**1. What do you see as the major advantages of implementing a smart power grid?**

**Ans:** One of the major advantages of implementing a smart power grid is that we need to cut our electricity consumption to fight global warming with the help of smart grid technology.The smart grid will be able to pull energy from distributed clean power projects, like solar panels and small wind turbines on rooftops, feed it back into the grid and compensate the power generators accordingly.

**2. What are the key issues and barriers associated with implementation of a smart power grid?**

**Ans:** Significant impediments/barriers exist to the widespread adoption of smart grid technologies regulatory environments that don’t reward utilities for operational efficiency, excluding U.S. awards. Consumer concerns over privacy, social concerns over “fair” availability of electricity, social concerns over Enron style abuses of information leverage, limited ability of utilities to rapidly transform their business and operational environment to take advantage of smart grid technologies. Concerns over giving the government mechanisms to control the use of all power using activities, and concerns on computer security.

**3. If the government provides much of the money required to implement a smart power grid, does that give it the right to control how the power grid is operated?**

**Ans:** Maybe yes, the governments and utilities funding development of grid modernization have defined the functions required for smart grids. A modern smart grid must:

1. Be able to heal itself
2. Motivate consumers to actively participate in operations of the grid
3. Resist attack
4. Provide higher quality power that will save money wasted from outages
5. Accommodate all generation and storage options
6. Enable electricity markets to flourish
7. Run more efficiently
8. Enable higher penetration of intermittent power generation sources