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I3. Recycled/reused content of non-energy material inputs

Calculation

I3: Recycled/reused content of material inputs =

(Total weight of recycled material + Total weight of reused material)

/ Total weight of material inputs

x 100

Unit of the indicator: percent

Why this indicator is important

Increasing the recycled and reused content of non-energy material inputs will reduce the amount of new materials required. Whether renewable or non-renewable, it is usually more energy efficient to recycle a material than to manufacture it from virgin materials. Recycling and reusing materials also keeps them out of the waste stream.

This indicator accounts for all material inputs that are to be used for manufacturing processes in your facility by weight other than fuel and water. It excludes materials recycled and reused within the facility.

Interpretation

To understand which inputs could be changed to improve this indicator in the future, review the detailed process input data. One approach would be to rank the input materials by weight multiplied by its proportion of virgin (non-recycled) materials. For example, if the facility used 100 tonnes of paper and 60% is new material, this would result in 60 tonnes of virgin paper. The same facility may use 50 tonnes of PET plastic that is 80% new material. This accounts for 40 tonnes of virgin PET plastic. In this case, increasing the recycled proportion of paper would have a greater impact on the indicator than improving the recycled content of PET plastic.

Related issues

This indicator alone does not take into account the effect of recycled or reused materials on the quality of the material. In some cases, the production process may need to be adjusted to accommodate recycled or reused materials. This could require a capital investment or change in the product design.