

# WIND FARM TOWNHALL

| 45 – 60 minutes |



## OVERVIEW

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### Description

Participants will learn about threats to Nova Scotia Marine mammals while also debating on climate change issues!

### Learning Outcomes

- Understand some of the existing threats for marine mammals found off the NS coast
- Learn about Marine Protected Areas
- Explore cleaner power grid options in Nova Scotia

### Outline

1. Background information (10 mins)
2. Debate Preparation (15 mins)
3. Townhall Debate (15-20 mins)
4. Conclusion and Solution (10 mins)

### Materials

Item	Quantity Per Group (groups of 3-5 recommended)	Quantity Per Camp
<ul style="list-style-type: none"><li>• Debate Roles and background info printout (see last page of write-up)</li></ul>	<ul style="list-style-type: none"><li>• 1</li></ul>	<ul style="list-style-type: none"><li>• N/A</li></ul>

## KEY INFORMATION

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### **Nova Scotia Power Grid:**

- In 2015, 56% of Nova Scotia's power was from coal combustion
- The burning of coal is bad for the environment due to the large amounts of GreenHouse Gases that are emitted into the atmosphere

### **Nova Scotia and Marine Mammals:**

- Nova Scotia is home to the North Atlantic Right Whale, an endangered species of large whale which is facing many challenges
  - Many Right whales die from ship strikes by large cargo ships
  - It is theorized that the low-frequency sound made by ships (possibly windfarms as well) causes the right whales stress which may lead to beaching

### **Marine Protected Areas (MPA):**

- Marine Protected Areas are large areas of oceans or lakes where human activity is regulated and minimized for the health of native animals or plants
- Nova Scotia has the Gully which is a 2500km marine protected area to the east of the province

## LESSON PLAN AND PROCEDURE

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1. Background information (use Key Information Section as reference)
  - a. Briefly explain why we would want a cleaner power grid here in Nova Scotia
    - i. Less impact to global warming
  - b. Cover what threats there are for marine mammals in Nova Scotia
    - i. Noise pollution, ship strikes, etc.
  - c. Introduce what a Marine Protected Area is
    - i. The Gully MPA is close to the town in discussion for the wind farm debate, but not directly in the way
2. Debate Preparation
  - a. Divide class into groups of 3-5.
  - b. Describe the debate: each group will be taking one of the stances on building a windfarm, as outlined in the printout. Even if that perspective is not what the individual participants believe, they must still present and argue their assigned stance on the subject matter.
  - c. Hand out printouts with role description to groups.
  - d. Assign a role to each group.
  - e. Give the groups some time to read and understand their assigned roles and discuss some strategies for debating.

- f. Have groups come up with an opening statement on their role (they must present their overall perspective, why it is important, and why policy makers should take it into consideration).
      - g. Lend assistance to any of the groups who may be struggling to think of ideas.
3. Townhall Debate
  - a. Have groups give opening statements and allow for questions/comments from other groups.
4. Conclusion and Solution
  - a. Recap what each group presented and see if all groups can reach a solution that works for everybody.

### **Debrief**

- Recall Marine Protected Areas and why they are important.
- Brainstorm other things that may pose threat to marine mammals.
- How can the compromised solution the groups came up with be further improved?

## **REFERENCES & RESOURCES**

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### **The Gully Marine Protected Area**

- <http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/gully/index-eng.html>

## **Background Information**

Your town is a small coastal town on the east side of Nova Scotia. Recently, the provincial government is wanting to install a large offshore wind farm 3 kilometres off the coast. This will help the environment as a large portion of Nova Scotia's power grid is still based off coal combustion. However, some conservationists and biologists are concerned about the effect this will have on marine mammals. Offshore wind farms produce a lot of noise which may drive off these marine mammals from their feeding or breeding grounds.

## **Roles**

### **Marine Mammal Biologist**

#### ***Against the Wind Farm***

As a marine mammal biologist from Dalhousie University you are against the construction of the wind farm. It may push pods of endangered whales into nearby shipping lanes where they will be more at risk. The possibility of saving whale or seal life to you is more important than the greener power source.

### **Wind Farm Construction Worker**

#### ***For the Wind Farm***

As a construction worker ready to start working on the large offshore wind farm you are in support of the wind farm, it will bring good jobs to the people put out of work with the closure of the cod fishery and coal mines. The economy and wellbeing of your community outweighs any concern for the whales or seals to you.

### **Global Warming Scientist**

#### ***For the Wind Farm***

As a scientist who studies climate change at Dalhousie University you are excited Nova Scotia is finally decreasing its coal usage with this new wind farm. Cleaner energy is one of the best ways to decrease the effects of climate change and build a more sustainable future. The benefits of cleaner power outweigh the potential hazard to whales and seals for you.

### **Marine Protection Representative**

#### ***Against the Wind Farm***

You are working for the Government fisheries and oceans department. You are against the construction of the wind farm as it may endanger animals that live near a Protected Area, these areas are supposed to be exempt from any activities that may harm ocean life in them. The potential harm construction may cause this protected area does not outweigh the environmental benefits to you.