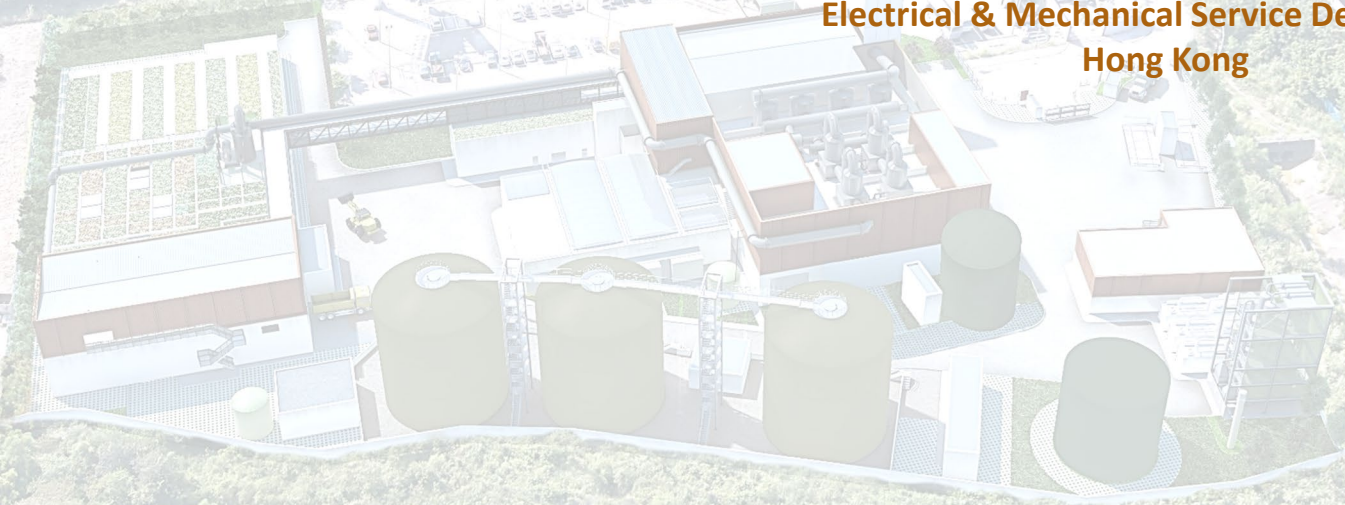
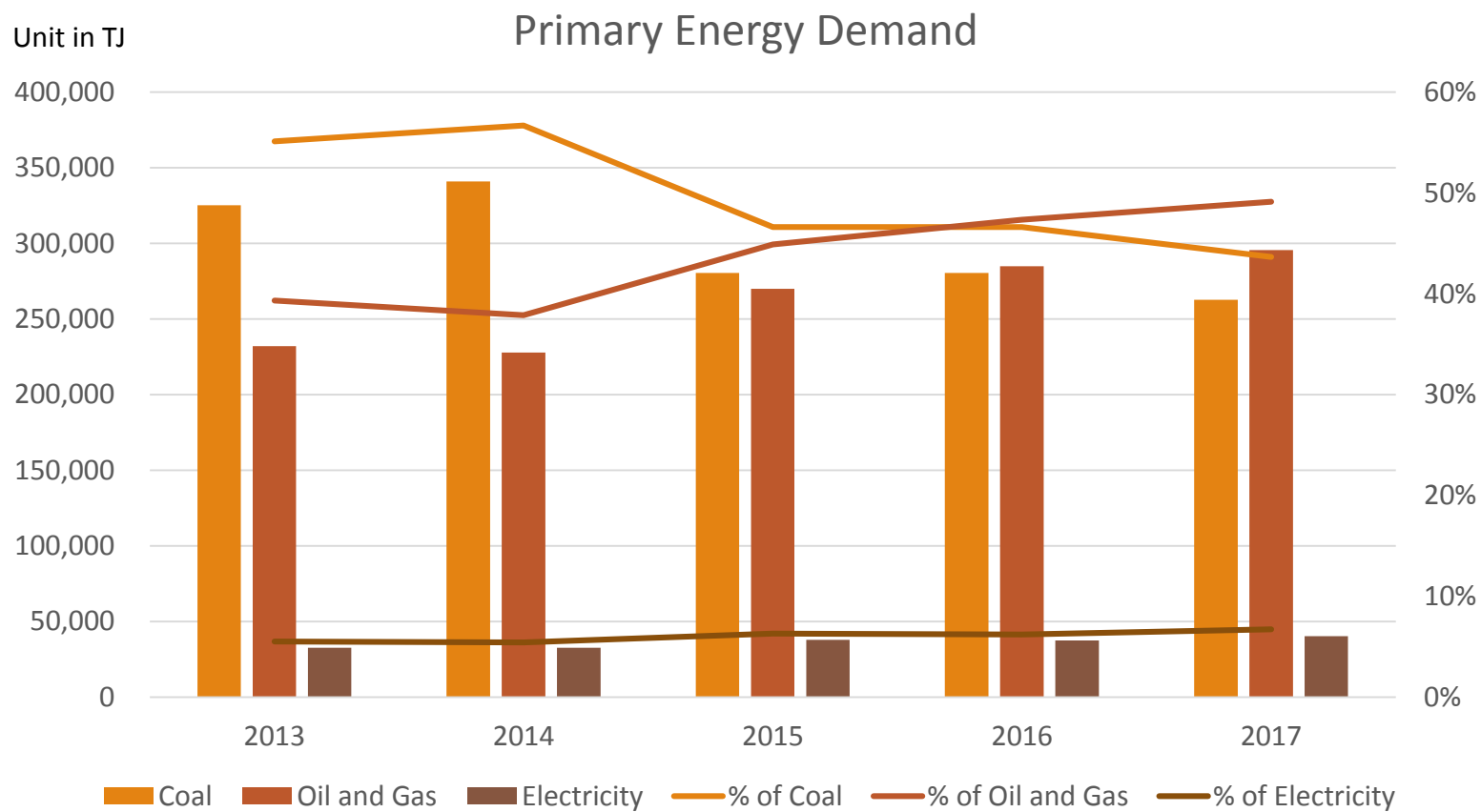


Notable Development on Oil and Gas in Hong Kong

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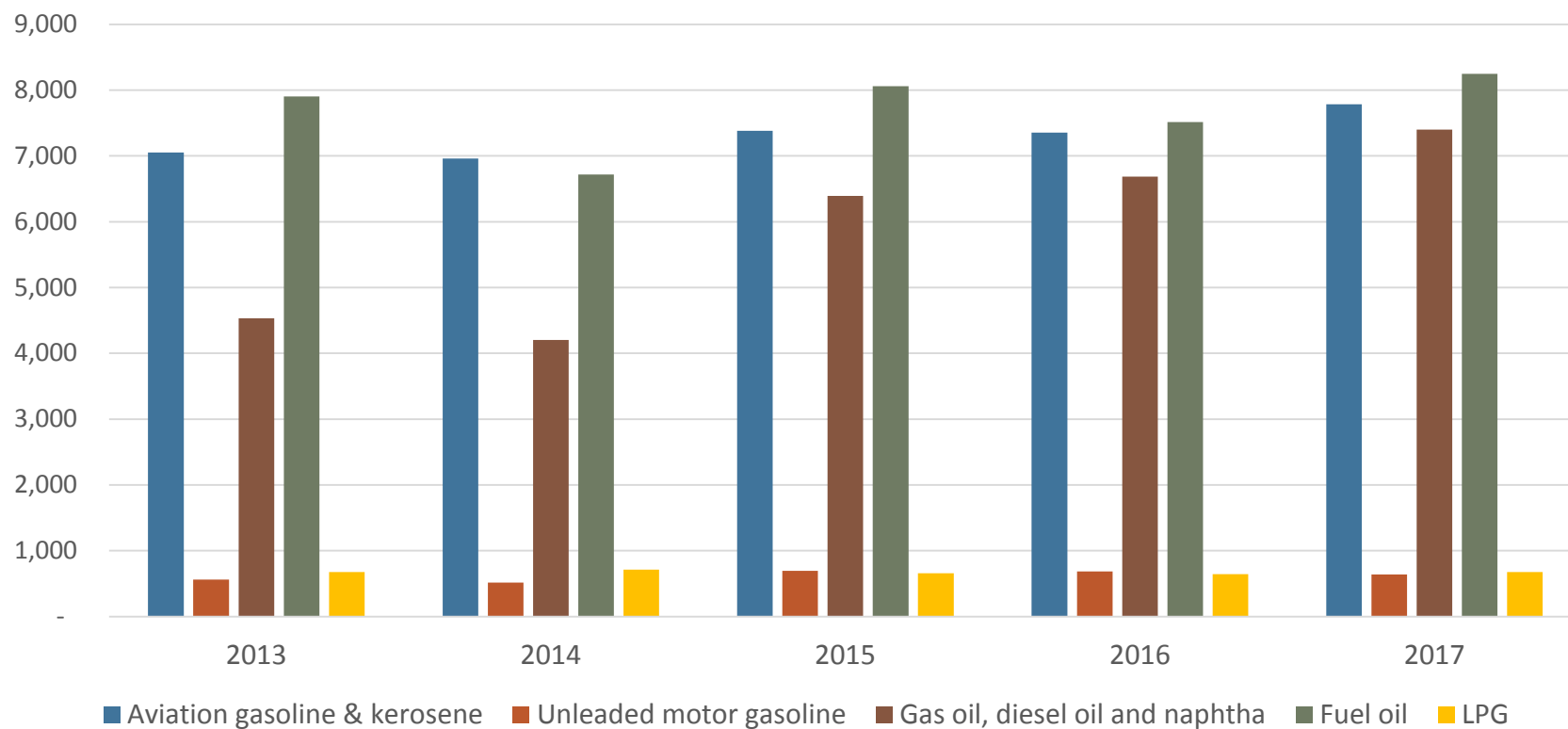
Demand and Supply Situation



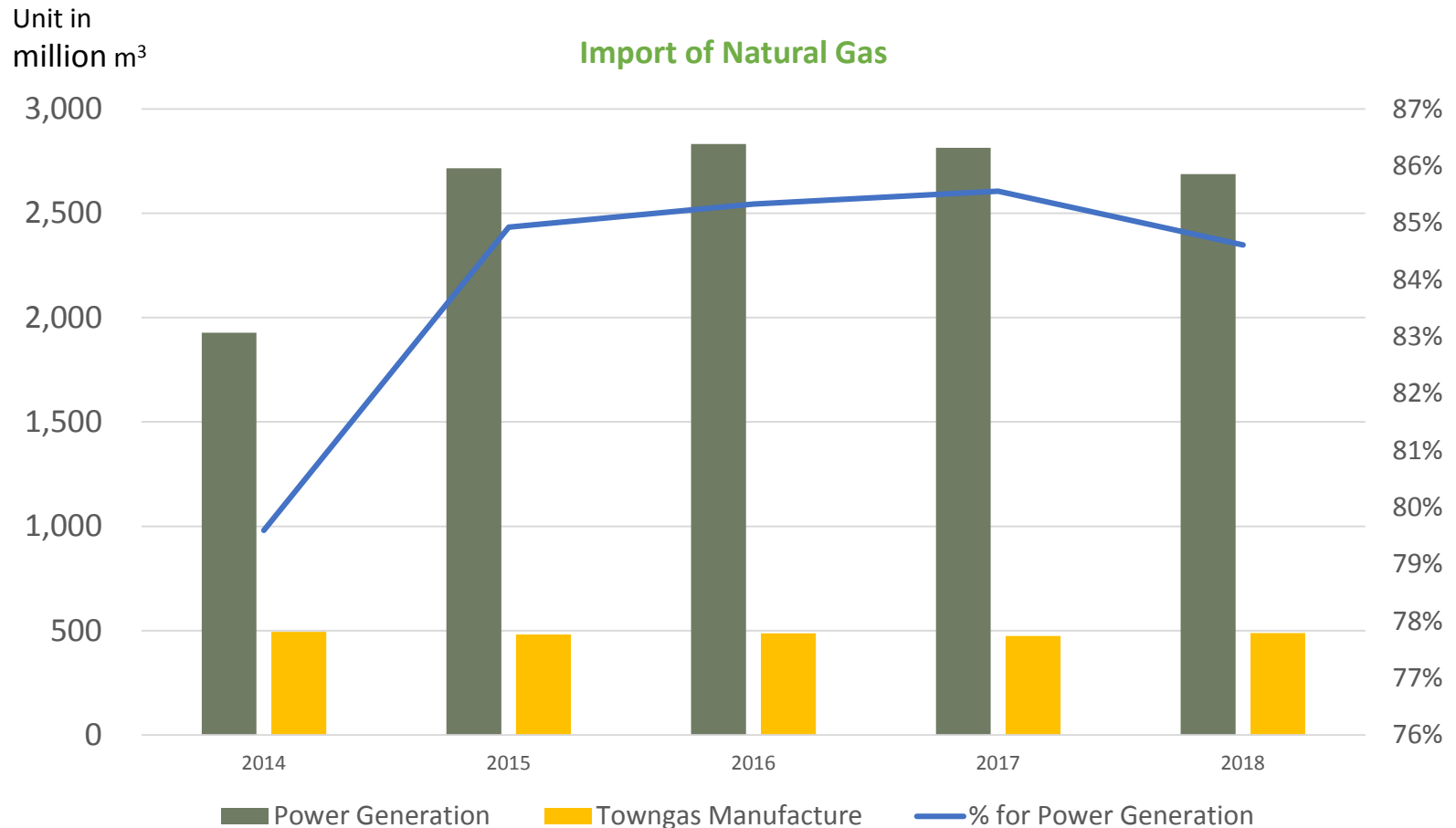
Highlights of Recent Changes in Demand on Oil and Gas

Unit in million Litre

Breakdown on the import of oil products

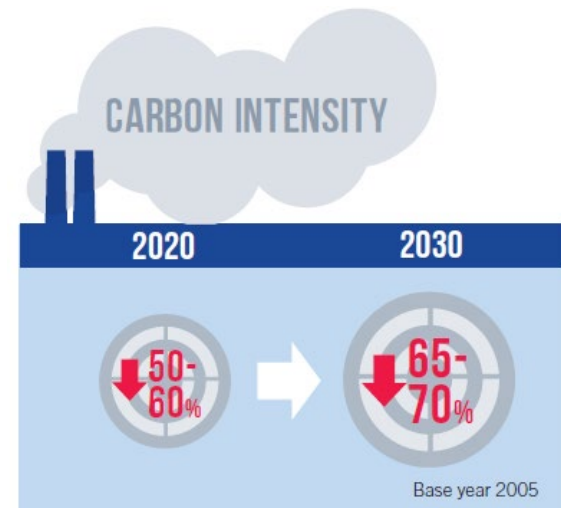


Highlights of Recent Changes in Demand on Oil and Gas



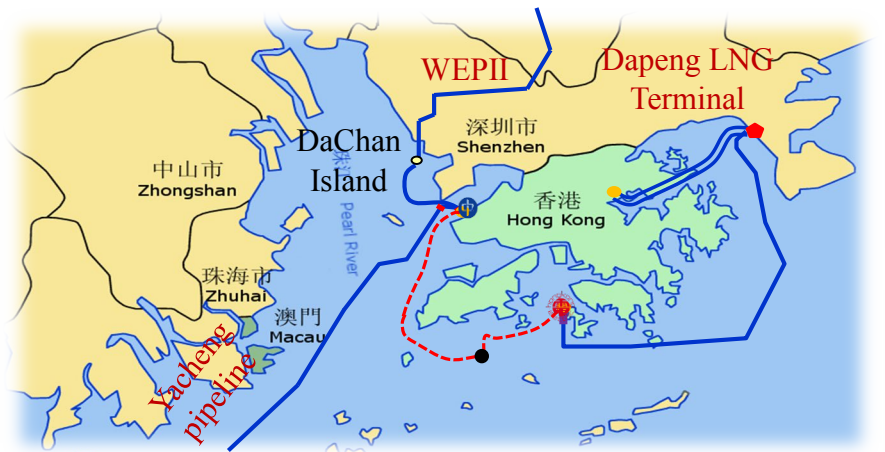
Notable Development on Oil and Gas

- Hong Kong Government has set targets to reduce the carbon emissions by 65-75% by 2030
- Plan to phase down coal for electricity generation in the fuel mix and replace it with more natural gas and non-fossil fuel sources
- Increase the supply of natural gas by developing and offshore LNG Terminal using Floating Storage Regasification Unit (FSRU) Technology
- Turn waste into energy by utilizing the landfill gas and biogas collected from landfill site and organic waste resources recovery center respectively



Notable Development on Oil and Gas - FSRU

- To support the increasing use of natural gas, an offshore LNG Terminal in HK based on Floating Storage and Regasification Unit (FSRU) technology would be commissioned by 2021 (alternative source of NG supply)
- The FSRU is equipped with LNG storage tanks and regasification equipment (having a storage capacity up to approximately 270,000m³ and regasification capacity of 1,000mmscfd)



— Existing subsea pipelines - - - New subsea pipelines for FSRU
 ● FSRU vessel ⚡ CLP Power ⚡ Hong Kong Electric



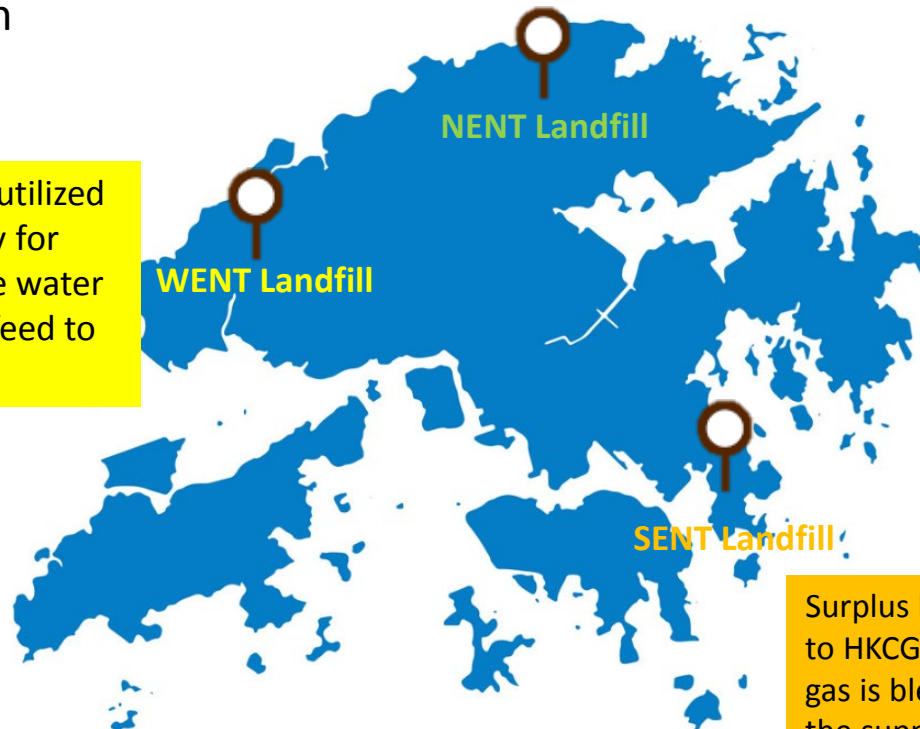
(1 x 550 MW and 1 x 380MW)

New gas fired generation units **will be built** in the two power stations to support the increase use of natural gas

Notable Development on Oil and Gas - Landfill Gas

- All the three existing strategic landfills in Hong Kong (namely West New Territories Landfill (WENT), South East New Territories Landfill (SENT) and North East New Territories (NENT)) have been utilizing landfill gas for energy production

Surplus landfill gas is utilized to generate electricity for onsite facilities, waste water treatment plant and feed to the power grid



Surplus landfill gas is treated and delivered to Hong Kong & China Gas's (HKCG) and Nethersole Hospital:

- as alternative energy source for town gas manufacture
- as a fuel gas for the CHP system

Surplus landfill gas is treated and conveyed to HKCG's Offtake Station, where the treated gas is blended with town gas for injection to the supply grid for HKCG's customers

Notable Development on Oil and Gas - Biogas

- Organic Resources Recovery Centre Phase 1 (ORRC1) would treat 200 tonnes of organic waste (mostly food waste) per day for the production of biogas and compost.
- 14 million kWh of surplus electricity can be supplied to the power grid per year, which is adequate for use by 3,000 households
- ORRC1 reduces 25,000 tonnes greenhouse gas emission per year (lower the use of fossil fuel for electricity generation)
- Hong Kong Government plans to build more ORRCs between 2014-2024 with a total waste recycling capacity of about 1,300-1,500 tonnes per day



APEC-wide regional cooperation

Regional cooperation

- Foster information exchange between APEC economies
- Explore cooperative measures between economies to safeguard oil and gas supply during emergency period
- Organize more technical visits, conferences, seminars and working group meetings

Thank you very much

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