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CRAFTED WITH CAPRAL: PLP AUSTRALIA'S ROLE IN PROJECT ENERGYCONNECT



In the expansive and ever-evolving world of energy infrastructure, partnerships between engineering expertise and reliable materials form the foundation of progress. One such collaboration is that of PLP Australia and Capral Aluminium, whose joint efforts have played an important role in one of Australia's significant energy infrastructure projects—Project EnergyConnect.

Project EnergyConnect (PEC) is a transformational 900-kilometre interconnector linking the electricity grids of New South Wales, Victoria and South Australia. It is the first time the three states have connected energy resources to improve energy security and reliability. Spanning 700 kilometres across New South Wales and 200 kilometres into South Australia, it is one of Australia's largest energy infrastructure projects.

Designed to increase grid resilience and accelerate the shift towards renewable energy, the interconnector also plays a vital role in protecting against major

energy disruptions. As Adam Talbot, General Manager of Sales and Marketing at PLP Australia, explains, "If there is an event that impacts the power network like what happened in South Australia a few years back, a line like this will help redirect power from other states so electricity can be restored quickly.

electrical equipment to be connected within substations. These aren't off-the-shelf products; every length is tailored to precise specifications. Over the course of the project, PLP has supplied more than five kilometres of busbar, all manufactured at its facility in Glendenning, Western Sydney, and delivered to PEC substations at



PLP Australia has been involved in Project EnergyConnect since the early design stage in 2020 and supplied the custom-engineered aluminium busbars—the components that enable

Buronga, Dinawan and Wagga Wagga.

Aluminium is uniquely suited to energy infrastructure projects and plays a vital role in Australia's transition to renewable energy. Its excellent



conductivity, corrosion resistance and good strength-to-weight ratio make it ideal for components like busbars, which must perform reliably in demanding outdoor environments. Aluminium is also highly recyclable, aligning with the sustainability goals of modern infrastructure projects. As the energy sector continues to evolve towards cleaner, more efficient solutions, aluminium's durability and environmental credentials make it a material of choice for future-focused networks.

The aluminium used in the busbars for Project EnergyConnect is supplied by Capral. More than a supplier, Capral has been a trusted partner to PLP and engaged in the project from the beginning. Capral worked closely with PLP's engineers to select the correct aluminium alloys to meet the mechanical strength and performance requirement for the substations.

Capral's ability to manufacture long-length aluminium extrusions—up to 13 metres—has been a key

advantage. For PLP, it meant fewer joints and welds, reducing installation time and lowering overall project costs. "Capral's ability to deliver those long lengths for us helps cut down on the overall cost of the project," says Talbot. "It reduces the amount of welding needed, simplifies the supports, and just makes everything fit together better on-site."

That seamless fit is no accident. PLP's engineering team worked closely with project contractors and clients to finalise every design detail, from the placement of palms and flags to the precise dimensions of each bar. In their

Glendenning facility, aluminium bars from Capral are unloaded, cut to length, welded, and assembled with the required components before being carefully packed and labelled for transport. Once on site, the busbars are installed according to design drawings—some extending more than 200 metres in length at the Buronga substation, which is one of the largest substations in the southern hemisphere.

"We've never had an issue with Capral's product," Talbot adds. "And when you're dealing with projects of this scale and importance, that reliability is



everything.” Standing on-site at Buronga and seeing the aluminium busbars installed and operational is a source of immense pride for the PLP team. “This is the largest substation we’ve ever worked on,” says Talbot. “To see the bars in the air and know that part of the site is already energised—that’s a proud moment for all of us.”

For PLP and Capral, Project EnergyConnect represents more than just another project—it’s a showcase of

what’s possible when local expertise, engineering precision and genuine collaboration come together. From the first concept drawings to the final installation of the busbars, every detail reflects a shared commitment to quality and performance. As Talbot puts it, “It might just look like a bar of aluminium—but behind every busbar is months of planning, problem-solving and careful execution.”



Watch the PLP Crafted with Capral case study to learn more about PLP and their long-term partnership with Capral.

