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PLEASE REPLY TO:	VIA EMAIL: <u>Cathy.Johnson@gov.mb.ca</u>
Brian J. Meronek Q.C.	Manitoba Clean Environment Commission
DIRECT LINE:	305 - 155 Carlton Street
925-5355	Winnipeg Manitoba R3C 3H8
EMAIL:	Attention: Cathy Johnson, Board Secretary
bmeronek@darcydeacon.com	
	Dear Ms. Johnson:
	RE: Bipole III Transmission Project
LEGAL ASSISTANT:	
Marion Parsons	At the request of my client, I am attaching part of the argument which I presented
	before the Commission on March 13, 2013 and relating to Agriculture. The reason I
DIRECT LINE:	am doing so is because there are many transcript page references in the argument which were not identified by me in my oral submission and I wanted to make certain
EMAIL:	that the transcript page numbers were identified for the Commission.
mparsons@darcydeacon.com	If you have any questions in connection with the above, please feel free to contact me.
	Yours truly,
	D'ARCY & DEACON LLP Per:
	Jali
BRANCH OFFICE - CALGARY	BRIAN J. MERONEK Q.C.
300 Notre Dame Place 255, 17th Avenue S.W.	BJM / mp Att.

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Participants

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Agriculture:

It needs to be stated at the outset that the Coalition does not accept that compensation is an acceptable substitute for avoidance.

Route Selection Process:

The Coalition has shown that the impacts of the present routing on agriculture, particularly in southern Manitoba, are far more intrusive than Hydro has understood and far more consequential than Hydro admits, even today, after several deficiency statements, more than 500 information requests, and 27 days of hearing. This situation has arisen in part because Hydro chose to override the advice of its agricultural consultant (**Bob Berrien, Transcript pages 5257-5259**), in part because the methodologies used for route selection were flawed (**Karen Friesen, Transcript pages 1880-1881, and Bob Berrien, Transcript pages 5267, 5269, 5266-5267, 5269, 5337, 5345-5349, 5243-5246, 5248-5250, 5252-5256, 5266-5267, 5269, 5337, 5345-5349, 5354-5358) and in part because the descriptors used for various parameter ranges were inappropriate. The outcome of this flawed process was that serious shortcomings for many route segments were classified as "not significant" and were incorporated in the Project plan. The resulting impact of the line on landowners are multi-faceted.**

Aerial Application of Crop Protectants:

The Coalition has placed evidence before the CEC Panel demonstrating the major constraint that the Bipole III line will have on the farmers' ability to safely protect their crops from weeds, insects and disease (**Karen Friesen**, **Transcript pages 1884-1885**). The safety concerns are not just for the operator but also for the public, including neighbours going about their daily routines on the roadways in the vicinity of the spray operation (**Reg Friesen**, **Transcript pages 5157-5159**, **5164-5165**). Hydro has indicated no willingness to accept full liability for property damage and liability even though it is Hydro that is introducing the risk to an existing landscape (**Reg Friesen**, **Transcript pages 5166-5167**).

Small Footprint:

The Panel heard evidence from Hydro that claims that the total area affected by towers in the agricultural areas is only 50 hectares which is about 125 acres. The Coalition considers that that claim reveals the clear disconnect in Hydro's understanding of agriculture in southern Manitoba. (Jim Collinson, Transcript pages 5316-5317). The capitalized value of the farms in southern Manitoba that would be affected by this line could well be in the order of a billion dollars (Jim Collinson, Transcript pages 5326-5327) and the area impacted is many orders of magnitude greater than the 50 hectares assumed by Hydro. The Coalition has explained that the financial impact on farmers in a corridor one mile on either side of the line <u>could</u> be at least 28 to 30 million and as much as 60 million dollars for many of the up-to-100-year life of the line (Reg Friesen, Transcript pages 5143-5149, 5166-5167, 5169, and Rick Nychuk, Transcript pages 5183-5186).

Efficiency and Safety of Field Operations:

The Coalition has presented considerable evidence explaining the impact of mid-field towers (tower placed at locations other than in fence lines or in existing linear disturbances) on the efficiency of field operations. The line as proposed reveals a major disregard for this impact. The impact costs both time and money. It contributes to extra operating costs because of the time it takes to navigate large equipment around towers so that all acres are covered (**Rick Nychuk, Transcript pages 5178-5179**).

It also introduces a new high-risk element to field operations (Karen Friesen, Transcript page 1885-1886, Bert deRocquigny, Transcript pages 5205-5206, 5410-5411, Reg Friesen, Transcript pages 5165, 5411-5412, and Rick Nychuk, Transcript page 5188). The Coalition has testified that current cropping practices typically require a minimum of 10 field passes per season with equipment that is wide and routinely guided by auto-steer and GPS technologies (Karen Friesen, Transcript page 1881, and Rick Nychuk, Transcript pages 5188-5189). These technologies do not recognize objects such as transmission towers and require manual

over-ride. Field operations are frequently conducted by young family members and by less-than-fully-experienced employees, often in dusty conditions or at nighttime (**Karen Friesen, Transcript page 1887**). The transmission towers introduce a new safety risk to field operations.

Environmental Impacts:

The Coalition provided evidence that mid-field towers also produce environmental consequences because of the impossibility of avoiding double and even triple overlap in the vicinity of the towers. Mid-field tower placement results in an excess of fertilizers and chemicals and, in some circumstances, animal manure in the area all of which can be carried off in surface water and which can infiltrate to groundwater, where they can end up as polluting agents in the aquatic environment. Farmers work hard to be good environmental stewards of their land. Mid-field towers undo some of their good work. They also leave the farmer exposed to the possibility of regulatory penalties in the case of animal manure management and possibly in the future in the case of fertilizers and chemicals (**Reg Friesen**, **Transcript pages 5160-5163, and Rick Nychuk, Transcript pages 5180-5182**).

Noxious Weeds:

The Coalition has explained to the Panel and to Hydro that the area in the tower footprint provides a safe haven for noxious weeds (**Karen Friesen**, **Transcript page 1882**). If the towers are remote from a roadway, these areas are essentially inaccessible as far as weed control during the growing season is concerned and so the weeds can grow and multiply, spreading their seeds through the entire field. This phenomenon has a yield-depressing effect on the current crop but also on future crops, costing the farmer money in the form of lost revenue. It also introduces a need for additional chemical and/or cultural control measures in the current year and in future years, increasing expenses and demands on management time.

Crop Insurance and Revenue Stability Programs:

The Coalition has presented evidence that any impact of towers on revenue reduces the threshold that governs the level of crop insurance available and the level of coverage under federal/provincial revenue stability programs. Revenue impacts occur because of the inability to apply crop protectants in a field because aerial application is not a possibility, because of crop yield and crop quality impacts in the immediate vicinity of towers (**Rick Nychuk, Transcript pages 5176-5177**) and because of revenue impacts associated with the spread of noxious weeds throughout the entire field. These factors all combine to reduce the dollar coverage levels available to the farmer for crop insurance and revenue stability programs (**Rick Nychuk, pages 5186-5187, 5438-5439**).

Risk, Property Damage and Liability Insurance:

The Coalition has demonstrated the increased risks to which farmers, their employees and their families are exposed when a mammoth overhead transmission line of the bipole type crosses farm fields. Given the conditions under which field operations frequently have to be conducted (poor or zero visibility, less-than-fully experienced operators and even fullyexperienced operators stressed by long work hours), there can be no question about whether tower collisions are going to happen. It is just a matter of when and who will be the victim (Karen Friesen, Transcript page 1887, Rick Nychuk, Transcript page 5175). Just the knowledge that operators are working under dangerous circumstances creates stress and anxiety that are felt by other family members.

Apart from the issue of stress and anxiety introduced into the lives of farm families, a financial impact arises from the exposure to risks of tower collisions and overhead line strikes. These risks can be expected to increase the cost of property damage and liability insurance and, potentially even the willingness of insurers to provide that coverage.

Manure Management:

The Coalition was disturbed to learn from Hydro's expert agriculture witness that, on the basis of his roadside vantage point, he considered the injection of liquid manure in a field to be not sufficiently different from normal tillage operations to warrant any special consideration of that practice (Nielsen, Transcript pages 2483-2384). The risk associated with the lateral force of an 8-inch supply hose trailed behind injection machinery drawn by a 400-horsepower or even more powerful tractor, tensioned by 16 or more tonnes of liquid manure within the hose and dragged into contact with a mid-field tower should be obvious (Bert deRocquigny, Transcript pages 5200, 5203). The risk may manifest itself as property damage (to the tower, the hose, the pump and the injection machinery) or even as an environmental spill.

In some areas which the line will traverse, for example, in the Rural Municipality of Hanover, every other acre is committed to manure Friesen, Transcript application (Karen 1882, page and Bert deRocquigny, Transcript pages 5197-5198, 5203). Injection of the liquid manure product from dairy and hog operations is the method of application preferred by the regulator and it has become the predominant method that is used in Manitoba (Bert deRocquigny, Transcript page 5198). Dairy and hog farmers who inject liquid manure into their own fields and fields "rented" for that purpose are required by law to file manure management plans to Manitoba Conservation and are subject to random audits and huge fines if practices depart from the plan or are otherwise non-compliant with manure management and mortality regulations (Karen Friesen, Transcript page 1883, and Bert deRocquigny, Transcript page 5194-5196). The impossibility of avoiding double and triple application of manure in the immediate vicinity of towers without leaving significant areas with no application places these farmers in a vulnerable legal position (Bert deRocquigny, Transcript page 5201).

Shelterbelts:

The Panel heard concerns expressed by farmers and others about the impact of the line on shelterbelts. Hydro's responses to these concerns were insensitive and revealed a complete lack of appreciation of the importance to farmers of shelterbelts that have taken 20 years or more of sweat and expense to establish, only to learn that they may be eliminated by a bulldozer or mutilated by a chain saw. Unfortunately, shelterbelts were classified as part of the forestry valued environmental component where they were a relatively inconsequential component of a category dominated by commercial forestry interests and appeared to have no impact on the assessment (**Bob Berrien, Transcript pages 5349-5351**).

Irrigation:

The Coalition expressed concern about the failure of the EIS to adequately consider the impact of the line, both on lands presently irrigated and on lands that could be irrigated in the future. That concern was exacerbated by the failure of the EIS to recognize that any assessment of the number of acres presently under irrigation is vastly understated by a factor of three or four by data that consider only the acres covered in only a single year. The cost of irrigation equipment and the need to rotate crops makes it necessary for the equipment to follow the crop that produces the best benefit/cost ratio. With a three-or-four-year crop rotation, the number of acres that would be impacted by a bipole line would be three or four times the number of acres impacted in any given year. The EIS has not taken into adequate account the extent to which technology, market forces and climate change will bring new acres, new crops and new varieties into irrigated production (Jim Collinson, Transcript pages 5310, 5316, 5323, **5330**). Many constraints that the line will create for irrigation have not been understood or have been missed completely in the EIS and the technical report on agriculture.

Drainage:

The Coalition noted in several presentations to the Panel concerns expressed about interference with drainage when towers are placed in or near shallow drainage ditches. The extremely low gradient of ditches in the area traversed by the line make it imperative that obstructions be avoided. The accumulation of material carried by water and wind around and under the tower base cannot be avoided and ditch maintenance using powered equipment to remove that accumulation is impossible.

Financial Impacts:

There are several major financial impacts. These include:

- (1) aerial spraying constraints
- (2) efficiency of field operations
- regulatory penalties associated with environmental impacts in the vicinity of the towers
- (4) spread of noxious weeds
- (5) crop insurance and revenue stability coverage levels
- (6) property damage and liability insurance
- (7) manure management
- (8) shelterbelts
- (9) irrigation
- (10) drainage

Predicting Long-Term Financial Impacts:

It is virtually impossible to predict the financial impacts of these factors over the life of the line; in part because even Hydro is unable to provide a firm figure. We have heard figures of 50 years, 60 years, 80 years and even 100 years for the life of a line. The main reasons that prediction of financial impacts is so elusive are that agricultural markets are continuously in a state of flux (**Reg Friesen, Transcript pages 5141-5142, Rick Nychuk, Transcript pages 5172-5174**) and technology is continually changing (**Jim Collinson, Transcript pages 5315-5316, Karen Friesen, Transcript** page 1888, Reg Friesen, Transcript pages 5168-5169 and Bert deRocquigny, Transcript page 5206). Just as in the case of irrigated production, the EIS has not taken into adequate account the extent to which technology, market forces and climate change will bring new crops and new varieties into irrigated production; neither has it reflected how these forces will impact on all production, whether it be under irrigation or not. The reason that Hydro has not taken these factors into account is that they cannot be predicted over a time span as long as the life of the line (Jim Collinson, Transcript pages 5318-5320, and Rick Nychuk, Transcript pages 5189-5190); which is why a one-time-up-front lump-sum payment is an inappropriate model for compensating for the financial and other impact of the line on agriculture

We do know that the financial impact is much greater than Hydro has presumed. To illustrate, even just the first of the ten impacts just enumerated has the potential to have an impact in excess of a billion dollars over the life of the line. If the other nine financial impacts could be computed, the impact on agriculture could be substantially more.

Avoiding Long-Term Financial Impacts:

We know that Hydro has not understood the severe financial impacts, because, if it had, it would not be budgeting for a mere \$34 million for land acquisition and property licensing. We also know that, had Hydro realized the financial impact on agriculture, it likely would have found ways to avoid the prime agricultural lands of southern Manitoba and the financial impacts of routing the line through those lands.

Non-Financial Impacts:

There is a consideration that cannot be measured in dollars, a consideration that has to be taken into account at a different level. It was manifest as emotion, including sadness, confusion, anger, and even tears, during this hearing, expressed and suppressed in presentations at Portage la Prairie, Niverville and Winnipeg (for example, presentation by **Chandra Rempel, Transcript pages 3016-3022, and Jim Collinson, Transcript pages 5325-5326**). Farm families are attached to their land, to their farm

yards and to their homes, in one sense, in the same way urban dwellers are attached to their homes and their yards. But they are also attached in a different way—through intergenerational commitment. That is why the Government recognizes Century Farms, often the product of four or even five generations (Karen Friesen, Transcript page 1884, and Bert deRocquigny, Transcript page 5191). Years of effort and emotion (blood, sweat and tears) go into keeping the land productive, with the objective of leaving the land in even better condition for the next generation (Karen Friesen, Transcript page 1877). Farmers are proud of their farms and develop ties to their land and an emotional bond that is cemented by years of hard work and sacrifice. It is not surprising that they react emotionally when the fruits of their labour, intended in many cases to be enjoyed by future generations, are in any way threatened or compromised.

Public Relations:

The Coalition established that the public consultation process was critically flawed. The process had reached the fourth and final consultation stage before most landowners whose land would be traversed by the line learned about it (Karen Friesen, Transcript page 1881, Bob Berrien, Transcript page 5235). By that time, the planning process was so far advanced and Hydro was so entrenched in its commitment to the preliminary preferred route that only relatively inconsequential changes many of which should have been made much earlier in the process (Bob Berrien, Transcript pages 5268-5270) were made in the final preferred route which was announced a few months later (Bob Berrien, Transcript page 5235).

Admittedly, a limited amount of consultation occurred earlier prior to the choice of the preliminary preferred route with a small percentage of the farmers who learned through mass communication processes that the line might go through their property (**Bob Berrien, Transcript pages 5235, 5251**). But that consultation simply resulted in line alignment even deeper into farm fields (**Reg Friesen, Transcript page 5148, and Bob Berrien, Transcript page 5228**) a situation as undesirable from a field operation point of view as the situation before the consultation. The Coalition has pointed out that final-round consultation was scheduled, not on an

individual basis but collectively at designated locations, in the last part of August, in September and in early October, exactly at one of the two busiest time of the year for farmers (**Bob Berrien, Transcript pages 5251-5252**).

There were lots of clues during the review process of the extent to which Hydro has underestimated the impacts of the line on agriculture and how seriously Hydro has misunderstood the resistance to the Bipole III. The anger that was both expressed and suppressed and the tears that flowed at Portage la Prairie and Niverville, as rural presenter after rural presenter tried to explain why they did not want the line in their area, seemed not to register on Hydro. There is still time to turn this Project around because the line is not built yet. If the intent is to possibly avoid billions of dollars of financial impact on farm families in southern Manitoba, many possibilities open up. But once it is built it is too late to avoid those impacts.

The Coalition believes that in the continuum from avoidance to mitigation to compensation, compensation is the last resort (**Jim Collinson, Transcript pages 5286, 5292 and Bob Berrien, Transcript pages 5324-5325, 5259-5264**). Unfortunately, in too many cases where the Final Preferred Route would cross the rich farmlands of southern Manitoba, compensation is the only choice offered by Manitoba Hydro. The Coalition argues that alternatives to the Final Preferred Route through southern Manitoba must be found. In identifying a new route, the Coalition submits that it is imperative that:

(1) the detailed routing of the line, wherever it is finally built, be designed to eliminate all of the shortcomings identified by the Coalition's expert, Mr. Robert Berrien. Examples of improvement that are available include:

> (i) to the extent possible, replacing mid-field alignments that are within 42 metres of a field edge with property line alignments,

(ii) taking advantage of existing linear disturbances (like drains and distribution and other transmission lines) to the maximum extent possible,

(iii) elimination of mid-field routing for several miles of line to avoid a single building site, and

(iv) elimination of mid-field routing to avoid derelict building sites for which there is no redevelopment plan.

(2) It will require more on-the-ground reconciliation of whatever routing options are under consideration so that some of the identified shortcomings of the present proposal are avoided in a future route alignment and in tower placements; such as, failure in too many cases to take advantage of existing linear disturbances such as fence lines and drains and uncultivated locations such as sloughs (**Bob Berrien, Transcript pages** 5214, 5219, 5225-5226, 5228, 5229, 5270-5274).