Bipole III Transmission Project

Clean Environment Commission Public Hearings

Agriculture Technical Report

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Background

- **Farmer**
- **Agricultural Consultant**
- **Chief of Field Operations**, Agricultural Crown Lands, Manitoba Department of Agriculture
- **University:** Lecturer and field work

Request from Manitoba Hydro

- Identification of alternate transmission line corridors in agro Manitoba (Riel to The Pas)
- Then assessment of those corridors

Development of the Line Options

- Reviewed the soil types and land constraints
- Identified agricultural activities

Next Steps Taken

- Multitude of lines developed
- Routes were ground truthed – thousands of kms travelled
- Route adjustments for avoidance

Avoidance

- Communities
- Airports
- Dwellings, farm buildings and farm yards
- Intensive livestock operations
- Row crop or intensive annually cropped areas

Avoidance

- Lands under irrigation or pivots
- Tower placement diagonally in a field
- Lands belonging or entitled to First Nations
- Protected area lands and wildlife habitat lands

Assessment

- Length of the segment
- Tower alignment (diagonal vs. parallel to a roadway or property line)
- Agricultural productivity

Assessment

- Ratings were totalled
  - Table 6 depicts the three totals
- The route with lowest rating was selected from Highway 16 and north
- South of Highway 16, modifications made for avoidance and proximity to other key Hydro facilities

Tower Placement

- Distance in-field south of Highway 16
  - Adjacent to a road – ROW adjacent to road allowance but tower 42 m into field
  - No adjacent road – placed on ½ mile or 1/4 section line

Tower Placement

- Continuation of agricultural operations
- Production
- Machinery

Self Support Towers

Tower in Agricultural Land

Tower in Agricultural Land

Guyed Tower in Agricultural Land

Aerial Spraying

- Use of aerial spraying by farmers
  - Dependent upon soil moisture
  - Dependent upon type of crop (including rotation)

Use of Liquid Manure

- Impact to operations

Future of Farming Operations

- Farm size
- Machinery
- Other technology

Summary