

OUTLINE OF EXPERT EVIDENCE OF JIM COLLINSON

INTRODUCTION

- Jim Collinson (CV attached) will provide an expert report and evidence.
- The Report will consider four areas of concern within three major impact zones. The topics will relate to the environmental impact of the Bipole III Transmission Line on birds, caribou and moose, agriculture and security.
- The Report will provide background context in terms of the environmental assessments as they relate to economic energy and environmental interactions.

IMPACT ZONES

- The northern impact zone runs from the Nelson River to just short of Moose Lake (approximately 500 kms).
- The mid-North runs from east of the north Moose Lake to the south side of Big Grass Marsh (approximately 630 kms).
- The agricultural impact zone runs from approximately the south of Big Grass Marsh to Winnipeg (approximately 270 kms).
- The Report will provide brief descriptions of those areas.

BIRDS

- The Report will describe the migration routes of migratory birds, particularly the Mississippi Flyway ('Flyway'), an international migration route affected by Bipole III.
- The Report will examine the strip of the Flyway through Manitoba which is a critical element to the entire Flyway.
- The Report will describe the importance of the Flyway in terms of:
 - Seasonal sources of food for aboriginal people.
 - Sport for avid hunters.
 - Economic returns for a wide range of goods and services.
 - Recreational benefits.
 - Economic activity associated with bird watching.

- The Report will examine the accuracy of the conclusion of Manitoba Hydro that bird impacts are insignificant.

IMPACT OF THE TRANSMISSION LINES ON BIRDS

- The Report will examine:
 - Heavy impact areas over the proposed route.
 - Routing choices.
 - The use of diverters as a solution.
 - The impact of optical ground wire.
 - The impact of repeater stations and generators, particularly near Partridge Crop Lake and east of Dauphin Lake.
 - Climate change considerations and how changes might impact on transmission line and contact with birds.
- The Report will look at various mitigation options to improve wild life habitat, and particularly wetlands, and whether there are alternative routes, in particular through the mid-North zone which may have less impact.

CARIBOU, MOOSE, WOLVES AND POLAR BEARS

- This section of the Report will discuss specific concerns regarding polar bears, moose and caribou and the interaction between wolves, caribou and moose.
- The Report will examine the EIS and the supplemental caribou technical report and give background particularly on the barren ground caribou, especially of the impact of construction during wintering and calving; and, calving areas as a critical factor in their survival.
- The Report will describe the implications on polar bears, given the warming occurring in the north as it relates to the diminishing of Hudson Bay ice.
- The Report will examine the threat of the survival of woodland caribou, including the threats to survival related to:
 - low fecundity and recruitment rates.
 - forest fires (and global warming).
 - encroachment by other animals, including predators.
- The cumulative effects of roads, mining and forestry.
- The Report will examine whether monitoring alone is an adequate measure of mitigation.

SECURITY

- The Report will examine the implications of routing through the tornado alley of Western Manitoba and the possible ways to mitigate the damages and lessen the impact on agricultural land.

AGRICULTURE

- The Report will examine the serious impact of the effects of Bipole III on cultivated lands including the impact on the business of agriculture.
- The Report will also comment on the compensation, methodology and intent of Manitoba Hydro so far as it has been presented, including the question of a proper assessment of land as a basis for crop production, capital technology and management skills as well as lost opportunity costs.
- The Report will examine the additional cost to farmers depending on where towers are located and the impact that the location of towers have with respect to aerial spraying.
- The Report will stress the need to take into account future development in agricultural technology, including size and complexity of machinery, when performing route planning on agricultural land.
- The Report will examine the impact of tower location on irrigation systems and health and safety as it relates to farmers operating large equipment near transmission lines.
- The Report will examine the significance of the agricultural industry to the Manitoba economy:
 - the pace of technological change, and
 - the need for a more complex study of the implications of these factors on farming.
- In particular reference to compensation, the Report will comment on the appropriate analysis to be made in considering compensation for affected farmers including the issue of one time versus annual payments.
- The Report will also examine such issues as economic impacts:
 - From a sustainable development perspective.
 - Greenhouse gas life cycle in terms of whether or not there is a significant impact.
 - Climate change and its impact on the project, including the impact climate change will have on the environment, including wildlife and farming (e.g.

the future location for suitable irrigation), each in respect of the appropriate location of the transmission line.

CUMULATIVE FINDINGS

- The Report will comment on the preferred route based on:
 - the impact on migratory birds.
 - woodland caribou as an endangered species.
 - agricultural production.
 - climate change.
 - the options to routing (avoidance) available to take into account these factors.