

Reflection seminar #5

In my opinion, the greatest problems in the future of the humankind are the problems regarding the environment – global warming and living above our resources are only a few of these. To have a sustainable development will ensure that our life on this planet will not endanger future generations of any species (for instance in terms of ending resources), that everyone will benefit from the human rights and that everyone can afford a livable life.

I believe that sustainability will be an important aspect in everyone's life somewhere in the nearest future, and especially regarding engineers. Because to achieve a sustainable society there are many problems that need to be solved and who better fit to solve them than engineers?

The electric power engineer can have many different roles in regards to reaching the sustainable society. In my case, studying the power system and renewable electricity sources, that role is pretty clear. To fulfill the environment part of the sustainable development one part of the solution is to decrease the carbon dioxide emissions. If it is assumed that all the electricity in the world will be produced with renewable electricity sources (and assuming that the power system will be able to handle it) it will – in addition to reducing carbon dioxide emissions – lead to a number of positive things. Among these are: contributing to a clean nature, clean production (better working conditions) and in some cases even providing as an artificial reef (preserving the diversity in the oceans).

One thing to understand – and that was mentioned in the course material – is that the sustainable development consists out of three parts: the environmental aspect, the social aspect and the economical aspect. The course material also focused on not living above the planets resources. When solving problems or designing new solutions as an engineer, all these three parts need to be taken into consideration to have an sustainable solution. Nowadays, people tend to focus almost entirely on the last, economical, part, which in no ways lead to smart and sustainable solutions. For instance, if someone have to choose between two solutions, where one is environment friendly but the other is cheap, the second choice is chosen in almost all cases. The economical aspect is always weighted more than the value of the environment or social benefits, and this is because (in my opinion) there is no good way of measuring the environment or the society in monetary values. What is the value of plants providing oxygen, bees pollinating or any ecosystem service? To be able to attain a sustainable way of living on this planet, we should start measuring the environment and the society equally, if not more, as money.

I think that KTH does a pretty good job in highlighting the problems with a sustainable development and this I say with a background from the Environment and energy bachelor. But I would prefer seeing that this environment perspective was embraced in every course, and that sustainable solutions should be a part of every assignment and project.