Physical Science Name: _____ Block: __
Watts Worksheet

1. Joe just bought a 6.35 kW gasoline powered generator so he can keep the lights on the next time power goes out. How many 60W light bulbs CAN he keep on?

2. How many 60W light bulbs would he have to turn off so Jane can use her 1500W hair dryer?

3. Cape Wind expects to be able to produce an average of 174 MW in typical wind conditions. They say this should be able to provide power for about 200,000 households.[1] How much electric power (in kW) do they expect each household to use?

4. The 680 MW Pilgrim nuclear power plant operator says it can supply electricity for 550,000 homes.[2] How much electric power (in kW) do THEY expect each household to use?

5. The wind turbine at the IBEW (International Brotherhood of Electrical Workers) Local 103 training facility on the Southeast Expressway can generate 100 kW when a sufficient wind is blowing. How many of these would it take to replace the Pilgrim nuclear power plant?

[1] www.capewind.org, accessed 2/2/2013
[2] www.pilgrimpower.com, access 2/2/2013
[3] http://www.ibew.org/articles/05journal/0509/p14_windmill.htm, accessed 2/2/2013