

# A study of CFL evaluation method for Manufacturing Plants

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## Abstract

The Carbon footprint (CF) or Carbon footprint labels (CFL) of a product reveals the CO<sub>2</sub> released during its all product lifecycle, i.e., material, manufacturing, transportation, sale, utilization and recycle etc. The CF of a product informs customers about the amount of CO<sub>2</sub> released during this product life cycle and may favor products with lower emissions and release the ecological impact in the future. This paper concerns about the topics of CF in the 'manufacturing' stage of a product lifecycle because the CF in the 'manufacturing' stage will release a majority of CF. Basically, the CF of a product must effectively reflect the CF produced by the plant. An apportionment model is thus proposed by this paper to evaluate the effective CF of a product during its manufacturing process. Besides detailed description of the concept and procedure of this model, a case is also utilized to illustrate the application of the proposed model.

Keyword : Carbon footprint labels, Carbon footprint, Product life cycle, Carbon emissions evaluation