Establishment of Life Cycle Inventory Database for Electric equipments of Tilting Train Mcp Car

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Korea has set up a national mid−term GHG reduction goal(by the year 2020) to adapt International climate change through GHG reduction and to meet the low−carbon green growth goal. According to government's energy target management system for mid−term GHG reduction target, industry sector also urgently needs to come up with an effective counterplan. Transportation sector is 21%(35.1% of total fuel oil consumption) of Korea total energy consumption and its GHG emission is 20%(energy sector), so reduction CO_2 emission in distribution activities is one of the most important issues. Railway industry also give an effort to reduce energy consumption and GHG by using lightweigth material use. Especially, the Korean tilting train is used polymer composite material, which is lighter than steel or aluminum. In this study, materials and manufacturing data of the Korean tilting train Mcp car electric equipments were collected to establish LCI DB for performing life cycle assessment (LCA). We expect that this result can be used not only as a basic information for environmental impact analysis of the Korean tilting train and calculation of CO_2 emission but also for pre−study to support eco−label and carbon footprint label of it.