

2018 Tariff Review

Annex HEC-A

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

I. Information related to the Five-year Development Plan

1. Capital expenditure forecasts under the approved Five-year Development Plan

Categories ¹ (\$ million)	2014	2015	2016	2017-2018 ⁺	Total
(A) Power Generation System	620.0	886.7	1,127.6 [#]	3,999.8 [#]	6,634.1 [#]
(B) Transmission & Distribution System	1,017.4	1,115.4	1,090.4	2,099.7	5,322.9
(C) Customer and Corporate Services Development	408.4	416.8	266.5	552.7	1,644.4
Grand Total	2,045.8	2,418.9	2,484.5 [#]	6,652.2 [#]	13,601.4 [#]

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

⁺Notes to the confidential figures:

Revealing HEC major capital expenditure categories in 2017/2018 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.

[#] Including the 2016-2018 project cost for the "L11" project approved by the Executive Council in September 2016.

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Approved 2014-2018 Development Plan – Project Capital Expenditure Forecasts			
Project No.	Project	Remark	Project Total CapEx (HK\$M)
G. Generation Projects			
G.1	Lamma Extension – L10 Combined Cycle Gas Generating Unit		
G.2	Life Extension of Coal-Fired Unit (L2) & Ancillary Plant Improvement		
G.3	CCGT Unit GT57 Reliability Upgrading		
G.4	CCGT Unit L9 Reliability Upgrading		
G.5	Upgrade Coal-Fired Units Operating Efficiency and Reliability		
G.6	Improve and Upgrade Coal Conveying and Handling System		
G.7	Improve and Upgrade Common Facilities, Civil Works, Power Export Transmission Facilities and Other Auxiliary Plants		
G.8	Lamma Extension – L11 Combined Cycle Gas Generating Unit ^{##}		
T&D. Transmission & Distribution Projects			
T&D.1	Cable Replacement for Kennedy Road-Davis 132kV Circuits		
T&D.2	Cable Replacement for North Point-Parker 132kV Circuits		
T&D.3	Power Supply to MTRC Shatin to Central Link (North South Corridor), West and South Island Lines		
T&D.4	Zone Electricity Supply Improvement		
T&D.5	Construct New Distribution Network to Supply New Customers		
T&D.6	Construct 22kV Distribution Network to Promote Electricity Supply Reliability		
T&D.7	Replace North Point 132kV Station EHV Switchgear		
T&D.8	132kV & 275kV Transmission System Improvement & Reliability Upgrade		
T&D.9	HV/LV Distribution Systems Reinforcement		
C. Customer & Corporate Services Development Projects			
C.1	Replace and Upgrade IT Systems for Corporate Applications		
C.2	Replace and Upgrade IT Systems for Engineering Applications		
C.3	Distribution System Metering, Communication System, Customer Services, Operation Premises Improvement, and Building M&E Services Energy Efficiency Upgrade		
Total CapEx of All the Above Projects			13,601.4

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.

^{##} Approved by the Executive Council in September 2016.

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2. Forecast capital expenditure in the Five-year Development Plan Period

Categories (\$ million)	2014	2015	2016	2017 Forecast	2018 Forecast
(A) Power Generation System	622.4	1,017.7	1,279.0	1,479.0	
(B) Transmission & Distribution System	1,112.3	907.4	995.9	1,059.4	
(C) Customer and Corporate Services Development	440.5	510.4	439.3	254.2	
Grand Total	2,175.2	2,435.5	2,714.2	2,792.6	

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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3. Tariff component by year – Five-year development plan forecast compared with annual tariff review

Tariff Component (cents/kWh)	2013	2014	2015		2016		2017		2018	
	Annual Tariff Review	DP Forecast/ Annual Tariff Review*	DP Forecast	Annual Tariff Review	DP Forecast	Annual Tariff Review	DP Forecast	Annual Tariff Review	DP Forecast	Annual Tariff Review
Basic Tariff	94.7	101.8	101.7	102.6	101.0	105.5	100.6	108.9	100.3	109.1
<i>Increase/(Decrease)%</i>										
<i>-- Annual</i>		+7.5%		+0.8%		+2.8%		+3.2%		+0.2%
Special Rent & Rates Rebate								-4.0		-4.0
<i>-- Since 2013</i>		+7.5%	+7.4%	+8.3%	+6.7%	+11.4%	+6.2%	+10.8%	+5.9%	+11.0%
Net Basic Tariff	94.7	101.8	101.7	102.6	101.0	105.5	100.6	104.9	100.3	105.1
Fuel Clause Charge	40.2	33.1	33.2	32.3	33.9	27.9	34.5	23.4	34.9	23.4
<i>Increase/(Decrease)%</i>										
<i>-- Annual</i>		-17.7%		-2.4%		-13.6%		-16.1%		0%
Special Fuel Rebate								-17.9		-16.0
<i>-- Since 2013</i>		-17.7%	-17.4%	-19.7%	-15.7%	-30.6%	-14.2%	-86.3%	-13.2%	-81.6%
Net Tariff	134.9	134.9	134.9	134.9	134.9	133.4	135.1	110.4	135.2	112.5
<i>Increase/(Decrease)%</i>										
<i>-- Annual</i>		0%		0%		-1.1%		-17.2%		+1.9%
<i>-- Since 2013</i>		0%	0%	0%	0%	-1.1%	+0.1%	-18.2%	+0.2%	-16.6%

* The two exercises were done at the same time.

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II. Information related to tariff adjustments

1. Tariff Adjustment

	2017 Tariff ¢/kWh	2018 Tariff ¢/kWh	Adjustment %
Basic Tariff	108.9	109.1	
Special Rent & Rates Rebate	-4.0	-4.0	
Net Basic Tariff	104.9	105.1	+0.2% +0.2 cents
Fuel Clause Charge	23.4	23.4	
Special Fuel Rebate	-17.9	-16.0	
Net Tariff	110.4	112.5	+1.9% +2.1 cents

Year End Balance (\$ billion)

- Tariff Stabilisation Fund (Estimate)	0.27B	0.27B
- Fuel Clause Recovery Account (Estimate)	2.67B	0.91B

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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 2017 to estimated [redacted] billion in 2018, the major components include capital expenditure on transmission & distribution projects, generation projects and customer and corporate services development projects</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>	+0.9																		
(b)	<p>Increase in operating expenses</p> <p>Increase from estimated \$3.83 billion in 2017 to estimated \$4.11 billion in 2018 mainly due to the rise in material prices & variations in operating activities and increase in depreciation</p> <p>(Refer item 3A)</p>	+2.6																		
(c)	<p>Decrease in local electricity sales</p> <p>The sales of electricity decrease from estimated 10.64 billion kWh in 2017 to estimated [redacted] billion kWh in 2018. The major changes in different categories are tabled as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 30%;">Million kWh</th> <th style="width: 35%;">2017 Estimate</th> <th style="width: 35%;">2018 Estimate</th> </tr> </thead> <tbody> <tr> <td>Domestic</td> <td>2,502</td> <td>[redacted]</td> </tr> <tr> <td>Commercial</td> <td>7,831</td> <td>[redacted]</td> </tr> <tr> <td>Industrial</td> <td>307</td> <td>[redacted]</td> </tr> <tr> <td>Total</td> <td>10,640</td> <td>[redacted]</td> </tr> <tr> <td>Change Over Previous Year</td> <td>-1.4%</td> <td>[redacted]</td> </tr> </tbody> </table>	Million kWh	2017 Estimate	2018 Estimate	Domestic	2,502	[redacted]	Commercial	7,831	[redacted]	Industrial	307	[redacted]	Total	10,640	[redacted]	Change Over Previous Year	-1.4%	[redacted]	+1.4
Million kWh	2017 Estimate	2018 Estimate																		
Domestic	2,502	[redacted]																		
Commercial	7,831	[redacted]																		
Industrial	307	[redacted]																		
Total	10,640	[redacted]																		
Change Over Previous Year	-1.4%	[redacted]																		

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	Rationales for tariff adjustment	Tariff impact (¢ / kWh)
(1)	Basic Tariff	
(d)	All others	
	Change in Tariff Stabilisation Fund balance and interest & SOC taxation	-4.7
	Sub-total (Basic Tariff):	+0.2
(2)	Special Rent & Rates Rebate	
	Return of rent & rates overcharged by Government (Maintain at 4 ¢/kWh)	-
	Sub-total (Special Rent & Rates Rebate):	-
<p>Notes on the confidential figures:</p> <p>(i) Forecast Average Net Fixed Assets (ANFA) values might reveal future 2018 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>		

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	Rationales for tariff adjustment	Tariff impact (¢ / kWh)
(3)	Fuel Clause Charge	
(a)	Expected increase in 2018 fuel price over 2017 Increase of 2018 fuel expenses over 2017 by \$0.49 billion	+5.4
(b)	Fuel Cost Recovery Difference (i.e. the total Fuel Clause Charge received minus “difference between Standard Fuel Cost and Actual Fuel Cost”)	-5.4
	Sub-total (Fuel Clause Charge):	-
(4)	Special Fuel Rebate	
	Reduced from 17.9 ¢/kWh to 16.0 ¢/kWh	+1.9
	Sub-total (Special Fuel Rebate):	+1.9
	(1) + (2) + (3) +(4) Grand total:	+2.1

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Fuel consumed (Tera-joules)	<u>2017 (Estimate)</u>	<u>2018 (Estimate)</u>
• Coal	78,230	
• Natural Gas	31,562	
• Oil	556	
Total	110,348	

Average Fuel Price (HK\$ per GJ)	<u>2017 (Estimate)</u>	<u>2018 (Estimate)</u>
• Coal	26.9	
• Natural Gas	54.1	
• Oil	108.0	
Overall	35.3	

Total Fuel Cost (\$ million)	<u>2017 (Estimate)</u>	<u>2018 (Estimate)</u>
• Coal	2,102	
• Natural Gas	1,707	
• Oil	60	
• Others	22	
Overall	3,891	

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

Standard fuel costs (Include in basic tariff)	1,886	
Fuel Clause Recovery Account	2,005	
Overall	3,891	

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 2017 (\$ million) Estimate	Forecast Expense for 2018 (\$ million) Estimate	% Change
Operating Expenses			
Employee expenses (1)	744.2		
Materials & Services (note a)	331.5	342.1	
Loan charges (2)	2.7		
Government Rent & Rates	249.2	262.3	
Contingency	5.0		
Stocks/FA Write-offs (note b)	85.2	83.5	
Provision for Decommissioning	204.1	317.8	
Depreciation	2,211.7	2,257.8	
(A) Sub-total for Operating Expenses & Depreciation:	3,833.6	4,106.4	+7.1%
Interest (2)	16.5		
Taxation (3)	665.1		
(B) Sub-total for Interest & Taxation:	681.6	578.3	-15.2%
Total Non-fuel Operating Expenses:	4,515.2	4,684.7	+3.8%

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 -