

APER Forum Extraordinary Meeting

Session 1: Regulatory Challenges and Economic Impact of COVID-19

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The COVID-19 pandemic has caused a severe disruption to global economic activity and posed longer-term challenges for our energy systems.



Lower Energy Demand

- Lower electricity demand with reduced economic activity
- Impact on utilities' revenue and their long-term fuel supply contracts



Investments in Power Sector Infrastructure and Assets

- Uncertain forecast and shrinking capital to meet power demand in a post COVID-19 world



Renewable and Clean Energy

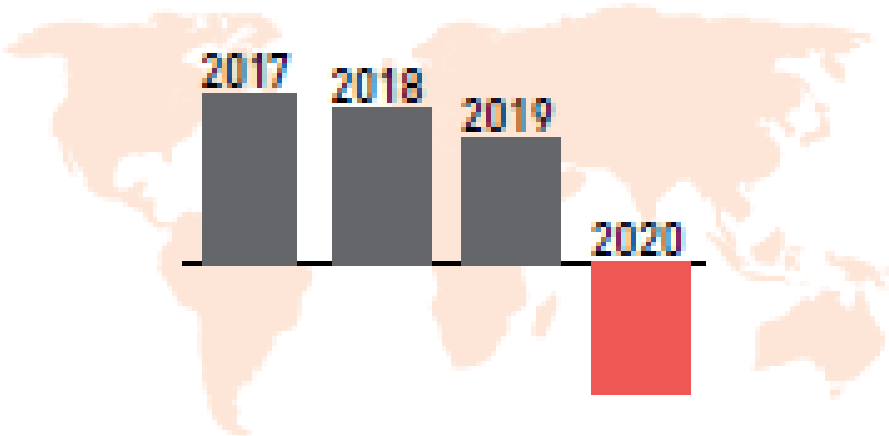
- Supply chain disruptions on solar and wind power development
- Longer-term implications on climate change obligations and targets



Inter-related sector impact

- Long-term impact of oil & gas prices on our energy system
- Sustainability of the hydrocarbons sector and role towards clean energy transitions

The impact of COVID-19 pandemic in Singapore is significant. Public health measures, including lockdowns and border closures have led to significant disruptions in global economic activity.

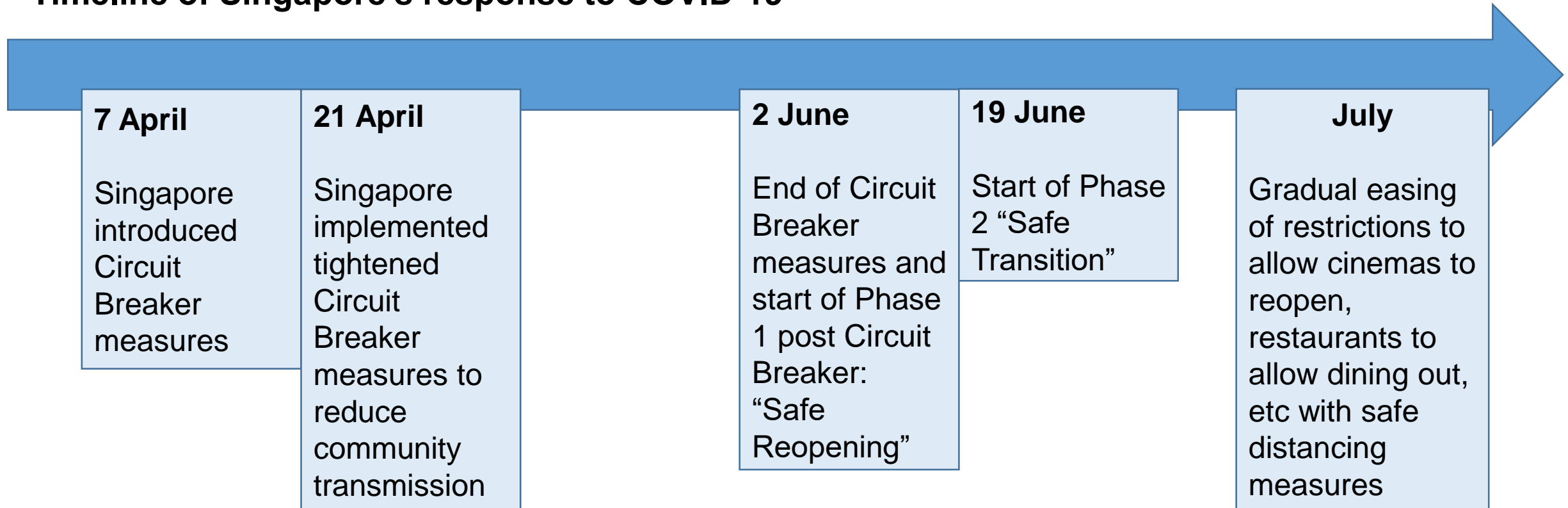


The International Monetary Fund (IMF) estimates the global economy is expected to contract by 3%

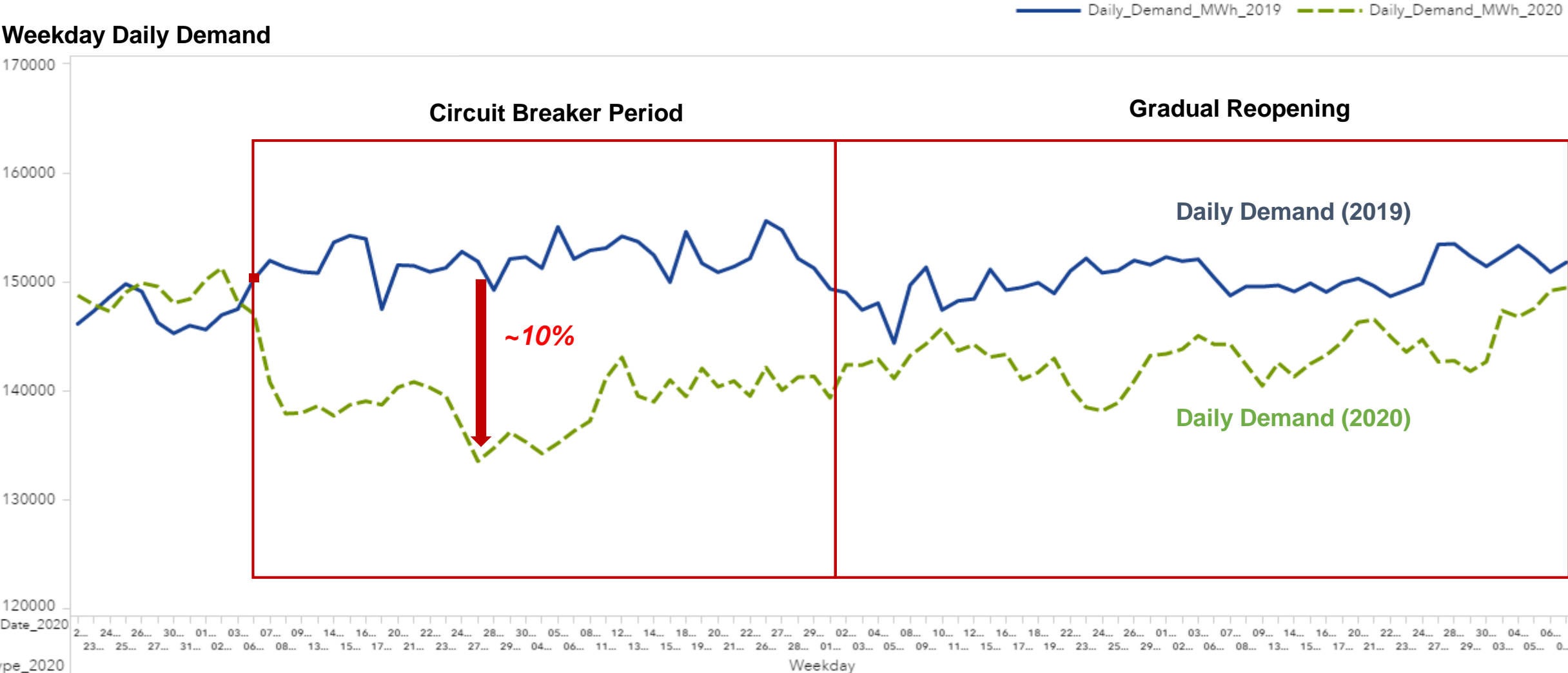
Forecast for Singapore's 2020 GDP growth is downgraded to between -5% to -7%

Singapore imposed a series of measures on 7 April in response to the COVID-19, which we called a “Circuit Breaker”.

Timeline of Singapore’s response to COVID-19

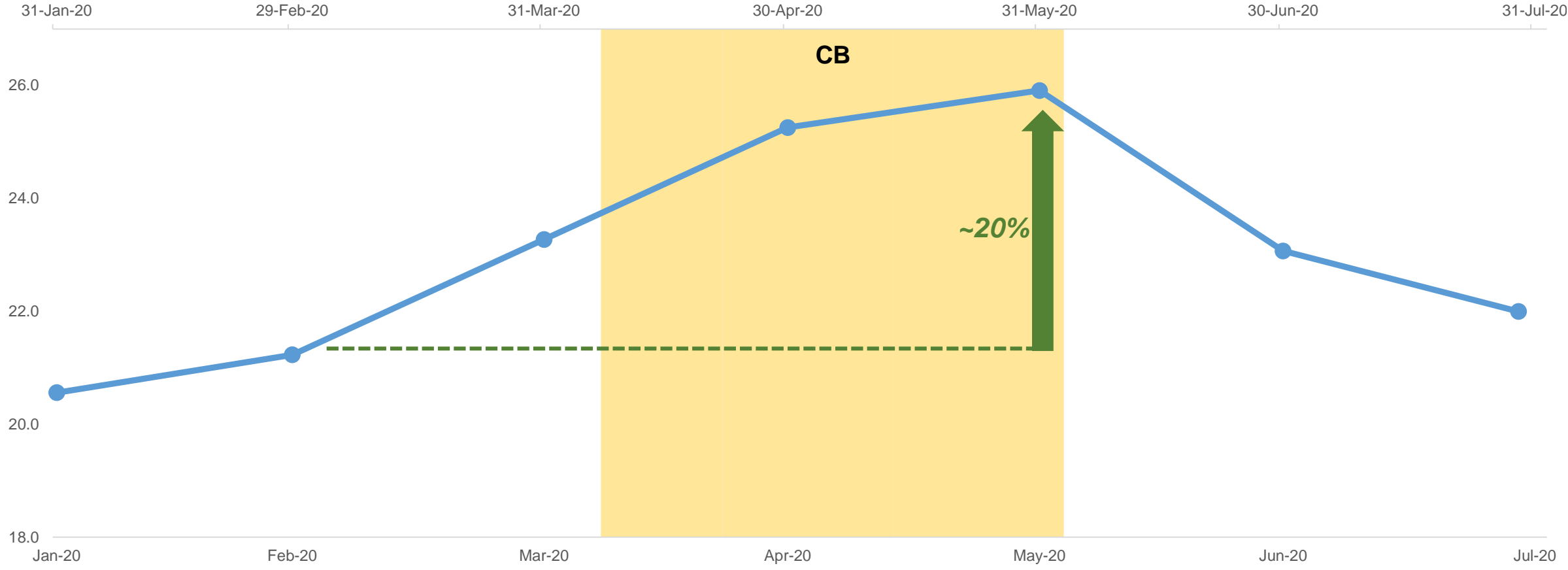


Singapore's electricity demand decreased by about 10% after Circuit Breaker was implemented.



Average residential demand surged by about 20% during the Circuit Breaker period.

Average Daily Residential Electricity Demand (kWh)



EMA has been closely monitoring the operational readiness of our electricity and gas licensees. Ensuring critical spares and supplies is key to our energy security and reliability.

95% of power generation is gas-fired: Singapore has no indigenous energy resources and we import all fuels. COVID-19 has affected global LNG supply chains.

Our combined-cycle gas turbines (CCGT) can hot-switch to diesel and continue generating electricity in the event of gas supply disruption.

EMA has ensured that our gencos are able to use diesel as backup fuel, and there is sufficient fuel stock in Singapore.

EMA is monitoring closely our licensees' inventory and availability of critical spares for power generation/transmission.

We have taken steps to ensure the availability of manpower for critical operations.

Business Continuity Plan with Split Team operations to ensure adequate manpower to maintain operations.

The availability of skilled officers from Original Equipment Manufacturers (OEMs) to carry out major inspection/maintenance works has been a key concern. We made special arrangements for these specialists to travel to Singapore.

Increased applications for digitalisation through the installation of online monitoring systems for key equipment and grid assets.

The Government has provided targeted Financial Support for Consumers and Utilities.



For Consumers

A total of ~S\$850 million (US\$620 million) to help households offset part of their utilities bills.

Expenses incurred from working at home to be claimed for tax deductions.



For Utilities

The Market Development and Resilience Scheme (MDRS) Phase 2 provides incentives of up to S\$250 million (~US\$182 million) for gencos to maintain high operational reliability, develop the capabilities of their employees, and to adopt good labour management practices.

Navigating our “new normal” ...

Electricity demand is forecasted to grow at 2-3% over the next 10 years as economy recovers, coupled with emergence of electricity-intensive sectors (e.g. data centres, agri-tech and electric vehicles).

COVID-19 will impact utilities' financials, and may defer new capacity investments needed to meet demand growth.

Since 2019, EMA has been engaging the industry on the design and implementation of a Forward Capacity Market which is targeted to be introduced in 2021.

In order to meet climate change commitments by 2030, we will need to ensure continued investment in renewable sources.

COVID-19 has impacted solar companies and supply chains. Singapore has achieved our solar deployment target of 350 MWp for 2020 by 1Q2020, but there are challenges going forward as we seek to increase this to 2 GWp by 2030.

Thank you