

What is the 'Offshore wind industry product carbon footprint guidance'?

The 'Offshore wind industry product carbon footprint guidance' is a standardised framework for measuring the life cycle carbon footprint of offshore wind developments. It provides detailed methodologies to assess and quantify greenhouse gas emissions from the various stages of an offshore wind development, from material extraction and production to operation and decommissioning. The guidance is designed to harmonise carbon footprint assessments across the industry and ensure consistency and transparency.

Why should stakeholders use the guidance?

Stakeholders should use the 'Offshore wind industry product carbon footprint guidance' because it offers a consistent and comparable method for calculating the carbon footprint of offshore wind developments. This allows stakeholders to identify carbon emission hotspots, compare projects effectively, and make informed decisions that drive decarbonisation. The guidance also ensures that carbon footprint calculations are aligned with international standards, helping stakeholders meet regulatory requirements and improve transparency in reporting environmental impact.

Who was involved in the development of the guidance?

The guidance was developed by the Sustainability Joint Industry Programme (SUS-JIP), which consists of 12 global offshore wind developers and is managed by The Carbon Trust. The development process also involved consultation with a wide range of industry stakeholders, including original equipment manufacturers (OEMs) and regulators. This ensured that the guidance reflects the collective expertise and input from key players in the offshore wind sector and covers diverse perspectives.

Who is the guidance aimed at?

The 'Offshore wind industry product carbon footprint guidance' is aimed at all stakeholders involved in offshore wind developments, including developers, manufacturers, suppliers, regulators, and policymakers. It is intended to assist those responsible for measuring, reporting, and improving the environmental performance of offshore wind farms, ensuring that carbon reduction efforts are aligned with industry standards and best practices.

What standards is the guidance based on?

The 'Offshore wind industry product carbon footprint guidance' is based on key international standards for carbon footprinting, specifically the Greenhouse Gas Protocol Product Standard and ISO 14067. It also incorporates additional sector-specific considerations to address the unique aspects of offshore wind developments.

At what stage in the development life cycle should a product carbon footprint (PCF) assessment be conducted?

PCF assessments can be conducted at two primary stages of the offshore wind development life cycle:

1. Prospective PCF: Conducted during the design, planning, or construction phase, before the development is operational. This helps stakeholders assess potential emissions and make design decisions that reduce the overall carbon footprint.

2. Operational PCF: Conducted after the development is fully commissioned and operational. This assessment is based on real-world data and provides a comprehensive analysis of actual emissions throughout the life cycle.

How does the timing of the assessment affect the accuracy of the carbon footprint data?

The timing of the PCF assessment significantly impacts the accuracy of the carbon footprint data. Prospective PCF assessments may rely on assumptions, forecasts, and secondary data, which introduces a higher degree of uncertainty. In contrast, operational PCF assessments may use actual data from the fully operational development, providing a more accurate and reliable representation of the carbon footprint. Operational assessments allow for verification of earlier assumptions and adjustments in future planning.

What are the advantages of conducting a PCF assessment during the design phase?

Conducting a PCF assessment during the design phase offers several advantages, including:

- Early identification of carbon hotspots: This allows developers to make informed choices on materials, technologies, and processes that reduce the overall carbon footprint.
- Informed decision-making: Developers can compare different design options and select those with the lowest environmental impact before committing to construction.
- Potential cost savings: Reducing the carbon footprint at the design stage can help avoid expensive retrofitting or operational changes later in the development's life cycle.

What data is required for PCF assessment of an Offshore Wind farm?

- Primary data: Collected directly from specific processes involved in the life cycle of the OSW development, such as material extraction, manufacturing, transportation, and on-site operations.
- Secondary data: Sourced from external databases, literature, or generic industry data, particularly when primary data is unavailable or impractical to obtain. Both data types are used to assess emissions from all life cycle stages, including raw material sourcing, energy consumption, maintenance, and decommissioning.

What is the Offshore wind footprinting tool?

The Offshore wind footprinting tool has been developed by the SUS-JIP consortium to enable assessors to calculate a carbon footprint in accordance with the method set out in the guidance. The calculator tool has been developed in Microsoft Excel to support ease of use and adoption of the guidance. Any results generated using the tool rely on data and assumptions made by the assessor and are not considered to be quantified or verified by the Carbon Trust or the SUS-JIP partners and are the sole responsibility of the user.

Is the Offshore Wind tool free to use?

Yes, the Offshore Wind Carbon Footprint tool is free to use. It is licensed under Creative Commons Attribution-ShareAlike (CC BY-SA 4.0). This means that users are free to use, share, and adapt the tool as long as they provide appropriate credit, indicate any changes made, and distribute any derivative works under the same license. This tool has been developed alongside our guidance to encourage collaboration and transparency within the offshore wind industry.