



Quiz - Cycle 1

The DecaWatt Challenge





Question 1

How many hydroelectric generating stations are there at Hydro-Québec?

- A) 11
- B) 41
- C) 61
- D) 81



C

61 hydroelectric generating stations



Question 2

How many 40-watt lightbulbs could an electric eel light up?

- A) 1
- B) 2
- C) 10
- D) 12



D

12 40-watt lightbulbs



Question 3

To heat a room as quickly as possible, at how many degrees more than your target temperature should you set the thermostat?

- A) 1°C
- B) 2°C
- C) 5°C
- D) None of the above



D

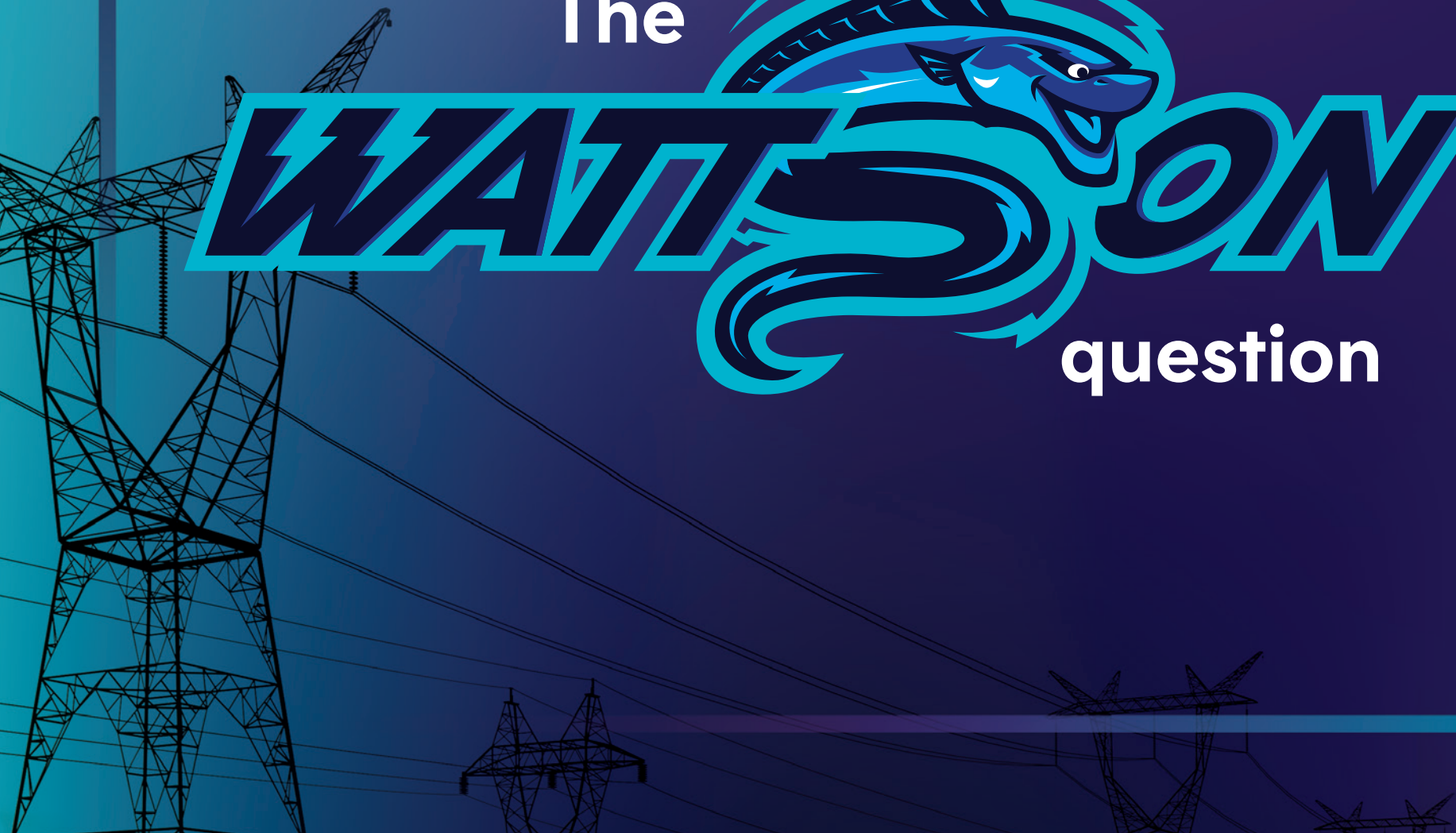
None of the above

The thermostat setting has no bearing on how fast a room heats up. What's more, by setting the temperature too high, you run the risk of overheating the room needlessly.

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question





Question 4

Hydro-Québec also produces solar power at two generating stations. What is the total surface area of the two stations?

- A)** The equivalent of 18 football fields
- B)** The equivalent of 38 football fields
- C)** The equivalent of 58 football fields
- D)** The equivalent of 78 football fields



B

The equivalent of 38 football fields

Both generating stations are in the Montérégie region.



Question 5

What is the best technique for saving hot water when doing dishes?

- A)** Washing the dishes by hand while letting the water run
- B)** Rinsing and soaping up the dishes before putting them in the dishwasher
- C)** Running a recent-model dishwasher less often but only when it's full
- D)** Running a partly filled dishwasher on a longer cycle for cleaner dishes



C

Running a recent-model dishwasher less often but only when it's full

Try to run your dishwasher only when it is full, using the short cycle. It's more economical to let the dishes air-dry than to use the heat dry option.



Question 6

Which one of the following is a non-renewable form of energy?

- A) Hydropower**
- B) Wind power**
- C) Nuclear power**
- D) Biomass power**



C

Nuclear power

All the other forms of energy are renewable,
along with solar and geothermal power.



Question 7

What percentage of the electricity generated by Hydro-Québec comes from water?

- A) 15%**
- B) 50%**
- C) 80%**
- D) 99%**



D

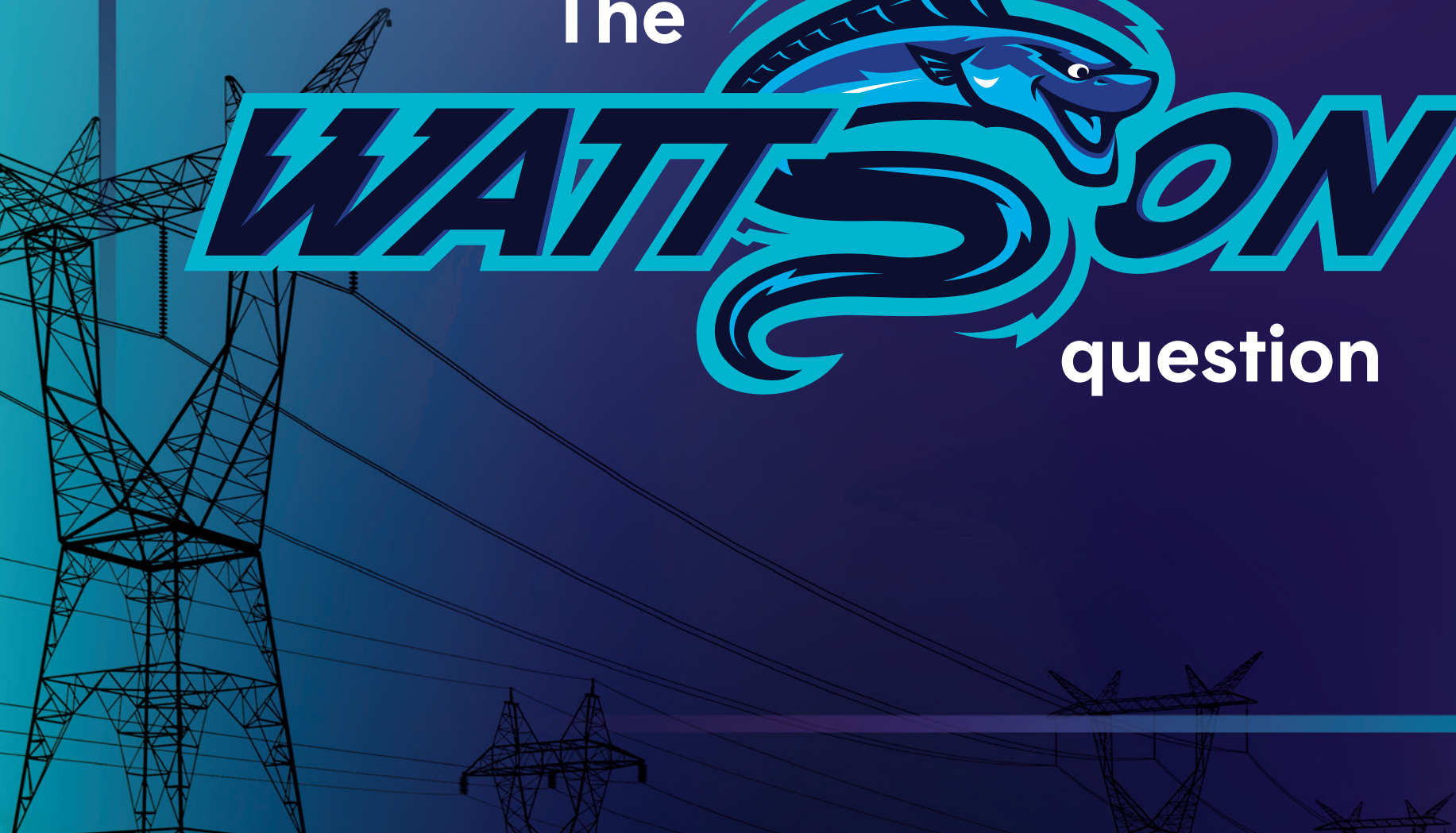
99%

Hydropower is a clean, renewable energy that produces very little greenhouse gas.

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Question 8

What percentage of a home's heat is lost through warm air leaks and cold air infiltrations?

- A) 3%**
- B) 10%**
- C) 20%**
- D) 25%**



D

25%

One quarter of a home's heat escapes through the building envelope, which includes the roof, walls, basement floor, windows and window frames. That's why it's important to identify the sources of any cold air infiltrations and caulk around door and window frames, if necessary.



Question 9

What percentage of the oven's heat is lost if you open the door during cooking?

- A) 5%**
- B) 10%**
- C) 20%**
- D) 30%**



C

20%

Even if you open the door for only a few seconds,
a lot of heat escapes.



Question 10

How much more water does it take to have a bath instead of an eight-minute shower?

- A) 25%**
- B) 50%**
- C) 75%**
- D) 100%**



B

50%

Having a bath requires twice as much hot water
as taking an eight-minute shower.



Question 11

When did we get electricity in Québec?

- A) 85 years ago**
- B) 100 years ago**
- C) 110 years ago**
- D) Over 130 years ago**



D

Over 130 years ago

However, early on, only a small percentage of Quebecers had electricity service, mainly along a limited number of major streets.



Question 12

The La Grande complex supplies power to a significant percentage of the Québec population, about :

- A) 30% of Quebecers**
- B) 40% of Quebecers**
- C) 50% of Quebecers**
- D) 60% of Quebecers**



C

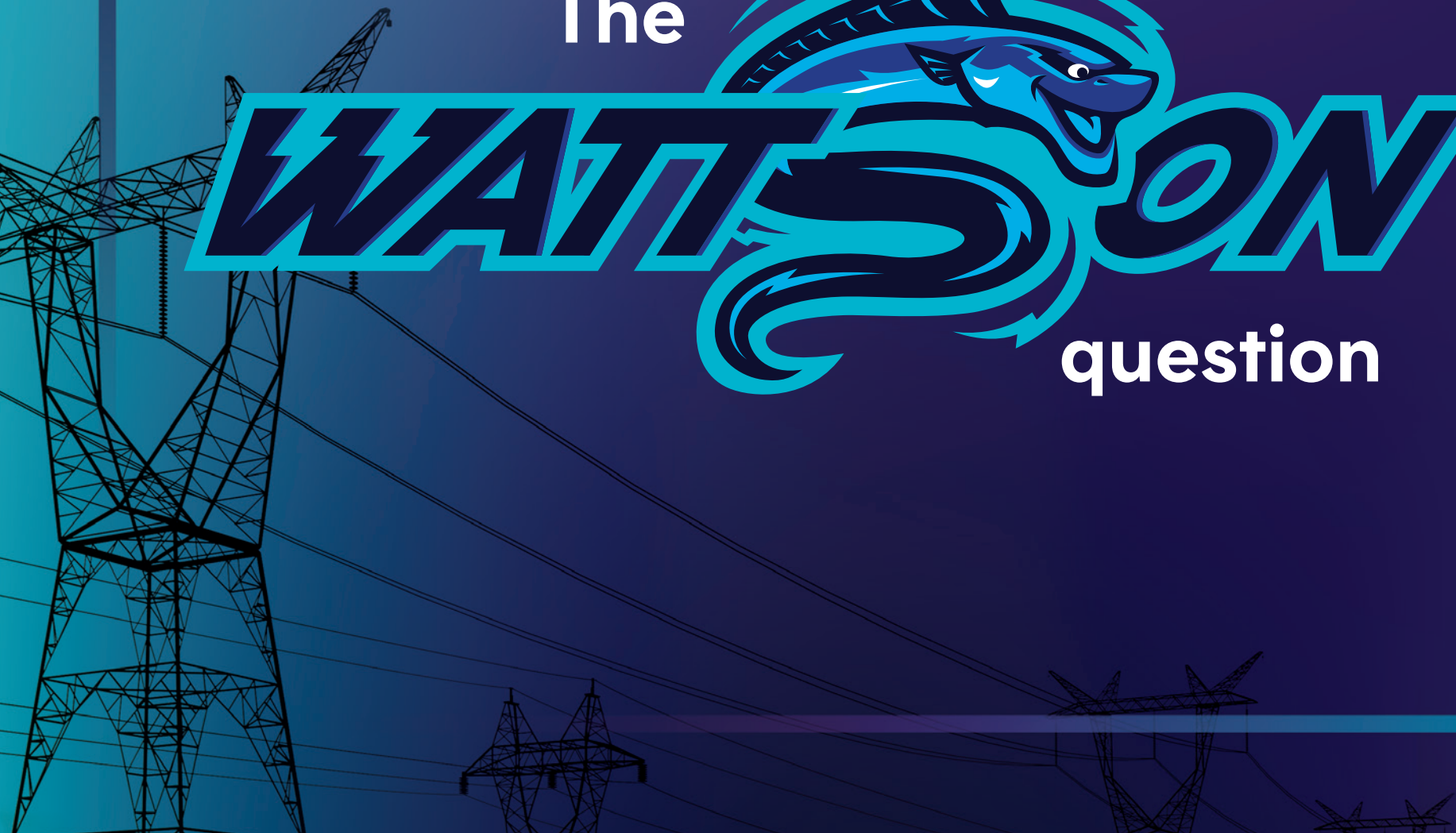
About 50% of Quebecers

La Grande is the largest hydroelectric complex in North America.

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Question 13

**A faucet leaks one drop every second.
How many litres of water does it waste in a day?**

- A) 2 litres**
- B) 14 litres**
- C) 20 litres**
- D) 27 litres**



D

27 litres of water

At that pace, you could fill a bathtub in five days!
It's important to repair any leaking faucets promptly,
especially if they're leaking hot water!



Question 14

Before turning on an air conditioner, it's important to:

- A)** Close the windows
- B)** Open one window a little
- C)** Open one window
- D)** Open two windows



A

Close the windows

Because opening a window could let even more hot air in, it's best to leave the windows shut and let the air conditioner do its job!



Question 15

A faucet aerator:

- A)** Removes oxygen from the water
- B)** Carbonates the water
- C)** Heats the water
- D)** Reduces the amount of water used



D

Reduces the amount of water used

A faucet aerator adds air to the stream of water to make it more uniform and efficient, reducing the amount of water you use to brush your teeth or wash your hands.



Question 16

Which of the following species cannot generate or detect electricity?

- A)** Duck-billed platypuses and eels
- B)** Bees and spiders
- C)** Dolphins, sharks and rays
- D)** Human beings



D

Human beings

Some animals use electricity (even in small quantities) to communicate or defend themselves from predators. Others use it to navigate in the dark, find food or attack prey.

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Question 17

What kind of lighting is the most economical for studying?

- A)** A ceiling light with three halogen bulbs
- B)** A reading lamp with an LED bulb
- C)** A floor lamp with a halogen bulb
- D)** A flashlight that uses three D batteries



B

A reading lamp with an LED bulb



Question 18

**When you leave a room for a short time,
it's more economical to:**

- A)** Leave the lights on
- B)** Turn off the lights
- C)** Dim the lights
- D)** Leave the door open



B

Turn off the lights, even if you just leave for a moment.

After all, the cheapest kilowatt is the one you don't use!



Question 19

If you use a blow dryer once a week for 10 minutes, how many kilowatthours of electricity does it add up to in a year?

- A) 2 kWh
- B) 5 kWh
- C) 10 kWh
- D) 13 kWh



D

13 kWh a year



Question 20

What temperature should you set
your home's water heater to?

- A) 50°C
- B) 55°C
- C) 60°C
- D) 65°C



C

60°C

This temperature setting prevents any risk of burns but is still high enough to kill Legionella, the bacteria that cause Legionnaires' disease, a rare form of pneumonia. The bacteria grow in water heaters kept at temperatures that are too low.



Question 21

If you toast two slices of bread for two minutes every morning, how many kilowatthours does that add up to over a year?

- A) 2 kWh**
- B) 5 kWh**
- C) 10 kWh**
- D) 25 kWh**



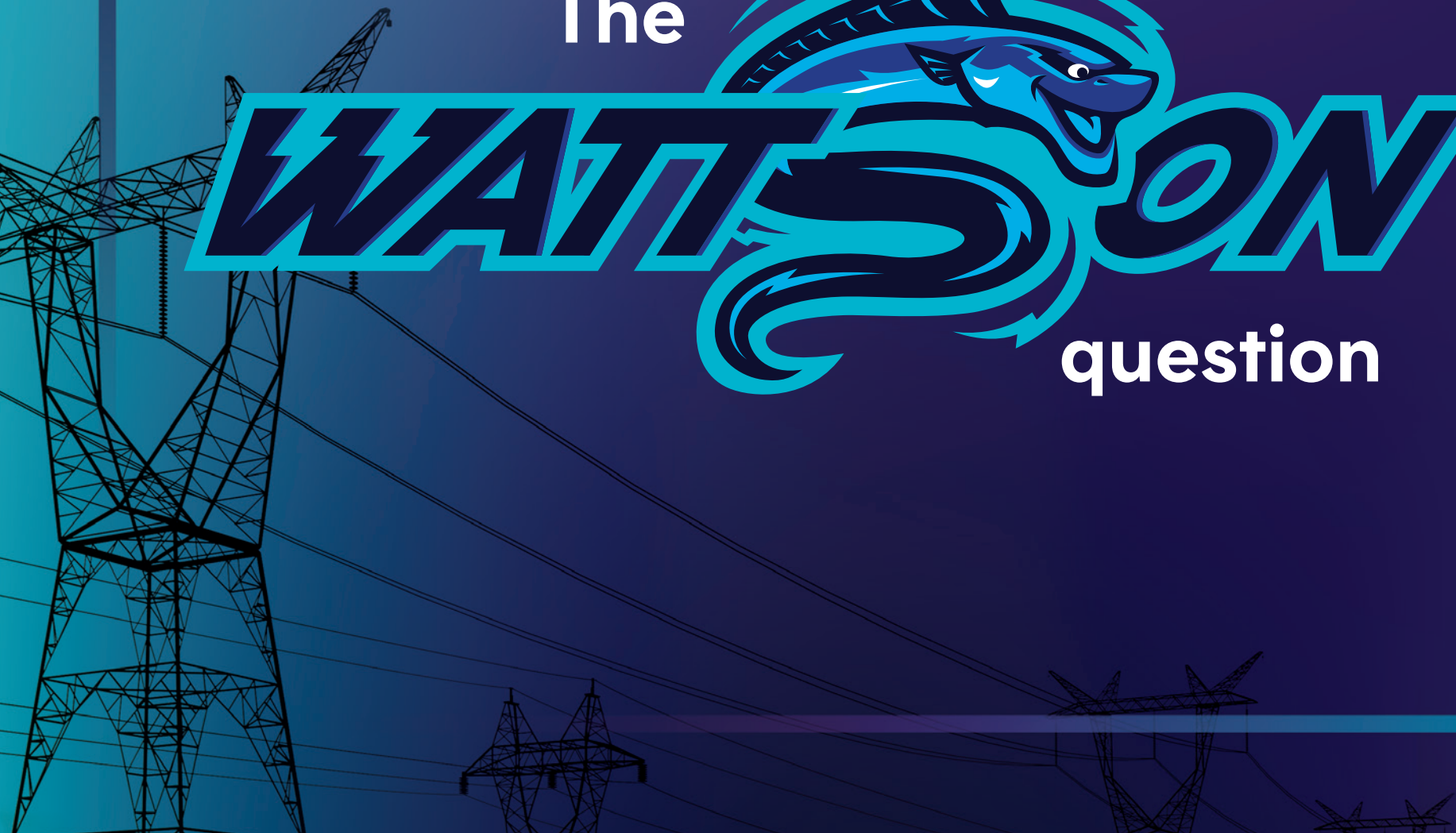
C

10 kWh a year

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Question 22

How can you extend a laptop's lifespan?

- A)** Turn it off when you're not using it
- B)** Leave it in standby mode all the time
- C)** Turn it off every second day
- D)** Bring it everywhere with you, even in the shower, to make sure nobody goes through your files



A

Turn it off when you're not using it

You can save electricity by turning off your computer when not using it. Turning a computer on and off has no impact on its lifespan.



Question 23

What is the longest span between two transmission towers in Hydro-Québec's power system?

- A) 200 metres**
- B) 550 metres**
- C) 1,100 metres**
- D) 2,000 metres**



D

2,000 metres



Question 24

Which of the following devices uses the most electricity
(for the same usage time)?

- A) Air conditioner
- B) Refrigerator
- C) Television (recent model)
- D) Chain of 100 LED Christmas lights



A

Air conditioner

An air conditioner is the most energy-intensive household appliance, by far! The average air conditioner uses much more energy than most refrigerators and televisions over the same amount of time.

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Ce document est également diffusé en français.*

