



SRL Solar PLUS[®]

Giving you the green light for
a sustainable solar solution.



Introducing SRL Solar PLUS®

- ☀️ Convert Sunlight into electricity
- 🔋 Power: 52W
- 🏠 Monocrystalline Silicon Cells
- ⚖️ Weight: 8KG
- 📏 Size: 601mm x 546mm

The arrival of SRL Solar PLUS signals a major move forward in sustainable traffic management.

A portable traffic system using solar technology, it dramatically reduces battery exchanges, power usage and emissions, making traffic management, far greener.

Available exclusively to SRL's contract hire and purchase customers, it can be easily retrofitted to our existing systems, increasing sustainability, cutting your expenses and improving safety. The system has been road tested and proven to be both reliable and durable, giving you the level of performance that is demanded from temporary traffic management systems.



So, why Solar?

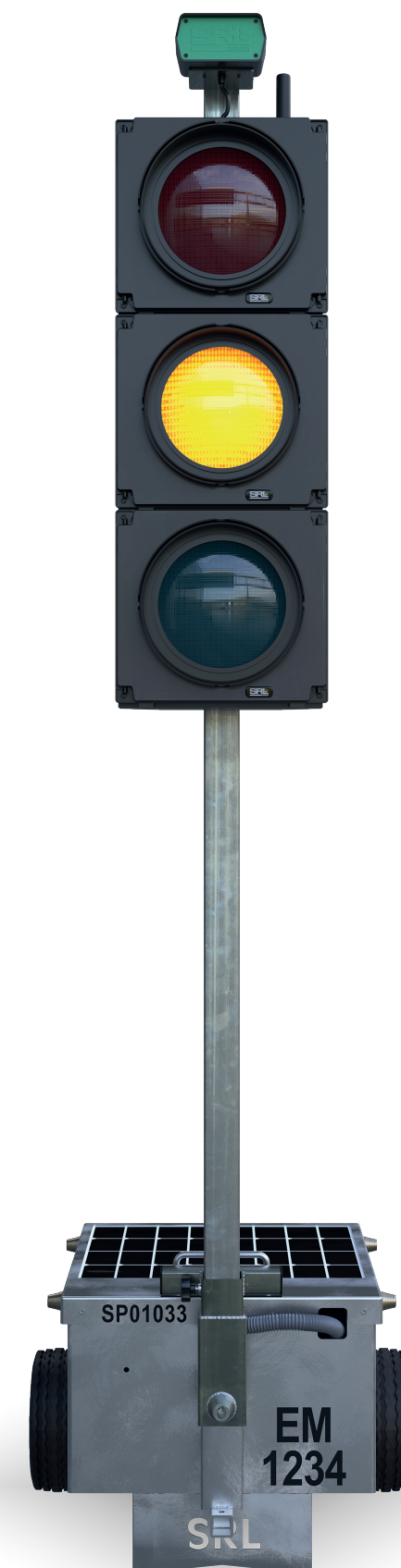
Traffic management needs to go green.

And with SRL Solar PLUS, you're good to go.

In a world where everything needs to become greener, the SRL Solar PLUS traffic system enables you to make a positive difference to the planet, effectively reducing battery exchanges for weeks or even months at a time.

And as you might expect from the UK's leading innovator in traffic systems, it can positively transform your business too, driving major improvements in cost efficiency, sustainability and health and safety along the way. SRL Solar PLUS is a robust and rugged product with the advantage of delivering expectational results.

With the introduction of SRL Solar PLUS, we've made a good thing, even better.



SRL's solar solution.

The perfect fit for your sustainability drive.

Retrofit with ease. It's incredibly easy to transition your fleet, because your existing SRL kit accommodates solar technology. Thanks to their flat lids and boxy shape, the available surface area maximises solar panel efficiency. No need to buy new kit; simply retrofit your unit lids and you're good to go.

The solar panels can be quickly installed by our qualified engineering team and with a few minor tweaks, work instantly on Pedestrian units, RadioLight, EuroLight, UltraLight and SolarLight, including those with our intelligent Multiphase ADS (Adaptive Detection System).

Solar continuity.

Ultra-reliable signalling.

SRL Solar PLUS runs with three batteries in the base of your box, as your SRL units do now. This provides valuable back-up and a consistent base-level of power, even in winter when solar yield naturally isn't as strong. In the unlikely event of a panel fault, the solar element is simply bypassed and batteries are used in isolation, so you're always covered. We've also updated and improved our telematics with an ingenious feature which enables you to precisely monitor solar sustainability and battery performance. Integral to the performance of SRL Solar PLUS, it gives you a real time overview of battery status, cycle insight data and notification if the battery is running out, enabling you to rectify the situation in good time.

SRL's Solar PLUS has been road tested to only deliver the best results.

SRL Solar PLUS systems also benefit from improved security, with four bullet locks providing complete peace of mind. In fact, during product testing, there were no reports of thefts or damages to the solar panel. And our panels are durable enough to cope with the toughest conditions, too. Raised edges reduce damage during loading and transportation and once in situ, the panel frame stays securely in place, enabling it to withstand the harshest environments.



With SRL Solar PLUS, it all adds up to a more advanced sustainable signalling solution.

- **Good for driving sustainability:** less battery exchange visits and fewer battery charge cycles results in longer battery life.
- **Good for reducing carbon footprints:** our advanced solar technology converts up to 24% of sunlight into electricity, while fewer site visits cuts fuel emissions too.
- **Good for improving Health and Safety:** less time on site working next to live lanes means reduced roadside risk and better protection for your people.
- **Good for morale:** using the latest solar technology helps to motivate your team and aids staff retention, keeping your workforce upskilled, fulfilled and happy.
- **Good for saving time, fuel and money:** fewer site visits saves on emissions and time, while improved telematics software takes fleet monitoring efficiency to another level.



Save Money

Switching to SRL Solar PLUS can potentially help to drive your overheads down by reducing the need for battery exchanges; reducing operatives' workload, fuel expenses, and onsite battery charging. Keeping costs in check and keeping you ahead of the curve.



Greater Sustainability

With green initiatives and sustainable practices increasingly stipulated by Local Authorities, Utilities companies and Tier One contractors, SRL Solar PLUS is the route to a green energy future. Using the natural power of the sun to charge batteries significantly reduces your power usage and cuts vehicle emissions by reducing the need for frequent battery exchanges.



Improved Health & Safety

Working on live lanes for frequent battery exchanges isn't ideal, as it raises roadside risk. SRL Solar PLUS helps to reduce the frequency of battery exchanges, thereby reducing unnecessary exposure to traffic. The result? Health & safety is improved, your people feel more motivated, upskilled and fulfilled in their work.

Keep your sustainability targets on track with SRL Telematics.

The advanced visibility of our telematics software means we're way out in front when it comes to fleet monitoring.

The ingeniously small communications device sits neatly in the signal box, with an easy-to-use dashboard and sophisticated functionality which enables you to check battery charge levels, monitor your assets' exact locations and analyse system functionality.



- **Check the charge status of every signal in your fleet** at the touch of a button, enabling you to schedule battery changes when needed, reducing travel and fuel costs.
- **Monitor the signal's cycle through Red, Amber and Green** and quickly assess if there's a fault, keeping you on top of any operational issues.
- **Enjoy smart functionality like tagging and geofencing**, which sends instant alerts when signals move out of predetermined zone.
- **Boost visibility of utilisation**, which sets a radius around your depot.
- **Track signal movements in real time and monitor unwanted interference**, improving your response to thefts' and enabling you to keep your lights running smoothly and securely.

There are lots of plus sides to Telematics. Now we've added sustainability tracking, too.

SRL provides onboarding and ongoing training support for our telematics system. Our bespoke dashboard enables you to monitor data for individual assets or groups of assets (reviewing the performance of your site as a whole).

It also provides you with an initial system analysis, revealing solar yield in preceding time periods.

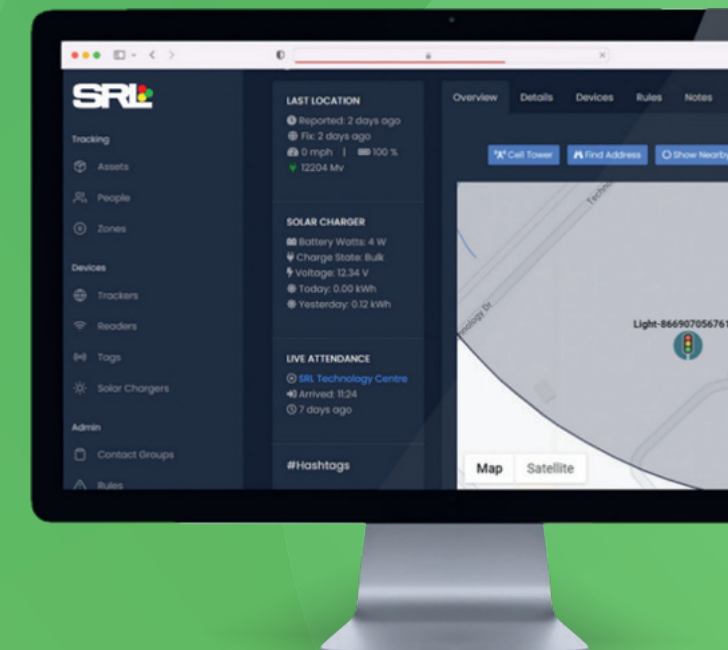
You'll also see:

- Battery voltage (real-time).
- Battery charge status (confirming the solar panel is functioning).
- Average battery cycle time (the time between battery exchanges).
- Date of last exchange.

Making traffic management, better managed.

To help you manage your solar fleet, we'll work with your team to set up system rules – agreed triggers for battery exchange alerts. We usually advise these are set at around 11.5v, to provide 24 hours' notice. Additional alerts can be set for final reminders and sent to any recipients, via SMS or email. Whatever works for you.

Telematics data also provides detailed evidence of solar efficiencies, useful in tenders where sustainable practices are a prerequisite, enabling you to demonstrate your company's forward-thinking, green approach to traffic management.



With SRL Solar PLUS, it's one big sustainability plus after another.

To ensure that SRL Solar PLUS® got our green light, it had to pass our most rigorous sustainability and quality control criteria. This meant conducting in-depth testing and analysis of our new solar units before bringing them to market. Here's what we learnt:

1.

AGM Batteries are best suited for solar applications.

AGM (Absorbed Glass Mat) batteries last significantly longer than Lead Acid batteries and charge better through solar power. Also:

- AGM are a like-for-like replacement for Lead Acid. You continue to use three batteries per signal but can expect to carry out half the number of battery changes, even without solar.
- AGM can be charged using your existing charging benches, but you can't mix and match Lead Acid / AGM batteries in a traffic signal. Our engineers will set your system up for either Lead Acid or AGM.
- AGM perform well in bad weather, making them a stable solution for all environments.
- AGM may be more expensive than Lead Acid batteries but last considerably longer. With 600 cycles and an average life span of >11 years, they're really cost effective.
- AGM are heavier (30kg) than existing Lead Acid batteries (23kg), so bear this in mind when manually handling them.

2.

Solar signals are better placed to help the planet, when they're well placed.

Solar powered traffic signals have considerable sustainability, cost and safety benefits. When deploying solar units, operatives should consider their surroundings. For instance, clear areas are preferable to built-up or heavily shaded areas next to trees and buildings. It's also worth noting that:

- If one signal requires a battery exchange, it's best practice to change all the batteries on that site. Not all batteries may need changing at that time, but if they need topping up within a few days, changing them all together makes sense as it's more cost effective than having your team continually return to the site.
- The biggest commercial benefits of solar continue to be seen in rural areas. When traditional battery exchanges are located far away from depots in rural areas, emissions and journey times to get to them can be considerable, making solar a far better option.
- If solar equipment is taken off site for any reason, keeping them outside in a secure area will ensure they keep harvesting energy. Similarly, if they're deployed on reactive, short-term sites, the lights can continue to harvest energy whilst being moved to another site – increasing the battery cycle time once more.



3.

Even in winter, you can rely on Solar.

When days are shorter, sunlight is more restricted, but that doesn't restrict the reliability of SRL Solar PLUS. Winter testing evidenced a natural and noticeable reduction in winter performance.

But even when the sunlight isn't there you can be sure the dependability of SRL Solar PLUS will be. In times of substantial snow or ice, your signal is unlikely to experience much solar yield.

In the event of this happening, signals will revert to their standard battery charge, ensuring signal continuity. Then once the snow or ice melts or is cleaned off, the panels simply revert to normal solar functionality. SRL's solar panels have been sourced from marine applications so they're thoroughly tried, tested and trusted to be resistant to cracking or breaking in even the iciest of conditions.



Performance, proven so you can give the green light to a **truly sustainable solution.**

Before we launched SRL Solar PLUS, we set out to prove the case for solar sustainability, putting our technology through its paces so we could be totally confident in its roadside capabilities. SRL Solar PLUS has been in development since 2021, and in trials since July 2022:

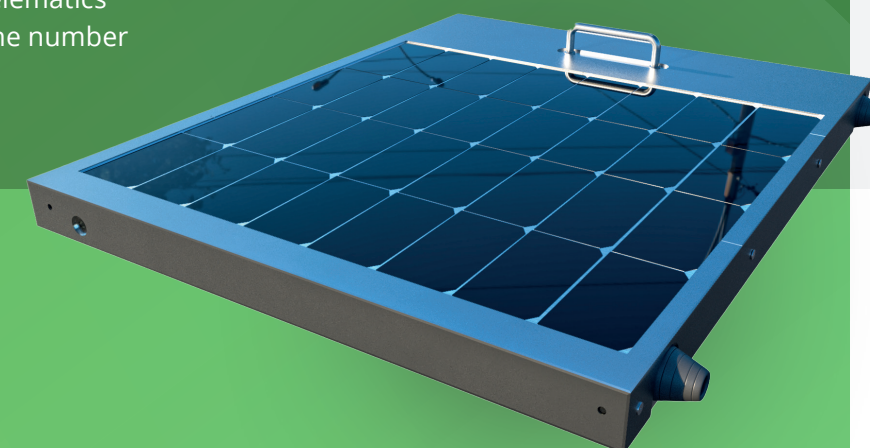
Testing throughout summer saw signals last nearly three months without the need for battery exchanges.

We've also made additional modifications and improvements throughout winter so we're confident this benchmark can only extend further.

Class One Traffic Management's contracts director, Wullie Murdoch stated: "Class One's participation in the beta trial clearly demonstrated to us the long-term benefits to be gained by using SRL Solar PLUS, with the combination of solar charging and telematics significantly reducing the number of site visits required.

Freeflow Traffic Management's operations director, Stephen McNair commented: "We trialled the product on sites in a remote, hard-to-reach part of northern Scotland, over a period that included three weeks of particularly adverse winter weather conditions.

"Battery changeovers were minimal and the telematics system enabled us to track voltage remotely, so Freeflow did not have to attend at all during the most challenging time. Our clients will reap commercial benefits too."



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For more information about SRL Solar PLUS,
Visit **srl.co.uk** or call us on **0808 2818 775**

