

2014 10 06

Elise Dagdick
Environment Officer
Environmental Approvals Branch
Manitoba Conservation and Water Stewardship
123 Main Street, Suite 160
Winnipeg MANITOBA R3M 3T1

Dear Ms Dagdick:

FILE 5719.00 : ST. VITAL TRANSMISSION COMPLEX PROJECT

Please find below, responses to your request for additional information.

Request 1 part a). Provide information on the potential for the requested changes to the proposed transmission line route that are outlined in attached comments from Mr Myron Knodel.

Response:

The route placement of the transmission line is preferred by Manitoba Hydro due to a preference to minimize angle structures and to maintain a straight alignment when traversing agricultural lands. Feedback from the agricultural community through our public engagement processes has indicated these considerations also generally help to reduce impact on agricultural operations. Additional angle structures are also more expensive than in-line structures, and have a larger footprint on the landscape which creates a larger obstruction to agricultural equipment. The suggested alignment would add two additional angles and because of proximity to an existing line, the necessary separation would place a portion of the transmission line in the existing drainage ditch, which interferes with operation and maintenance of the drainage feature.

The suggested alignment was considered, however due to the reasons outlined above this option was not pursued. If planted windrows or shelterbelts are affected by the transmission line right of way, Manitoba Hydro will work with Mr. Knodel to replace these features outside of the right of way.

Request 1 part b).

In response to the alignment request from Don Doerksen:

In the image below, the red line denotes the change requested by Mr. Doerksen.



This alignment would require routing the transmission line over an anhydrous ammonia storage facility that is located on PR210 (see also image below), which is not possible due to safety hazards. Note that the tubular steel H-frame tower structure being utilized for road alignment placement in this Project would place the preferred route more than 60m away from the home in question allowing tighter alignment with the road, and minimizing obstruction to in-field operations.

Request 2:

Provide information on the potential for routing the transmission lines around Sage Creek.

Response:

In order to minimize the impact of new transmission development, Manitoba Hydro

first considers development on existing rights of way adjacent to existing infrastructure. Alternatives to the preferred route running through the Sage Creek community were not explored because the existing right of way, which has been owned by Manitoba Hydro since 1970 for the purposes of future development, has ample room to house the lines associated with the proposed project. Routing around the community would require acquisition of property rights, impact to additional private lands, additional length and additional project cost.

Request 3:

Provide information on whether the Sage Creek land developers were notified by Manitoba Hydro that additional transmission lines were planned for the right-of-way in Sage Creek, prior to development of the community

Response:

Manitoba Hydro has owned the transmission corridor running through Sage Creek since 1970 with the anticipation of housing multiple high voltage transmission lines on this corridor. This intention was communicated with Qualico and their representatives beginning in early 2004. Two key communications are summarized below:

- December 2004 - e-mail to Qualico representatives indicating Hydro was reviewing operations and studying the possibility of installing several 230 kV and 500 kV transmission lines within the corridor and all development had to be minimized to ensure Hydro abilities to use the corridor were not impacted.
- June 2006 - letter was prepared by Qualico confirming Hydro's intention of constructing a future line. This letter was to be incorporated into Qualico's Sage Creek EMF Information kits for prospective buyers.
- Home building in Sage Creek began in early 2007

Request 4:

Provide information on any additional health risks to landowners where there would be four transmission lines in one right-of-way, based on the attached comments from the "southofsagecreek" email address.

Response:

Manitoba Hydro designs and builds transmission lines to guidelines set forth by the INCIRP (International Commission on Non-Ionizing Radiation), which are endorsed by the World Health Organization as protective of public health. Detailed scientific assessments by the WHO and other health agencies have found that research does not provide a reliable scientific basis to conclude that exposure to EMF below these international guidelines can cause or contribute to any adverse health effects.

Manitoba Hydro has undertaken modelling to estimate electric and magnetic fields in

the right-of-way, in a future scenario that could see the currently proposed 2-230kV transmission lines, and a potential future 230 kV transmission line. The table below presents the related INCIRP guideline as well as the estimated EMF levels at either edge of the right of way with 3-230kV and the existing 1-115-kV transmission lines in place. Note that the current proposed project will see the addition of 2- 230 kV transmission lines to this ROW and that the need for or timing of an additional 230kV transmission line is not known at this time.

Edge of ROW	Electric Field	Magnetic Field
	(kV/m)	(mG)
East edge	0.83	8.6
West edge	0.35	12.3
Guideline	4.2	2000

kV = kilovolts

mG = milligauss

Yours truly,

Original signed by Shannon Johnson

Shannon Johnson
Manager, Licensing and Environmental Assessment
Transmission
Manitoba Hydro