

1. As the problem of global warming gets worse, governments around the world are  
2. looking for ways to cut the amount of carbon dioxide being produced. Now, a  
3. group of 20 German companies have come up with a plan to use the Sahara  
4. Desert in North Africa to provide clean electricity to Europe. According to  
5. Gerhard Knies of the Desertec Foundation, which is running the project, “Within  
6. six hours, deserts receive more energy from the sun than humankind can  
7. consume within a year.” The companies hope to use this energy to create  
8. electricity in a way that will not harm the environment.

### Further Questions& sample answers

9. 1) Why have governments been looking for ways to cut the amount of carbon dioxide being produced?

10. *They're looking to cut it, because global warming is getting worse.*

11. 2) How much energy do deserts receive from the sun?

12. *They receive more energy than humankind can consume within a year.*



13. When people think of solar energy, they usually think of solar panels, which convert sunlight directly into electricity. The Desertec plan is different. The foundation plans to build a line of solar power stations in the desert.

15. Solar power stations work by using the strong desert sunlight to turn water into steam. This steam then turns turbines to create electricity. Solar power stations are not new, and four stations like the ones Desertec plans to build have been producing electricity in the desert in California for the last two decades. Desertec, however, plans to build many more solar power stations and send the electricity produced from the Sahara Desert to Europe through power lines.

### Further Questions& sample answers

21. 3) How's the Desertec plan different from most solar energy plans?

22. *They'll build solar power stations instead of solar panels.*

23. 4) How long have power stations like the ones Desertec wants to use been used?

24. *Solar energy stations have been used in California for the past two decades.*

25. According to Desertec, solar power stations have many good points compared with solar panels. They are able to produce electricity in much larger quantities, and they are also able to store the sun's heat, allowing electricity to be produced at night as well as during the day. Moreover, the power stations are much cheaper to build relative to the amount of electricity they produce. Desertec says that its project could provide 15 percent of Europe's electricity by 2050.

### Further Questions& sample answers

31. 5) What percentage of Europe's electrical needs can the project provide?

32. *It could provide 15 percent of Europe's electricity by 2050.*

33. Not everybody support the new plan. Some say that it would be better to concentrate on producing solar panels for houses in Europe. Others say that the

35. power stations will need too much water. Desertec, however, says that water  
 36. would be brought from the ocean and that electricity would be used to remove  
 37. the salt from this water. Some of this water could then be used by local farmers  
 38. for growing crops. In this way, the people in the countries where the stations  
 39. are built would also profit from the plan.

### Further Questions & sample answers

40. **6)** Why do some people not support Desertec's plans?

41. *Some say that it would be better to concentrate on producing solar panels,*

42. *others say the power stations will need too much water.*

43. **7)** How could people who live in the countries where the stations are built profit  
 44. from the plan?

45. *Desertec would remove the salt from water and give some to the local farmers.*

### \*Choose the correct answer from these choices.

46. **(41)** The Desertec Foundation aims to

47. **1** encourage a group of 20 German companies to clean up the Sahara Desert.

48. **2** make use of carbon dioxide found in North Africa to produce clean energy.

49. **3** use the desert sun to provide energy without damaging the environment.

50. **4** find a way to lessen the total amount of electricity that people consume each  
 year.

51. **(42)** How will Desertec's solar power stations create electricity?

52. **1** By using solar panels to make electricity from sunlight.

53. **2** By heating water to make steam that will turn turbines.

54. **3** By sending hot water from the Sahara Desert to Europe.

55. **4** By connecting Africa's power system with the one in California.

56. **(43)** What is one difference between solar panels and solar power stations?

57. **1** Solar panels can heat larger quantities of water.

58. **2** Solar panels are able to produce much more energy.

59. **3** Solar power stations are more common in Europe.

60. **4** Solar power stations continue to work after dark.

61. **(44)** According to Desertec

62. **1** the cost of solar panels is too high for many people in Europe.

63. **2** the project will help local people by providing water for crops.

64. **3** the power stations will require large amounts of salt to work properly.

65. **4** the countries where the power stations are built will get free electricity.

66. **(45)** Which of the following statements about Desertec's plan is true?

67. **1** The power station will be similar to ones operating in California.

68. **2** Electricity from the power stations will be used to heat water at night.

69. **3** The power stations will provide most of Europe's electricity by 2050.

70. **4** Some people say that the power stations should be built in Europe.

**Review Questions**

71. 1) Why have governments been looking for ways to cut the amount of carbon dioxide being produced?
72. *They're looking to cut it, because global warming is getting worse.*
73. 2) How much energy do deserts receive from the sun?
74. *They receive more energy than humankind can consume within a year.*
75. 3) How's the Desertec plan different from most solar energy plans?
76. *They'll build solar power stations instead of solar panels.*
77. 4) How long have power stations like the ones Desertec wants to use been used?
78. *Solar energy stations have been used in California for the past two decades.*
79. 5) What percentage of Europe's electrical needs can the project provide?
80. *It could provide 15 percent of Europe's electricity by 2050.*
81. 6) Why do some people not support Desertec's plans?
82. *Some say that it would be better to concentrate on producing solar panels,*
83. *others say the power stations will need too much water.*
84. 7) How could people who live in the countries where the stations are built profit from the plan?
86. *Desertec would remove the salt from water and give some to the local farmers.*

解答: (41)3 (42) 2 (43) 4 (44) 2 (45) 1



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**日本語訳付**

4[C] – Desert Power  Lesson5 G2 chobun **10.2(4C)A2E**

1. As the problem of global warming gets worse, governments around the world are looking for ways to cut the amount of carbon dioxide being produced. Now, a group of 20 German companies have come up with a plan to use the Sahara Desert in North Africa to provide clean electricity to Europe. According to Gerhard Knies of the Desertec Foundation, which is running the project, "Within six hours, deserts receive more energy from the sun than humankind can consume within a year. " The companies hope to use this energy to create electricity in a way that will not harm the environment.

**Further Questions&sample answers**

10. 1) Why have governments been looking for ways to cut the amount of carbon dioxide being produced? なぜ政府は二酸化炭素の排出を削減する方法を探しているのですか。
11. *They're looking to cut it, because global warming is getting worse.*

2) How much energy do deserts receive from the sun?

13. 砂漠はどのくらいのエネルギー資源を太陽から得ていますか。

14. *They receive more energy than humankind can consume within a year.*

15. When people think of solar energy, they usually think of

16. solar panels, which convert sunlight directly into electricity.

17. The Desertec plan is different. The foundation plans to build a line of

18. solar power stations in the desert. Solar power stations work by using the

19. strong desert sunlight to turn water into steam. This steam then

20. turns turbines to create electricity. Solar power stations are not new, and four

21. stations like the ones Desertec plans to build have been producing electricity in the

22. desert in California for the last two decades. Desertec, however, plans to build

23. many more solar power stations and send the electricity produced from the

24. Sahara Desert to Europe through power lines.

25. power lines = 機械を動かす力 turbines = 流水、蒸気、ガスの力で回転する原動機

### Further Questions & sample answers



26. 3) How's the Desertec plan different from most solar energy plans?

27. 多くの太陽光発電の計画と Desertec の計画の相違点は何ですか。

28. *They'll build solar power stations instead of solar panels.*

29. 4) How long have power stations like the ones Desertec wants to use been used?

30. Desertec が使用したいと望んでいるような発電所はどのくらい使われていますか。

31. *Solar energy stations have been used in California for the past two decades.*

32. According to Desertec, solar power stations have many good points

33. compared with solar panels. They are able to produce electricity in much

34. larger quantities, and they are also able to store the sun's heat,

35. allowing electricity to be produced at night as well as during the day.

36. Moreover, the power stations are much cheaper to build relative to the

37. amount of electricity they produce. Desertec says that its project could

38. provide 15 percent of Europe's electricity by 2050.

### Further Questions & sample answers



39. 5) What percentage of Europe's electrical needs can the project provide?

40. ヨーロッパの何パーセントの電気の需要をこの計画は供給できますか。

41. *It could provide 15 percent of Europe's electricity by 2050.*

42. Not everybody support the new plan . Some say that it would be better to  
～ではない 支(ささ)える 計画(けいかく) 住宅(じゅうたく)
43. concentrate on producing solar panels for houses in Europe. Others say  
集中(しゅうちゅう)する
- 44.that the power stations will need too much water. Desertec, however, says that  
～からもたらされた
- 45.water would be brought from the ocean and that electricity would be used to  
取(と)り除(のぞ)く 塩分(えんぶん)
46. remove the salt from this water. Some of this water could then be  
地元(じもと)の 農家(のうか) 作物(さくもつ)
- 47.used by local farmers for growing crops . In this way, the people in the  
地域(ちいき) 建(た)てられた 利益(りえき)
- 48.countries where the stations are built would also profit from the plan.

Further Questions& sample answers eTOC English Teachers On Call

49. 6) Why do some people not support Desertec’s plans? (Pick up the sentence from the paragraph.)  
なんにん ひとびと けいかく しじ
50. なぜ何人かの人々は Desertec の計画を支持していないのですか。
51. Some say that it would be better to concentrate on producing solar panels, others say the power stations will need too much water.
52. 7) How could people who live in the countries where the stations are built profit from the plan? はつでんしょ ちいき す ひとびと けいかく りえき え どのようにして発電所の地域に住む人々が計画から利益を得られますか。
53. Desertec would remove the salt from water and give some to the local farmers.

\*Choose the correct answer from these choices.

54. (41) The Desertec Foundation aims to Desertec基金は…にめざしている。  
励(はげ)ます
55. 1 encourage a group of 20 German companies to clean up the Sahara Desert.  
利用(りよう)する 二酸化炭素(にさんかたんそ) みつかった
56. 2 make use of carbon dioxide found in North Africa to produce clean energy.  
砂漠(さばく) 与(あた)える ~なしで 損害(そんがい)を与える 環境(かんきょう)
57. 3 use the desert sun to provide energy without damaging the environment.  
減(へ)らす 全体(ぜんたい)の 総額(そうがく)
58. 4 find a way to lessen the total amount of electricity that people consume each year.  
消費(しょうひ)する 毎年(まいとし)
59. (42) How will Desertec’s solar power stations create electricity?  
たいようねつはつでんしょ 板(いた)
60. Desertec の太陽熱発電所はどのように電気を作り出しますか。
61. 1 By using solar panels to make electricity from sunlight.  
～を加熱(かねつ)することによって タービン
62. 2 By heating water to make steam that will turn turbines.
63. 3 By sending hot water from the Sahara Desert to Europe.
64. 4 By connecting Africa’s power system with the one in California.  
結(むす)びつけることによって
65. (43) What is one difference between solar panels and solar power stations?  
太陽電池板(たいようでんちばん) 太陽熱発電所(たいようねつはつでんしょ) ひと 違い(ちが)い 何(なん)ですか。
66. 太陽電池板と太陽熱発電所の一つの違いは何ですか。  
熱(あつ)くなる 大(おお)きい 分量(ぶんりょう)
67. 1 Solar panels can heat larger quantities of water.
68. 2 Solar panels are able to produce much more energy.  
普通(ふつう)の
69. 3 Solar power stations are more common in Europe.
70. 4 Solar power stations continue to work after dark.  
続(つづ)ける
71.  
72.  
73.

74. (44) According to Desertec Desertec によると…  
費用 (ひよう)

75. 1 the cost of solar panels is too high for many people in Europe.

76. 2 the project will help local people by providing water for crops .  
地方 (ちほう) の 作物 (さくもつ)

77. 3 the power stations will require large amounts of salt to work properly .  
必要 (ひつよう) とする 正確 (せいかく) に

78. 4 the countries where the power stations are built will get free electricity.  
無料 (むりよう) の

79. (45) Which of the following statements about Desertec's plan is true?  
次に述 (の) べる事柄 (ことば)

80. Desertec の計画 (けいかく) について次に述 (の) べるどの事柄 (ことば) は真実 (まこと) ですか。

81. 1 The power station will be similar to ones operating in California.  
~に似 (に) ている ~で運営 (うんえい) しているもの

82. 2 Electricity from the power stations will be used to heat water at night.  
~を熱 (ねつ) するため

83. 3 The power stations will provide most of Europe's electricity by 2050.  
ほとんどの

84. 4 Some people say that the power stations should be built in Europe.

## Review Questions



85. 1) Why have governments been looking for ways to cut the amount of carbon dioxide being produced?

86. They're looking to cut it, because global warming is getting worse.

87. 2) How much energy do deserts receive from the sun?

88. They receive more energy than humankind can consume within a year.

89. 3) How's the Desertec plan different from most solar energy plans?

90. They'll build solar power stations instead of solar panels.  
~の代 (か) わりに

91. 4) How long have power stations like the ones Desertec wants to use been used?  
~のような 使 (つか) われてきた

92. Solar energy stations have been used in California for the past two decades.  
過去 (かこ) ~年間 (ねんかん)

93. 5) What percentage of Europe's electrical needs can the project provide?

94. It could provide 15 percent of Europe's electricity by 2050.

95. 6) Why do some people not support Desertec's plans?

96. Some say that it would be better to concentrate on producing solar panels, others say the power stations will need too much water.

97. 7) How could people who live in the countries where the stations are built profit from the plan?

98. Desertec would remove the salt from water and give some to the local farmers.



解答: (41)3 (42) 2 (43) 4 (44) 2 (45) 1