Guide to zip file, Master thesis Julie Sandnes Galaaen

The life cycle inventories for the sensitivity analysis regarding losses are not included as the only change to the inventories was the amount of electricity consumed by the ferry, and the total amount of electricity in the operational phase is confidential.

The life cycle inventory for the sensitivity analysis regarding no shore power is not included for the same reason as for the sensitivity analysis regarding losses.

The life cycle inventories for the battery production sensitivity analysis are included only for the ferry battery. The life cycle inventories for the sensitivity cases for the shore battery are not included as the changes to the base case were the same as for the ferry battery, and the differences between the ferry battery and the shore battery were the same as in the base case.

The remaining files can be provided upon request.

**Life Cycle Inventory Ferry**

This file contains the LCI model of the ferry, including all components except the batteries as they are modelled separately. The electricity consumed during operation is confidential and is therefore not included in this file, but calculations used for each electricity production source can be seen.

**Life Cycle Inventory Ferry Battery JSG & Life Cycle Inventory Shore Battery JSG**

These files contain the LCI models for the ferry and shore batteries, representing all batteries needed during the ferry lifetime.

Due to confidential data regarding the battery cell, certain parts of the inventory have been taken out.

Foreground: *x* symbolizes cells that has a value in the full inventory, but that are removed due to confidentiality.

1\_Battery\_pack: the weight of the cell is set equal in this file, but the real weight is included in the full inventory.

5\_Battery\_cell: only the overall description of the battery cell is present in this file, and without values, due to confidentiality. The actual inventory includes all the components of the battery cell, which are listed in Foreground.

**Life Cycle Inventory Sensitivity Electricity Mix JSG**

This file contains the operational phase inventory for the battery electric ferry used to model each of the electricity mix sensitivity cases. The operational phase was implemented together with the remaining base case inventory when conducting the LCA.

**Life Cycle Inventory Sensitivity Cell Production JSG**

This file contains the battery pack inventory for the sensitivity cases regarding cell production location, one for Germany and one for Norway. Most data are omitted due to confidentiality related to the cell, but the modified transport distance from the cell production location to the battery factory can be observed.

**Life Cycle Inventory Sensitivity Future Scenario JSG**

This file contains the inventory for the sensitivity case regarding a future scenario for battery production. The same confidentiality aspects are relevant here as for the other battery production inventories.

**Life Cycle Inventory Sensitivity Secondary Material JSG**

This file contains the inventory for the sensitivity case regarding secondary materials inputs in the battery production. The same confidentiality aspects are relevant here as for the other battery production inventories.

**Background Calculations Ferry, Ferry Battery & Shore Battery**

These files contain background calculations for creating the inventories. The same confidentiality aspects are relevant here as for the other battery production inventories.

**Weather Data MariTEAM Model JSG**

This file contains the weather data used for the MariTEAM simulation.

**Power Regression MariTEAM Model JSG**

This file contains the power regression calculations for the diesel generating set used in the modified MariTEAM model.