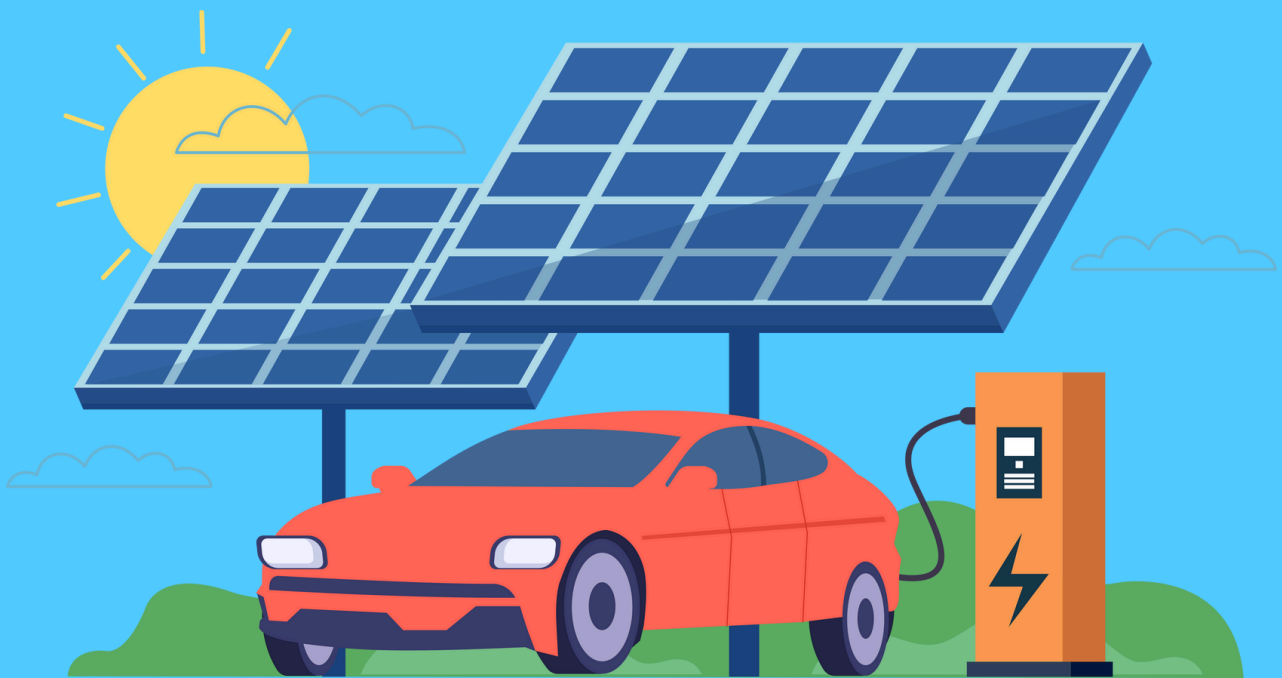
Solar Energy Scotland

Case Study

Easter Western Motor Group

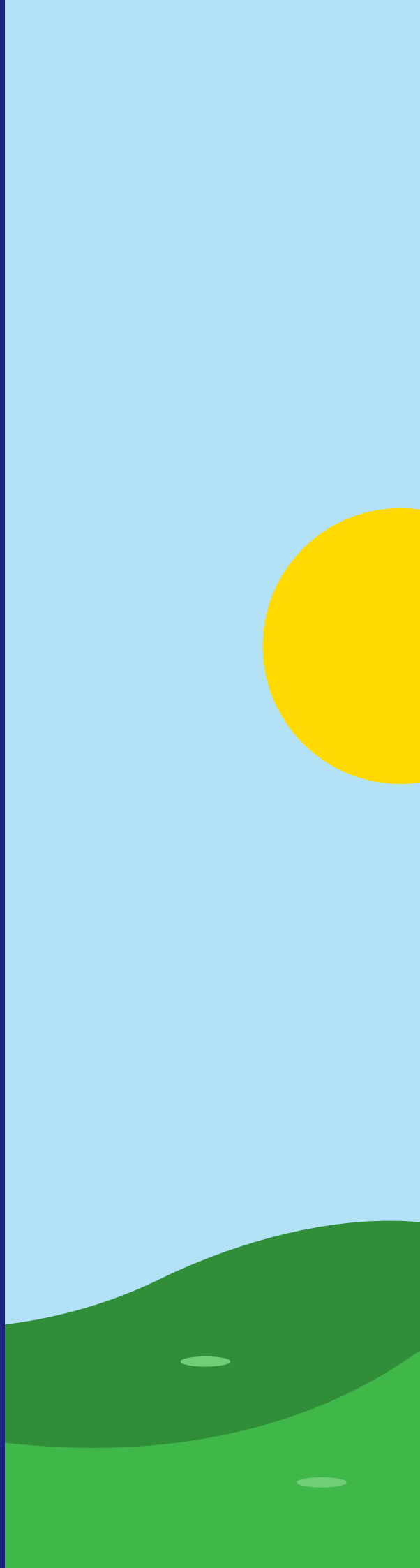


Summary

- **Location:** Scotland
- **Capacity:** Peak Power: 1,114.7KWP/ 1.11MW
- **Type:** Commercial Solar Project
- **Developer:** Gensource
- **Owner:** Eastern Western Motor Group
- **Panel type:** JA Solar, Bi-facial all black panels
- **Completion date:** Phase 1 completed January 2025. The relationship is ongoing for O&M and further sites.

Gensource

At Gensource, we specialise in sustainable energy solutions, covering everything from consultancy and design to construction, operation, and maintenance. Whether you're a homeowner or a business, our comprehensive sustainability-focused services across a range of technologies including Solar PV, Battery Storage, EV Charging, Energy Monitoring and Air Source Heat Pumps solar panel system installation– all tailored to our clients' specific needs and goals.



Overview

A portfolio of eight sites have seen solar PV installations completed for Eastern Western Motor Group, as the Gensource team continues to support the Group's efforts to reduce its operational cost and carbon footprint. One site was part of a much wider redevelopment of the site, Toyota Stirling, which saw the Gensource team support on designing a system that aligned with the clients commitment for developing solar across their sites, which saw the system designed far exceed the specification required to simply comply with building regulations demonstrating the clients commitment to engage with solar specialists to invest in systems with meaningful impact.

With growing standards and increasing pressure from building insurers regarding fire safety, system design placed a strong emphasis on safety from the outset. The SolarEdge solution selected offers market-leading protection, including arc fault detection and prevention, SafeDC technology, and module-level monitoring. To further enhance safety, a SolarEdge Firefighter Gateway was installed alongside Viridian ArcBox solar enclosures on all man-made DC connections—ensuring the system is built to operate safely and reliably for years to come.

All 8 systems have been installed with import/export monitoring. This data-led approach provides full visibility of total electricity flows across the site—not just solar generation. With this insight, we're able to better support clients like Eastern Western Motor Group in making informed decisions about future on-site sustainable energy systems and demonstrate the financial and carbon savings being made.

Project Summary

The project was driven by our commitment to sustainable energy, a focus on innovation, and a clear ambition to deliver large-scale commercial solutions that tackle the energy and climate crisis. For the client, the key drivers were reducing operational costs and making an economically sound decision while also lowering their carbon footprint, the investment I on-site sustainable energy also support the electrification of transport, particularly at the clients retail sites.

The project presented several challenges. Some systems spanned multiple elevations and roof types, requiring the Gensource team to design and install a range of tailored mounting solutions specific to each surface. All sites remained live and open to the public throughout construction, making health and safety a top priority. This was especially critical at locations where working space was limited or where full glass frontages required precise coordination of scaffolding, lifting operations, and plant movement.

6 of the 8 sites were within 3km of Edinburgh Airport, meaning that even with the change in permitted development rights (PDR) in Scotland which came into effect in May 2024, these sites still required full planning applications, glint and glare assessment and building warrant approval. As well as grid connection permissions Gensource oversaw the development of all consents. These sites were targeted by Gensource and the client due to the anticipated change in PDR having no bearing on the required consents for these sites to avoid any potential unnecessary costs associated with developing the projects.

Despite these complexities, the client's strong commitment to responsible retailing and long-term sustainability made the project highly rewarding. It was a privilege for our team to deliver premium solar PV systems using industry-leading products and technologies.

The system design also posed its own challenges, particularly due to the large-scale Sunfixings Frame required to position and fix the solar PV array to the ground.The quality of ground at the chosen site was considered poor quality and there were concerns over how to secure the Sunfixings Frame without relying on an excessive amount of concrete. The challenge was to find a solution that ensured stability while keeping concrete down to ensure the design remained efficient, cost-effective, and environmentally responsible.

Outcomes

Our customer, Eastern Western Motor Group, were highly satisfied with the project outcome demonstrated from the customer review:

"I'm reluctant to tell everyone how professional Josh King and the Gensource team were! I'd like them to be available for our next big push. But against my better judgement (selfishness!) let me say these guys were first rate. Technically skilled, great communicators, logistically excellent. All at a fair price. Well done, Gensource. I am delighted we trusted in a young, local and ultimately able business."

– Group Managing Director, Eastern Western Motor Group

The system is fully operational, delivering an estimated annual yield of 1,002,887 kWh. With electric vehicles averaging 3.4 miles per kWh, this energy could power approximately 3,409,815 miles of EV travel—enough to circle the Earth 136 times.

In terms of emission, each kWh saves 0.23 kg of CO_2, meaning the system prevents an estimated 230,664 kg (254 tonnes) of CO_2 emissions each year. To put that into perspective, it's the equivalent carbon offset of nearly 10,500 oak trees, each of which absorbs around 22 kg of CO_2 annually.

We continue to support Eastern Western Motor Group through monthly performance reporting, showcasing both the financial and carbon savings delivered. System performance has exceeded our initial expectations, with the eight sites generating 8% more energy than forecast in the original business case. We are providing ongoing operations and maintenance services, which now include integrating several of their existing sites—where we were not the original installer—into our O&M portfolio.

Local Benefits

Eastern Western Motor Group decided to invest in a young, growing, local business as their delivery partner which helped support the development of skilled green jobs in the region. The project created employment opportunities for local engineers, installers, and support staff, boosting economic activity while building long-term capacity in Scotland's clean energy sector.

Community Benefits

The system has ignited interest and curiosity within the local community, raising awareness of solar energy and energy independence. It has encouraged others to consider how solar and storage solutions could benefit their own lives while also making a positive impact on the environment. This effect is especially noticeable in smaller towns and villages across Scotland, such as Milnathort, where a strong sense of community fosters conversation and connection.

This "word-of-mouth" effect is a great example of how one successful installation can inspire others, promoting wider adoption of sustainable energy solutions and contributing to a more environmentally conscious community.

Learn more about what's happening at Gensource at www.gensource.co.uk

Published in the United Kingdom by Solar Solar Energy UK
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