

Text A Energy problems

Unit 6 SAFE ENERGY

EXERCISE 1: Is it cheaper to use solar energy or wind energy?

Renewable energy sources, unlike fossil fuel, can be used without ever being used up. These are typically sources such as sun, wind, water and Earth's internal heat.

It is important to focus on the fact that the difference in cost between traditional fossil fuels and some of the cheapest: renewable energy sources is so relatively slight. Moreover, these economic costs do not include the negative social cost of fossil fuel use on the environment. Energy from a coal-fired power plant may still be 20-50 percent cheaper than the energy produced by a windmill, but if the effects on environment and humans from coal pollution and waste products exceed the price difference then society ought to choose wind energy.

Recently, one European and two American large-scale projects have attempted to examine all costs associated with electricity production, all the way from the mortal risks of mining coal, the traffic hazards of transportation and occupational hazards of production including consequences of acid rain, particles, sulfur dioxide, nitrogen oxides and ozone on lakes, crops, buildings, children and old people and up to the consequences of tax codes and occupation plus a long, long list of similar considerations and costs. Altogether these studies find that the extra social cost of new coal-fired power plants is around 0.16-0.59 cents per kWh. None of the three studies, however, quantifies the costs of carbon dioxide which probably means an additional 0.64 cents per kWh. Consequently renewable energy actually has to drop somewhat in price before it will be competitive, even including social costs. Nevertheless, it is estimated that the price of renewable energy will fall faster than the price for conventional energy. It should however also be added that there is still quite a bit of uncertainty about the predictions of such prices, because early predictions in hindsight have seemed rather optimistic. In 1991 the Union of Concerned Scientists predicted that solar power today would drop below 10 cents per kWh, but unfortunately it has still only dropped to about 50 cents per kWh.

Thus, it is unclear whether it is necessary to support renewable energy with subsidies and tax exemptions. In Denmark this subsidy is as much as 5 cents per kWh for wind energy, and in the US, subsidy for wind power is estimated at about 1.5 cents per kWh. It would still be much more effective to tax energy such that its actual price would adequately reflect the social costs in production and emissions.

VOCABULARY:

Cost	Стоимость	Conventional	Традиционный
Ought	Должен (модальный глагол)	Should	Следует (модальный глагол)
Renewable	Возобновляемый	Hindsight	Взгляд в прошлое, оценка прошлых событий
Waste	Отходы	Subsidy	Субсидии
Fossil fuel	Ископаемое топливо	Exemption	Освобождение от налогов
Mortal	Смертельный	To tax	Облагать налогом
Mining	Добыча	Emission	Выпуск
Hazard	Несчастный случай	Similar	Подобный
Tax code	Налоговый кодекс	To quantify	Подсчитывать
Competitive	Конкурентный	Adequately	Адекватно

EXERCISE 2

Найдите правильные переводы выражений на английском языке, приведенных в правой колонке:

1. To focus on the fact	1. Отходы
2. Negative social cost	2. Смертельный риск
3. Fossil fuel use	3. Несчастные случаи на производстве
4. Waste product	4. Весь путь начиная от
5. The mortal risks	5. Обратить внимание на тот факт
6. Occupational hazards of production	6. Стоимость негативного социального воздействия
7. All the way from	7. Использование ископаемого топлива
8. Tax codes	8. Налоговый кодекс
9. Similar considerations	9. Подобные соображения
10. To drop somewhat in price	10. Тем не менее по оценкам
11. It should however also be added	11. До
12. There is still quite a bit of uncertainty	12. Расходы на производство и выпуск продукции
13. Nevertheless, it is estimated	13. Было бы намного эффективнее

14. It is unclear whether it is necessary	14. Есть еще небольшая доля сомнения
15. It would still be much more effective	15. Снизить стоимость чего-либо
16. Costs in production and emissions	16. Неясно необходимо ли
17. Up to	17. Следовало бы однако также добавить

EXECISE 3

Согласны ли вы с кратким выводом по содержанию предыдущего текста: The most important point in this text on energy is to stress not only that there are ample reserves of fossil fuels but also that potentially unlimited renewable energy resources definitely are within economic reach.

EXECISE 4

Ответьте на вопросы: 1. Which kind of energy is cheaper? 2. Why can't we agree that coalfired energy is cheaper? 3. How many projects have been realized to examine all costs associated with electricity production? 4. How much do these studies evaluate the extra social cost of a new coalfired plant? 5. What is it necessary to do in order to make renewable energy competitive? 6. Does the renewable energy fall in price fast? 7. How is it possible to support the development of renewable energy?