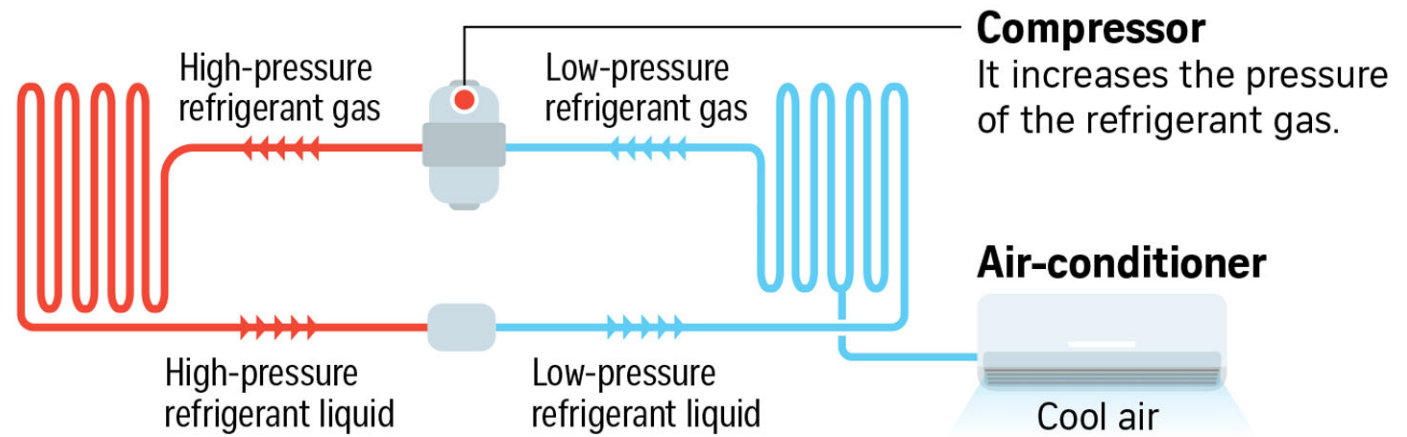


Energy-saving hybrid air-conditioner

Engineers from the National University of Singapore (NUS) have co-developed an eco-friendly hybrid air-conditioner system that uses heat as an energy source, reducing electricity consumption by 30 per cent to 55 per cent.

Conventional air-conditioner

Conventional compressor has high electricity consumption.



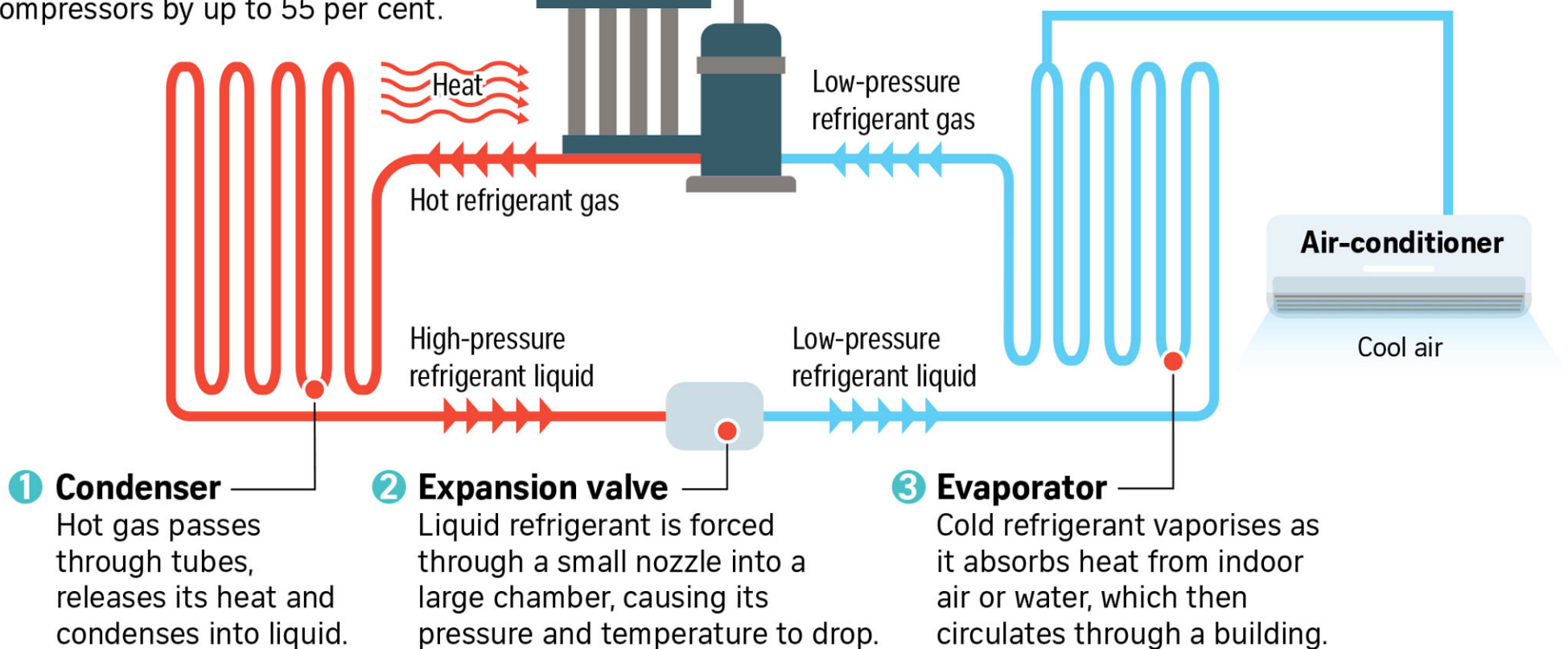
New solar thermal air-conditioner

Solar absorption cooling systems use heat from the sun to reduce electricity consumption. This system is developed by the Department of Mechanical Engineering in NUS and industry collaborator Ecoline Solar. The team believes that the new solar thermal technology has a smaller carbon footprint and will ease the electrical load of existing air-conditioner compressors by up to 55 per cent.



Solar thermal collector

Vacuum tubes filled with a novel medium (right) absorb solar thermal energy and the condenser's rejected heat to partially compress refrigerant gas.



Source: NUS PHOTO: NUS STRAITS TIMES GRAPHICS