What is the Carbon Footprint?

Carbon footprinting is the calculation of the carbon dioxide (CO2) equivalents of the effects of greenhouse gases generated as a result of activities such as production, service and processing as determined by the Kyoto Protocol. Carbon footprint calculation should be done before carbon footprint reduction. It is not known exactly how and how much the carbon footprint will be reduced. After the calculation, it is possible to reduce the carbon footprint with alternative solutions by examining the emission sources.

The carbon footprint consists of two main parts. These are

1- Direct/Primary Footprint
2- Indirect/Secondary Footprint

Direct/Primary Footprint: A measure of direct carbon dioxide (CO2) emissions from the combustion of fossil fuels, including household energy consumption and transportation (car and aircraft use).

Indirect/Secondary Footprint: A measure of the indirect carbon dioxide (CO2) emissions associated with the entire life cycle of the products we use, from their manufacture to their eventual degradation.

How to Reduce Carbon Footprint?

Carbon footprint can be reduced. Making small changes in one's daily life will help reduce the carbon footprint. The first detail to be considered in reducing the carbon footprint is the vehicles used. Personal vehicles used during the day should be as small as possible, that is, low-powered. In this way, the damage to the environment will be minimized. In addition, sharing the vehicle used during the day with others or using public transportation will help reduce the carbon footprint..

Another detail to be considered to reduce the carbon footprint is energy consumption. If possible, we should live in ecological buildings and use renewable energy sources. Renewable energy sources such as solar or wind energy will play a big role in reducing the carbon footprint.

Even using solar energy for heating will make a big difference. In addition, electronic equipment such as light bulbs, refrigerators and washing machines should be selected from models that will not harm the environment.

Turkey's Carbon Footprint

In Turkey, as in the rest of the world, the carbon footprint is the largest component of the ecological footprint. Using fossil fuels such as natural gas and crude oil as its main energy sources, Turkey also has to import these resources. Moreover, being dependent on foreign countries for energy use and production is one of the factors that cause the current account deficit the most..

Although only a small portion of renewable energies such as hydroelectricity, solar, wind, geothermal, etc. can be utilized by Turkey, it has a high potential to produce these resources.

Turkey, whose greenhouse gas emissions have increased by 130% over the past 30 years, could suffer serious losses in exports to EU countries if it does not reduce its emissions intensity. With this situation, Turkey should see the EU Green Deal as an opportunity to transition to a low-carbon economy rather than a threat..

ISO 14064-1 Standard and Carbon Footprint

The ISO 14064-1 standard covers the principles and requirements for the calculation and reporting of greenhouse gas emissions and removals at the organization level. It also covers the requirements for the design, development, management, reporting and verification of an organization's greenhouse gas inventory. The ISO 14064 series of standards is a neutral greenhouse gas program. When a GHG program is implemented, the requirements of this GHG program are a continuation of the requirements in the ISO 14064 series standards.

If a requirement of the ISO 14064 series of standards prohibits an organization or a GHG project partner from meeting a requirement of the GHG program, the requirement of the GHG program takes precedence.

Why Calculate Carbon Footprint?

- Legal obligation,
- Corporate social responsibility,
- Customer or investor requests,
- Marketing and corporate image
- Greenhouse Gas Emission reduction (mandatory/voluntary)
- Participation in emission trading mechanisms

Carbon Footprint Advantages

Periodic Audit

Knowing that your business is periodically audited will increase confidence for guests and continuity awareness for employees.

Competitive Advantage

Your competitive position is strengthened with low carbon products.

Increasing the Image of Your Business

Sharing the environmental performance of products with your stakeholders strengthens your company image.

The Importance of the "TÜV" Brand

Receiving your certificate from TÜV AUSTRIA TURK will add a great prestige to your business.

ISO 14067 Product Carbon Footprint (CPF)

With the ISO 14067 Standard Product Carbon Footprint (CFP), Product Carbon Footprint is increasingly used as a competitive advantage in sectoral markets.

Why Product Carbon Footprint?

One of the biggest reasons for the increase in Greenhouse Gas Emissions is human activities, namely industrialization. As industrialization becomes widespread, it causes an increase in gases such as CO2, N2O, PFC, HFC etc., which have a Greenhouse Gas effect in the atmosphere.

In this sense, the world public opinion, united nations, governments take various measures to combat climate change, various International Agreements are signed within the scope of combating climate change and studies are carried out to bring greenhouse gases to a certain level in the atmosphere.

Governments, organizations and companies are working to reduce Greenhouse Gas Emissions. In this sense, the ISO 14067 Product Carbon Footprint Standard has been established, which includes standards such as the calculation of Greenhouse Gas Emissions and reductions given to the atmosphere at the Establishment Level, the calculation of the reductions of Gas Emissions on a project basis, as well as how much greenhouse gas emissions and reductions of products are made.

LCA Life Cycle

Life cycle assessment (LCA) is the process of assessing the environmental impact of a product over its entire life cycle. It can be used to examine the environmental impact of a product or the function that the product is designed to perform. LCA is commonly referred to as a "cradle-to-grave" analysis.

LCA Life Cycle Scope

The "life cycle" or "cradle to grave" includes the extraction of raw materials; processing, manufacturing and production of the product; transportation or distribution of the product to the consumer; use of the product by the consumer; and disposal or recovery of the product after its useful life.

Why is LCA Life Cycle Important?

LCA is widely recognized as the best approach to measure the environmental impacts of a product on the environment over its entire life cycle. LCA is a modeling tool for assessing the environmental impacts associated with a product over its entire life cycle (from raw material extraction through processing, manufacturing, distribution, use and disposal or recycling). LCA allows decision makers to compare two products and select the one with the lowest impact on the environment. LCA reports form the basis of the Environmental Product Label (EPD). EPDs are the basis for eco-design approaches to energy and resource efficiency.

Life Cycle Analysis enables analysts to establish the following topics;

- Calculate the environmental impact of a product,
- To be able to identify the positive and negative effects of a process or product on the environment,
- Opportunities for process and product improvement,
- Compare and analyze various processes according to their environmental impact,
- Quantitatively justify the change in process or product.

ISO 14046 Water Footprint

Water footprint is an indicator that not only indicates the amount of water used in production, but also its type and where/for what purpose.

The water footprint calculation provides information on how water is used in processes and procedures over time. It also feeds the debate on sustainable and equitable water use and can provide a sound basis for a local assessment of environmental, social and economic impacts, which are steps towards sustainability. Only air and soil emissions that affect water quality are included in the assessment and not all air and soil emissions. While reporting is within the scope of ISO 14046:2014, communicating water footprint results, for example in the form of labels or declarations, is outside the scope of ISO 14046:2014.

TÜV AUSTRIA

Why Work with TÜV AUSTRIA?

A member of the TÜV AUSTRIA Group

As TÜV AUSTRIA TURK, TÜV AUSTRIA, which has authorization in many international fields, carries out its operations in Turkey in an authorized, safe and reliable manner.

TÜV AUSTRIA, which has grown rapidly starting from Austria, has targeted customer satisfaction, entrepreneurship and expertise

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