

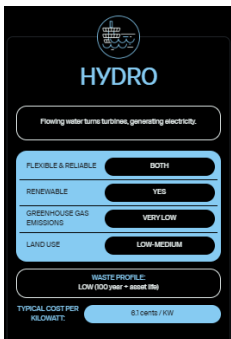


ENERGY MIX ACTIVITY -

The Future of Power Generation in Ontario

FACT: Electricity use in Ontario is predicted to increase 65% by the year 2047. Ontario will need to generate more electricity to meet this demand.

Energy generation methods vary greatly in their reliability, land use, waste, carbon emissions, etc.

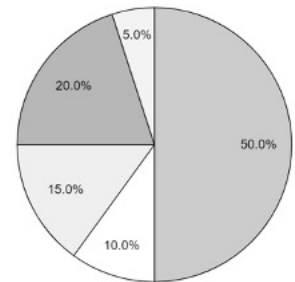


- Energy Cards summarize the information in seven characteristics. Use this information to choose the best energy sources for each situation.

- Represent your energy mix with a pie chart.

PIE CHART

A graph that divides a circle into pieces that represent percentages of a whole



PART 1: Characteristic Optimization

Make **individual pie charts** that optimize the energy generation mix for any three characteristics.

Optimizing Characteristic 1:	Optimizing Characteristic 2:	Optimizing Characteristic 3:
LEGEND ☐ Biomass ☐ Natural gas ☐ Solar ☐ Hydro ☐ Nuclear ☐ Wind		



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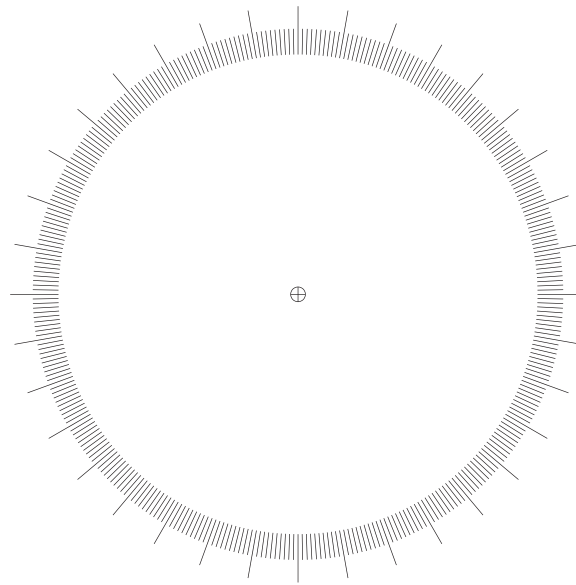
PART 2: Develop a plan of action to address Ontario's future electrical energy production needs

YEAR 2050 Electrical Energy Generation Priorities.

Rank the priorities from 1-7, with 1 being the most important.

- | | | |
|----------------------------------|---|--|
| <input type="text"/> flexibility | <input type="text"/> low greenhouse gas emissions | <input type="text"/> low waste profile |
| <input type="text"/> reliability | <input type="text"/> low land use | <input type="text"/> low cost |
| <input type="text"/> renewable | | |

Choose your top three priorities as optimization criteria to create your energy generation mix for 2050.



LEGEND

☐ Biomass
☐ Hydro

☐ Natural gas
☐ Nuclear

☐ Solar
☐ Wind

Discussion Questions:

1. Explain why the energy mix changes depending on the characteristics chosen (examine your pie charts in Part 1).
2. Which characteristic was your top priority for energy generation in 2050? Why?
3. Find someone whose energy mix was different. What did they choose to prioritize and why?
4. Which source of energy generation do you believe should be reduced or phased out by 2050? Why?
5. Compare your 2050 energy mix with Ontario's current mix.