

2. Scheme of Control Agreement

2.1. Introduction

HK Electric’s business is regulated through a bilateral agreement - [Scheme of Control Agreement](#) (“SCA”) – entered with the HKSAR Government. The current SCA is HK Electric’s fourth one and was signed with the Government in April 2017 for a 15-year term with effect from 1 January 2019 until 31 December 2033.

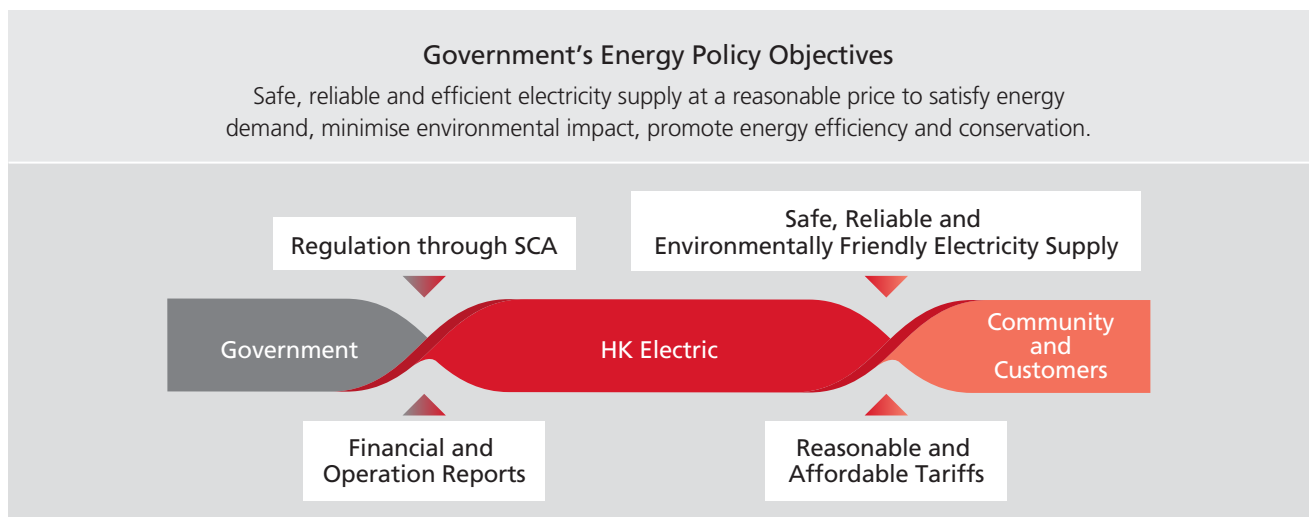
The activities of HK Electric are subject to the SCA, which provides for the Company a full recovery of its total operating costs from its gross tariff revenue, and earn an annual Permitted Return of 8% of average net fixed assets. The SCA also contains certain adjustments to the Permitted Return in the form of performance-based financial incentive and penalty schemes as well as different funds and service schemes to encourage energy efficiency, operational performance, renewable energy (“RE”) development in Hong Kong and service quality enhancements, etc.

The SCA is not a franchise nor does it provide exclusive rights for HK Electric. Rather, it sets out the obligations of the Company, the returns for shareholders and the arrangements by which the Government monitors the Company’s financial affairs and operating performances as far as they are electricity-related.

The SCA regime has proven itself a simple, light-handed and cost-effective tool to accomplish the Government’s energy policy objectives of providing a safe, reliable and environmentally friendly supply of electricity at a reasonable price. It provides us with the certainty much needed for making timely and sufficient long-term infrastructure investment, as well as the flexibility in managing and operating its power supply businesses efficiently.



Scheme of Control Agreement



2.2. Regulatory Framework

Through the regulatory reviews, including Interim Review, Development Plan Review, Auditing Review and Tariff Review, the Government effectively monitors HK Electric's financial and operational performances.

2.3. Performance Incentive and Penalty Schemes

Under the SCA, various performance incentive and penalty schemes are in place by means of adjustments to the Permitted Return to encourage HK Electric to take proactive steps in sustaining high standards of operational and customer service performances, promoting energy efficiency and harnessing RE development in Hong Kong. Incentives and penalties on supply reliability and customer services have been tightened, while new performance target on grid supply restoration is introduced. To further promote energy efficiency and conservation, performance targets for number of energy audit and associated energy saving are set at four times of those under the previous SCA.

New targets for number of buildings and energy saving under Smart Power Building Fund and five-year energy saving have also been set. To promote RE development, incentive targets are set in the SCA to encourage the Company to increase the share of RE in electricity generation, increase the number of new grid-connected RE systems, and sell RE Certificates.

Reference:

[Financial Information of approved 2019-2023 Development Plan and 2019 Tariff Review](#)

Regulatory Reviews under the SCA

Interim Review ("IR")	The Government and HK Electric jointly conduct IR every five years after the SCA comes into effect; any modifications to be mutually agreed.
Development Plan ("DP") Review	HK Electric submits a 5-year DP to the Government covering the projected basic tariff rates and sales as well as required operating and capital expenditures. The DP shall be vetted by the Government and approved by the Executive Council.
Auditing Review ("AR")	HK Electric makes a submission to the Government early each year to initiate the AR process for reviewing HK Electric's financial, technical and environmental performances for the preceding financial year.
Tariff Review ("TR")	The Government and HK Electric jointly conduct TR every year to determine the tariff for the following year. The adjusted tariff will be effective from 1 January of the following year after the Government's review.

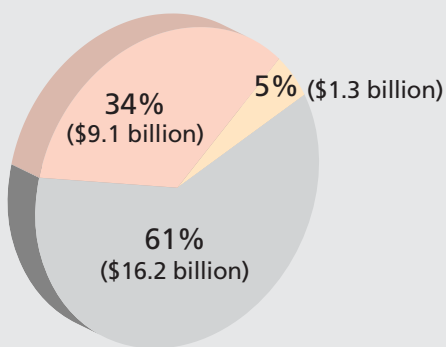
Performance Incentive and Penalty Schemes under the SCA

Category	Measurement for Each Year	Adjustment to the Permitted Return	
		Maximum Incentive for performance above the respective threshold	Maximum Penalty for performance below the respective threshold
Operational and Customer Services	Supply Reliability	+0.015%	-0.015%
	Operational Efficiency	+0.01%	-0.01%
	Customer Services	+0.01%	-0.01%
	Supply Restoration	+0.015%	-0.015%
Energy Efficiency	Energy Audits – Completed Audits	+0.04%	-
	Energy Audits – Energy Saving	+0.1%	-
	Smart Power Building Fund – No. of Buildings	+0.02%	-
	Smart Power Building Fund – Energy Saving	+0.1%	-
	Five-Year Energy Saving	+0.1% (Every 5 Years)	-
Renewable Energy	Share of RE in Electricity Generation	+0.05%	-
	No. of New Grid-connected RE Systems	+0.0025%	-
	No. of New Grid-connected RE Systems with Regular Generation	+0.0025%	-
	No. of New Grid-connected RE Systems with Regular Generation over a 5-year period	+0.01% (Every 5 Years)	-
	Sale of RE Certificates	10% of the total revenue from the sale of RE certificates	-

2019-2023 Development Plan

Components	Investment
Power Generation System	\$16.2 billion (61%)
Transmission and Distribution System	\$9.1 billion (34%)
Customer Services and Corporate Development	\$1.3 billion (5%)

Total Capital Expenditure \$26.6 billion



2.4. New Features of SCA

In support of the Government’s environmental policy and to meet the requirements of the SCA to encourage the use of RE and promote energy efficiency, a suite of “Smart Power Services” have been introduced. The Fuel Clause Charge in the Net Tariff is also revised more frequently from yearly to monthly to reflect changes in fuel costs more promptly. Details can be found in Section 3.1 – Tariff Components and Section 9.1 – Smart Power Services.

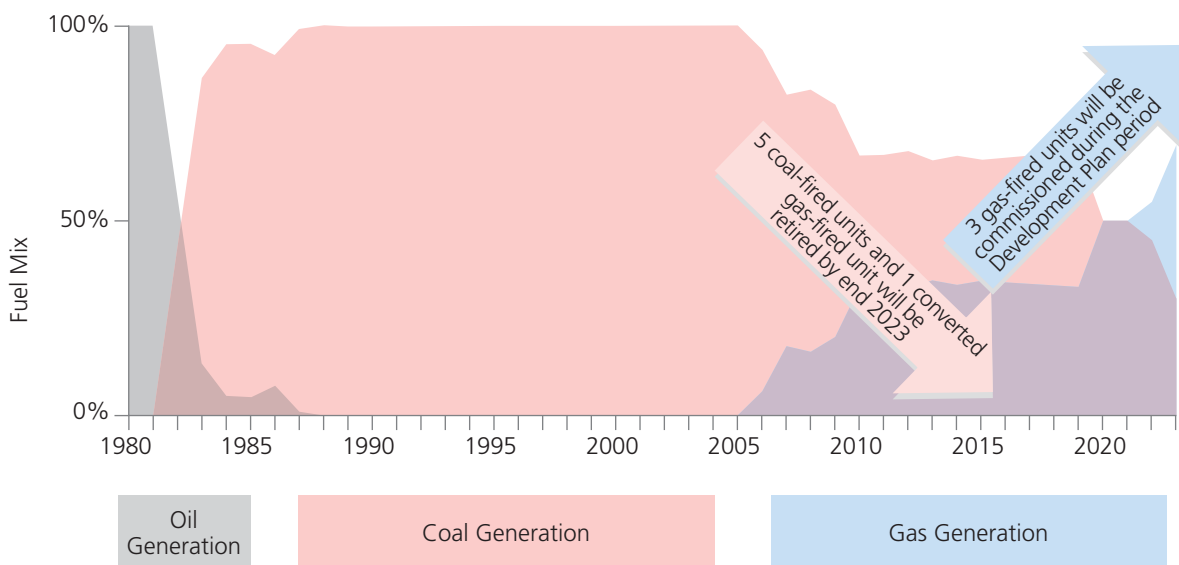
2.5. Five-year Development Plan (2019-2023)

In July 2018, the HKSAR Executive Council approved HK Electric’s 2019-2023 Development Plan (“DP”) of a total capital expenditure of \$26.6 billion for a term of five years. The main projects covered in the DP include the construction of infrastructure for transitioning from coal-fired to gas-fired power generation in support of the Government’s environmental and climate change policies. Other key focuses are to help transform Hong Kong into a Smart City and enhance power networks to maintain supply reliability and service excellence.

Evolution of Fuel Mix for Electricity Generation

■ Oil ■ Gas ■ Coal

Generation Mix	2018	2020	2022	2023
Gas	>30%	~50%	~55%	~70%
Coal	<70%	~50%	~45%	~30%



Oil Generation

Coal Generation

Gas Generation

Key Projects in the Development Plan

Investment in building three new gas-fired generating units is the core part of the DP, and gas supply reliability will also be crucial. To enhance fuel security and bargaining power for gas purchase, HK Electric is partnering with CLP Power to develop an offshore liquefied natural gas (“LNG”) terminal using the Floating Storage and Regasification Unit (“FSRU”) technology in Hong Kong waters (see Section 6: Major Projects).

For building a more resilient power grid, various transmission and distribution facilities will be constructed and reinforced, such as building new and replacing old substations and expanding the supply network. Smart meters with the Advanced Metering Infrastructure will start to be deployed to establish an intelligent information exchange platform for customers’ energy management. Grid remote control and monitoring system will also be reinforced to improve grid intelligence and automation features.

