

Chinachem Group Sustainability Conference 2022

Creating Social Impact on the Zero Carbon Journey in Hong Kong



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Summary

Collaborating towards Net-zero Carbon Electricity

- Founded in 1901, CLP is one of the largest investor-owned businesses in the Asia Pacific region. CLP first set out its climate vision in 2007, strengthening targets every five years.
- Hong Kong's Climate Action Plan 2050, which targets net-zero electricity generation by 2050, includes the goal to cease coal-fired electricity generation, proactively develop renewable energy and reduce electricity consumption in both commercial and residential buildings by 2035.
- Balancing the critical energy objectives of reliable and safe supply, reasonable tariff and care for the environment is key. CLP is delivering decarbonisation with reliability and at a reasonable tariff.
 - Between 2014 and 2020, electricity generation and other energy industries accounted for the largest reduction in emissions, contributing to an overall decrease of 24% in total emissions.
 - Among major cities in the world, including Singapore and New York, CLP has the lowest average electricity tariff.
- Hong Kong has limited renewable energy potential, given our land area distribution and urban energy consumption. Local renewable energy alone will not meet Climate Action Plan targets.
- Intermittent renewable energy must be balanced by dispatchable generation and energy storage systems. The International Energy Agency (IEA) has emphasised that clean energy supply must be backed up by firm generation for a safe, stable, and reliable power supply.
- IEA also noted that achieving net zero will be harder and costlier without nuclear. Hong Kong can take advantage of China's growing nuclear power generation capacity for reliable and cost-effective zero-carbon energy.
- Hydrogen technology may be ready in the 2030s with commercial viability improving towards 2050.
- CLP is taking a multi-pronged approach to decarbonising supply, with more natural gas and regional cooperation, as well as utility scale renewable, zero carbon energy and energy storage systems.
- CLP's initiatives:
 - Engage and empower businesses and the wider community by rolling out smart meters to customers, as well as conducting energy audits to help companies identify potential energy management opportunities and reduce costs.
 - Eco Building Fund offers subsidies for energy-saving improvement works in communal areas of residential (HK\$500,000/year) and commercial buildings (HK\$450,000/year).
 - Community Energy Saving Fund offers subsidies for businesses to upgrade equipment.
- Net zero requires action on both demand and supply sides.
 - Supply:** Replace coal with gas and non-fossil fuels, increase renewable energy supply, enhance regional cooperation and grow hydrogen energy solutions.
 - Demand:** Increase electricity savings in buildings, grow demand for electric vehicles and replace conventional ferries and buses with new energy vehicles.
- CLP Power is committed to playing a leading role by reducing the carbon intensity of our supply to net zero by 2050 and helping our customers to use energy more efficiently.
- The early decarbonisation of electricity presents opportunities for other sectors like transport to transition to lower carbon solutions and greatly improve air quality across the city.



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可持續發展論壇 2022

香港零碳之旅 · 創造社會效益



戴樂生

策劃及發展高級總監
中華電力

重點

攜手邁向淨零碳電力

- 中華電力有限公司(中電)於1901年成立,是亞太地區規模最大的私營公司之一。中電於2007年首次提出其氣候願景,並每五年就目標進行檢討改善。
- 《香港氣候行動藍圖2050》定下於2050年前實現淨零發電的目標,其中包括2035年前停止燃煤發電、積極發展可再生能源,以及減少商業和住宅建築用電量的目標。
- 必須在可靠和安全的電力供應、合理價格和環境保護等主要能源目標下作出平衡,中電推行減碳計劃,同時以合理價格提供可靠供電。
 - 在2014年至2020年期間,發電等能源業佔減排量最大份額,令整體總排放量減少24%。
 - 對比新加坡和紐約等世界主要城市,中電的平均電價最低。
- 由於香港土地面積分佈和城市能源消耗等因素,局限了我們在可再生能源方面的發展潛力,單從發展本港再生能源是無法達到《香港氣候行動藍圖2050》所訂下之目標。
- 國際能源署(IEA)強調潔淨能源供應必須以安全、穩定和可靠的電力供應為後盾。可再生能源的間歇供應,必須借助可調節發電和儲能系統作平衡。
- 國際能源總署還指出,如果沒有核能,實現淨零排放將更加困難且成本高昂。香港可以善用中國不斷增長的核能發電能力,開發可靠且具成本效益的零碳能源。
- 氫能發電技術或可在2030年準備就緒,而要提升至商業上的應用將要到2050年。
- 中電採取多管齊下的方式來實現減碳,包括採用更多天然氣和區域合作,以及利用小規模的可再生能源、零碳能源和儲能系統。
- 中電的措施:
 - 鼓勵企業及社區更廣泛參與:為客戶推出智能電錶;為企業進行能源審核,藉以協助他們找出可提升能源管理的機會,以降低成本。
 - 「綠適樓宇基金」資助住宅公用空間(每年50萬港元)和商業樓宇(每年45萬港元)的節能改造工程。
 - 「中電社區節約能源基金」為企業升級設備提供補貼。
- 淨零需要供求雙方都採取行動
 - 供應:以天然氣和非化石燃料替代煤炭、增加可再生能源供應、加強區域合作以及發展氫能解決方案。
 - 需求:推動建築物減少用電、增加對電動汽車的需求,和以新能源交通工具取代傳統的公共汽車和渡輪。
- 中電致力發揮領導角色,於2050年前將供電的碳強度降低至淨零,並幫助客戶更有效地使用能源。
- 及早節能減碳為交通運輸等其他行業創造機會,過渡至低碳的解決方案,並大幅改善本港的空氣質素。



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