Visualizing energy consumption (difficult project)

How much energy our daily life require? How much it costs to produce it? How much space does it take to produce it? These questions are addressed in the book "Sustainable Energy - without the hot air" by Prof David McKay. http://www.withouthotair.com/
Write a program that based on the book data (free online) visualize the cost and space needed to generate energy required for simple tasks (commuting, heating, eating, a normal day); you could use for example the map of England and show how much space would take by wind turbines to generate enough electricity for a normal daily life etc ...

Level 1 – F: Fail Includes **screen output** and **keyboard input** and **basic classes**. There are java source files for at least three major classes in the program. Good source comments and code indentation is expected for all implemented parts of the code
Example: The program reads and prints the names of energy sources and their basic characteristics.

Level 2 – E: Borderline Fail Includes **methods** and **variables** for at least three major classes, and all constructions above. At least 3 major methods fully implemented and working for each class
Example: As above, but also the basic relation between energy sources and human activities is shown (e.g. relative cost, relative space required).

Level 3 – D: Bare Pass At least three major program classes will be implemented, with **methods working and well designed**, and all constructions above Use of **inheritance** with at least one superclass and three subclasses Class, method and variable naming will be clear and consistent
Example: As above, but the relation is now more functional (driving 50 miles a day take this energy cost.... this energy space ...)

Level 4 – C: Pass Polymorphism should be used in at least three subclasses, and all constructions above **Exception handling** is used to catch and handle at least three different types of exceptions At least four major program classes will be implemented, with methods working and well designed, Comments are clear and applied to class and method level consistently
Example: As above, but a wide range of energy sources are now take into account (tide, solar, wind, nuclear, coal etc...)

Level 5 – B: Satisfactory Use of **Vectors** in all parts of the program, and all constructions above. Exception handling is carried out appropriately in all parts of the program Inheritance is correctly applied to all parts of the program.
Example: As above but the program is now mostly ruled by a basic **GUI**.

Level 6 – A: Merit Includes **file input and/or output**, and all constructions above The simulation (including player movement) will be displayed on the GUI Polymorphism will be fully implemented in all parts of the program
Example: As above, with a full GUI now controlling/displaying all aspects of the program; data should be read from files.

Level 7 – A+: Distinction Includes everything required for an A grade but also **something special** (using other more advanced constructs or algorithms, or something you just read up on yourself). Make it a program someone would really want to use! **Example:** ....