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Press Release
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HK Electric Introduces Green Mobile Emergency Power Supply

HK Electric has introduced a green mobile electricity supply system to provide customers with reliable and emission-free energy during emergencies. The system, comprising an energy storage truck (EST) and a power changeover truck (PCT), will provide temporary relief when normal power supply is not available. It could also serve as a clean backup power source for large-scale and major events. The system is the first of its kind that combines the usage of power changeover and energy storage to achieve uninterrupted power supply during emergency situations.

Mr. Kwan Ying-leung, Engineering Director of HK Electric, officiated at the handover ceremony of the mobile electricity supply system at HK Electric's Cyberport Switching Station today (6 September 2023) together with representatives from the system manufacturer, Wuhan NARI Limited Liability Company of State Grid Electric Power Research Institute.

Mr. Kwan said, "During power interruptions, we may need to use mobile generators to provide emergency electricity supply to affected customers but they are usually diesel-fuelled. On the contrary, the newly-introduced green mobile power system runs on batteries so could avoid air and noise pollution during operations, minimising the environmental impact on the surroundings. This way, it could help the city achieve carbon neutrality while also enhancing our emergency preparedness."

In addition to coping with emergencies, HK Electric plans to use the new system as one of the backup power solutions in large-scale events, Mr. Kwan noted. The "FIA World Rallycross Championship" to be held in Central Harbourfront later this year will be an opportunity to utilise the new system to provide emission-free backup power and an additional source of uninterrupted power supply, he added.

The EST has a maximum output of 250 kW and a capacity of 500 kWh, equivalent to approximately 10,000 portable 10,000-mAh power banks. It can provide up to 2 hours' continuous power supply for more than 650 3-person households assuming they use an average of 275 units of electricity per month.

Batteries mean greener electricity. Other than being pollution-free, the replacement of diesel generators with ESTs could save 0.7 kg of carbon dioxide for each unit of electricity generated. The whole system is expected to save around 1,800 tonnes of carbon dioxide in 10 years' service, equivalent to approximately the carbon dioxide

intake of 8,000 trees. Furthermore, the EST is equipped with a fire prevention system, and all battery casings are designed to be waterproof and explosion-proof for greater safety and higher reliability.

In case of emergency power supply, when the EST is about to run out of electricity, the PCT will switch the power source to another fully-charged EST. Customers will not notice the changeover as this seamless process will not lead to any voltage dip or power interruption as it only takes less than 5 milliseconds, i.e. less than 5/1,000 of a second.

Another EST to be purchased is scheduled for arrival in the fourth quarter this year. Each EST can be fully-charged in two hours. With these two ESTs, they can take turns to discharge and recharge so as to provide uninterrupted and emission-free emergency or backup power in case of need. Subject to the usage of the new system, existing diesel generators will be gradually phased out.

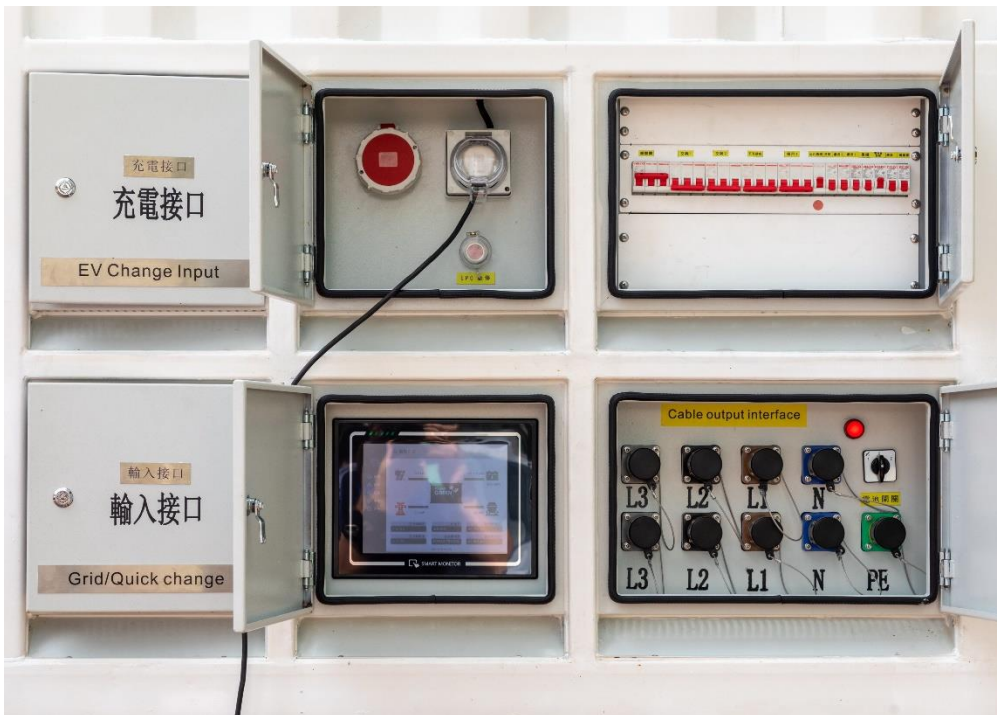
Photo Captions:



Mr. Kwan Ying-leung, Engineering Director of HK Electric (right), together with representative from the system manufacturer, Wuhan NARI (left), officiates at the handover ceremony of the mobile electricity supply system.



The green mobile electricity supply system, comprising an energy storage truck (right) and a power changeover truck (left), provides uninterrupted temporary relief when normal power is not available.



The energy storage truck has a capacity of 500kWh, equivalent to approximately 10,000 portable 10,000-mAh-power banks.



The energy storage truck could avoid air and noise pollution during operations, minimising the environmental impact on the surroundings.