Countries should invest more in nuclear power

ESL Debates .com

Discussion questions

1. What types of energy generation do you know of?
2. By using nuclear energy to produce energy, what benefits and drawbacks are there to using this form of fuel?
3. Should countries which are considered to be politically or financially unstable be allowed to use nuclear technology to produce energy?
4. Given the events in Chernobyl, Three Mile Island, and at Fukushima in Japan, how safe do you feel this technology is?
5. How would you feel if the government or private company starting building a nuclear reactor near your home? Would you protest? Would you be confident in how it will be maintained?

Statistics—True or false? (answers of the next page)

1. In 2016 nuclear power stations produced 2,476 terawatts per hour globally.
2. The United States has 150 nuclear reactors as of 2018.
3. Belgium and Hungary produce 51.7 and 51.1 per cent respectively of their nation's energy from nuclear.
4. Over 200 people die each year from civilian nuclear reactors.
5. As of 2008, nuclear is half the cost of natural gas.
6. In 2006, nuclear plants avoided the emission of 3.1 million short tons of sulphur dioxide.
7. Brazil nuts contain small amounts of radium, a radioactive element

Useful vocabulary

1. Radioactive – (adj) a material which releases ionizing particles.
2. Oversight – (noun) a mistake, slip, blunder, failure.
3. Meltdown – (noun) when a nuclear power station breakdown.
4. Catastrophic - (adj) causing sudden damage.
5. Lenient – (adj) more tolerant than expected. Mild.
6. Oversee - (verb) to supervise.
7. Tout – (verb) attempt to sell something, or advertise strongly.

Reading - <u>The aftermath of Fukushima</u>

In 1905 a large earthquake and tsunami hit Fukushima, a small town on the eastern coast of Japan, where its **impact** was so great that local people placed stones warning future generations. So when the government decided to build a nuclear power plant in the same area around 60 years later, were they wise to do so?

With hindsight it does seem to have been a problem. The town has a 20km area where people cannot pass or travel through. And three of the five reactors have experienced a **meltdown**, causing radiation to go into the Pacific ocean. While the nuclear industry does tout its safety record, it is important to know that the earthquake which hit the power station was **magnitude** 9, and the tsunami wave was over 50 meters in height. Both were once in a hundred year event and unlikely to have been predicted.

Since the disaster, many have asked the Japanese government to provide more **oversight** in the industry. Others have blamed companies and government regulators for being too **lenient** on TEPCO, the company responsible for the power station.

Despite the disaster global demand for energy is still rising and the technology to replace nuclear does not exist yet. The road to providing clean, safe, reliable, and most importantly cheap energy is still uncertain.

Answers

1. True 2. False. It's 99. 3. True 4. False, it is zero.
5. True. Nuclear Power: 1.82 cents per kWh, Natural gas: 3.69 cents per kWh
6. True 7. True