Analysis and development of a novel pump storage system

Generation of electricity from renewable energy is a critical technology to fight climate change. There is a growing deployment of renewable energy in the world, but the inherent fluctuations in energy generation of renewable energy represent a challenge. To tackle this problem a new idea for a pump storage system was proposed by the Fraunhofer IEE institute. The concept works similarly to the conventional pump storage plants, but the potential energy is provided by the high hydrostatic pressure at the bottom of the sea. A scale model has already been tested and proven promising results.

In the early concept, a hydrodynamic turbine was used for the power generation. As a further development, the use of hydrostatic machines for the energy transformation should be investigated.

Your tasks:
- Design of an alternative concept for energy transformation
- Selection of the necessary components
- Analysis of the cost and potential efficiency improvement

Your strengths:
- Methodical and independent work ethic
- Self-motivated and proactive attitude
- Creativity

What we offer:
- Interesting topic
- Comprehensive support
- Unlimited coffee

By interest just message or call me.

Source: Stensea