

Strategies for Sustainable Energy

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Homework Assignment #4 Strategies

assigned: Thursday, May 26, 2011

due: Thursday, June 9, 2011 at the beginning of class

In Chapter 27 of “Sustainable Energy—without the hot air”, the author provides five sustainable energy plans for England. All of these plans require many energy sources. From homework 2 we found that the average energy consumption in Korea is about 160 kWh/day/person.

In October, 2010 The Republic of Korea announced a 40 trillion won investment in renewable energy. (See for example: <http://www.ordons.com/asia/southeast-asia/7898-south-korea-plans-investments-of-usd354-billion-in-renewable-energy-developments-by-2015.html>).

1. If this plan were completed, what would the energy distribution (solar/wind/wave/tide/hydro/biofuels/geothermal/nuclear/fossil) for Korea look like in 2015? I am looking for a distribution like what is given in Figure 27.9 on page 212 of your textbook.
2. This distribution will still contain a significant amount of fossil fuel. If you could make one suggestion, what suggestion would you make to further reduce the percentage of energy that the Republic of Korea receives from fossil fuels?

Use the latest data you can find. Report the results in units of kWh per day per person. State important assumptions used in the calculation. As always use any reliable source you can find, but you must cite the source in your homework. Do the best you can.