A Transition Toward a Sustainable Energy System Ⅱ

Warm up!

Check the important words and phrases used in the session and what they mean.
You can also use the read-aloud voice on the website to check your pronunciation.

☑ Words & Phrases	訳
☐ 1. sustainable energy	持続可能なエネルギー
☐ 2. electricity storage	蓄電
☐ 3. exceed the demand	需要を上回る
☐ 4. water electrolysis	水電解
☐ 5. fuel cell	燃料電池
☐ 6. hydrogen-based	水素ベースの
☐ 7. solar panel	太陽電池板
☐ 8. energy conversion efficiency	エネルギー変換効率
☐ 9. energy density	エネルギー密度
☐ 10. estimation	推定、見積もり
☐ 11. reduction	削減、減少
☐ 12. CO_2 emission	二酸化炭素排出（量）
☐ 13. interdisciplinary	複数の学問分野にまたがる、学際的な
☐ 14. infrastructure	社会基盤、インフラ
☐ 15. stabilize	～を安定させる
☐ 16. utilize	～を利用する

Let's join the session!

The followings are questions based on the contents of the session. Watch the session and answer each question.

[1] Explain the difference between a fuel cell and a battery.

[2] Why can't we install solar generation systems in large cities?

[3] A transition from fossil fuel to hydrogen needs new infrastructure for energy consumption. How can we push forward such a transition which will incur additional costs? State your opinion about the transition to renewable energy.

Wrap up the session!

[1] The following is the summary passage of the session. Write down the appropriate words in the following blanks of the summary.

Solar power generation is a clean energy that does not (　　) CO_2. When the amount of power (　　) on sunny days (　　) demand, it is possible to (　　) the excess electricity as hydrogen using a water electrolyzer and a (　　) (　　). We can use (　　) as a fuel for vehicles and industry, and (　　) fossil fuel with hydrogen. However, the energy (　　) efficiency of solar panels is so small that it requires a (　　) area of land to obtain sufficient electricity. Solar power generation is difficult in countries like Japan, where the country is small and the electricity (　　) is very high. However, it is possible to (　　) solar panels in large countries like Australia and (　　) CO_2-free hydrogen in some forms. CO_2-free hydrogen that comes from overseas is (　　) to make it possible for our country to be powered by renewable energy.

[2] Write down what you learned through today's session.