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BRANDED CONTENT

He connects the nation to Singapore's electricity grid

From the NCCS building to the MCE tunnel, he and his team at SP Group power up new developments across the country

Mr Abdul Latiff Muhamed Abdullah is the Principal Technical Officer involved in providing electricity connection for key infrastructural projects such as the Marina Coastal Expressway and the National Cancer Centre Singapore's new building.
PHOTO: SP GROUP

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Most of us can't imagine a world without power. It lights up streets, warms our showers and charges our digital devices.

It is also crucial to sustaining life, as SP Group (SP) Principal Technical Officer Abdul Latiff Muhamed Abdullah would tell you.

The SP employee still remembers his heart swelling with pride when he switched on the power for the National Cancer Centre Singapore's (NCCS) new building, which began operations in December 2022.

Located in Singapore General Hospital's campus, the new building is four times larger than the old one and is able to handle 200,000 patient visits a year. The grid powers the centre's life-saving medical equipment that the patients need for their cancer treatment.

"I feel a sense of happiness and fulfilment each time I pass by the building, having been part of the team to lay the power cables and the privilege of switching the lights on for the first time," says Mr Abdul Latiff.

The 38-year-old oversees the commissioning of new substations, which connect new properties to the electricity grid maintained by SP.

He is part of a team that links 1.6 million commercial, industrial and residential customers to SP's grid. From hospitals to HDB flats and factories, Mr Latiff has commissioned them all in his 14-year career with SP.

Keeping the electricity flowing

Last year, customers experienced a record low average of 6.6 seconds of electricity interruption, one of the lowest in the world.

A typical day for Mr Abdul Latiff involves careful planning and managing the deployment of resources. "For areas with critical power dependency, such as data centres and hospitals, we need to be on high alert to respond to unexpected situations efficiently," he says.

As new projects come on stream, Mr Abdul Latiff and his team also take charge of linking up new substations to the grid through cable connections. Excavation is typically involved, which can be a tricky situation for the team.

For instance, if the excavation takes place near the entrance of a hospital, the team has to make provisions for ambulances and other emergency vehicles to enter swiftly, while ensuring safety for his team and the successful connection of substations.

“If we close one lane of the road for excavation, the ambulance may take a few more minutes than usual to enter the hospital. It could be a matter of life and death for emergency cases,” explains Mr Abdul Latiff.

“These are critical details that I have to consider in minimising impact,” he adds.

As new projects come on stream, Mr Abdul Latiff and his team commission new substations, integrating them into the grid. PHOTO: SP GROUP

Safety is always paramount, even in the race against time

Mr Abdul Latiff has had to work within some extremely tight deadlines, without compromising on safety and quality. His most challenging projects include powering the whole of the Marina Coastal Expressway (MCE), as well as setting up additional workers’ dormitories that were used as quarantine facilities when Singapore responded to the Covid-19 outbreak in 2020.

For the latter, with close coordination from multiple agencies and clients to expedite infrastructural works, he managed to set up power in two weeks, instead of the usual 10 weeks a similar-sized project would take.

Till today, he counts those two projects as some of his most memorable moments.

“I started my career at SP from the ground up as a technician, working my way up to become a principal technical officer and learning as I go. Leading a team of technicians and technical officers to power through different challenges has been truly fulfilling,” says Mr Abdul Latiff.

“The experience I’ve gained is something that money can’t buy,” he adds.

Upskilling for the integration of renewable energy

Beyond its role as the national grid operator, SP Group actively pursues sustainability initiatives as a key part of Singapore’s climate strategy. Its climate initiatives include a nationwide electric vehicle (EV) charging network, deploying renewable energy generation, and smart electricity metering to monitor and reduce usage.

Mr Abdul Latiff, who graduated from Ngee Ann Polytechnic with an electrical engineering diploma in 2010, is now pursuing an electrical power engineering degree at the Singapore Institute of Technology, sponsored by SP. The modules cover topics including sustainable generation, renewable energy, smart grids, as well as electric vehicles and charging infrastructure so as to prepare the power sector workforce to meet the growing demand for cleaner, more sustainable energy options.

The Tengah project is an example of SP’s clean energy efforts. It operates large-scale solar panel systems to power the Tengah HDB estate (including some public areas like the community centre), contributing to Singapore’s goal of achieving two gigawatt-peak solar capacity by 2030.

The solar panels, coupled with other sources of renewable energy, will power centralised cooling, a climate-friendly home cooling option that Tengah residents can subscribe to.

Based on energy savings of 5,178MWh for Tengah, the solar power project will reduce 2,115 tonnes of carbon emissions, equivalent to carbon absorbed by 105,757 trees for one year.

SP is deploying both conventional and vertical solar panels (known as building-integrated photovoltaics, or BIPVs) in Tengah. When fully developed, Tengah will have one of the largest aggregated installations of BIPVs in Singapore.

Mr Abdul Latiff and his team played a crucial role in the planning stages prior to connecting Tengah’s solar panels to the grid, ensuring that these panels deliver power optimally.

Another emerging trend is the adoption of electric vehicles (EV). SP currently operates Singapore’s largest EV charging network, with 658 charging points across close to 160 locations. SP aims to scale up charging facilities at residential, commercial and industrial locations in tandem with the Singapore Green Plan 2030. Mr Abdul Latiff, who is upskilling his technical know-how, is already taking necessary steps to keep pace with emerging energy demands, such as the one needed to support Singapore’s electrification goals.

Together with employees such as Mr Abdul Latiff, SP is evolving to support more complex power systems, designed to incorporate diverse sources of cleaner energy.

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