

**For Teachers:** Please have the students read the sentences one at a time and correct their pronunciation of each sentence then have them repeat after you. Wait until after they read the sentence (use the number in place of the missing word) to have the students choose the correct answer to fill in the blank. When the students finish the article, move on to the further questions.

## 4[C] – Desert Power

10.2(4C)A2E

砂漠(さばく)

- 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&A** \* Ask student to answer the question on their own at first. If the student can't answer correctly, have him look at the last page and read the "example answer" for the question. Have the student try to memorize the answer, if it's too long or difficult, you should divide the sentence into 2 or 3 parts to make it easier to remember. Once they have memorized the answer, the teacher should ask the question one last time so that the student can practice answering. Also if you find any mistakes, please mark the page and let me know ASAP.

- 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。*
- They are looking to cut it, because global warming is getting worse.*
- 2) How much energy do deserts receive from the sun? *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。*
- They receive more energy than humankind can consume within a year.*
- 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.
- 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.

14. Desertec, however, plans to build many more solar power stations and send the electricity produced from the Sahara Desert to Europe through power lines.
15. power lines = 機械を動かす力      turbines = タービン、流水、蒸気、ガスの力で回転する原動機

### Further Questions&A

16. 3) How is the Desertec plan different from most solar energy plans?
17. 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。
18. They will build solar power stations instead of solar panels.
19. 4) How long have power stations like the ones Desertec wants to use been used?
20. 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。
21. Solar energy stations have been used in California for the past two decades.
22. 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.
23. 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&A

24. 5) What percentage of Europe's electrical needs can the project provide?
25. 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。
26. It could provide 15 percent of Europe's electricity by 2050.
27. Not everybody support the new plan. Some say that it would be better to concentrate on producing solar panels for houses in Europe.
28. Others say that the power stations will need too much water. Desertec, however, says that water would be brought from the ocean and that electricity would be used to remove the salt from this water.
29. Some of this water could then be used by local farmers for growing crops. In this way, the people in the countries where the stations are built would also profit from the plan.

### Further Questions&A

30. 6) Why do some people not support Desertec's plans? (Pick up the sentence from the paragraph.)
31. 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。
32. Some say that it would be better to concentrate on producing solar panels, others say the power stations will need too much water.

33. 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。
34. *Desertec would remove the salt from water and give some to the local farmers.*

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

35. (41) The Desertec Foundation めざしている aims to Desertec基金は...にめざしている。
36. 1 encourage a group of 20 German companies to clean up the Sahara Desert. 励(はげ)ます
37. 2 make use of carbon dioxide found in North Africa to produce clean energy. 利用(りよう)する 二酸化炭素(にさんかたんそ) みつかった
38. 3 use the desert sun to provide energy without damaging the environment. 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)
39. 4 find a way to lessen the total amount of electricity that people consume each year. 減(へ)らす 全体(ぜんたい)の 総額(そうがく) 消費(しょうひ)する 毎年(まいとし)

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

41. Desertec たいようねつはつでんしょ の太陽熱発電所はどのように電気を作り出しますか。 板(いた)
42. 1 By using solar panels to make electricity from sunlight. ~を加熱(かねつ)することによって
43. 2 By heating water to make steam that will turn turbines. タービン
44. 3 By sending hot water from the Sahara Desert to Europe. 結(むす)びつけることによって
45. 4 By connecting Africa's power system with the one in California.

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

47. たいようでんちばん たいようねつはつでんしょ 太陽電池板と太陽熱発電所の一つの違いは何ですか。 違(ちが)い
48. 1 Solar panels can heat larger quantities of water. 熱(あつ)くなる 大(おお)きい 分量(ぶんりょう)
49. 2 Solar panels are able to produce much more energy.
50. 3 Solar power stations are more common in Europe. 普通(ふつう)の
51. 4 Solar power stations continue to work after dark. 続(つづ)ける

52. (44) According to Desertec Desertecによると...

53. 1 the cost of solar panels is too high for many people in Europe. 費用(ひよう)
54. 2 the project will help local people by providing water for crops. 地方(ちほう)の 作物(さくもつ)
55. 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
56. 4 the countries where the power stations are built will get free electricity. 無料(むりょう)の

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

58. Desertec けいかく の計画について次に述べるどの事柄は真実ですか。 つぎの ことがら しんじつ
59. 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
60. 2 Electricity from the power stations will be used to heat water at night. ~を熱(ねつ)するため
61. 3 The power stations will provide most of Europe's electricity by 2050. ほとんどの

62. 4 Some people say that the power stations should be built in Europe.

### Review Questions

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

64. *They are looking to cut it, because global warming is getting worse.*

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

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

67. 3) How is the Desertec plan different from most solar energy plans?

68. *They will build solar power stations <sup>~の代(か)わりに</sup> instead of solar panels.*

69. 4) How long have power stations <sup>~のような</sup> like the ones Desertec wants to use

<sup>使(つか)われてきた</sup>  
been used?

70. *Solar energy stations have been used in California <sup>過去(かこ)~年間(ねんかん)</sup> for the past two decades.*

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

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

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

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

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

76. *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

61	(接)- <sup>こと</sup> という事を考慮す ると(前)- <sup>こうりよ</sup> を考慮すると	considering					カンシダ リング
62	動) <sup>しゅうちゅう</sup> 集中する	concentrate					カンセント クレイト
63	名) <sup>もうしこみ</sup> 申し込み <sup>しゅつがんしょ</sup> 出願書	application					アプリケー ション
64	動)(-)に <sup>さんせい</sup> 賛成する	agree					アグリー
65	動)- <sup>さ</sup> を避ける	avoid					アボイドゥ
66	名) <sup>のうぎょう</sup> 農業	agriculture					アグリカル チャー
67	動)- <sup>せつめい</sup> を説明する	explain					イクスプレ イン
68	動)- <sup>きんし</sup> を(公式)に禁止する	ban					ベェン
69	形) <sup>げんだい</sup> 現代の、 <sup>さいしん</sup> 最新の	modern					マダン
70	名) <sup>かがく やくひん</sup> (化学)薬品 形) <sup>かがくてき</sup> 化学的な	chemical					ケミカ1
71	動)(-)を <sup>かくちよう</sup> 拡張する	expand					イクスパン ドゥ
72	動)-に <sup>えいきよう</sup> 影響する	affect					アフオー t
73	副) <sup>きわ</sup> 極めて	extremely					イクストゥ リームリイ
74	動)- <sup>へ</sup> を減らす	reduce					リデュース
75	名) <sup>ちいきしゃかい</sup> 地域社会、 コミュニティー	community					カミュニテ イー