## **INTEGRATION OF EVS WITH EXISTING** DISTRIBUTED ENERGY RESOURCES IN FINDHORN ECOVILLAGE



## Case Description:

- Findhorn has the lowest ecological carbon footprint than any other place in industrialized world.
- Community that is net exporter of electricity from Renewable Energy Sources - EV adoption is on early stage.
- A study of future EV adoption for different scenarios - Simulation of additional generation/storage after EV adoption.





Simulink

**HOMER Pro** 

Simulations-**Result Analysis** 

Modelling

Aim: To study the effect of EV adoption on the electricity demand/generation in Findhorn Ecovillage.

## **Outcomes:**

- Charging demand profiles for Findhorn Ecovillage for different EV adoption rates, charging strategies.
- Modelling of the EV demand on energy surplus, imports.
- Simulation of the existing storage effect on demand profile.
- Investigation on alternative pathways to cover the increasing demand.
- Additional RE generation to remain a net exporter of electricity.





Power

Demand

Calculation





Data

Processing

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