



Titel

Sustainable future Energy systems

Teacher

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Uddannelse:	Electrical Energy Engineering

Introduction

Dear student

We are facing a huge climate challenge. How are we gonna solve it and do you want to be a part of the solution? What are future sustainable energy systems going to look like? How will we store excess energy on sunny or windy days? How will we specifically meet the energy needs of Denmark? How do they do it in other countries – such as Iceland, Spain or Norway? Can we utilize the landscape – hot springs, majestic mountains or the fact that we are close to the equator? Should we utilize hydrogen batteries, install large solar parks in the desert and how do we transport the power to the nearest city? In what way are we already trading energy with other countries, and could Denmark become a large exporter of hydrogen batteries? How can we support new technologies until they become competitive on the market, and who should fund this? How do we pay for the green revolution and can we afford not to?

There are many important questions, an engineer needs to consider. Hear more about it and join the discussion in this class.

Preparation

Watch the following video: <https://www.youtube.com/watch?v=RnvCbquYeIM> - Can 100% renewable energy power the world? (6 min)

Consider which energy forms we have in Denmark. Which are we against and why? Where does the heat in your radiator come from? Is it green? And what is green energy really? Which energy solutions would be hard to implement in Denmark and why?

- Write down 5 sustainable energy forms or fuels (be creative and think outside the box)
- Consider where the energy in your house comes from. Heat, light & electricity.
- Find 3 sustainable energy forms we don't have in DK. Why not?

Optional

<https://www.youtube.com/watch?v=EhAemz1v7dQ> – Should we have nuclear power?

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