Outline: Lecture 16

*Date:* May 19, 2011  
*Topic:* Power Grid and Other Infrastructure

1. *No discussion section on Monday, May 23*  
2. Cyber-Physical Systems / Control Systems  
3. Supervisory Control And Data Acquisition (SCADA)  
4. The legacy power grid  
5. Some issues that have arisen:  
   a. Stuxnet  
   b. Project Aurora  
   c. PG&E pipeline explosion  
   d. Browns Ferry Nuclear Power Plant  
   e. Nuclear reactors in Japan, post-earthquake  
6. Fault tolerance and redundancy  
7. Follow the money: energy markets  
8. The “smart grid” concept  
   a. The “renewables” / non-dispatchable energy problem  
   b. “Smart” meters  
9. Whose problem is this?  
10. Automobiles