

# THE ARTICLE

From <https://breakingnewsenglish.com/2103/210315-clean-energy.html>

Denmark has come up with a practical idea to help its clean energy needs. The Scandinavian nation intends to build an artificial island 80km off its western coast in the North Sea. It is expected to be in full operation by 2033. It hopes the ambitious project will end Denmark's reliance on fossil fuels within the next three decades. Denmark is currently Europe's largest oil-producing country, so a move towards 100 per cent clean energy and the end of oil production will provide a huge boost for its green credentials. Jacob Ostergaard, a professor of electric power and energy, described the project as, "a cornerstone in the green transition which will help facilitate the reduction of Danish CO2 emissions".

The island will be roughly the size of 18 football fields. It is projected to cost around \$34 billion to construct. Much of the energy generated will come from wind farms. These will produce enough electricity to power three million households in Denmark and help make the country carbon neutral. The professor explained that the island had enormous potential to create a greener, cleaner Europe. He said: "In the North Sea, we have tremendous potential for offshore wind, about 180 giga-watts in total. That means we can actually shut down all European coal-fired power plants." Professor Ostergaard added: "It's a Danish initiative, but this, at least with time, is going to be an international effort."

Sources: <https://hypebeast.com/2021/2/denmark-jacob-ostergaard-man-made-energy-island-news>  
<https://bgr.com/2021/02/09/science-news-clean-energy-island-denmark/>  
<https://www.slashgear.com/denmark-reveals-audacious-artificial-energy-island-to-replace-gas-and-oil-05658318/>

# WARM-UPS

**1. CLEAN ENERGY:** Students walk around the class and talk to other students about clean energy. Change partners often and share your findings.

**2. CHAT:** In pairs / groups, talk about these topics or words from the article. What will the article say about them? What can you say about these words and your life?

practical idea / energy / artificial / island / ambitious / fossil fuels / oil production / football fields / wind farms / electricity / potential / offshore / coal / international

Have a chat about the topics you liked. Change topics and partners frequently.

**3. WIND POWER:** Students A **strongly** believe wind power is the best form of clean energy; Students B **strongly** believe otherwise. Change partners again and talk about your conversations.

**4. FUELS:** What do you know about these fuels? How good are they? Complete this table with your partner(s). Change partners often and share what you wrote.

	What I Know	How Good They Are
Oil		
Coal		
Natural Gas		
Nuclear		
Biofuel		
Wood		

**5. ISLAND:** Spend one minute writing down all of the different words you associate with the word "island". Share your words with your partner(s) and talk about them. Together, put the words into different categories.

**6. ENERGY:** Rank these with your partner. Put the best at the top. Change partners often and share your rankings.

- Wind farms
- Solar
- Tidal power
- Biofuels
- Geothermal
- Hydropower
- Nuclear
- Fossil fuels

# VOCABULARY MATCHING

## Paragraph 1

- |                 |   |
|-----------------|---|
| 1. come up with | a. Having or showing a strong desire and determination to succeed.  |
| 2. practical    | b. Has a course of action as one's purpose or objective; plan.  |
| 3. intends      | c. Of an idea, plan, or method likely to succeed or be effective in real circumstances.                         |
| 4. artificial   | d. Make an action or process easy or easier.  |
| 5. ambitious    | e. Think of a new idea.   |
| 6. boost        | f. Made or produced by human beings rather than occurring naturally, especially as a copy of something natural. |
| 7. facilitate   | g. An increase or improvement.  |

## Paragraph 2

- |                    |   |
|--------------------|---|
| 8. projected       | h. Having or showing the capacity to become or develop into something in the future.                              |
| 9. household       | i. Very great in amount, scale, or intensity.   |
| 10. carbon neutral | j. A unit of electrical power.  |
| 11. potential      | k. A home and its occupants regarded as a unit.   |
| 12. watt           | l. An act or strategy intended to resolve a difficulty or improve a situation.                                    |
| 13. tremendous     | m. Estimated or forecast something on the basis of present trends.  |
| 14. initiative     | n. Making no net release of CO2 to the atmosphere, especially through offsetting CO2 emissions by planting trees. |

# BEFORE READING / LISTENING

From <https://breakingnewsenglish.com/2103/210315-clean-energy.html>

## 1. TRUE / FALSE: Read the headline. Guess if a-h below are true (T) or false (F).

- a. Denmark will build an artificial energy island 80k long. **T / F**
- b. Denmark's artificial island will be up and running by 2023. **T / F**
- c. Denmark hopes to end its reliance on fossil fuels within three decades. **T / F**
- d. The artificial island will cost around \$34 billion. **T / F**
- e. The island will be able to provide energy for three million homes. **T / F**
- f. A professor said the island has the potential to create a greener world. **T / F**
- g. A professor said coal-fired power plants could shut down in Europe. **T / F**
- h. A professor said the island is a European effort. **T / F**

## 2. SYNONYM MATCH:

Match the following synonyms. The words in **bold** are from the news article.

- |                      |                 |
|----------------------|-----------------|
| 1. <b>practical</b>  | a. endeavour    |
| 2. <b>artificial</b> | b. dependence   |
| 3. <b>ambitious</b>  | c. possibility  |
| 4. <b>reliance</b>   | d. challenging  |
| 5. <b>move</b>       | e. huge         |
| 6. <b>construct</b>  | f. realistic    |
| 7. <b>potential</b>  | g. plan         |
| 8. <b>tremendous</b> | h. shift        |
| 9. <b>initiative</b> | i. manufactured |
| 10. <b>effort</b>    | j. erect        |

## 3. PHRASE MATCH: (Sometimes more than one choice is possible.)

- |                                       |                             |
|---------------------------------------|-----------------------------|
| 1. Denmark has come                   | a. neutral                  |
| 2. 80km off                           | b. clean energy             |
| 3. end Denmark's reliance             | c. plants                   |
| 4. a move towards 100 per cent        | d. 18 football fields       |
| 5. facilitate the reduction of Danish | e. wind                     |
| 6. roughly the size of                | f. up with a practical idea |
| 7. wind                               | g. CO2 emissions            |
| 8. make the country carbon            | h. its western coast        |
| 9. tremendous potential for offshore  | i. farms                    |
| 10. coal-fired power                  | j. on fossil fuels          |

# COMPREHENSION QUESTIONS

From <https://breakingnewsenglish.com/2103/210315-clean-energy.html>

1. How far off the coast of Denmark will the artificial island be?
2. When will the island be in full operation?
3. What country is Europe's largest oil producer?
4. What did a professor say the island would be a boost for?
5. What will the island facilitate the reduction of?
6. What does the article compare the size of the island to?
7. Where will much of the island's energy come from?
8. How many households will be powered by the artificial island?
9. How many giga-watts will the island produce?
10. What might the island shut down?

# AFTER READING / LISTENING

From <https://breakingnewsenglish.com/2103/210315-clean-energy.html>

**1. WORD SEARCH:** Look in your dictionary / computer to find collocates, other meanings, information, synonyms ... for the words 'clean' and 'energy'.

clean	energy

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

**2. ARTICLE QUESTIONS:** Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

**3. GAP FILL:** In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning...?

**4. VOCABULARY:** Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

**5. TEST EACH OTHER:** Look at the words below. With your partner, try to recall how they were used in the text:

<ul style="list-style-type: none"><li>• idea</li><li>• coast</li><li>• hopes</li><li>• 100</li><li>• boost</li><li>• green</li></ul>	<ul style="list-style-type: none"><li>• size</li><li>• much</li><li>• help</li><li>• create</li><li>• shut</li><li>• effort</li></ul>
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# CLEAN ENERGY DISCUSSION

STUDENT A's QUESTIONS (Do not show these to student B)

1. What did you think when you read the headline?
2. What images are in your mind when you hear the word 'clean'?
3. What do you think of clean energy?
4. How clean is the energy you use?
5. What do you think of the artificial clean-energy island?
6. What clean energies does your country have?
7. What do you think of fossil fuels?
8. What are the best clean energies?
9. How damaging is the use of oil?
10. What do you do to reduce your CO2 emissions?

*Denmark to make artificial clean-energy island - 15th March, 2021*  
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# CLEAN ENERGY DISCUSSION

STUDENT B's QUESTIONS (Do not show these to student A)

11. Did you like reading this article? Why/not?
12. What do you think of when you hear the word 'energy'?
13. What do you think about what you read?
14. What do you think of wind farms?
15. How much energy does your household produce?
16. How would carbon neutrality change the world?
17. What do you think of coal?
18. What three adjectives best describe this story?
19. What will energy supply look like in 100 years from now?
20. What questions would you like to ask the professor?