

2023 Tariff Review

Annex HEC-A

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**Provision of information by The Hongkong Electric Company, Limited (HEC)
for Panel on Environmental Affairs of the Legislative Council**

I. Information related to the 2019-2023 Development Plan

1. Capital expenditure forecasts under the approved 2019-2023 Development Plan

Categories ¹ (\$ million)	2019	2020	2021	2022-2023	Total
Power Generation System	3,662.0	4,674.6	3,411.7	4,476.1	16,224.4
Transmission & Distribution System	1,520.0	1,649.9	1,947.2	3,947.5	9,064.6
Customer and Corporate Services Development	316.9	306.1	249.0	425.3	1,297.3
Grand Total	5,498.9	6,630.6	5,607.9	8,848.9	26,586.3

Note 1: Detailed breakdown of capital expenditure shown on page 2.

Notes to the confidential figures:

Revealing HEC major capital expenditure categories would enable the suppliers to easily assess the budget estimates of certain projects that would increase their ability of price negotiations. Such might cause an increase in the costs of capital expenditure leading to an increase in future tariff level. This would also reveal HEC's future fixed assets investment as well as future profits. Any disclosure of confidential information may be detrimental to the interests of small shareholders and may also violate the Hong Kong Listing Rules requirements. Any person using confidential information or any "tipping" to others for dealings may also commit an offence under the Securities and Futures Ordinance.

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Approved 2019-2023 Development Plan - Project Capital Expenditure Forecasts		
Item	Project	Project Total CapEx (HK\$M)
G. Power Generation System		
G.1	Lamma Extension – L10 Combined Cycle Gas Generating Unit	
G.2	Lamma Extension – L11 Combined Cycle Gas Generating Unit	
G.3	Lamma Extension – L12 Combined Cycle Gas Generating Unit	
G.4	Lamma Extension – Preparatory Field Work for L13 Combined Cycle Gas Generating Unit	
G.5	Po Toi Island Solar Renewable Energy System	
G.6	Offshore LNG Terminal	
G.7	Reprovision of Retired Open Cycle Gas Turbine Units	
G.8	Upgrade of L9 Combined Cycle Gas Generating Unit Reliability	
G.9	Improvement and Upgrade of Coal and Ash Handling System	
G.10	Common Utilities and Provisions at Lamma Extension	
G.11	Improvement and Upgrade of Common Facilities, Civil Works, and Other Auxiliaries for Generation System	
T&D. Transmission & Distribution System		
T&D.1	Cable Replacement for Kennedy Road-Davis 132-kV Circuits	
T&D.2	Cable Replacement for Kennedy Road-Moreton Terrace 132-kV Circuits	
T&D.3	Power Supply to MTRC Shatin to Central Link (North South Corridor)	
T&D.4	Zone Substation Development	
T&D.5	Additional Transmission System for New Generating Units	
T&D.6	Construction of New Distribution Network to Supply New Customers	
T&D.7	Zone Substation Improvement to Enhance Reliability	
T&D.8	132-kV & 275-kV Transmission System Improvement & Reliability Upgrade	
T&D.9	HV/LV Distribution Systems Reinforcement	
T&D.10	Grid Automation and Control Improvement	
T&D.11	Smart Meters and Advanced Metering Infrastructure	
T&D.12	Other Improvement and Reliability Upgrade Works for Transmission and Distribution System	
C. Customer and Corporate Services Development		
C.1	Replacement and Upgrade of IT System and Infrastructure	
C.2	Communication System, Customer Services, Operation Premises Improvement, and Miscellaneous	
Total CapEx of All the Above Projects		26,586.3

Notes to the confidential figures:

Since a lot of works are in progress under individual projects, revealing the capital expenditure forecast would not be appropriate. Such projects may be in the tendering stage or having potential contractual disputes with the contractors or suppliers. As a result, revealing such confidential figures may not benefit customers.

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2. Forecast capital expenditure in the 2019-2023 Development Plan Period

Categories (\$ million)	2019	2020	2021	2022 Forecast	2023 Forecast
Power Generation System	2,774.3	3,358.6	3,740.8	3,503.0	
Transmission & Distribution System	1,452.4	1,705.5	1,809.6	1,745.4	
Customer and Corporate Services Development	274.3	313.6	326.2	260.9	
Grand Total	4,501.0	5,377.7	5,876.6	5,509.3	

Notes to the confidential figures:

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3. Tariff component by year – 2019-2023 Development Plan forecast compared with annual tariff review

Tariff Component (cents/kWh)	2018	2019	2020		2021		2022			2023	
	Annual Tariff Review	(note 1) DP Forecast/ Annual Tariff Review	DP Forecast	Annual Tariff Review	DP Forecast	Annual Tariff Review	DP Forecast	Annual Tariff Review	November	DP Forecast	(note 2) Annual Tariff Review
(A) Basic Tariff	109.1	101.3	105.3	102.0	110.2	109.0	114.8	109.0	109.0	115.7	114.5
<i>Increase/(Decrease)%</i>											
-- Annual / 2022 November		-7.1%		+0.7%		+6.9%		-%		+6.0%	+5.0%
-- Since 2018		-7.1%	-3.5%	-6.5%	+1.0%	-0.1%	+5.2%	-0.1%			
(B) Fuel Clause Charge	23.4	23.4	25.8	24.8	27.5	17.4	29.8	27.3	78.8	36.2	82.5
<i>Increase/(Decrease)%</i>											
-- Annual / 2022 November		-%		+6.0%		-29.8%		+56.9%		+54.7%	+4.7%
-- Since 2018		-%	+10.3%	+6.0%	+17.5%	-25.6%	+27.4%	+16.7%			
(C) Net Tariff Before Special Rebates	132.5	124.7	131.1	126.8	137.7	126.4	144.6	136.3	187.8	151.9	197.0
<i>Increase/(Decrease)%</i>											
-- Annual / 2022 November		-5.9%		+1.7%		-0.3%		+7.8%		+14.6%	+4.9%
-- Since 2018		-5.9%	-1.1%	-4.3%	+3.9%	-4.6%	+9.1%	+2.9%			
(D) Special Rent & Rates Rebate	-4.0	-2.3	-0.3	-0.4	-	-	-	-	-	-	-
(E) Special Fuel Rebate	-16.0	-2.3	-	-	-	-	-	-	-	-	-
(F) Special Rebate	-	-	-	-	-	-	-	-1.0	-1.0	-	-
(G) Net Tariff After Special Rebates	112.5	120.1	130.8	126.4	137.7	126.4	144.6	135.3	186.8	151.9	197.0
<i>Increase/(Decrease)%</i>											
-- Annual / 2022 November		+6.8%		+5.2%		-%		+7.0%		+35.0%	+5.5%
-- Since 2018		+6.8%	+16.3%	+12.4%	+22.4%	+12.4%	+28.5%	+20.3%			

(note 1) The two exercises were done at the same time

(note 2) It is more meaningful to make the comparison with the 2022 November Net Tariffs, in light of prevailing fuel market.

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II. Information related to tariff adjustments

1. Tariff Adjustment

	2022 Tariff Review	2022 November	2023 Tariff Review	Adjustment	
	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh
				2022 November vs 2022 Tariff Review	2023 Tariff Review vs 2022 November
Basic Tariff	109.0	109.0	114.5	-	+5.5
Fuel Clause Charge	27.3	78.8	82.5	+51.5	+3.7
Net Tariff Before Special Rebate	136.3	187.8	197.0	+51.5	+9.2
Special Rebate	-1.0	-1.0	-	-	+1.0
Net Tariff After Special Rebate	135.3	186.8	197.0	+51.5 (+38.1%)	+10.2 (+5.5%)

Note: When comparing Net Tariff in 2023 Tariff Review with 2022 Tariff Review, the increase is 61.7¢/kWh (+45.6%).

Year End Balance (\$ billion)	<u>2022</u>	<u>2023</u>
- Tariff Stabilisation Fund (Estimate)	0.76B	0.39B
- Fuel Clause Recovery Account (Estimate)	(2.15B)	(1.30B)

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2. Rationale for tariff adjustment

	Rationales for tariff adjustment	Tariff impact (¢ / kWh)
(1)	Basic Tariff	
(a)	<p>Increase in Average Net Fixed Assets</p> <p>Increase from estimated [REDACTED] billion in 2022 to estimated [REDACTED] billion in 2023, the major components include capital expenditure on transmission & distribution system, power generation system and customer and corporate services development</p> <p>Note: Average Net Fixed Assets for any year means the average, for that year, of the opening and closing balances of Net Fixed Assets.</p>	+2.4
(b)	<p>Increase in operating expenses</p> <p>Increase from estimated \$4.34 billion in 2022 to estimated \$4.40 billion in 2023 (Refer item 3A)</p>	+0.6
(c)	<p>All others</p> <p>Change in Tariff Stabilisation Fund balance, interest & SOC taxation, etc.</p>	+2.5
	Sub-total (Basic Tariff):	+5.5
<p>Notes on the confidential figures:</p> <p>Forecast Average Net Fixed Assets (ANFA) values might reveal future 2023 profits. Any disclosure of confidential information may be detrimental to the interests of small shareholders and may also violate the Hong Kong Listing Rules requirements. Any person using confidential information or any “tipping” to others for dealings may also commit an offence under the Securities and Futures Ordinance.</p>		

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	Rationales for tariff adjustment	Tariff impact (¢ / kWh)
(2)	Fuel Clause Charge	
(a)	Change in fuel price for 2022 & 2023 and increase in natural gas consumption for 2023 (i) Reflecting latest estimated 2022 fuel price under more frequent Fuel Clause Charge adjustment mechanism. (ii) Expected increase in 2023 fuel price and natural gas consumption.)	+46.6
(b)	Change in Fuel Clause Recovery Account balance Change in Fuel Clause Recovery Account balance	+8.6
	Sub-total (Fuel Clause Charge):	+55.2
(3)	Special Rebate	
	The Special Rebate of 1.0 ¢/kWh in 2022 will be discontinued in 2023	+1.0
	Sub-total (Special Rebate):	+1.0
	(1) + (2) + (3) Grand total:	+61.7

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Fuel consumed (Tera-joules)	<u>2022 (Estimate)</u>	<u>2023 (Estimate)</u>
• Coal	51,031	
• Natural Gas	41,656	
• Oil	652	
Total	93,339	

Average Fuel Price (HK\$ per GJ)	<u>2022 (Estimate)</u>	<u>2023 (Estimate)</u>
• Coal	89.2	
• Natural Gas	94.4	
• Oil	112.7	
Overall	92.3	

Total Fuel Cost (\$ million)	<u>2022 (Estimate)</u>	<u>2023 (Estimate)</u>
• Coal	4,550	
• Natural Gas	3,934	
• Oil	73	
• Others	59	
Overall	8,616	

Actual Fuel Costs pass through to customers through the following 2 accounts:

Standard fuel costs (Include in basic tariff)	1,467	
Fuel Clause Recovery Account	7,149	
Overall	8,616	

Notes on the confidential figures:

Disclosure of fuel demand and price forecasts would materially disadvantage HEC in negotiations in setting price or volume delivery terms with fuel suppliers, resulting in higher prices and hence increase fuel clause charges to be borne by Hong Kong citizens.

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3. The detailed items of the operating expenses and the respective budget figures

Items for Non-Fuel Operating Expenses	Forecast Expense for 2022 (\$ million) Estimate	Forecast Expense for 2023 (\$ million) Estimate
Operating Expenses		
Employee expenses (1)	848.6	
Materials & Services (note a)	475.1	534.2
Loan charges (2)	4.4	
Government Rent & Rates	215.2	230.1
Contingency	3.9	
Stocks/FA Write-offs (note b)	113.8	107.4
Provision for Decommissioning	136.7	96.5
Depreciation	2,539.3	2,525.4
(A) Sub-total for Operating Expenses & Depreciation:	4,337.0	4,397.9
Interest (2)	21.1	
Taxation (3)	415.4	
(B) Sub-total for Interest & Taxation:	436.5	952.4
Total Non-fuel Operating Expenses:	4,773.5	5,350.3

Note

- Based on quotations from suppliers and contractors. If quotations are unavailable, expenses are based on inflation rates assumptions.
- Estimation based on usage conditions of fixed assets.

Notes to the confidential figures as highlighted:

- HEC has a policy of pay for performance. As a result, staff salary adjustment rate will vary by individual. Disclosing such detail may create false expectation and jeopardize employee relations.
- Disclosure of confidential funding information could materially affect HEC's borrowing costs, leading to increased costs to Hong Kong citizens.
- Disclosure of information may enable calculation of interest.

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