

IJGlobal ESG Technology – Energy – ERM

Angus Leslie Melville

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The IJGlobal ESG Technology Award in the Energy category was won by technical advisory specialist ERM for its emissions.AI business which one judge said uses “scalable technology that could drive global change”.

Another of the independent panel of judges referred to ERM as “real leaders” recognising “proven success of the solutions and good examples provided”.

Yet another judge said: “This entry demonstrates the emissions.AI application, which enables companies to gain better oversight of their operational data, so they can reduce their Scope 1 and Scope 2 carbon emissions. For me that’s impressive.”

For those not acquainted with emissions.AI, it is a first-of-its-kind product that is best suited to facilities that emit more than 100,000 tonnes of CO₂ per year (Scope 1 and 2) that can complement existing emissions reduction action plans and activities.

It contextualises operational emissions and leverages engineering first principles, analytics, and artificial intelligence to identify operational inefficiencies, improvements and opportunities for lower emissions and costs.

According to ERM, it is already having a huge impact for its clients as they decarbonise operations in a bid to reach net-zero ambitions.

The submission states: “emissions.AI has revolutionised carbon emissions management for ERM’s clients by facilitating swift, accurate data-driven decisions. This technology has not only boosted energy efficiency but also helped to substantially curtail CO₂ emissions, promoting environmentally conscious practices across diverse sectors.”

ERM claims that emissions.AI is highly configurable, and it is investing to customise its application for other carbon intensive industries. As part of this drive, emissions.AI is now available on Microsoft Marketplace.

They say: “We believe that as companies become more sophisticated in their pursuit of emissions reduction, demand for our solution will grow significantly. We aspire to scale the rollout of emissions.AI to more clients in more regions and sectors, reducing global industrial carbon emissions by 1% within 5 years.”

Clever solution

ERM says that emissions.AI has brought transformative advancements in carbon tracking for many of its clients and provides 3 case studies.

Sasol Chemicals harnessed emissions.AI within its Lake Charles Chemical Complex in Louisiana. By leveraging accurate data insights, the company optimised energy utilisation and emission management. emissions.AI was deployed at its



ethylene unit at Lake Charles, making Sasol the first company in the chemicals manufacturing sector to introduce the technology.

André Bonton, vice president of technical services for Sasol Chemicals America, said: “With emissions.AI, we can get accurate data into the hands of our experts so they can make faster, better decisions that improve our performance and drive more sustainable operations.”

Dana Petroleum's journey with emissions.AI is equally impactful. Deployed on the Triton FPSO, the technology identified emission hotspots and facilitated tailored carbon reduction methods.

The robust data repository not only aids emissions quantification but also shapes a comprehensive emissions reduction plan, steering it toward a holistic transition to a greener future.

After installation in January 2022, the technology went through a customisation and configuration process to ensure it was being used in line with Dana’s overall carbon reduction objectives, before going live in April 2022.

The granular and automatically generated data set that is now available to Dana has created a foundation for a wider scope of emissions reduction activities. Furthermore, the data can also quantify emissions reduction for theoretical savings on a marginal abatement cost curve.

OPEX and ERM are preparing an Emissions Reduction Action Plan, which collects the data identified and quantified by emissions.AI and uses it to assist in the generation of emissions reduction ideas, helping to inform Dana’s transition journey.

Canadian Natural Resources (CNR) embraced emissions.AI to drive emission curtailment across its UKCS assets. The technology pinpointed emission-saving opportunities with incredible precision.

From rectifying malfunctioning pressure control valves – saving 17 tonnes of CO₂ daily – to optimising single Sea Water Lift Pump operation and salvaging 13 tonnes of CO₂ daily, emissions.AI guided CNR in achieving remarkable emission reductions.

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