MULTI VECTOR SIMULATION - REPORT SHEET

Project name : Harbor Norway

Scenario name : 100% self-generation

The energy system with the *Harbor Norway* for the scenario *100% self-generation* was simulated with the Multi-Vector simulation tool MVS 0.0x developed from the E-LAND toolbox developed in the scope of the Horizon 2020 European research project. The tool was developed by Reiner Lemoine Institute and utilizes the OEMOF framework.

In

Project Data

The most important simulation data will be presented below. Detailed settings, costs, and technological parameters can be found in the appendix.

▌ **Project Location**
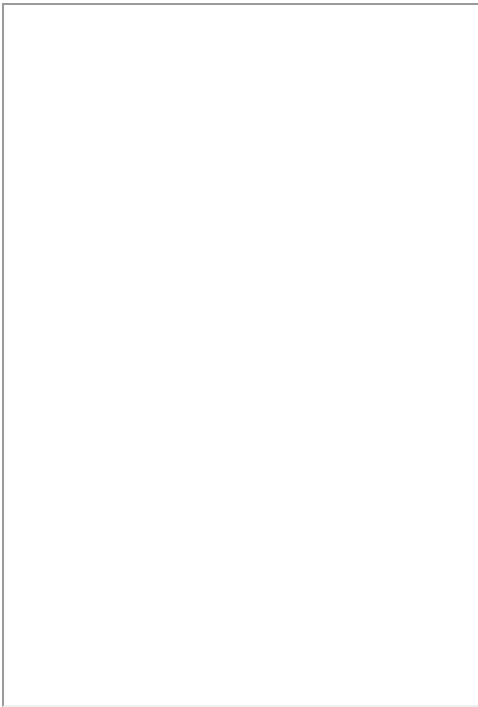
Energy Demand

The simulation was performed for the energy system covering the following sectors:

• ELECTRICITY

Electricity Demand

Electricity demands that have to be supplied are:

Resources

Energy System Components

The energy system is comprised of the following components:

Dispatch & Energy Flows

The capacity optimization of components that were to be used resulted in:

With this, the demands are met with the following dispatch schedules:

a. Flows in the system for a duration of 14 days

This results in the following KPI of the dispatch:

Economic Evaluation

The following installation and operation costs result from capacity and dispatch optimization: