

2020 Tariff Review**Annex HEC-A**

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

**Provision of information by The Hongkong Electric Company, Limited (HEC)
for Economic Development Panel of the Legislative Council**

I. Information related to the 2019-2023 Development Plan

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

Categories¹ (\$ million)	2019	2020	2021-2023	Total
Power Generation System	3,662.0			16,224.4
Transmission & Distribution System	1,520.0			9,064.6
Customer and Corporate Services Development	316.9			1,297.3
Grand Total	5,498.9			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.

2020 Tariff Review

Annex HEC-A

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

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.

2020 Tariff Review**Annex HEC-A**

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

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

Categories (\$ million)	2019 Forecast	2020 Forecast
Power Generation System	2,877.6	
Transmission & Distribution System	1,470.8	
Customer and Corporate Services Development	345.3	
Grand Total	4,693.7	

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.

2020 Tariff Review

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

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	DP Forecast/ Annual Tariff Review*	DP Forecast	Annual Tariff Review	DP Forecast	DP Forecast	DP Forecast
(A) Basic Tariff	109.1	101.3	105.3	102.0	110.2	114.8	115.7
<i>Increase/(Decrease)%</i>							
-- Annual		-7.1%		+0.7%			
-- Since 2018		-7.1%	-3.5%	-6.5%	+1.0%	+5.2%	+6.0%
(B) Fuel Clause Charge	23.4	23.4	25.8	24.8	27.5	29.8	36.2
<i>Increase/(Decrease)%</i>							
-- Annual		-%		+6.0%			
-- Since 2018		-%	+10.3%	+6.0%	+17.5%	+27.4%	+54.7%
(C) Net Tariff Before Special Rebates	132.5	124.7	131.1	126.8	137.7	144.6	151.9
<i>Increase/(Decrease)%</i>							
-- Annual		-5.9%		+1.7%			
-- Since 2018		-5.9%	-1.1%	-4.3%	+3.9%	+9.1%	+14.6%
(D) Special Rent & Rates Rebate	-4.0	-2.3	-0.3	-0.4	-	-	-
(E) Special Fuel Rebate	-16.0	-2.3	-	-	-	-	-
(F) Net Tariff After Special Rebates	112.5	120.1	130.8	126.4	137.7	144.6	151.9
<i>Increase/(Decrease)%</i>							
-- Annual		+6.8%		+5.2%			
-- Since 2018		+6.8%	+16.3%	+12.4%	+22.4%	+28.5%	+35.0%

* The two exercises were done at the same time

2020 Tariff Review

Annex HEC-B

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

Provisions of information by The Hongkong Electric Company, Limited (HEC) for Economic Development Panel of the Legislative Council

II. Information related to tariff adjustments

1. Tariff Adjustment

	2019 Tariff ¢/kWh	2020 Tariff ¢/kWh	Adjustment %
Basic Tariff	101.3	102.0	
Fuel Clause Charge	23.4	24.8	
Net Tariff Before Special Rebates	124.7	126.8	+2.1 cents +1.7%
Special Rent & Rates Rebate	-2.3	-0.4	
Special Fuel Rebate	-2.3	-	
Net Tariff After Special Rebates	120.1	126.4	+6.3 cents +5.2%

Year End Balance (\$ billion)

- Tariff Stabilisation Fund (Estimate)	0.64B	0.39B
- Fuel Clause Recovery Account (Estimate)	0.55B	0.31B

2020 Tariff Review

Annex HEC-B

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

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 2019 to estimated [redacted] billion in 2020, 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>	+3.0																		
(b)	<p>Increase in operating expenses</p> <p>Increase from estimated \$4.18 billion in 2019 to estimated \$4.33 billion in 2020 (Refer item 3A)</p>	+1.5																		
(c)	<p>Decrease in local electricity sales</p> <p>The sales of electricity decrease from estimated 10.46 billion kWh in 2019 to estimated [redacted] billion kWh in 2020. The major changes in different categories are tabled as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Million kWh</th> <th style="width: 35%;">2019 Estimate</th> <th style="width: 35%;">2020 Estimate</th> </tr> </thead> <tbody> <tr> <td>Domestic</td> <td style="text-align: center;">2,468</td> <td style="background-color: yellow;"></td> </tr> <tr> <td>Commercial</td> <td style="text-align: center;">7,703</td> <td style="background-color: yellow;"></td> </tr> <tr> <td>Industrial</td> <td style="text-align: center;">293</td> <td style="background-color: yellow;"></td> </tr> <tr> <td>Total</td> <td style="text-align: center;">10,464</td> <td style="background-color: yellow;"></td> </tr> <tr> <td>Change Over Previous Year</td> <td style="text-align: center;">-0.7%</td> <td style="background-color: yellow;"></td> </tr> </tbody> </table>	Million kWh	2019 Estimate	2020 Estimate	Domestic	2,468		Commercial	7,703		Industrial	293		Total	10,464		Change Over Previous Year	-0.7%		+0.2
Million kWh	2019 Estimate	2020 Estimate																		
Domestic	2,468																			
Commercial	7,703																			
Industrial	293																			
Total	10,464																			
Change Over Previous Year	-0.7%																			
(d)	<p>All others</p> <p>Change in Tariff Stabilisation Fund balance, interest & SOC taxation, etc.</p>	-4.0																		

2020 Tariff Review**Annex HEC-B**

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

	Rationales for tariff adjustment	Tariff impact (¢ / kWh)
(1)	Basic Tariff	
	Sub-total (Basic Tariff):	+0.7
<p>Notes on the confidential figures:</p> <p>(i) Forecast Average Net Fixed Assets (ANFA) values might reveal future 2020 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> <p>(ii) Disclosure of future sales growth might indicate to suppliers HEC’s underlying demands which could increase their bargaining power in prices setting leading to higher prices to be borne by the Hong Kong citizens. This might 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.</p>		

2020 Tariff Review

Annex HEC-B

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

	Rationales for tariff adjustment	Tariff impact (¢ / kWh)
(2)	Fuel Clause Charge	
(a)	Expected increase in 2020 fuel price over 2019 Higher fuel clause chargeable per unit attributable to fuel price change	+0.3
(b)	Increase in proportion of natural gas used for electricity generation in 2020 Higher fuel clause chargeable per unit attributable to fuel mix change	+6.3
(c)	Fuel Cost Recovery Difference (i.e. the total Fuel Clause Charge received minus “difference between Standard Fuel Cost and Actual Fuel Cost”)	-5.2
	Sub-total (Fuel Clause Charge):	+1.4
<hr/>		
(3)	Special Rent & Rates Rebate	
	Return of rent & rates overcharged by Government (Decrease from 2.3 ¢/kWh to 0.4 ¢/kWh)	+1.9
	Sub-total (Special Rent & Rates Rebate):	+1.9
<hr/>		
(4)	Special Fuel Rebate	
	The special fuel rebate of 2.3 ¢/kWh in 2019 will be discontinued in 2020	+2.3
	Sub-total (Special Fuel Rebate):	+2.3
	(1) + (2) + (3) +(4) Grand total:	+6.3

2020 Tariff Review

Annex HEC-B

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

Fuel consumed (Tera-joules)	<u>2019 (Estimate)</u>	<u>2020 (Estimate)</u>
• Coal	79,611	
• Natural Gas	28,719	
• Oil	741	
Total	109,071	

Average Fuel Price (HK\$ per GJ)	<u>2019 (Estimate)</u>	<u>2020 (Estimate)</u>
• Coal	27.6	
• Natural Gas	56.9	
• Oil	107.4	
Overall	36.1	

Total Fuel Cost (\$ million)	<u>2019 (Estimate)</u>	<u>2020 (Estimate)</u>
• Coal	2,195	
• Natural Gas	1,634	
• Oil	80	
• Others	24	
Overall	3,933	

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

Standard fuel costs (Include in basic tariff)	1,771	
Fuel Clause Recovery Account	2,162	
Overall	3,933	

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.

2020 Tariff Review

Annex HEC-B

In the event of discrepancies between the English and Chinese versions, the Chinese version shall prevail.

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

Items for Non-Fuel Operating Expenses	Forecast Expense for 2019 (\$ million) Estimate	Forecast Expense for 2020 (\$ million) Estimate	% Change
Operating Expenses			
Employee expenses (1)	818.9		
Materials & Services (note a)	441.9	454.4	
Loan charges (2)	3.2		
Government Rent & Rates	235.5	244.0	
Contingency	5.0		
Stocks/FA Write-offs (note b)	127.2	104.1	
Provision for Decommissioning	207.7	190.2	
Depreciation	2,343.5	2,453.8	
(A) Sub-total for Operating Expenses & Depreciation:	4,182.9	4,333.0	+3.6%
Interest (2)	21.6		
Taxation (3)	626.1		
(B) Sub-total for Interest & Taxation:	647.7	624.3	-3.6%
Total Non-fuel Operating Expenses:	4,830.6	4,957.3	+2.6%

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.

- End -