

## **EH2220 The Sustainable Electric Power Engineer**

### **Topic #5**

From my point of view as a prospective electric power engineer, we should work with questions that are related to energy systems analysis, about society's energy supply, how environmental and sustainability issues dealt with at national and international level. This is very important. If we understand that it is technology that improves or increases our quality of life to a sustainability level, then we realize that the most important focus we should and can have is on our natural resources. Since it is from these natural resources we gain materials to continue our path of prosperity. If we understand that then we can see that money becomes like a barrier to these resources since these things like everything else has a financial cost. The fact is that our society in our country and all over the world is shattered, with politicians constantly talking about financial problems, protection and security rather than unity and progress. Several countries spend millions every year on war, defense and war-technology... enough money to send millions of gymnasium students across the word to university, or to replace different kinds of energy sources that we are using today to more environmentally friendly. For example, replace oil, fossil fuel, gas etc. to hydropower, wind power, solar power and to geothermal power. These are renewable energy and contribute to a better environment. Also, in combination of these renewable energy sources, if they efficiently harnessed through technology could power the world without any problems. In 1942 the well-known Manhattan project produced the first weapon of mass destruction. That project employed more than thousand people including scientists and engineers at an extreme financial cost. Imagine what life would be like today if that group of scientists and engineers, instead of working on a way of destroying cities and killing people, worked on a way to protect our world and create a self-sustainable planet. Life today would be very different if that was their goal. As a prospective engineer, I think it is important to take into consideration environmental protection, how the society's impact on nature, if society impacts on aquatic environments, how producing products effective for minimal environmental impact and make the investigation and remediation of contaminated land. It is here where I think the courses and all knowledge gotten from KTH could contribute to calculate and find other alternatives that can provide the same or better technical benefits as well as more sustainable and environmentally friendly. This can lead to find other kind of design for any component in any electrical power system but also that can fulfill the economical part for the industry. Since it will always be expensive achieve these kinds of goals... I think KTH prepared us to deal with different kind of problems and taught us to how we can find different kind of methods to solve these problems in a sustainable way.

