



## ENERGY

# RENEWABLE ENERGY SOURCES

## LESSON 1

<b>SUBJECT</b>	English reading, listening, speaking
<b>AGE / CYCLE</b>	15+
<b>OBJECTIVES</b>	<ol style="list-style-type: none"> <li>1. Identify the main idea of audio text about our sustainable world.</li> </ol>
<b>ESTIMATED TIME</b>	40 minutes
<b>MATERIALS</b>	<i>Annex 1 for pairs of students, Annex 2 cut up</i>
<b>ESSENTIAL QUESTION OR SCENARIO</b>	<i>Why is it important to focus on sustainable development?</i>
<b>LEVEL - UNIT</b>	10 <sup>th</sup> Grade, Unit 4
<b>KEY WORDS</b>	solar energy, renewable energy, hydroelectric, conservation, windpower, geothermal, sustainable
<b>TYPES</b>	Video, PDF
<b>AUTHOR</b>	Ayron Corrales Vargas, Ileana Fonseca Matarrita, and Sheila Chavarria Zuniga, CTP 27 De Abril, CTP Santa Barbara, and CTP Santa Cruz, <i>Costa Rica</i>

## EVALUATION GOALS

*Students will be able to:*

- 1 Define vocabulary on renewable energy.
- 2 Identify the main ideas in a news story.

## DEVELOPMENT

### 1 WARM UP

*5 mins.*

To start the class, students will play a game of telephone. Have students form lines of 6-8 students; the last person in each line should be close to the whiteboard and have a marker. The teacher whispers the phrase, “Costa Rica uses renewable energy” to the student at the beginning of each line, then says, “Start!” Students whisper the phrase person to person until it reaches the final person, who writes it on the board. Compare the differences between the answers, and then write the original sentence on the board. How are they different? What is “renewable energy?” (Energy sources such as wind, air, and water.)

### 2

*12 mins.*

Hand out copies of Annex I to each student. Pronounce the 9 words on the left with students. Students complete the vocabulary exercise in pairs and check their answers with each other. Discuss any disagreements or questions with the whole class.

*Annex I*

### 3

*12 mins.*

Have students watch the following video three times.

<https://www.youtube.com/watch?v=2a9qqngUiiQ>

#### **First Viewing**

The first time have students focus on getting the main ideas, think (individual) pair (talk with a partner) share (tell class.)

#### **Second Viewing**

Have students answer questions in the second portion of annex I as they watch the video a second time,

#### **Third Viewing**

Have students watch the video a third time to check answers.

*Annex I*



## 4

15 mins.

Create 18 pairs of students and give each student a different note card with either a word/definition from annex 2. Have students walk around the class and find the student who matches their word/definition. When everyone has found their match, ask students to read the word and the definition to the class and use it in a sentence.

Annex 2

## ANSWERS TO ANNEX 1

## Exercise 1

1. G
2. J
3. A
4. H
5. B
6. E
7. K
8. D
9. F

## Exercise 2

1. What kind of business does Luis have? Why does he need energy?  
*Ice cream truck, to keep ice cream frozen.*
2. How does he get the energy he needs now? Why did he change?  
*Solar panels, to reduce noise and pollution.*
3. How much renewable energy does Costa Rica plan to have?  
*100%*
4. What are four ways Costa Rica gets its energy?  
*Rivers (hydroelectric) wind (windmills, sun (solar) volcanic heat (geothermal)*
5. What causes air pollution in Costa Rica?  
*Cars, buses--transportation*
6. What change does the lawmaker want to see?  
*Electric vehicles*

## ANNEX 1



Solar



Hydropower



Wind



Geothermal

Match the word with the correct definition.

1. Solar energy	A. Electricity created using energy that comes from moving water.
2. Renewable energy	B. Energy that comes from moving air.
3. Hydroelectric	D. Able to continue without causing damage to the environment.
4. Conservation	E. Making things that we don't need into new products.
5. Windpower	F. Automobiles powered by clean energy.
6. Recycling	G. Energy that comes from the sun.
7. Geothermal	H. Using less energy or saving energy.
8. Sustainable	J. Energy sources from nature, such as wind, air, and water.
9. Electric cars	K. Heat, hot water, or steam from within the Earth to make electricity.

### Costa Rica Clean Energy video

1. What kind of business does Luis have? Why does he need energy?
2. How does he get the energy he needs now? Why did he change?
3. How much renewable energy does Costa Rica plan to have?
4. What are four ways Costa Rica get its energy?
5. What causes air pollution in Costa Rica?
6. What change does the lawmaker want to see?

## ANNEX 2

### Matching Exercise

Match the definition with the correct word

<i>Who has: electricity created using energy that comes from moving water?</i>	<i>Who has: energy that comes from moving air?</i>	<i>Who has: able to continue without causing damage to the environment?</i>
<i>Who has: heat, hot water or steam from within the Earth used to create electricity?</i>	<i>Who has: making things that are no longer needed into new products?</i>	<i>Who has: using less energy or saving energy?</i>
<i>Who has: energy that comes from the sun?</i>	<i>Who has: energy sources such as wind, sun, and water?</i>	<i>Who has: automobiles powered by clean energy, not gasoline?</i>

<b>Electric cars</b>	<b>Hydroelectric</b>	<b>Solar energy</b>
<b>Renewable Resources</b>	<b>Geothermal Energy</b>	<b>Sustainable</b>
<b>Wind Power</b>	<b>Conservation</b>	<b>Recycling</b>