expensive? Or would it be fair for us to ask that in the very least, those conditions be carried forward into a Manitoba-Minnesota Transmission Project right-of-way scope?

MR. MATTHEWSON: I think those conditions encompassed a lot of discussions with environmental engineering and construction staff to implement those conditions, and to ensure our compliancy with the licence.

The conditions -- 49, which talks about 17 metres in height, that was very specific to the moose protecting some inaccessible areas of moose population. I think Manitoba Hydro, from these licence conditions, has learned a lot, and

those learnings are what we've applied in our environmental assessment, in our environmental protection plans on this project.

For example, the golden-winged warbler management plan was a direct response to developing mitigation measures that maintain the habitat for gold-winged warblers in the critical habitat areas. So it is a very good example of a condition like 49 being implemented already, proactively, by Manitoba Hydro in its design stage of its projects.

So those are the types of things that are -- we've incorporated going throughout the assessment and development of the construction environmental protection plan and the monitoring plans ahead of the -- or when we filed those with the EIS, we spent a lot of time into these licence conditions.

Leaving of wildlife trees, with a broad statement throughout the development where they don't pose a hazard, I think there are very key areas where wildlife trees can be identified, and maybe a lot more effective than a broad statement that -- say, apply them all the way along the right-of-way.

I think, having good discussions with Manitoba Conservation -- sorry, Manitoba Sustainable Development, and the biologists in the area, I think a more prescriptive implementation of such a measure could be accomplished, and have a lot more effective means, for perhaps a lower cost.

MR. MILLS: It is unfortunate to the schedule that we broke for lunch; I was reminded of another question.

THE CHAIRMAN: Mr. Mills, this is the Chair, Serge Scrafield.

I think we are up to about 50 minutes in total now, the before-lunch part and the after-lunch part, and I think you had estimated, if I understood the secretary correctly, around 45 minutes. So could we conclude this in the next five minutes?

MR. MILLS: I'll try, Mr. Chairman.

THE CHAIRMAN: Yes?

MR. BLACKSMITH: I will require about five minutes.

THE CHAIRMAN: That's fine.

Plus five, Mr. Mills, and then five more. Thanks.

MR. MILLS: Okay.

One of the issues that came to us was the reporting on the work. I'm not sure there are many in Manitoba, but there are quite a few of us who do follow the registry and do follow the communication that takes place.

One of the conditions of Bipole was that upon completion, Manitoba Hydro -- upon completion of construction, Manitoba Hydro would undertake a third-party environmental audit to assess whether commitments they provided in the EIS and supporting information were met, and to assess the accuracy of that. We of course don't expect that report to be available yet, because Bipole III is not complete.

Regrettably, that condition concluded by saying reports on the audits shall be submitted to the Director. We don't get answers to questions with regards to that to the Director or the Minister, but we ask Manitoba Hydro, would Hydro have any concern or difficulty in, in fact, releasing the project completion audit to the public?

It's a post-construction audit, designed to undertake a third-party assessment of

whether your construction process has met the commitments that were provided in the EIS. You are obliged to produce it to the Director. Would it be a problem if that clause was changed slightly, to say that reports on the audits shall be made available to the public and submitted to the Director?

MR. MATTHEWSON: Sorry, are you referring to changing the Bipole III licence conditions to say that?

MR. MILLS: No, I am asking you if clause 63 of the Bipole III was applied to the Manitoba-Minnesota Transmission Project -- in other words, if this board recommended, again, a third-party upon-completion audit, would you mind if that condition, this time, indicated that that report was to be made available to the public as well as the Director?

MR. MATTHEWSON: Manitoba Hydro will abide by any and all licence conditions on the environmental impact licence for MMTP.

MR. MILLS: That's great; thank you.

Just one minute, Mr. Chairman, to speed-read and see if I've missed anything.

One last point that I missed, Glenn,

coming back to the greenhouse gas LCA, we don't trust it. And that's been apparent in my questions. Other jurisdictions, particularly the one you are connecting to, embeds language in their permit that the GHG consumed over the project is to be monitored on a monthly basis, and if it is found that the greenhouse gas your construction process is contributing is greater than the LCA that you based your presentation on, that -- at checkpoints, that if your GHG projections aren't being met, that you would make every effort to mitigate or review your construction technique to see if there was technique that could be altered or revised to get you back to your projections.

We are suspicious of the GHG. We don't even know, at the end of this, if we will be told if you met it. And what we would like is for you to track it, and be aware of it. And if you find you're going over your commitments, would you be prepared to consider mitigation and what you could do to get yourself back onto your GHG commitment?

MR. PENNER: So your question is, would we track our GHGs?

MR. MILLS: Yes. Would you track all of your fuel consumptions, as an example, compare them against the projections you've provided us with now, and if you find you are in the ditch, do what you needed to do to try and get back to the commitments you've made?

And I remind all of us that within the Environment Act 12.0.2, the Minister must consider the greenhouse gas that this project produces, and I would expect that assumes that she must consider accurate numbers.

MR. PENNER: I think it is probably best left with the greenhouse gas panel. It certainly would be an arduous task to try to follow every truck and try to monitor every vehicle utilized on the construction methods.

You know, certainly construction methods have not changed since Bipole III, in the last couple of years; they should have a fairly reasonable understanding of the fuel consumed, and have, I think, a fairly accurate analysis.

I'm just -- now, again, a lay person, just like you, on that greenhouse gas; but I think the questions are best posed to them in terms of how they've come to their numbers.

If you have concerns about the accuracy of their numbers, you can question them on that. I think that's a fair statement.

MR. MILLS: We will.

THE CHAIRMAN: This is Serge Scrafield, the Chair.

I think we will defer, Mr. Mills, that question, as we had agreed earlier, to the greenhouse gas panel.

And I would like now to turn -- I believe you had another five-minute question?

MR. MILLS: I am finished. Thank you.

MR. BLACKSMITH: Thank you, Chairman, panel.

Safety is a concern to everybody, not just Dakota Plains.

Stated in the opening statements, opening remarks, that Dakota Plains is on the outside looking in. And I see references to Crown lands, references to First Nations and the Metis, to landowners and stakeholders and to the Crown itself, the Province.

In our submission, we will be making reference to what I'm going to be asking for here. But in the agreements between First Nations and

Canada, they make reference to white, half-breeds, and Indians.

English language is very peculiar, in that it is very specific in certain items. And my Chief, or my leader, Orville Smoke, has asked this of the Canadian justice system, and we would like a definition of this "Indian" that you refer to.

The agreements are all predicated on a notion that this "Indian" is a ward of the government. The Indian Act was passed in 1876, April 12, 1876, unilaterally, by the government, commissioned by the British North America Act. And this "Indian," being a ward of the government, is not legally capable of entering into agreements of any kind.

The latest treaty that was entered into was in June of 1920. And these treaties all have X's as signatures. That was less than 100 years ago.

There is two questions; whether or not it wants to be done as an undertaking, I don't imagine that anyone is going to answer them right now, but we would like the legal definition of this "Indian."

We would also like to know how -- if

an Indian is a ward of the government, the Indian Act being a trust, a legal trust, why is it then that the government deals with or makes agreements, legal agreements, with Indians, which are the beneficiaries of this trust?

Those two questions we would need answered for our submission to the Manitoba Hydro proceedings. Our submission is -- or our presentation will be on the 23rd.

Thank you.

THE CHAIRMAN: Thank you.

I wonder if you could just give us a minute here. Thanks.

(DISCUSSION OFF THE RECORD)

THE CHAIRMAN: Thank you very much for that question.

Obviously the question is very central to the whole -- all the issues around rights, and very important. However, it does go beyond the scope of our review here. We've got terms of reference from the Minister that limit our analysis to the impacts on, really, all people, including First Nations and the Metis, the impact of the environmental implications of the project on all peoples and their communities. So it

doesn't go further than that.

The only other thing I wanted to mention is the issues you refer to were the creation of the Federal Government, which again, of course, we would have no responsibility nor any mandate to review.

I want to be very careful in saying all this, because those obviously are very legitimate, very real and very important questions. It is just -- we can't address them here. Nor, of course, being a creature of the Provincial Government, can Manitoba Hydro.

So that would be my response to the question.

MR. BLACKSMITH: Thank you for that.

The reason why I bring these questions to the table is Manitoba Hydro is not a business that is -- you know, a run-of-the-mill business; it is a Crown corporation. It is acting as an agent of the Crown.

And going back to our -- you know, our position from Dakota Plains; we were never afforded the same consideration as the stakeholders, as the First Nations and as the Metis. They were all afforded 160 acres per

family of five. And our people were basically referred to as refugees, and we were run out of town. Moved to a remote location. Our economic independence, our economic sovereignty was taken away from us.

And in this, the year 2017, these questions need to be addressed by the Manitoba Hydro Act, being an agent of the Crown.

Now there are -- I asked -- previously, I'd asked for the agreement between Manitoba and Minnesota, and I was given an agreement which was a basic agreement, but it didn't have any of the financial transfers between the two. And Manitoba Hydro has also entered into agreements with the -- again, the landowners, the Province, the First Nations, and the Manitoba Metis Federation. And Dakota Plains, to have any kind of economic independence or economic sovereignty, are looking into entering into some form of agreement.

And this question of this word "Indian" is going to be very prevalent in there, because we keep getting called Indians, and we want to know what this "Indian" is. What is this legal definition of this "Indian"?

And if we are going to be referred to as Indians, or dealt with as Indians, then we need to know what that is. Because we don't want to be included in that definition; we want to be treated like people, like regular human beings, and that's where this question comes from.

So Manitoba Hydro, acting as an agent of the Crown, has to be responsible for its actions on behalf of Her Majesty.

THE CHAIRMAN: In response, again, those observations are very critical; they are very critical, obviously, to everything that we do, and the relationship between the communities in this country and in this province.

However, our mandate -- and I should mention, by the way, that our mandate from the Minister does not use the term "Indian"; it uses the terms First Nation, Metis, and I believe an additional phrase, which says "other Aboriginal communities."

And what the Minister asks us not to do is to address the question of rights and some of these bigger-picture issues. There is a process -- as part of this project, actually -- where the Province says they are bound to do by

the Constitution is consulting with -- my understanding, because we are not involved in it -- but is consulting with a number of communities.

And so that process is ongoing, and we've been asked not to delve into those issues; leave it to that process.

So, I guess in both ways I would answer it that it is not part of our terms of reference. Not that it is not important; obviously it is important. But it is just not part of our analysis here, and what we've been asked to do.

And there is another process that is considering at least the rights portion of what you are mentioning, so...

MR. BLACKSMITH: Then we would like the consultation record between Manitoba Hydro and Dakota Plains, the stakeholders, First Nations and the Manitoba Metis Federation.

THE CHAIRMAN: You mean in addition to -- there is a fair bit of background in the report, and I will let Hydro speak to that. But in the submissions that are before us, there is a fair bit of background as to those discussions.

I assume you are asking for something beyond that? Is that right?

MR. BLACKSMITH: This was in reference to your comment that there was a consultation process that you were referred to, and I would like a copy of that record.

THE CHAIRMAN: Okay. And maybe I will ask the secretary afterwards to -- or during the next break, to provide you with the -- I will ask her to provide to you the information as to who you can contact to obtain that.

That is not something we have at all; in fact we have been specifically asked by the Minister not to be part of that process. But there is a process, and we can certainly provide you the information if you are not aware of it.

MR. BLACKSMITH: Again, my understanding is that this is a review in regards to a licensing process.

THE CHAIRMAN: Yes, it is.

MR. BLACKSMITH: As Dakota people, Dakota Plains, we've never been afforded that right to have our people recognized as the -- whether or not legal title or legal landowners, and I make reference to Crown, Crown land.

And I'm not about to get into our presentation, but the Royal Proclamation of 1763, King George III basically gave himself title to all the land in North America, which predicated the war with the 13 Colonies in the United States.

And again, you are using the term "Crown land" here. Now, where -- when did the Dakota people agree to any of this? This is the underlying concern that we have. It's never been addressed. And from -- you know, respectful of the Chair and the panel, but we still need these issues addressed.

If there is a licence to be -- that is being -- seeking approval, then the Dakota people have to be included in this. And the reference to "Indian" is -- if we are Indians, or we are going to be referred to as Indians -- and again, you make mention that you're not using that exact Word, you're using First Nation, Aboriginal, or indigenous -- the Indian Act is still called the Indian Act, and all of the First Nation communities are included under that, and that's where this is coming from.

If there is going to be a licence that's going to be approved, well, then, the

Dakota people, Dakota Plains in particular, have to be addressed in one form or another.

THE CHAIRMAN: Yes, and I would say there is two forums for the Dakota people to be involved. One is this process, and that's limited by our terms of reference to the impacts of the project on the environment, and through the environment on the community activities. So that's this process. And then there is a second process of consultation related to the rights of those communities.

And so you have both opportunities to address the projects. But this one is related specifically to the direct environmental impacts of the project.

MR. BLACKSMITH: I want to close off with -- three weeks ago, we were invited to Manitoba Hydro office here in Winnipeg, along with some of the other proponents and different First Nations. And this was called a -- would somebody on management staff help me out? What was that meeting called?

MR. MATTHEWSON: It was an indigenous community monitoring working group meeting.

MR. BLACKSMITH: Right. Thank you.

And at this meeting -- it was very informal. Full pieces of paper were being ripped in half and given to the people around the table and asked to jot down their concerns. And all of our names were taken, and they were gathered, and there was an indication that they were going to be -- there was going to be an address to the higher-ups within the company, the organization. And we've never heard back from that.

Now I sit here and I look at the proceedings here, and everything is prim and proper, and there is minutes taken. And this is what I'm alluding to with this word "Indian." We are not treated like people. And this has to be addressed, and it has to be addressed by Manitoba Hydro. And whether the -- if the Minister has given direction to this panel, then we need to make -- we need to see that. Whether it is letter form, or however it was delivered, we need to see that.

It just can't -- this will not continue. Our Dakota people are -- you know, we are suffering with the rest of the First Nation people in Canada.

THE CHAIRMAN: We can certainly make

available to you the terms of reference. They are publicly available online as well, but we will make sure to get you a copy.

Okay. Well, thank you for those remarks.

All right. That brings us to the Consumers' Association of Canada.

MS. PASTORA SALA: Good afternoon, members of the panel. Good afternoon, members of the construction operations and property panel as well.

This afternoon I will be referring primarily to CAC IRs. I've already provided a list of the information requests that I will be referring to to the panel. I might be referring to some sections of the EIS, but we will see how it goes.

My questions today will be primarily for Mr. Alec Stuart. So good afternoon, Mr. Stuart.

MR. STUART: Good afternoon.

MS. PASTORA SALA: And before -- I should say, Mr. Matthewson, I hope that you don't feel like I'm ignoring you; I'm not. You've been on a few panels, and I've explicitly ignored you,

but I'm sure we will have an opportunity for further conversation on Thursday.

MR. MATTHEWSON: I hope you don't mind if I do respond to some of your questions.

MS. PASTORA SALA: Okay. I guess I don't mind.

So, Mr. Stuart, you are the manager of Corporate Environment Department, the Corporate Environment Department of Manitoba Hydro, since 2013. Correct?

MR. STUART: Yes, although it is now Property and Corporate Environment.

MS. PASTORA SALA: Okay. And you were previously, from 2010 to 2013, an environmental specialist in that department?

MR. STUART: That's correct.

MS. PASTORA SALA: And prior to that position, you were a sustainability and standards specialist in the Marketing Program Department at Hydro?

MR. STUART: Yes.

MS. PASTORA SALA: And you are the Manitoba Hydro representative identified on the 2015 Riel audit for the implementation of the ISO 14001?

MR. STUART: ISO 14001, sorry? Yes.

MS. PASTORA SALA: And given the positions that you've held at Manitoba Hydro over approximately the last seven years, would it be fair to assume that you are generally familiar with the main themes identified in the literature on environmental management systems?

MR. STUART: Generally, yes, that would be correct.

MS. PASTORA SALA: And in defining the term "environmental management system" in plain language, would it be fair to describe an EMS, or environmental management system, as sort of like a handbook, or instruction manual of sorts, which identifies a corporation's goals and actions for managing environmental impacts?

MR. STUART: I would characterize it more as environmental risk, of which environmental impacts is one aspect of it. But otherwise, yes, that is correct.

MS. PASTORA SALA: Okay, thank you.

And you would agree that transparency and accountability are important features of environmental assessment?

MR. STUART: Environmental assessment

is not my area of specialty, to be perfectly honest with you. With regards to environmental management systems, the needs and views of interested parties are considered extremely important.

MS. PASTORA SALA: Would you agree that transparency and accountability are important features of environmental management systems?

MR. STUART: I would say, generally, yes.

MS. PASTORA SALA: And would you agree that transparent and accountable environmental management systems foster better relationships with stakeholders and policy communities?

MR. STUART: I would say that an environmental management system is one way of achieving that goal. There are certainly many, many others, and I wouldn't want to restrict it solely to an EMS.

MS. PASTORA SALA: That's fair.

Would you agree that one way of fostering healthy, transparent relationships is sharing knowledge and information with stakeholders and policy communities?

MR. STUART: Yes, I would.

MS. PASTORA SALA: And environmental management systems can be used as a tool for achieving transparency and accountability within corporations; correct?

MR. STUART: I wouldn't say that's their primary goal, but it certainly is one outcome that does emerge from environmental management systems, yes.

MS. PASTORA SALA: In the EIS, at page 22-2, Manitoba Hydro states that its environmental management system, or EMS -- and I quote:

"Articulates the organizational structure, responsibilities, practices, processes, and resources at all levels of the Corporation."

Do you see that?

MR. STUART: Yes, although I believe it says it includes, among other items, organizational structure, activities, et cetera.

MS. PASTORA SALA: Okay, yes, that's fair. Thank you.

And Manitoba Hydro has chosen to have an EMS certified by the International Organization for Standardization, or ISO, 14001?

MR. STUART: We follow the ISO 14001 system for environmental management systems, and we've chosen to have our environmental management system externally registered by outside auditors, yes.

MS. PASTORA SALA: So to reiterate, Manitoba Hydro has committed that it will meet the specifications outlined in ISO 14001, as well as the regulatory system and any other voluntary initiative to which Manitoba Hydro has enrolled?

MR. STUART: I'm sorry, could you repeat the question again? Sorry.

MS. PASTORA SALA: Of course. I will go slower.

Manitoba Hydro has committed that it will meet the specifications as outlined in ISO 14001, as well as the regulatory system and any other voluntary initiatives to which Manitoba Hydro has enrolled?

MR. STUART: I would say yes, that is correct.

MS. PASTORA SALA: And ISO 14001 is often used in the industry to demonstrate environmental stewardship?

MR. STUART: I wouldn't personally

characterize it as that. ISO 14001 demonstrates that the organization has a process for identifying and managing environmental risk that meets international standards, of which environmental stewardship could be considered one component. But it's a much more holistic system in many ways.

MS. PASTORA SALA: Would you agree it is often used by industry to demonstrate environmental stewardship?

MR. STUART: I would say there are certainly -- there are corporations or organizations that do use it as such. As I said, as I indicated earlier, I prefer to think it of as a more holistic system in many ways.

MS. PASTORA SALA: Okay. And we will come back to that.

In CAC IR 022, Manitoba Hydro indicates that its commitment to improve its environmental performance is demonstrated through the company's EMS, which is ISO certified. Is that correct?

MR. STUART: Sorry, could I ask you to repeat that? I just don't see the line in the question here.

MS. PASTORA SALA: I will read you the exact quote; maybe that would help. I summarized it, but the exact quote that I'm referring to is where it says:

"Manitoba Hydro is committed to protect and preserve natural environments and heritage resources affected by its projects and facilities. This commitment, and a commitment to continually improve environmental performance, is demonstrated through the Company's environmental management system, which is ISO certified."

So then I took that and summarized it as Manitoba Hydro indicates a commitment to improvement environmental performance -- sorry, Manitoba Hydro's commitment to improve environmental performance is demonstrated through the company's EMS, which is ISO certified.

MS. MAYOR: Can you give the number of the IR again? They are having difficulty finding the quote.

MR. STUART: While we are looking for the IR itself, one thing I do want to touch on in

your comment was the point about improvement.

One of the key elements of the ISO standard, and indeed of an environmental management system in general, is a commitment to continual improvement. And certainly that's something that Manitoba Hydro is committed to.

With regards to our environmental management system, it is a matter of never being satisfied, of always looking for opportunities to improve and to get better.

With that said, I think that that would be accurate.

We are still trying to find the exact quote here, so -- my apologies.

MS. PASTORA SALA: We will come back to that, because I don't think that it is crucial in order to move on.

Is it accurate to say that the implementation of any EMS is key? The way it is implemented?

MR. STUART: Key to what, exactly?

MS. PASTORA SALA: Its success.

MR. STUART: I would say that's accurate, yes.

MS. PASTORA SALA: And would you agree

that a comprehensive understanding of EMS and ISO 14001 is required for proper implementation?

MR. STUART: I wouldn't say that's necessarily the case across, for example, the entire organization. But certainly there needs to be individuals who do have that level of understanding and comprehension, yes.

MS. PASTORA SALA: You've almost anticipated my next question, Mr. Stuart: Are you familiar with the term "organizational learning"? Which I define to mean a process by which knowledge is transferred from the individual level to the organizational level, and it involves utilizing knowledge from external and internal sources, and communicating and disseminating knowledge, as well as learning from past and present practices.

MR. STUART: Yes, I am familiar with that.

MS. PASTORA SALA: Would you agree that organizational learning is an important -- is important for the implementation of an environmental management system?

MR. STUART: I would say it is an important component of it. Again, it is not

really the only one, but it is an important component of a successful EMS.

MS. PASTORA SALA: And does Manitoba Hydro have an organizational learning policy?

MR. STUART: Not that I'm aware of, no.

MS. PASTORA SALA: Does Manitoba Hydro plan to create and implement an organizational learning policy?

MR. STUART: I don't believe it's being considered, but I honestly don't know for sure.

MS. PASTORA SALA: And I understand that organizational memory is also very important. How is Manitoba Hydro ensuring that lessons learned are transferred to its organizational memory? And if possible, please cite specific examples.

MR. STUART: So, I'll answer your question more in the context of the EMS, which I'm more familiar with.

I would say that we have a number of different mechanisms for doing exactly what you describe, for transferring that corporate knowledge through our environmental management

system.

One example is we carry out regular environmental audits, and obviously that documents best practices; that documents lessons learned; items like that.

As part of the EMS requirements required under ISO is an item called management review, which is essentially a chance to sit down with senior management of the company, discuss, again, what have we learned this year? What are our improvement initiative? What elements are we focusing on for the next year?

So in the context of the EMS, I believe there are two examples of how it's done, and I'm going to refer to something else that I touched on this morning.

I think that Manitoba Hydro's work on agricultural biosecurity would actually represent a good example of this kind of organizational learning you described.

If you look at the learning curve that we had all throughout Bipole III and to date, where we started not understanding as much, and learned a lot along the way of how to apply it, how to implement it, what works for our

stakeholders, what works for our contractors and our staff, and have come out at the end with something that I do believe meets the needs of our stakeholders, of the regulators, of ourselves as well.

So just an example for you of how organizational learning can be applied.

MS. PASTORA SALA: Thank you for that.

Just focusing on the organizational memory part of that; there would be no specific policy within Manitoba Hydro to address the organizational memory? It would be based on the individual in charge, or based on the management team. Would that be correct?

MR. STUART: I would say, to the best of my knowledge, that is correct, yes.

MS. PASTORA SALA: And for the purposes of my next question, I'm going to define absolute requirements for environmental performance as specific targets for achieving sustainable development, like a reduction in emission, or a reduction in overall energy consumption. Is that okay?

So, you would agree that ISO 14001 certification does not establish any absolute

requirements for environmental performance?

MR. STUART: ISO 14001 includes requirements for targets. So, as an example, if an organization has defined what are called significant environmental aspects, a key component of that would be to develop targets for those selfsame aspects.

MS. PASTORA SALA: And the targets that would be identified would be left up to the corporation to identify; correct?

MR. STUART: Yes. ISO is not prescriptive in that way.

MS. PASTORA SALA: In fact, the only two references to environmental performance of a company in ISO 14001 is one, a commitment to continual improvement of the EMS, which you referred to earlier, and an overall environmental performance with the organizational's environmental policy; and then two, a commitment to comply with relevant legislation and regulation. Would that be correct?

MR. STUART: In the context of the ISO 14001 standard, which is fairly high-level and does not provide a lot of prescriptive detail, yes, that is correct. Obviously it is up to each

organization that subscribes to or follows that standard to decide how it is best met with in the company.

MS. PASTORA SALA: Picking up on your comment earlier on continual improvements, is it accurate to say that ISO 14001 does not provide any guidance or technical definition of what constitutes continual improvement of the EMS?

MR. STUART: I'm honestly not sure. I may have to look into that. I can't quite remember exactly how it defines continual improvement. I don't have the standard handy with me.

MS. PASTORA SALA: Perhaps I can ask you: Does Manitoba Hydro's ISO 14001 certified EMS identify what is meant by continual improvement?

MR. STUART: I do not believe there is a formal definition, but it certainly is an understanding that continual improvement essentially means never being satisfied of where you are at, but always looking to improve.

If you set a target one year, and you achieve it, then the expectation would be that you can increase that target for the next year.

MS. PASTORA SALA: Just so I'm clear, Mr. Stuart, that would be your definition, not a definition in Manitoba Hydro's EMS, correct?

MR. STUART: I would like to get back to you on that, if that's okay. Certainly I will ask for a copy of our EMS documentation; then I can provide that answer back to you.

MS. PASTORA SALA: Can I get that as an undertaking?

MR. STUART: It may be fairly simple, but certainly it could be taken as an undertaking, yeah.

MS. PASTORA SALA: Thank you.

(UNDERTAKING # MH-4: Provide a definition of continual improvement in Manitoba Hydro's EMS)

MS. PASTORA SALA: And in terms of the operational environmental policy, which we spoke about earlier, is it fair to say that it is up to Manitoba Hydro to identify the objectives, responsibilities, and commitments and actions that it will take as part of its ISO 14001 certification?

MR. STUART: I think, like any organization that subscribes to ISO 14001, if it follows the standard, that would be correct, yes.

MS. PASTORA SALA: So there is no specific requirements for the information that is set out in those objectives, responsibilities, and actions, as long, of course, as they comply with legislation, licences, and permits?

MR. STUART: Sorry, could I ask you to repeat the question? I just didn't quite follow -- didn't quite follow it.

MS. PASTORA SALA: There is no specific requirements for the information that is set out in the objectives, responsibilities, and actions that Manitoba Hydro would identify in its EMS, which is 14001 certified; is that correct?

MR. STUART: I would say that's partially correct. The ISO standard, again, has expectations at a fairly highly level; and again, it is up to each organization to decide how that's best implemented and put into practice.

MS. PASTORA SALA: Right. And so the --

MR. STUART: A challenge of ISO 14001 -- sorry -- is that it does tend to be written at a fairly high level, and it is obviously up to each organization to interpret and implement as best they can.

MS. PASTORA SALA: And so those high-level -- that high-level requirement that you are referring to would be the continual improvement which, subject to check, may not be defined in the EMS of Hydro, and also the requirement to comply with relevant legislation and regulation. Correct?

MR. STUART: Yes.

MS. PASTORA SALA: Okay.

And those commitments, objectives, and responsibilities and actions, are tracked by Manitoba Hydro's management advisory committee, which is called EMAC, and in the EMAC Dashboard; is that right?

MR. STUART: I wouldn't say that they're tracked by EMAC in that regard. EMAC's role is as a high-level governance and advisory committee of senior management in Manitoba Hydro.

The EMAC Dashboard, again, for the benefit of the Commissioners, is we've chosen to identify what we call our significant environmental activities. So those activities that Manitoba Hydro carries out that we feel have the highest level of risk, even though it may be well controlled. And for each one of those, for

EMAC's purposes, we have identified targets to provide them assurance that the risk is being managed appropriately.

MS. PASTORA SALA: So those targets that Manitoba Hydro identifies are in EMAC Dashboard?

MR. STUART: Yes, they are. That's correct.

MS. PASTORA SALA: Okay. Thank you.

And you have made a number of commitments, or Manitoba Hydro has made a number of commitments in the EMS for MMTP, as well as in information requests relating to monitoring and followup for the MMTP.

For example, a commitment to ongoing engagement with First Nations, and the Metis Nation, and individuals, and in incorporation of traditional knowledge within components of the EPP -- if you're looking for a reference, that's at page 22-8.

Manitoba Hydro has committed to providing a summary of compliance monitoring results in annual reports, and that's 22-10.

Manitoba Hydro has also committed to annual reports for the MMTP, and Manitoba Hydro

has committed to make those publicly available on the project website. And that's CAC IR 006. Would you agree?

MR. MATTHEWSON: Yes, Manitoba Hydro has made those commitments.

MS. PASTORA SALA: Thank you, Mr. Matthewson.

In terms of ISO 14001, those commitments do not become part of the EMS unless expressly -- sorry; let me restart.

In terms of the ISO 14001, those commitments do not become part of the EMS unless Manitoba Hydro expressly decides to include them. Correct, Mr. Stuart?

MR. STUART: With regards to the EMS, just to speak about how this is managed internally, when we have a document such as an environmental protection plan, or an EIS, there is a goal to avoid duplicating the efforts. So the EMS will often simply point to an environmental protection plan as a means of achieving compliance or ensuring performance for a specific activity.

MS. PASTORA SALA: So it would not be expressly included in the EMS unless you specifically say it is. Correct?

MR. STUART: We could identify it, yes, that's correct. If we chose to identify EPP compliance as an indicator or target, we could.

MS. PASTORA SALA: For any of the other examples that I provided, they would have to be expressly included in the EMS; would that be correct?

MR. STUART: That would be correct, although again, we could include them at a higher level. As opposed to identifying each one individually, we could have a more blanket statement about compliance.

MS. PASTORA SALA: Any ISO 14001 audit related to MMTP would not review the commitments to ongoing engagement with First Nations, providing compliance, monitoring results, and making annual reports for MMTP publicly available, then, unless Manitoba Hydro makes them explicitly a part of its ISO 14001 certified EMS?

MR. STUART: Speaking hypothetically here, if Manitoba Hydro chose to, for example, bring our ISO auditors to MMTP, the ISO auditors would be provided with a copy of the EPP, and they would essentially hold us to that standard. They would look at the EPP, and they would assess our

performance: This is what we said we were going to do; are we doing it?

So the auditors would obviously, to the best of their own ability, choose how they wanted to assess and judge that, and that's been the case in the past.

So again, in the event that MMTP was audited by the ISO auditors, they would likely refer entirely to an environmental protection plan, or to other elements that they deemed appropriate under ISO 14001.

MS. PASTORA SALA: Just so I'm clear, it is only the information and elements that Manitoba Hydro identifies that are part of the ISO 14001 EMS, that are part of the ISO 14001 EMS. Correct?

MR. STUART: Not necessarily, no. The auditors can look at elements that the standard requires, and they may point to items that we would not necessarily normally consider part of an EMS. But they would point to that and ask for that, or ask for information on that.

MS. PASTORA SALA: And those standards, again, refer to the continual improvements and the licence and regulation and

legislation compliance; correct?

MR. STUART: There is a number of elements in the standard, of which those two you've mentioned certainly are part of it. There are additional elements or requirements for monitoring for measurement, for example, or requirements for retention of records. There is a number of functions within ISO 14001 that the auditors would be able to assess if they so chose to.

MS. PASTORA SALA: But the ones that I mentioned are the only requirements; correct?

MR. STUART: I wouldn't say that they are the only requirements, no. From an audit perspective, the auditors would look at all elements of the ISO 14001 standard and assess how well we implemented them within a certain project.

They wouldn't pick every single one -- if they went to MMTP, they could say, "We are going to look at, for example, these two elements, or these three elements, and let's see how well they've been applied on the project itself." And then they may go somewhere else the next day and look at an entirely different one.

MS. PASTORA SALA: Okay.

MR. STUART: So it is entirely up to them. But any of the elements of the standard would be up for assessment by the auditors during an ISO 14001 audit.

MS. PASTORA SALA: If Manitoba Hydro identifies it within its EMS?

MR. STUART: No. Again, that would be up to the auditors to determine that.

We are aware of what the elements of ISO are, and within our documentation, we've identified how we meet those. For example, for something like training records, we have internal systems for training records; so rather than duplicating them under the EMS, we simply point to them, and then the auditors are free to explore those as they see fit.

So all we've done is we have identified where in the company these elements are managed or maintained, and then the auditors can assess those.

MS. PASTORA SALA: That would be a discretionary element, and it would not be an exhaustive list, for example?

MR. STUART: I wouldn't say it is discretionary. Typically the auditors will cover

as many of the elements as they can. In a -- particularly in the longer reregistration audits, they will look for every element in there.

MS. PASTORA SALA: Could commitments identified in the EIS and information requests be captured in other types of third-party environmental audits, such as the ones which were recommended as licence recommendations for the Keeyask Generation Station and Bipole III?

MR. STUART: My apologies; could I ask you to repeat the question for this one?

MS. PASTORA SALA: Could commitments identified in the EIS, and information requests, be captured in other types of third-party environmental audits, such as the ones which were recommended by the Clean Environment Commission as licence requirements for Keeyask and Bipole III?

MR. STUART: I would say -- I think it is safe to say there is a number of different ways -- there are a number of different mechanisms in which these could be captured. Audits are simply one of them. Whether it is ISO or not, there is many -- many other mechanisms that could be used to identify these.

MS. PASTORA SALA: And at this time,

Manitoba Hydro has not considered an additional external audit for the MMTP; correct?

And I'm referencing CAC IR 001-8B. And maybe while you look for that, I just wanted to give you the citation for the previous statement. We don't need to go back to it, but it was in the preface of the EPP, at paragraph 1, just for your information.

MR. STUART: I think, with regards to the question about the additional audits, at this point in time, as noted in the response to IR 018, we have not considered an additional external audit on MMTP.

MR. MATTHEWSON: I would like to expand upon Mr. Stuart's response there.

So, Manitoba Hydro, throughout the development of its environmental protection program for the MMTP project, has looked at a variety of mechanisms by which we could implement some type of additional oversight.

So I'm going to share with you a few of the examples that are in the IS, and other things that we've discussed through the IR process.

Manitoba Hydro's environmental

monitoring annual reports, these are published annually, that talk about our annual reporting on environmental compliance; the spills, reportable and non-reportable; any infractions or warnings issued by the regulators. They provide the annual reporting on environmental monitoring results.

And all these reports are posted on Manitoba Hydro's website and the public registry. And Manitoba Hydro presents the information of the results to any interested parties upon request, whether it be indigenous communities or Manitoba Sustainable Development or the National Energy Board.

We have an ongoing public engagement process that you've heard about through our Property Department. The landowner liaison process allows landowners to give us direct feedback throughout the entire construction process, and into operations, about any concerns or oversights they have on any particular -- on their particular piece of property, or any other observations they may have.

We of course have the regulatory oversight of Manitoba Sustainable Development, both the conservation officers as well as the

environment officers. We, of course -- this, as an international power line, have the National Energy Board inspection process. We also have Transport Canada inspections, workplace health and safety inspections, as well as the Department of Fisheries and Oceans inspections, just to name a few of the regulators that are involved in a project like this. And as Mr. Stuart has pointed out, the third-party oversight that we have on our biosecurity policies.

I think all of these things, combined with one other key community working group that we are -- we have plans and discussions, as we've heard in the previous intervener's questions about community indigenous monitoring working group. And this is going to provide, I think, very good opportunities for Manitoba Hydro and the indigenous communities to work together, to observe the construction and monitoring and see directly the types of effects that are occurring on the landscape as a result of construction, and seeing the monitoring of those effects and being involved in that.

Manitoba Hydro has an environmental monitor position that it has used on other

projects and has adapted throughout, since the start of the Bipole III project, on quite a few other projects since then, and has adapted it again for the MMTP project, as a way to incorporate and work with indigenous communities, to be on the land and see the effects of the transmission project on their land.

I think all of these things together provide a wide variety of oversight onto Manitoba Hydro's Manitoba-Minnesota Transmission Project.

MS. PASTORA SALA: Thank you for that, Mr. Matthewson.

So in terms of the monitoring, and as well as the annual report that you were referencing, I will be coming back to that and having a discussion about those elements with you on Thursday.

What I was actually referring to was the CEC recommendation 13.1 in Keeyask, which required a third-party environmental audit to assess whether commitments were met and assess the accuracy, and then also the post hoc evaluation which was to be repeated, ten years after the first environmental audit.

So that specific audit was what I was

referring to. And I was just asking Manitoba Hydro to confirm whether that external audit had been considered at this time.

MR. MATTHEWSON: We didn't consider that type of external audit for a project of this size.

MS. PASTORA SALA: Thank you.

I would now like to move to discussing the non-conformities associated with the EMS which are ISO 14001 certified.

So, Mr. Stuart, if I were to explain what a nonconformity in plain language, again, would it be accurate to say that a nonconformity occurs when the objectives, actions, responsibilities which are identified by the Corporation are not met?

MR. STUART: In the context of the ISO standard, the nonconformity could be as you described; it could also be a nonconformity with the standard itself.

For example, one requirement of the standard is to carry out annual management reviews with senior management in the company. If an auditor comes and finds that you haven't done that, that would also be considered a

nonconformity.

So for the Commission's benefit, again, it is both those elements that you yourself might identify and those elements identified by the ISO standard as well.

MS. PASTORA SALA: Does that mean that if Manitoba Hydro anticipates having more of an impact on something -- pick anything -- which it actually does, then that could be identified as a nonconformity in an audit?

MR. STUART: Could I ask you to just repeat that question?

MS. PASTORA SALA: Yes. I apologize.

If Manitoba Hydro anticipates having more of an impact on something, which it actually does, could that be identified as a nonconformity in an ISO audit?

MR. STUART: By "more of an impact," would you say exceeding the target? Are we talking a positive impact here, or --

MS. PASTORA SALA: I'm going to use a really simple example, hypothetical example. Let's say Manitoba Hydro anticipated having a negative impact on three bird species, but it only impacts one. Could that be identified as a

nonconformity because you are not meeting your own targets?

MR. STUART: I would -- it is an interesting question. I would venture to say that a positive impact, such as assuming that a project will impact three bird species, and in the end our controls and our management practices are such that we only impact one, would be potentially viewed as a positive by the auditor. You've exceeded what your expectations were, your impact was.

The only nonconformity I could find with that would be the auditors may suggest that we need to -- perhaps we were a little too sweeping in our risk assessments, from an EMS perspective; but I would struggle to see that as a nonconformity.

Again, different auditors and different registrars will have their own assessments on things, so it's hard to find one consistent approach when it comes to registrars.

MS. PASTORA SALA: But it would be accurate to say that a nonconformity is simply not meeting the target you've identified. Correct?

MR. STUART: In a very general way, a

nonconformity could be seen as -- you know, we didn't do what we said we were going to do, which is sometimes the way some of our registrars have looked at it: "You said you were going to do X, but you didn't; therefore that could be construed as a nonconformity."

In my experience with ISO registrars, if it is a more positive impact, they generally will not view it as a nonconformity.

MS. PASTORA SALA: It will all just depend on what is identified by Manitoba Hydro in its EMS; would that be fair?

MR. STUART: Or by a document that the EMS points to, such as an EPP or the like. Because, again, the EMS is at a fairly high level, and it will point back to those documents. So if those documents do refer to that, then yes, that would be captured.

MS. PASTORA SALA: As part of the ISO 14001 certification of its EMS, Manitoba Hydro is subject to annual audits to verify its environmental performance; correct?

MR. STUART: We are subject to annual audits to ensure that we meet the terms of the ISO 14001 standard, which, again, indicates that

the organization has an appropriate way of managing -- identifying and managing environmental risk.

MS. PASTORA SALA: So it is subject to annual -- to audits.

MR. STUART: Yes, annual audits in a three-year cycle.

MS. PASTORA SALA: And an excerpt of the Riel Construction Department Site audit, an excerpt, was provided on March 13, 2017, in response to CAC IR 001. Correct?

MR. STUART: That is correct, yes.

THE CHAIRMAN: Sorry to interrupt. Serge Scrafield, the Chair.

We are at 3:00 o'clock. Just before we go, I would have a question regarding the amount of time you need. You had estimated about -- if my notes are correct, about 30 minutes; we are at close to 40, 40 to 45 now.

MS. PASTORA SALA: I do have more questions, Mr. Chair. I will be approximately an additional 10 to 15 minutes. And I apologize for mis-estimating. I think I have been pretty bang-on otherwise.

THE CHAIRMAN: That's true.

We will come back here at 3:15, and look forward to another 10 to 15. But I am going to have to limit to that.

MS. PASTORA SALA: Thank you, Mr. Chair.

(Recessed at 3:00 to 3:15 p.m.)

THE CHAIRMAN: All right. If I could ask everyone to be ready to continue, we will start right away.

Just before we continue with the questioning -- and in fairness to Ms. Pastora Sala, and to the intervenor that was up before her, you may have noticed, because we have fallen a little bit behind, I have begun sticking as close as I can to the timelines. So I would ask that before we get to each section, you work out a reasonable time frame with the secretary, and then I will hold participants to that time frame.

We will be -- as I use the word carefully there -- we will be reasonable in time frames. We can't be excessive, or we just won't stay on schedule.

So I would ask you to keep that in mind, and in the spirit of us accommodating each other, that we stick to the time frames.

So thank you, and with that Ms. Pastora Sala, take it away.

MS. PASTORA SALA: Thank you, Mr. Chair. All right.

So, Mr. Stuart -- did you want to say something?

MR. STUART: If I could address the question about continual improvement; we have done a bit of research, and I have answers for you now, if now is an appropriate time.

MS. PASTORA SALA: Yes.

MR. STUART: Great.

So, very briefly, a definition of continual improvement could be a recurring activity to enhanced performance. So under Manitoba Hydro's environmental management system, this is identified in two separate places. Our environmental management policy, which every organization that subscribes to the ISO standard is required to have, it clearly states that one of the goals for Manitoba Hydro is continually improving the EMS, so continually improving the system itself as well.

Within our guidance documentation for the environmental management system, Manitoba

Hydro has chosen to follow what's called the "Plan, Do, Check, Act" cycle, which is essentially a form of continual improvement. You plan, you check, you actually carry out the activity; all those steps there. And it specifically identifies this cycle as driving continual improvement.

So we have commitments to continual improvement, and then we describe an entire cycle which is intended to in itself be continual improvement.

THE CHAIRMAN: Just a gentle reminder, to silence or to -- anyway, get the volume down on the phones.

MS. PASTORA SALA: Just to be clear, Mr. Stuart, the explanation that you provided is an explanation, but not a specific definition of the term "continual improvements"; would that be accurate?

MR. STUART: That would be accurate, yes.

MS. PASTORA SALA: Thank you.

And so, just before the break, we were -- I had just asked you or I had just referred to the excerpt of the Riel Construction Department and Sites audit, which was provided in

CAC IR 001.

And I should probably thank Manitoba Hydro on the record for providing that excerpt.

In that excerpt, Pricewaterscoopers LLP indicates that it encourages Manitoba Hydro to consider the development of a transition plan in preparation to successfully transitioning to the new standard, the ISO 14001-2015, prior to the date of September 1, 2018. Is that correct?

MR. STUART: That is correct, yes.

MS. PASTORA SALA: And as part of CAC IR 018H, a copy of the EMAC annual Dashboard for 2015/2016 was provided?

MR. STUART: Yes.

MS. PASTORA SALA: However, Manitoba Hydro noted that the -- and I quote -- "Dashboard is currently under review as per, 1, and the indicator noted here may no longer be used."

That's a direct quote.

MR. STUART: Yes, that is correct.

MS. PASTORA SALA: And in response to CAC IR 018, Manitoba Hydro indicated that, quote:

"ISO audit reports are considered confidential information and are intended for use of management."

Correct?

MR. STUART: That is correct, yes.

MS. PASTORA SALA: And just by way of clarification, Manitoba Hydro also indicates that the reports are generally not made publicly available. Correct?

MR. STUART: That is correct, because the reports are generally considered the intellectual property of the auditors. And as we've noted elsewhere, any release of the reports requires the consent of the auditors themselves.

MS. PASTORA SALA: To be clear, does this statement mean that Manitoba Hydro -- let me rephrase that.

By "generally not made publicly available", does that mean within Manitoba Hydro? Or are you referring to an industry practice?

MR. STUART: I'm referring to, in this case, an industry practice, because again, it is not Manitoba Hydro's discretion to share or not share them. It is up to the auditors entirely.

MS. PASTORA SALA: Thank you.

And thinking back to the updates that are required and identified in Manitoba Hydro's responses to CAC 001 and CAC 018, would it be

accurate to state that the public will not have an opportunity to review the information which will be identified by Manitoba Hydro in its updated ISO 14001 certified EMS?

Given Manitoba Hydro has indicated that it will not make the information public.

MR. STUART: I think, if I can clarify a couple of points there.

First of all, Manitoba Hydro's environmental management policy, which is the core of our EMS, is generally publicly made available, and it is, I believe, on our website. If members of the public or interested parties or stakeholder groups had questions about the EMS, we certainly always welcome those questions, and we would be happy to answer them.

It is more the release of audit reports, which, again, is not something that we control; as I say, those belong to the auditors, and it is up to them to release it.

In this case, they would not release the whole thing, but they did release excerpts of it for the purposes of this hearing, which has enabled us to have quite a good conversation about it.

MS. PASTORA SALA: And you would be aware, Mr. Stuart, that this is not the first time CAC Manitoba has requested excerpts, or the audit in its entirety, and that it is the first time that it has been provided excerpts?

MR. STUART: Yes, I am aware of that.

MS. PASTORA SALA: And so for those updates that are identified in the information requests, just to be clear, the general public will not have an opportunity to review, for example, the updated Dashboard. Would that be correct?

MR. STUART: At this point in time, there is no mechanism for sharing that.

MS. PASTORA SALA: And so the general public will not have the opportunity to understand specifically how the ISO 14001 certification is in fact demonstrated that Manitoba Hydro is an environmental steward?

MR. STUART: I would suggest that Manitoba Hydro has many, many different mechanisms by which to convey information to the general public about our environmental performance, our stewardship of the environment. Mr. Matthewson, I believe, covered off a number of those in his

discussion.

MS. PASTORA SALA: Would you agree that the failure to make the ISO 14001 audits publicly available lacks in transparency?

MR. STUART: I wouldn't characterize it as a failure, because I would like to note that certainly for the purposes of this hearing, the information was released and is publicly available.

So with regards to that, I certainly -- you know, I would like to put that on the record. I think if there are -- one of the opportunities we have, too, is Manitoba Hydro is currently putting out a tender in the near future for an ISO registrar. And one of the items that we've noted for discussion with potential vendors is, would there perhaps be an opportunity for the vendor, say, to take relevant -- or the successful vendor to take relevant information about, as an example, the Manitoba-Minnesota Transmission Project, and provide that in a summary form for release through the annual monitoring.

So that's something that we are certainly willing to discuss with our vendors, as as example of providing the public information

about the audits.

MS. PASTORA SALA: Would you agree that failing to provide the updated Dashboard, and the manner in which Manitoba Hydro will comply with the updated ISO certification, lacks in transparency?

MR. STUART: I think, with regards to the transition which you note, for the Commission's benefit, this would be a plan for transitioning from the 2004 version of the ISO standard to the 2015 version of the ISO standard.

Again, that's something that we would be happy to discuss, if there were individual questions or questions related to it. We certainly have no issues there. It is not particularly exciting, but we can certainly talk about it.

With regards to the Dashboard, again, that's designed to -- it is designed for senior management, as a tool to help them understand where resources might be needed, where they should be focusing on, et cetera. As such, it is really a tool to drive continuous improvement on an internal basis.

Again, it's not -- there is not really

a whole heck of a lot of information in there that may be of interest to people, but these are the kind of things that we certainly would be happy to discuss if there were specific questions on them.

MS. PASTORA SALA: I can certainly indicate, Mr. Stuart, that while I might not personally find them that exciting, I know that some of the experts that CAC Manitoba works with does.

Those are all my questions for you, Mr. Stuart. Thank you very much.

MR. STUART: Thank you.

THE CHAIRMAN: Thank you very much. And Ms. Pastora Sala, and thanks for being so timely.

All right. That brings us next to the Southern Chiefs' Organization. Mr. Beddome.

MR. BEDDOME: Thank you very much, Mr. Chair.

I did tell the secretary I will be about a half an hour; I'm going to do my best to abide by that, but I notice none of us have been able to stay exactly on schedule today, maybe because I think our panelists -- and I appreciate this -- are taking time to deliberate and think

carefully through their answers, so maybe I will take 45 minutes, and I'll do everything I can to be as efficient as I can, Mr. Chair.

So the first question is a common one, one that you guys will have heard me ask other panels before, but really, I think, a fairly simple one, a yes or no. I will ask it to all of the panelists, actually.

Would you all agree that indigenous knowledge -- and that includes Aboriginal traditional knowledge, but also local knowledge of the land and the community, traffic patterns, et cetera -- adds value to this project?.

MR. PENNER: I certainly think it does, yes.

MR. BEDDOME: Other panelists?

MR. MATTHEWSON: Yes.

MR. STUART: Yes.

MR. IRELAND: Yes, I agree.

MR. BEDDOME: And you would all agree that includes construction and operation?

MR. PENNER: Can you rephrase your question?

MR. BEDDOME: Sure. In terms of that value of the indigenous knowledge, you would

include that that includes the construction operation part of the project, throughout the entire life cycle?

MR. PENNER: Sure.

MR. MATTHEWSON: Yes.

MR. STUART: Yes.

MR. IRELAND: Yes.

MR. BEDDOME: Thank you very much.

So -- and I won't take too long, because I've conferred with my friend who represents Peguis First Nation, which is a Southern Chiefs' Organization member nation, so I think he will be following up on some of these questions. But I take you to the presentation of Mr. Penner at slide 13.

And you may not even need the slide up, but there was a comment by Mr. Penner, I believe, that in regards to specific Bipole III contracts, that he was quite proud that had about 70 per cent indigenous employment.

I'm accurately summarizing the statement that was made in your presentation on Thursday?

MR. PENNER: Let me just find that slide.

MR. BEDDOME: It is the last slide in the presentation, page 13 of the book of presentations you gave us. Slide 37, page 13.

MR. PENNER: Slide 37, yes.

MR. BEDDOME: That's my mistake; I read the page rather than the slide. Please forgive me. It is the last slide in your presentation.

MR. PENNER: So the 70 per cent, I don't believe I commented -- yes, so the 70 per cent refers to the calculation done on the last three contracts over this past winter. That's -- we put out a set of contracts -- if you remember, we talked about Bipole III -- that we broke that project up into eight different sections, and we awarded different contracts at different times.

So that 70 per cent refers to the contracts that were awarded for this winter, and they will go through next winter as well. So I can go into detail, if you would like to know which sections they were. But essentially it was the indigenous content or the employment for essentially the last three months of this past winter for those contracts.

MR. BEDDOME: Okay. And in previous winters, was the number higher or low?

MR. PENNER: The number was lower. What I had referred to in my presentation was that I think that 70 per cent was a snapshot in time, and that this winter had a significant amount of tower assembly. And initially in Bipole III, when we were in this process, there was a fair amount of interest in tower assembly. And as a result, we made an effort on a tower assembly training program that occurred over a number of years.

And I think I also quoted that there were -- we had 87 hires on average of 98 days of employment. As I said, this winter, there was a significant amount of tower assembly, which requires a fair amount of labour.

So that's where that number comes from. I don't expect that the 70 per cent will persist, because as we move into the phase where we are needing crane operators and journeymen linemen, and less tower assembly will be required, that number will change.

MR. BEDDOME: I just want to clarify something -- and thank you for that.

And -- well, first, let's start with

the positive, because it is important to my client to have economic opportunities, and I think what I'm hearing you say is that Manitoba Hydro is doing what it can to increase indigenous employment wherever it can. Would that be a fair statement?

MR. PENNER: Yes, I think we have done -- yep, we've done some very good things with our contracts to allow for indigenous employment and contracting opportunities, yep.

MR. BEDDOME: With respect to the linemen and the crane operators and other equipment operators, would it be possible for Manitoba Hydro to invest in education and employment and training so they could achieve similar -- you know, 70 per cent, or even better numbers?

MR. PENNER: So, you know, Manitoba Hydro certainly has a strong record of indigenous employment in these contracts, as well as a good record with indigenous employment within Manitoba Hydro as well.

We did, at the outset of Bipole III, do a heavy equipment operator training program as kind of a pilot. And that -- I think that that

training didn't necessarily result in as many of the heavy equipment operators that were trained get into the project as we had hoped. But certainly we tried to go down that path of providing that training.

MR. BEDDOME: So you are not intending on going down the similar path for the Manitoba-Minnesota Transmission Project, having a heavy equipment training at the outset of the project?

MR. PENNER: The way that we want to encourage training in the Manitoba-Minnesota Project is to provide that through contractor on-the-job training.

MR. BEDDOME: Why did you think it didn't work out? It seems like a good model, and I guess the reason I'm asking, to be candid, is obviously my client is very much interested in the economic opportunities, and certainly indigenous people, although we recognize the accessibility of manual jobs, indigenous people also want good, high-quality paying jobs with people with specialization.

So I'm just trying to understand why that didn't work in Bipole III, and why you are

not going to be pursuing a similar approach in the Manitoba-Minnesota Transmission Project.

MR. PENNER: Well, the Manitoba-Minnesota Project is significantly smaller than Bipole III, and that's one of the reasons why we wouldn't consider doing the heavy equipment operator training for this. There are significantly less heavy equipment operators required.

I don't know if I would say that the outcome of the heavy equipment operator training didn't work, but we didn't see as -- and just give me a moment; I'm just going to see if we have got some stats.

MR. BEDDOME: Sure.

MR. PENNER: Yeah, my understanding is that we trained approximately 30 people across the province, and about five of them found jobs within the projects.

MR. BEDDOME: Would it be fair to say what your concern is, you are training those people, and they are finding jobs maybe out in Alberta, or somewhere else, and you are losing that investment in training?

MR. PENNER: I think that that would

still be a positive outcome from the training. But when I look at the size of MMTP, and the number of heavy equipment operators required for the project, I would say that we wouldn't repeat that heavy equipment operator training.

MR. BEDDOME: Okay. Thank you very much for that.

Now, of the 70 per cent, do you have a breakdown of which of that 70 per cent that you are looking at in the most specific project, do you have a breakdown of how many of those indigenous employees might be coming from out of province?

So, for instance, you bring in a contractor from Alberta or Quebec that has a high indigenous number of employees; I'm just curious if there is any breakdown between out-of-province contractors -- I would assume they would tend not to be directly employed by Manitoba Hydro, but if they are, fair enough; but I'm wondering if there is a breakdown between out of province and in province.

MR. PENNER: That number was specific to Manitoba indigenous.

MR. BEDDOME: So would it be fair to

say that actually the numbers might be higher if we took into account out-of-province contractors? Do you know?

MR. PENNER: We don't know. But it is possible.

MR. BEDDOME: Sure. And do you keep a breakdown in terms of -- and I want to be very respectful, and I really want to acknowledge the comments of Mr. Blacksmith, so I'm going to say, do you keep a breakdown between the indigeneity of the people, being whether they are Metis, whether they're status First Nation, or maybe even, let's say, whether they are -- you know, Dakota, who didn't necessarily sign treaty. I want to be respectful of that.

But is there a breakdown between that, that you guys keep track of? Or do you just put it all in one category?

MR. PENNER: So we do track that information, although the targets are inclusive of First Nations and Metis.

MR. BEDDOME: So you did track it. Are you able to give me a breakdown between the two, out of curiosity? I'm just wanting to know, then, if you are tracking it, presumably you have

that breakdown for those last three specific contracts.

MR. PENNER: For the last three contracts?

MR. BEDDOME: Well, those are the numbers in your --

MR. PENNER: Again, that 70 per cent was a snapshot in time, on a specific day. I can find out. Hang on.

They are digging up some of that numbers, if they can, right now.

MR. BEDDOME: I appreciate that. That's the last one I'm going to have on employment, so it is a perfect break for me to get my next documents ready. So thank you.

I can see the cell phone calculations taking place right now, so I appreciate that.

THE CHAIRMAN: Serge Scrafield, the Chair.

Is there any chance we could continue with the questioning and come back on that? It sounds like this is a pretty complicated --

MR. BEDDOME: Certainly. And also, just as an option -- because I can see you guys doing, effectively, back-of-the-napkin

calculations, if you just wanted to respond to that by way of an undertaking, if Manitoba Hydro is acceptable to that.

MR. PENNER: I was going to give you an answer and see if the answer is enough detail for you, and then hopefully we can carry on.

Overall -- not just on those last three contracts -- overall, we were at 51 per cent indigenous content on Bipole III, and 34 per cent off -- so 34 per cent is status; 15 per cent Metis; and 2 per cent non-status. That's overall.

Breaking it down in more detail, and digging into contracts, becomes significantly more in-depth; I don't think we can do it here for you right now.

MR. BEDDOME: No, that's actually exactly what I was looking for, and I appreciate that, and thank you very much for your quick calculations. I know, as a lawyer, I wouldn't be able to do that.

All right. Now, my next question, I think, will go to Mr. Matthewson, and it would be at slide 12 where he addressed this point, although I don't know for sure that it is necessary you go to that slide; I just want to

reference where I made notes where you referenced it.

And that's where you talked about -- certainly you heard that there was a concern about land and traditional resource use from the project, and that during construction, that some resource users may not be able to access their traditional hunting and harvesting grounds. That would be accurate?

MR. MATTHEWSON: No, I think Manitoba Hydro puts in substantial mitigation measures and planning in place to mitigate that effect.

MR. BEDDOME: To mitigate that effect, but in certain circumstances, it would be fair to say that traditional harvesters would not be able to access certain lands, due to construction activities?

MR. MATTHEWSON: So certain activities, such as the use of firearms within the project construction area of the right-of-way, yes.

MR. BEDDOME: So the use of firearms, so presumably that would limit the ability for First Nations people to hunt, correct?

MR. MATTHEWSON: Yes, it would limit

the ability for anyone to discharge a firearm within close proximity of an active construction site, for obvious safety reasons.

MR. BEDDOME: And so will any compensation be provided to these resource users for the interruption into the exercise of their traditional practices?

MR. MATTHEWSON: To date, Manitoba Hydro has not provided any type of compensation for that, as we've been very successful in working with communities in the planning and making them aware of the construction activities being undertaken, and working with them to provide continued access across the right-of-way, to get to other areas of traditional resource use.

MR. BEDDOME: Thank you for that. So that would be a no.

Now, I want to draw your attention to -- bear with me -- this is the problem, sometimes, with digital files versus paper files. It is at -- sorry, Peguis First Nation IR -- PFN IR 006, in the first round, if you want to turn to it.

What that question addresses -- and I will return to it; it is not what I'm going to

specifically address at first, but it is concerns about herbicide use, which has clearly already been reflected -- was brought up by many indigenous communities.

I don't know if you have the IR yet.

MR. MATTHEWSON: Yes. Go ahead.

MR. BEDDOME: It says at the beginning, part of this question deals with the fact of figuring out where the sensitive sites and where the sensitive areas are. It says:

"Manitoba Hydro has been compiling, where possible, sensitive sites, as described above, from existing ATK reports submitted to date, and will include them in construction environmental protection and environmental monitoring. Operational environmental protection plans."

And then it says:

"As additional sites are identified through the engagement process, they will be reviewed and incorporated into the applicable plans. The sensitive site process starts with identifying a location and nature of sensitivity,

followed by field verification, characterization of existing environment mapping, and incorporation into applicable environment protection and monitoring plans."

You see that. Correct?

MR. MATTHEWSON: Correct.

MR. BEDDOME: So we are sitting here, in May of 2017, and assuming you get your licence -- and that's certainly not guaranteed -- but the plan is to start construction in January of 2018. I recognize that construction would go on for two years, until March of 2020, but how are you going to have enough time to do field studies, if further sensitive sites are identified through the First Nations engagement process? It seems like your timelines are pretty tight. Would you not agree?

MR. MATTHEWSON: The IR refers to the use of herbicides on those sensitive sites, so the use of herbicides on any sensitive site on the right-of-way is undetermined at this time, but Manitoba Hydro has committed in the EIS that no herbicides are used during the construction period, and as you noted, that is two years.

MR. BEDDOME: I recognize what you are referring to in that question as herbicides, but am I not correct in understanding that the plan is that in future, sensitive sites are identified -- and let me back up a bit.

You learned from the Bipole III project, would it be fair to say, that throughout the Bipole III project, additional sensitive areas were uncovered as you went through the construction and the operation and moved forward with the process, even after a licence was granted? Would that not be fair to say?

MR. MATTHEWSON: Yes. Sensitive sites were identified during the construction -- and continue to do so during the construction process.

MR. BEDDOME: And so it would be fair to say the same would likely happen with the Manitoba-Minnesota Transmission Project. Correct?

MR. MATTHEWSON: That may happen, yes.

MR. BEDDOME: And so my question is, it seems that part of the process is field studies, but there is certain seasonality to these field studies. There might be certain times of the year that certain plants may come up and certain times of the year when plants don't come

up, and it seems to me that you wouldn't have -- let's say this summer, some further sensitive sites were identified, and you are looking to start construction in that area by January of 2018. There may not in fact even be enough time to conduct field studies.

Do you see that concern?

MR. MATTHEWSON: Manitoba Hydro has an ongoing preconstruction survey process underway to identify sensitive sites prior to construction, and validate as we gain access to the right-of-way through our easement process.

There are a variety of mechanisms by which we could put into place to -- if a site was identified, and depending on the nature of the sites, there may be buffers or other prescriptions that could be put in place as a mitigative measure until the site is more thoroughly reviewed.

As an example, a heritage site: If a potential heritage or cultural site were identified in the wintertime, obviously there is limited availability to do any type of excavation or investigation typical to archeological investigations. So the area is buffered off, and construction proceeds around it, and the area is

investigated as soon as possible in the spring.

MR. BEDDOME: So there is an ability then, if I'm understanding it correctly, to basically work around identified sensitive sites, to put the towers -- or to complete the clearing, as the case may be, in other areas, and then return to it at a later date; that's what you are saying. Correct?

MR. MATTHEWSON: That is the case in some instances, yes.

MR. BEDDOME: Would I be correct in assuming that that might create some risk to the schedule, though?

MR. MATTHEWSON: Yes, there is a potential risk to schedule. Manitoba Hydro takes a variety of different steps to manage that risk.

MR. BEDDOME: Thank you.

Actually, in Round 2, although it was considered earlier, it is a continuation, SCO IR 15, I will have you refer to that one.

And I will summarize it as you find the page, and see if you can agree with me.

I want to thank Manitoba Hydro for answering this information request, and they give a specific example of how Manitoba Hydro might

deal with a certain situation.

So in this case, along a right-of-way, several prayer trees were discovered. And eventually the local indigenous community was notified. Elders were identified for a ceremony. A ceremony was performed, and Manitoba Hydro was allowed to proceed with its clearing of its right-of-way.

You see that in SCO 15, and I've accurately summarized what that information request says?

MR. MATTHEWSON: I want to clarify: I believe that's in PFN IR 037?

MR. BEDDOME: No, SCO IR 15, in Round 2. The Round 1 question, just to give you the background, Hydro confirmed it would allow culturally appropriate ceremonies to take place if a sensitive site was uncovered. And we asked for a specific example, and you gave a very good specific example here, and I want to thank you for including it, and just wanted to refer you to it.

MR. MATTHEWSON: I'm still having a hard time finding -- I'm looking at SCO IR 015, and the question is: "Will local indigenous people be provided the opportunity to perform

culturally appropriate ceremonies with regards to any indigenous archeological sites that might be unearthed?"

MR. BEDDOME: Yeah, you're looking at Round 1 questions. Then there was a follow-up question in Round 2.

MR. MATTHEWSON: Do you have the IR for that? And I can...

MR. BEDDOME: I didn't print it out; I have it digitally. It is the Round 2 SCO IR 15; I apologize for that.

MR. MATTHEWSON: So that is SCO IR 037, I believe: "Please provide a real world example."

MR. BEDDOME: You are right. I apologize. Sorry, Mr. Matthewson. That was my confusion; please forgive me. The reference is SCO IR 15.

But you see that there, and I accurately summarized one example of how you dealt with, in this case, prayer trees. Correct?

MR. MATTHEWSON: Yes, we have one example here of how we worked with local indigenous communities when prayer trees were discovered.

MR. BEDDOME: And I want to thank you for that.

But then my question would be, who in Manitoba Hydro, either consultants or employees, would be able to determine what is a prayer tree and what is not a prayer tree?

I mean, certainly I get to work with indigenous people; I'm humbled every day, but I don't pretend in any way I could identify a prayer tree. So my question is, who has the expertise in Manitoba Hydro to be able to identify these sensitive sites such as this example of the prayer trees?

MR. MATTHEWSON: So, we have a variety of mechanisms by which prayer trees or prayer cloths are identified, and the training.

So Manitoba Hydro conducts a cultural and heritage resource training with its contractors and staff. Part of that training is identification of potential cultural and heritage resource sites, and that training is provided by a project archeologist, who is a consultant to Manitoba Hydro.

Also Manitoba Hydro, on the Bipole III project, has environmental monitors who are from

local indigenous communities, so they are also a source of knowledge and identification of these prayer cloths and prayer trees.

MR. BEDDOME: So you are going to have environmental monitors from indigenous communities for the Manitoba-Minnesota Transmission Project as well? Indigenous representatives from those communities that will serve as environmental monitors to identify these locations?

MR. MATTHEWSON: We have had discussions with indigenous communities about an indigenous community monitoring working group, of which there may be an environmental monitor on site during the construction activities to -- and one of their tasks would be to observe these types of cultural sites.

MR. BEDDOME: Okay. Now let's assume we have the same example, where some prayer trees are located, but after discussion with the community, the elders refuse to give it their blessing; they are not willing to give you the right to proceed with the right-of-way.

In this case, they did give the blessing. What happens if they didn't give the blessing? What would Manitoba Hydro's approach be

then?

Let me put it a different way: Would you consider re-routing the project to go around those sacred prayer trees?

MR. MATTHEWSON: I guess, hypothetically, similar to an easement, if we didn't receive an easement, that was a line of questioning. There is a variety of different mitigation measures that Manitoba Hydro can put in place before we would get to any point of re-routing a transmission project.

MR. BEDDOME: What mitigation measures would you put in place before you would consider re-routing?

MR. MATTHEWSON: There could be tower placement -- mitigations, there may be tower height mitigation measures to allow the retention of those trees, and we may be able to manage those trees through a simple pruning of a few of those branches that violate the limits of approach.

MR. BEDDOME: But if the response you got from the community and from the elders in that community was that they didn't want you to prune those trees, that they felt that running a Hydro line over top of them would ruin the sacred,

spiritual nature of those trees, would Manitoba Hydro then be willing to consider re-routing?

MR. MATTHEWSON: So, Manitoba Hydro, in its development of transmission projects over the last five years, with the Bipole project and the Lake Winnipeg East, we haven't run across that scenario that you are describing to me, so I can't comment on what ultimately we would end up doing.

MR. BEDDOME: Fair enough. And just one followup question on that: It is fair to say that after the Bipole III licence was issued, several route alterations were subsequently approved. Correct?

I believe, if you want, you could check the public registry.

MR. MATTHEWSON: Yes, subsequent to the issuance of the licence, there were alterations as a result of Clean Environment Commission recommendations, as well as other reasons.

MR. BEDDOME: Yeah, there were other alterations made, even after the licence was issued, after the CEC issued its recommendations, subsequently, as you went through the Bipole III project, it became necessary to request, and you

did in fact receive a number of alterations. That would be correct, right?

MR. MATTHEWSON: That's correct. When new information became available, we did have to alter a route.

MR. BEDDOME: Now, I think what I will take you to next, Mr. Matthewson, is --

THE CHAIRMAN: This is -- sorry to interrupt here, Mr. Beddome. It is Serge Scrafield, Chair.

We are just past a half hour. My notes actually had said 20 minutes, but given the discussion at the start, I gave some leeway there. How much longer are you going to be here?

MR. BEDDOME: I do apologize that we are at a half an hour. I think I would take -- I don't have a lot of further questions, but probably 10 or 15 minutes further.

I would note, Mr. Chair, that there have been a number of deliberations, and while I appreciate the panel needs to get their information correct, that may be part of the reason for the extra time today.

THE CHAIRMAN: We are going to allow 10 to 15, but at that point, we will move on to

the next questioner. Thanks.

MR. BEDDOME: Fair enough, Mr. Chair.

I just want to put it on the record, though, that other participants that went earlier have had longer periods of time, and I did indicate to the secretary that I anticipated about an hour for each of my cross-examinations.

But as I said, I -- let me move on, so I can quickly get my cross-examination completed.

THE CHAIRMAN: Go ahead.

MR. BEDDOME: It is at Slide 20 of your presentation, Mr. Matthewson, if you wouldn't mind putting that up on the screen.

MR. MATTHEWSON: Which presentation? Today or Thursday?

MR. BEDDOME: Today's presentation. That's the IVM, the integrated vegetative management presentation. That's your graph that shows herbicide use.

MR. MATTHEWSON: This one?

MR. BEDDOME: No, one back. There you go.

Now, in your presentation today, you indicated that this shows a decrease over time. I'm going to go back to my undergrad in economics

and challenge you, and say that there really isn't much of a trend to this graph at all. Would you not agree?

MR. MATTHEWSON: The trend -- the graph is, as far as the active ingredient per kilogram per hectare, is fairly flat for the 2005 to 2013. There was a rise in 2013, '14, '15, and then a dramatic decrease in 2016.

MR. BEDDOME: And you went over that; that's about the new active ingredient formulation that you used, and subsequently that's why 2016 is so low. But your projection of a downward trend is very much dependent on your new formulation that you've been using in 2016, and I could almost even argue that 2016 is an outlier. Would you not agree?

MR. MATTHEWSON: The results of the use of that new active ingredient have been very successful to date, so Manitoba Hydro fully expects to continue to use that formulation moving forward.

MR. BEDDOME: Are you able to comment further on what this new magic formula is, and what makes it so special?

MR. MATTHEWSON: The product is called

DuPont Navius VM Herbicide.

MR. BEDDOME: Sorry, VM herbicide?

MR. MATTHEWSON: Yes. Navius, N-A-V-I-U-S?

MR. MATTHEWSON: Correct.

MR. BEDDOME: Okay. Thank you.

And what were you using before? You mentioned that the formulation before that used a much higher amount of active ingredients, and that's why we have a high point at 2014 and 2015.

THE WITNESS: That was Dow AgroSciences ClearView Herbicide.

MR. BEDDOME: So why do they need to use so much more for the Dow Agro, versus the DuPont? Forgive me; I'm just trying to get an understanding of the differences between the two, and what would be the relative advantages and disadvantages from Manitoba Hydro's perspective?

MR. MATTHEWSON: The two products use different active ingredients, and as far as the specificity of the different chemicals and their different modes of action, I can't comment on that.

MR. BEDDOME: Okay.

Now, going into your IVM presentation,

you have a bunch of slides, going from 22 through 25, that show some right-of-ways at the end; but you also, on your front slide -- so maybe if you could go to -- let's go to Slide 25.

The reason I'm showing the two contrasts is we can see one case where we have a transmission line running across an agricultural region and another one where it's running across a treed region. That would be accurate, right?

MR. MATTHEWSON: Slide 25 is across a treed region, and --

MR. BEDDOME: And your front slide, Manitoba-Minnesota Transmission Project, that you already conveniently had up, that's a transmission line across an agricultural region, correct?

MR. MATTHEWSON: Correct.

MR. BEDDOME: You talk a little bit about the risk of trees interfering with lines, right? That creates a reliability risk; would that not be fair to say?

MR. MATTHEWSON: Yes, the improper management of vegetation within the right-of-way or immediately adjacent to the right-of-way.

MR. BEDDOME: Now, what that seems to indicate to me, though, is on agricultural land,

that risk is almost non-existent, going across a field. Correct?

MR. MATTHEWSON: Correct. There are no vegetation management risks across the field. There are other environmental considerations.

MR. BEDDOME: Fair enough. But from a reliability perspective, would it be fair to say that reliability is enhanced by running through agricultural regions rather than through treed, forested regions?

MR. MATTHEWSON: No, that's incorrect.

MR. BEDDOME: And why would that be?

MR. MATTHEWSON: As I mentioned, there are a variety of other factors that come into play with agricultural operations, i.e. such as collisions with the towers.

MR. BEDDOME: So Hydro has quantified the risks and has sort of done a comparative analysis therefore?

MR. MATTHEWSON: Not that I'm aware of. There are a variety of other risks, as we mentioned, and talked about the weather study and tornadoes; those apply across both landscapes.

There is a wide variety of reliability risks that are taken into account by the system

planners, as Mr. Swatek...

MR. BEDDOME: Fair enough. I'm just confirming that yours isn't coming from a quantitative study, but is rather coming from your own anecdotal experience as transmission vice president; would that be accurate?

MR. MATTHEWSON: I'm not the vice president of transmission.

MR. BEDDOME: Oh, sorry. Correct me; I apologize for getting your title wrong. My mistake. Let me rephrase that and be clear about your title.

That's anecdotal, based on your experience as an engineer involved in transmission routing?

MR. MATTHEWSON: What I described to you was anecdotal. I'm not an engineer, and Mr. Swatek can -- as described, can provide engineering numbers with respect to reliability of the criteria and the risk assessment of the...

MR. BEDDOME: Do you provide any compensation for use of Crown lands, like you do for use of private lands?

MR. IRELAND: Yes, we do. It is 25 per cent of market value.

MR. BEDDOME: 25 per cent of market value? And that's paid to whom?

MR. IRELAND: Paid to the Crown.

MR. BEDDOME: So that would be the Province of Manitoba, generally speaking?

MR. IRELAND: Correct.

MR. BEDDOME: But you would be aware that the taking up of Crown land would have an impact on indigenous harvesters?

MR. IRELAND: Yeah, that's a matter for the Crown.

MR. BEDDOME: So that's a matter for the Crown. Okay. But you only pay the Crown one-sixth of what you would pay private landowners. Correct?

MR. IRELAND: Just to be clear, Manitoba Hydro doesn't determine that; that's in the Crown Lands Act.

MR. BEDDOME: Fair enough.

And recently it was announced that $4.27 million in compensation was going to be provided to six rural municipalities; is that not correct?

MR. MATTHEWSON: That's correct.

MR. BEDDOME: But there is no similar

compensation package for First Nations communities?

MR. MATTHEWSON: That isn't a compensation package. And as Ms. Zebrowski described in the indigenous and Metis engagement panel, she described the program that was in place for them, for indigenous peoples.

MR. BEDDOME: Is anyone on the panel familiar with the Regional Electricity Cooperation and Strategic Infrastructure Initiative, and is Manitoba Hydro a partner in that initiative?

MR. MATTHEWSON: No one on the panel is familiar with that.

MR. BEDDOME: I will return to that, maybe to a different panel.

I think that concludes all of my questions, Mr. Chair. I very much appreciate the panel's time as well.

THE CHAIRMAN: Thank you. And I want to add, we also appreciate your timeliness, and that of the previous questioner. Thank you.

All right. That brings us to our last intervenor of the -- or questioning of this panel for the afternoon, and that will be Peguis First Nation, represented by Mr. Valdron.

MR. VALDRON: Thank you very much. For the monitor, my name is Den Valdron, representing Peguis First Nation.

And you will be glad to know I only have a very few questions. My plan is simple. I'm going to ask simple, straightforward questions; you will give me simple, straightforward answers. It will be quick; no one gets hurt.

All right. Starting off, I heard some discussion of contracting strategies with respect to encouraging or supporting Aboriginal employment. Can you shed a little light on that? What do you mean? Is it simply you say to the contractors, "As part of your tender, you have to have so much Aboriginal employment"? Or is it a little more complicated than that?

MR. PENNER: One moment.

MR. VALDRON: Not a good sign.

MR. PENNER: So just to summarize from my presentation, we are splitting the project into two sections, so there will be two contracts -- at least, that's the current plan.

MR. VALDRON: Um-hum.

MR. PENNER: And we have what is known

as indigenous content within the contracts. And essentially we have what we refer to as minimum mandatory First Nation and Metis content targets. And so those apply to employment, and --

MR. VALDRON: So those are the targets that you put in your tenders?

MR. PENNER: Correct.

MR. VALDRON: Okay. Is there any distinction made between Metis and First Nations?

MR. PENNER: In terms of the content?

MR. VALDRON: Yes.

MR. PENNER: On Bipole III contracts, we used the term "indigenous," and did not distinguish between First Nation and Metis content.

MR. VALDRON: And on this one?

MR. PENNER: We have not completely determined how we are going to do it at this point, but we may refer to First Nation and Metis, and have content specific for First Nation and specific for Metis.

MR. VALDRON: You haven't determined that yet, though?

MR. PENNER: No.

MR. VALDRON: Okay. What is your

minimum target?

MR. PENNER: The mandatory minimums?

MR. VALDRON: Yes.

MR. PENNER: On Bipole we used 15 per cent mandatory minimum.

MR. VALDRON: That's 50, or 15?

MR. PENNER: One-five.

But we also had incentives within the evaluation matrix of the contract to incentivize up to 30 per cent.

MR. VALDRON: So with respect to this one, this project, what is your minimum target?

MR. PENNER: So based on our experience on Bipole, we are looking to utilize 20 per cent of indigenous content for these contracts.

MR. VALDRON: When you say you are looking, that means you haven't actually established your minimum target yet, but you are looking at 20 per cent?

MR. PENNER: Well, we did 15 with Bipole. We had good success, the numbers, with -- and this was again on the last three contracts.

MR. VALDRON: Um-hum. You think you can do better?

MR. PENNER: And the contractors -- sorry?

MR. VALDRON: You figure you can do better?

MR. PENNER: Well, the contractor that we engaged kind of utilized the incentive to go above, and they showed above -- the content above the 15 per cent. So we think that 20 is a reasonable target to achieve and to do.

MR. VALDRON: Okay. You've referred to incentives a couple of times; can you explain incentives? Because this seems to be over and above the minimum target.

MR. PENNER: Yes, it is.

MR. VALDRON: How does that work?

MR. PENNER: Well, when a contractor submits a price for a contract, essentially, when a contractor submits that price, they have to list out what kinds of indigenous content they are going to be involved -- so whether it is employment or subcontracting, those have to be listed out, essentially, by dollar value.

At the mandatory minimum, on Bipole it was 15, there wasn't additional incentive beyond that. They had to meet that. So every contractor

had to meet that.

Above that, there was essentially a dollar-for-dollar calculation to say that if they were spending -- let's say they were spending $1,000 on indigenous content; that would be removed from their price in the scoring, so that they get a benefit in the scoring, based on the amount of indigenous content that they had.

I believe -- just one second.

So if they showed -- if they showed -- let's just use a round number of $1,000. Then they would get credit for $800. Essentially, their price would be reduced by $800 for the scoring. And that would then compare them -- essentially it is a 80 per cent incentive. So if they can bring indigenous content -- whether that's through labour, employment, whether it is training or subcontracting -- they essentially get to bring that in, and they get a better score in the evaluation.

I mean, we still pay -- when we select a contractor, we still pay the price that we award to. But that's how we incentivize within the best-value framework.

MR. VALDRON: Okay. So then the

incentive is built into the decision-making process?

MR. PENNER: Yes.

MR. VALDRON: Good. I like that answer. Simple.

All right. Now, you said that it could be subcontracts for labour or something else, and so I take it there is no distinctions made within the incentivization as to what kinds of indigenous contribution there is; would that be correct?

MR. PENNER: I'm sorry, I can't give a yes-or-no answer to it; I'm trying to explain it as best I can.

The content is essentially equally weighted. However, there were additional minimum targets for employment as well. So we looked at employment, we looked at subcontracting, and on-the-job training opportunities, as well as supply of material for those contracts. But they were equally weighted, dollar for dollar.

But there was also employment thresholds as well.

MR. VALDRON: Okay. So equally weighted, dollar for dollar; but when you say

there was also a particular target for employment thresholds, are you going back to that minimum standard? Or are we talking about something else?

MR. PENNER: Minimum standard. Yeah, the minimum.

MR. VALDRON: Okay. So as long as they make the minimum standard in their contract, anything else above that which goes to incentives, there is no distinctions made?

MR. PENNER: There is no distinction made as to whether it is employment or whether it's subcontracting? Is that what you are asking?

MR. VALDRON: Or training, supplying --

MR. PENNER: Yes. Well, we look at it as indigenous content at that point. And it is treated the same.

MR. VALDRON: Okay.

I'm curious: How do you establish that minimum target? I'm kind of vague on that. Yes, you said 15 per cent for Bipole, and that worked out well; and now you are looking at 20 per cent.

And that's positive; you know, it is an increase. We like that, maybe we would like

more, but -- how do you arrive at 20 per cent? Is it just kind of ballparking?

MR. PENNER: No.

MR. VALDRON: Okay.

MR. PENNER: On Bipole, we met with a number of First Nations and with the MMF, and we had these dialogues and discussions around content, and we established -- we looked at the content, the types of work that's available, the types of subcontracting that could be there, and it was -- I would say it was a mutually agreed amount that we came upon.

MR. VALDRON: Okay. So have these conversations or dialogues been happening right now with this project yet?

MR. PENNER: Not on this project, no.

MR. VALDRON: Right now, then, when we say 20 per cent, that's your ballpark estimate; but when the conversations or dialogue happens, it could well be higher or lower?

MR. PENNER: Well, again, we would set -- what we've looked at is setting a 20 per cent minimum threshold, and then including that incentive target to increase above that, so that hopefully that we get that kind of target, or

we get numbers above the 20 per cent from the -- our contractors.

MR. VALDRON: The incentive part?

MR. PENNER: Yes.

MR. VALDRON: But in terms of the threshold, you've already established that as 20 per cent?

MR. PENNER: That's our current plan, yes.

MR. VALDRON: So how do you pick 20 per cent?

MR. PENNER: 20 per cent, I guess it's a -- when we looked at the numbers where Bipole achieves, when you look at the overall component --

MR. VALDRON: Yes, yes. I don't want to argue with you. You did talk about Bipole and how the number for Bipole was achieved.

MR. PENNER: Yes.

MR. VALDRON: And that was through a process of consultation and communication --

MR. PENNER: Yes.

MR. VALDRON: -- very good. Like that. But in this case, there is no process of consultation and communication; you are just

getting the 20 per cent. How do you get that number?

MR. PENNER: I think it does come back to looking at the tenders from Bipole, looking at our results from Bipole, that we've established that 20 per cent is a reasonable mandatory minimum. And, you know, we certainly expect that we will be at 20 per cent and better.

MR. VALDRON: Okay. So then your answer, as I understand it -- and look, I'm not trying to trick you at all; okay?

MR. PENNER: Yes.

MR. VALDRON: We all just want to get on to Ms. Coughlin's stuff. Fine with me. I just want simple answers.

So basically, then, your answer is that on Bipole, you developed a target of 15 per cent. You figure you can do better; you've picked 20 per cent.

MR. PENNER: Sure.

MR. VALDRON: I'm not badgering you, am I?

MR. PENNER: I don't know.

MR. VALDRON: Okay.

MR. PENNER: I think -- you know,

we've looked at the numbers in Bipole; we looked at our targets; we feel that we can achieve more -- I think I'm actually repeating exactly what you said -- we've looked at 20 per cent as a minimum mandatory target. And we will include incentives to go beyond, but that's the number that we are at.

Now, it is something that we are going to be putting into our tenders, but at this point, this is where our current plan is at.

MR. VALDRON: Yeah. And this 20 per cent, the incentives, all of this goes into your tenders; it goes into your scope of work, or whatever, that people get to bid on?

MR. PENNER: Yes.

MR. VALDRON: So when the tender comes out, we can look it up and go, "Okay, this is what they are doing."

MR. PENNER: Yes, you can look at the tenders when they come out, yes.

MR. VALDRON: All right.

Just for the record, is there any specific preference extended to First Nations-owned companies?

MR. PENNER: So First Nation-owned

companies would be considered indigenous companies, and they would have -- they would be part of that preference.

MR. VALDRON: Okay. So there is no special preference, but by nature, as a First Nation-owned company, if they are applying, then they are definitely getting that 20 per cent, and they are definitely going to make most of the incentives; but they will be on the same criteria as everyone else?

MR. PENNER: Are you talking about the prime contractor that bids on the project, if they are indigenous-owned?

MR. VALDRON: Yes.

MR. PENNER: Yeah, they would be on the same playing field, following the same matrix. Correct.

MR. VALDRON: Okay.

Now, I wondered about subcontracting. And actually, before I get into that, just one more -- just to nail something down.

So this is going to be basically two contracts.

MR. PENNER: Correct.

MR. VALDRON: Two public tenders.

MR. PENNER: Yes.

MR. VALDRON: Same rules for both of them.

MR. PENNER: In the public tenders?

MR. VALDRON: Yes.

MR. PENNER: Yes.

MR. VALDRON: Good. With respect to subcontracting, that's -- I was wondering how that was going to be effective, since you wouldn't have any direct input into subcontractors. So that would be part of the original tender, the -- whoever the general contractor is offering a tender will say, "I'm going to have subcontracts; these are going to be who my subcontracts are."

And you would be able to look at it at that point?

MR. PENNER: And that's where the incentives work out, is that in that information, we ask to find out their targets, if they are going to be bringing on indigenous content and indigenous subcontractors, and we will do all that evaluation, and it is an evaluation of the quality of the submission as well.

MR. VALDRON: Um-hum. Okay. So this is very nice. How do you verify it?

MR. PENNER: How do I verify...?

MR. VALDRON: Well, not you personally, but how does Manitoba Hydro verify indigenous hiring and that the company has actually followed through on their tenders?

MR. PENNER: We do ask for hiring forms, and -- for every employee that goes on to the project. And that's -- so we track the employment that way.

And then we will also get the information from them in terms of the indigenous subcontractor that they are utilizing.

MR. VALDRON: And when you say "hiring forms", this would include the identity of the hire, the ethnicity, the particular job they worked for, how long they worked, et cetera?

MR. PENNER: Well, it would -- they would -- yeah --

MR. VALDRON: How much information?

MR. PENNER: The information would include where they are from, so we would know if they were Manitoba, we would know from which First Nation, whether they're status or non-status or Metis.

And it wouldn't identify how long

they've worked, because we would get that when they start.

MR. VALDRON: Okay.

MR. PENNER: And that would be -- just hang on.

So there is a hiring form, and there is a separation form. You know, the project will start, and they will be working, and it is not work that lasts for years and years. You may have an individual that starts in the project and may work for three or four months and then leaves the project. So we will get a time, a point in time when they started and when they end. And we track all of that.

MR. VALDRON: Okay. I was --

MR. PENNER: For every employee.

MR. VALDRON: Thank you. I was very curious about that, and that's a very good answer.

Now, here is a question for you -- well, actually, while I've got you here, does this apply to subcontractors as well?

MR. PENNER: Yes, I believe. Every employee on the project.

MR. VALDRON: So if a person is employed by a subcontractor, you get the hire and

you get the departure as well?

MR. PENNER: Correct.

MR. VALDRON: Good to know.

Next question: What happens if they don't meet the target?

MR. PENNER: So, again, I can't answer yes or no on this, but --

MR. VALDRON: Well, no; it wasn't really a yes-or-no question.

MR. PENNER: Yes, I know; I'm just -- I'm just trying to keep it light.

MR. VALDRON: I'm listening. Go.

MR. PENNER: And on Bipole, which is the first time that we've used mandatory minimums, we haven't encountered a situation yet where they haven't met their targets, because they are exceeding their targets. Which is a good thing.

MR. VALDRON: It is.

MR. PENNER: But we do have the ability to withhold payments if they are not meeting any of their targets with regards to the environment, or they are not submitting their paperwork, if they are not turning in those forms that come in for hiring and for separation, or if other paperwork that they are not submitting, we

have the ability to withhold payment from the contractor written right into the terms of the contract.

MR. VALDRON: You are saying that potentially, or theoretically, you could withhold payment if they, on an ongoing basis, are not meeting their commitments for average minimums and whatever incentives they have put in?

MR. PENNER: That's right.

MR. VALDRON: It hasn't happened yet, so you don't know if you would?

MR. PENNER: It hasn't happened on indigenous content. Certainly we have had situations where they haven't completed all of their paperwork, and we have held back a percentage of a monthly payment until they have the paperwork submitted. It works extremely well to make sure that the paperwork gets completed, and I think it will work well if they ever get to a situation where they are not meeting their content as well.

MR. VALDRON: So you do have that leverage. Okay.

Now, with respect to Aboriginal preference and incentives, would this apply to

ongoing management?

MR. PENNER: Can you say that again?

MR. VALDRON: Would this apply to ongoing management? Or is that all going to be in-house?

MR. PENNER: When you say "ongoing management", are you talking about operations of the transmission line?

MR. VALDRON: Yes, and basically the clearing.

MR. PENNER: So, we have a variety of different things we do for brushing activities on our existing transmission. And we certainly work with First Nations in northern areas, where most of our transmission lines are, around these kinds of things. We haven't in the past done a specific mandatory minimum indigenous content on these contracts, but many times we are working directly with indigenous or First Nations groups, especially when the lines are very near to those specific locations.

So we have a variety of things that happen at Manitoba Hydro around indigenous content on operations.

MR. VALDRON: Okay. So there is no --

you've just got a little note there; did you want to amend your response?

MR. PENNER: So we were speaking specifically about brushing, and the note that was handed to me just refers to that we also do linework that's not brushing, and that's maintenance work.

MR. VALDRON: Right.

MR. PENNER: And that's typically done in-house, and we have -- about 30 per cent of our line trades are indigenous. So a lot of that work is done in-house. That's what the note refers to.

MR. VALDRON: With respect to brush clearing and keeping the route cleared, that's done through contracts? Or is that done in-house?

MR. PENNER: It is a mixture. It is definitely a mixture. Yes.

MR. VALDRON: In terms of -- when it is done through contracts, there is no specific policy for Aboriginal content, per se?

MR. PENNER: Again, it's a mixture of situations, depending where we are and what has been done in the past. So it is varied. And we don't have a specific policy for this transmission line, specifically.

We typically go out -- for some of the southern work, we typically go out with blanket contracts, for multiple years, to clear specific zones in the province. And I wouldn't say there are specific indigenous content in those blanket contracts. But that's something that we can certainly discuss.

MR. VALDRON: I think my client would be happy to discuss it.

I hate to do this to you, but -- any reason why? I mean, we have these tenders, and you've basically established your Aboriginal content minimums; you've established your incentives. And we are looking at another bunch of contracts, potentially, and you're going, "We don't have a policy for these, one way or the other."

Any reason why? Is it just that it hasn't come up, or you haven't turned your attentions to it? Or was there some specific reason that you wanted to do these differently?

MR. PENNER: I think the best way to answer that question is to say that in the south, we haven't had a lot of veg. management work in the last number of years; and in the north, we

have a significant amount of veg. management, and a lot of it has been working together with indigenous communities that are local to given -- or to specific areas.

So we've -- this past winter, we did some restricted tenders for areas and allowed different -- allowed access for different First Nations to bid on the work, and ended up taking that and splitting the tenders so that the different First Nations could work on some of those clearing opportunities.

So these processes are evolving. And we are certainly learning from Bipole, and I would say that we are moving towards a place where we have very good content on all of this work.

MR. VALDRON: Okay. Just to be clear, when you are talking about restricted tenders, you are talking about the experiences up north?

MR. PENNER: Yes. Certainly in the north we have a lot more tree growth than we have on transmission lines in the south.

MR. VALDRON: Okay. Excellent.

Now, moving on to construction, and the mitigation measures. This is going to probably be a silly no-brainer question, but

sometimes as lawyers we have got to ask these things anyway.

There is a reference to the 7-metre zone. And I believe, listening to you, that 7 metres was defined by the ability of the feller buncher. Is that correct?

MR. MATTHEWSON: Yes, the 7-metre no-machine zone is a number that is correlated to the arm length of a feller buncher. The numbers come from Manitoba Sustainable Development's riparian management guidelines.

MR. VALDRON: So it is a number that's defined by the machine itself, and if the feller buncher's reach was only 4 metres, then you would have a 4-metre no-machine zone, and if it was a 10-metre reach, you would have a 10-metre no-machine zone?

MR. MATTHEWSON: Not necessarily. The no-machine zone is also correlated to the slope adjacent to the riparian areas, and the nature of the riparian area.

MR. VALDRON: But assuming no other variations on the slope -- I just want to establish it is driven by the machine, not by any special or obscure environmental consideration?

It is not a trap; it is just a clarification.

MR. MATTHEWSON: The 7 metres allows for a piece of equipment like a feller buncher to reach in to remove trees from the riparian area.

It has been our experience that a feller buncher is a very low-impact vehicle by which to remove those trees out of the riparian area, so it is an environmental consideration as well.

MR. VALDRON: And the feller buncher is the best machine for this kind of work?

MR. MATTHEWSON: It is one of the best machines for this type of work. There are other methods, but a feller buncher is very suitable, and very available in Manitoba.

MR. VALDRON: Are there other machines that are similar that have more reach?

MR. MATTHEWSON: Not typically. There may be some types of single-grip harvesters that can reach that far, but I'm not entirely familiar with all the pieces of equipment available in Manitoba.

MR. VALDRON: It has been a while since I went out and cut trees, and I guess same

for you guys, so that's okay; I'm not going to hold you to it. I might ask my clients about it, though.

All right. Lands and resource use. Now, I don't want to sound like I'm making a speech here, but obviously, for my clients, maintaining access is an important thing. So we are curious, because I didn't actually hear it in your presentation: Are there provisions to notify Aboriginal users when and where construction is scheduled, so they can work around it and make decisions?

I didn't hear that. Like, is there provision for emails, faxes to band staff, some formal notification?

Because from our point of view, this is kind of important. I mean, you think about it: They are coming from Winnipeg, coming from Peguis. Going out to a harvesting area, that might be two or three hours. You are investing a whole day to get there. And if you are getting there and there has just been construction, or construction is happening, or construction is about to happen, well, it can ruin the whole day; possibly can ruin the whole expedition.

So my clients would really have a vested interest in wanting to know when and where, and having a good clean flow of information that they could access, so they could plan around it.

They might choose to postpone or advance a trip; they might choose to go to other areas. But depending on communications. I wasn't hearing that. Have you got provisions for that?

MR. MATTHEWSON: Yes, there are numerous provisions for that in a variety of different parts of the EIS that describe that.

Manitoba Hydro's ongoing First Nations and Metis engagement process is one of those mechanisms by which we continue to engage with the communities and make them aware of construction activities as we progress towards the construction start.

As part of the access management plan, there is a variety of notifications and advertisements in papers and brochures mailed out to make the First Nations and Metis and general public aware of the construction activities and the schedule of activities throughout the entire project.

MR. VALDRON: So there will be

specific notifications of specific activities, in terms of time and place, provided to the First Nation to give to its members?

MR. MATTHEWSON: Yes, there is detailed information about the construction schedule and the locations of construction activities.

MR. VALDRON: Including updates?

MR. MATTHEWSON: Yes.

MR. VALDRON: And that goes out by fax to the band offices, or email? How does that work?

MR. MATTHEWSON: As we work with the indigenous communities, we will work with them to determine the best mechanism by which to communicate with them. We have different methods of communication, depending on the indigenous community's perspective. We also have dedicated community liaisons at Manitoba Hydro that go and engage with communities and provide direct discussions with the communities and keep them updated throughout the entire construction process.

MR. VALDRON: Okay.

THE CHAIRMAN: Excuse me. Serge

Scrafield, Chair.

We are a little past half an hour now. How much longer do you think you will be?

MR. VALDRON: About six questions.

I'm just going as fast as I can.

THE CHAIRMAN: All right. Ten to 15 minutes?

MR. VALDRON: I don't think I will need 10 to 15.

THE CHAIRMAN: All right. That would be great. Thanks.

MR. VALDRON: And it is your fault. Not mine.

All right. So where was I? Biosecurity. All right.

I was listening; very interesting. I had the impression it was specific to developed areas, farmers' fields and so forth. Do you have similar biosecurity protocols in place for wildlands? Or if you don't have generally for wildlands, do you have the biosecurity protocols in place for indigenous identified wild harvesting areas, hunting areas, traditional use areas? Do you have the same protocols for wildlands and cultivated lands, or do you have a different set

of rules, or do you have no rules at all?

And -- man, that's -- might be too general a question. Just answer it as best you can.

MR. MATTHEWSON: I will -- so Manitoba Hydro does have, as described in its construction environmental protection plan, measures by which the equipment is all cleaned prior to coming to the job site, whether it be wildlands or agricultural land --

MR. VALDRON: Okay. So same rules there.

MR. MATTHEWSON: Yeah.

Manitoba Hydro is also, as part of its pre-construction surveys, conducting surveys for invasive species on the right-of-ways and the access roads. So identifying those, and identifying protocols by which equipment will cross those areas, or mitigation measures by which the equipment may be cleaned if it goes through an invasive species area, to mitigate the spread along the right-of-way.

MR. VALDRON: And that includes wildlands?

MR. MATTHEWSON: That's correct.

MR. VALDRON: Essentially you're saying the protocols for wildlands or traditional use lands are similar or identical to those for cultivated lands?

MR. MATTHEWSON: They are similar.

MR. VALDRON: Okay.

MR. MATTHEWSON: But not identical.

MR. VALDRON: Okay. What is the distinctions?

MR. MATTHEWSON: I think where they differ is with the soil pathogens and diseases that are collected and transported across fields, potentially, in the soil that's clumped to equipment. Those pathogens have a direct impact on canola and the clubroot, but would have very little impact on other species.

MR. VALDRON: Okay. So then the distinction is basically the risk factors; it is not the conduct? You do the same stuff?

MR. MATTHEWSON: We ensure that the equipment is clean and we are not transporting invasive plant material from location to location.

MR. VALDRON: Okay.

Now, next question is with regards to integrated vegetation management. And you talked

about factors such as calving seasons and migratory bird breeding. Where does this information come from? Natural Resource office?

MR. MATTHEWSON: The migratory bird breeding windows comes from Environment Canada. Guidance from them, and their regulatory documents. And -- sorry, grazing?

MR. VALDRON: Calving.

MR. MATTHEWSON: Oh, calving; sorry.

MR. VALDRON: Calving season, for deer or moose, yeah. Where does that come from?

MR. MATTHEWSON: That information comes from literature, as well as Manitoba Sustainable Development, in license condition form.

MR. VALDRON: Calving grounds: Would that also come from literature? Or...?

MR. MATTHEWSON: The location of specific calving grounds would have been identified through a variety of mechanisms. They could come from Manitoba Sustainable Development, through historical aerial surveys they may have conducted in the area. We may have gotten that information from traditional knowledge, ATK studies, or through our own studies conducted as

part of the environmental impact statement.

MR. VALDRON: Okay. What about Aboriginal traditional knowledge? Is that also part of your information in terms of these sorts of issues?

MR. MATTHEWSON: Yes, as I stated.

MR. VALDRON: Okay.

And for Aboriginal traditional users, obviously they have got quite a bit of information on where elk calve, and where they rut, and with respect to the seasons for different medicines. How do you -- like, is this comprehensive -- when you are trying to work your way around this, do you have a complete list of medicines, of wildlife plants, animals? Or are there just specific species you are concerned of?

MR. MATTHEWSON: The reduced risk timing windows in the environmental protection plan kind of categorize things into mammals, denning periods, calving periods for moose and caribou, elk, amphibian reptile breeding periods, the breeding bird time periods.

There is a variety of factors categorized in those reduced risk timing windows.

MR. VALDRON: I appreciate, I think

that we would all not want to disturb migratory birds in breeding, and the same thing with elk and deer and so forth. What -- how do you deal with conflicts? What happens if breeding periods overlap, you can't get in there; how do you wrestle around those difficulties?

MR. MATTHEWSON: Manitoba Hydro places additional mitigation measures in place if it needs to operate within one of those timing windows. For example, for breeding birds, that may include conducting nest sweeps along the right-of-way, prior to, say, a foundation installation, we would sweep the area looking for nests. If no nests were found, then the foundation may get installed, say, in the summer periods. If there is a nest found, then the appropriate buffers and setbacks are put in place, and those are also outlined in the Environmental Protection Plan, and prescribed by Manitoba Sustainable Development.

MR. VALDRON: And what if Aboriginal users notify you, for instance, that proposed work is probably not a good idea at a particular time because this may be a breeding season for some mammal, or that this is the sprouting or

harvesting time for a particular medicinal or wild food plant? How do you deal with it then?

MR. MATTHEWSON: I think through Manitoba Hydro's early engagement with First Nations and Metis and the ATK studies that were self-directed studies that were conducted. That was our first step in identifying that information early on in the planning process.

And as we garner more and more information, we can incorporate that into our plans where it is feasible. The -- I think it is ongoing; if there is a site-by-site specific concern, then we work with the community and discuss the nature of the concern and the different types of mitigation measures that we may be able to implement to address those concerns.

MR. VALDRON: You'd agree, it would have to be an ongoing thing --

MR. MATTHEWSON: Yes.

MR. VALDRON: -- in terms of Aboriginal engagement?

MR. MATTHEWSON: Yes.

MR. VALDRON: All right.

Final round: Accidents. And I've read your accidents paper, and listened, and

certainly appreciated the level of work in there. But again, with respect to accidents -- spills, for instance -- is there any procedure for specific notification to First Nations or First Nations users?

MR. MATTHEWSON: There is no specific notification for a particular spill. We don't have a specific process in place. What we have in place is our annual reporting, where we report all of our spills on a project-by-project basis for the year. We have ongoing -- as I mentioned, the community liaisons; that will be in communication with the local communities.

If there was a spill that would be of a size or an area of concern, such as if it was in a traditional plant gathering area that was identified, then we would go back to that community and identify that community, tell them about what the spill was, the methods by which we contained and cleaned and remediated the sites, and may offer to visit the site with the community to further investigate the rehabilitation of the site.

MR. VALDRON: But you don't have a policy specifically for that right now, do you?

It is not a gotcha question; it's just a question --

MR. MATTHEWSON: No. We don't have a specific policy about notification of people, indigenous or otherwise, about specific spills, other than the regulatory reporting requirements to Manitoba Sustainable Development.

MR. VALDRON: All right. I'm going to suggest to you that because First Nation people are harvesting and gathering in these areas, that if there is a spill in an area, for instance, where they are gathering berries or medicine or wild food, they would have a pretty significant interest, you know, in knowing about that spill, where that spill took place, and the particulars, because it might well affect their harvesting or gathering activities, and their choices as to harvesting and gathering. Would you agree?

MR. MATTHEWSON: Yes, I would agree. That's why, in my previous response, that we would notify communities if a spill would occur within a traditional gathering area that was identified in our environmental protection plan, that a community made us aware of.

And through the ongoing First Nations

and Metis engagement process and the environmental indigenous community monitoring working group that Manitoba Hydro is -- is working with communities to develop, and the environmental monitor role in that working group, there would be a direct mechanism by which they would be aware of any spills or -- that would occur within the project area as well.

MR. VALDRON: All right. So with respect to accidents -- and this is about my final question here.

With respect to accidents, I would suggest to you that it would be a good idea for Manitoba Hydro to have a policy or a formal procedure in place for notification of communities, the adjacent First Nation communities or potential user First Nation communities, of accidents and incidents like that, like spills, so that they could be aware, and they could then make reasonable decisions. It would be good to have a policy.

MR. MATTHEWSON: I'm not sure whether a policy would benefit --

MR. VALDRON: The process?

MR. MATTHEWSON: -- our process that

we have in place for communicating that, as I outlined.

MR. VALDRON: Okay. Didn't seem to be a very concrete process; that's why I'm suggesting it.

Okay. I think I'm done.

THE CHAIRMAN: Thank you.

MR. VALDRON: How long was I?

THE CHAIRMAN: An extra 15, so you stayed within that 10 to 15 minutes. Thank you.

MR. VALDRON: Gentlemen, it has been a pleasure. Thank you.

THE CHAIRMAN: All right. Thanks.

And thanks to the intervenors, the last three or four, for making every effort to be timely. We are going to continue this process, because we can't afford to slip further behind schedule, due to future participants, and to be fair to them. So we will continue to do that.

I would also thank Hydro, thank them for most of the time, and ask them to be as -- while answering the question, to be as efficient as you can be as well.

All right. Thank you all. We will be back in the morning at 9:30, in this room.

Are there any documents to file?

MS. JOHNSON: Yes, please.

The first part of today's presentation is MH035. The second part, 036, and amended Mr. Bailey's CV is MH037.

THE CHAIRMAN: Thank you.

(EXHIBIT MM-35: First part of Construction panel presentation)

(EXHIBIT MH-36: Second part of Contsrution Panel presentation

(EXHIBIT MH-37: Amended CV of Dr. Bailey)

(Adjourned at 5:00 p.m.)

OFFICIAL EXAMINER'S CERTIFICATE

Cecelia Reid and Debra Kot, duly appointed Official Examiners in the Province of Manitoba, do hereby certify the foregoing pages are a true and correct transcript of our Stenotype notes as taken by us at the time and place hereinbefore stated to the best of our skill and ability.

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