

Carbon Monitoring.

Prepare for the new low-carbon future with an integrated data management, reporting, analysis and advice services.

The Zero Carbon Bill is expected to fundamentally change the way organisations—both public and private—operate and position themselves. The quantification, reporting and management of carbon emissions is likely to take on a similar level of importance as other financial and operational disciplines. This places a new focus on a wide range of business activities, including energy use, travel (both transport and accommodation), water use, waste generation and even the activities of suppliers and contractors.

Fine-tuned over 25 years in the energy management sector, Smart Power has a suite of monitoring and technical services to help you on your journey through the carbon management cycle;

- Data capture, integrity checks, verification and management,
- Monthly, quarterly and annual reporting,
- Analysis, benchmarking, development of management plans and reduction strategies.

The Ministry of Environment regularly publishes guidelines, procedures and emissions factors for measuring and reporting on carbon emissions, and

Smart Power's systems align with that advice. The outputs are compatible with the requirements of third-party verification schemes, such as the internationally-recognised CEMARS and carboNZero programmes.

Energy use remains the largest source of emissions for many businesses, and this places Smart Power in a particularly strong position to help manage your carbon footprint. From energy procurement through to optimising energy efficiency in facilities, our commercial and technical teams have expert knowledge of local markets and challenges as well as international best-practices. Smart Power staff have undertaken specific training in preparing data for independent verification (i.e. CEMARS, carboNZero).

How are emissions quantified?

Carbon emissions are grouped in three categories:

- Scope 1 emissions come directly from sources that are owned or controlled by an organisation.
- Scope 2 emissions come indirectly from the generation of energy used by an organisation.
- Scope 3 emissions come indirectly from the activities of the organisation, but from sources owned or controlled by others.

Establishing the 'boundaries' of the emissions attributed to an organisation's activities is a key step, and involves careful consideration of operational and financial structures within that organisation.

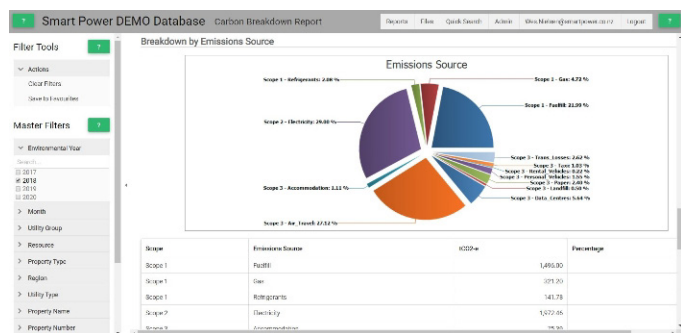
Collating, analysing and summarising the range of emissions from within the agreed boundaries involves a lot of data handling and processing from multiple sources. A secure and capable data management system is critical.

Reporting and Monitoring

Reporting on your emissions serves multiple purposes; external to the organisation it can demonstrate a commitment to responsible operations, a point of competitive difference or simply increase transparency, while internally it can provide a tool for identifying efficiency opportunities and increasing awareness of resource use within the organisation. It is also likely that disclosure of carbon emissions will become mandatory for at least some organisations in the near future.

Smart Power’s online customer portal – eSmart – provides a range of flexible data visualisations and analysis/summary functions, perfect for regular monitoring and simple reporting.

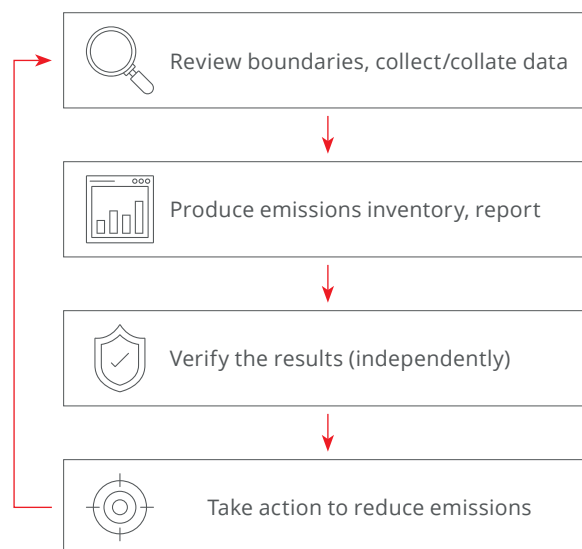
Formal reporting structures and content can be tailored to your specific needs and audiences, but a key feature is the establishment of a baseline year (either a Calendar Year or Financial Year) against which future performance can be monitored. The choice of reporting frequency—typically monthly, quarterly and/or annually—is normally made by balancing data availability and processing requirements, but this may also be prescribed if your organisation needs to comply with mandatory disclosure obligations.



eSmart data visualisation example.

How can I manage emissions?

While reporting and monitoring have clear and important purposes, they form only parts of the wider Carbon Management cycle, with the higher-level goal being either stopping the growth of emissions or ultimately reducing emissions to their lowest practical levels.



A simple hierarchy is recommended when considering how to take action to reduce emissions.

1. **Avoid** – eliminate resource or service usage.
2. **Substitute** – use lower-carbon alternative resources or processes.
3. **Reduce** – optimise resource or service usage.
4. **Offset** – compensate through other reduction programmes.

As an independent Energy Management company, Smart Power has no affiliations with any suppliers and is therefore able to provide you with technology-agnostic, and reliable advice, backed up by relevant business-case justifications.



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