



Feb 2, 2016  
Company Report  
Rating: BUY  
TP: HK\$ 3.60

H-Share price (HK\$)	2.33
Est. share price return	54.51%
Est. dividend yield	2.45%
Est. total return	56.96%

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**Key Data**

Market share (HK\$mn)	105,896
3-mth avg. daily turnover (HK\$ mn)	394
52-week high/low (HK\$)	5.53/2.16
Issued shares (mn)	45,449
Major shareholder(s) (%): CGNPC	64.2

Source(s): Company, Bloomberg, ABCI Securities

**FY14 Revenue breakdown (%)**

Electricity	92.95
Service revenue	5.84
Sales of other goods	1.21

Source(s): Company, ABCI Securities

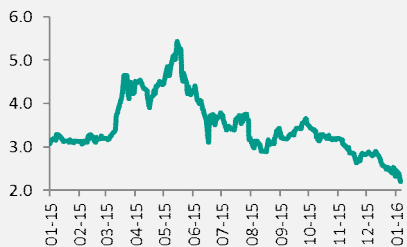
**Share performance (%)**

	Absolute	Relative*
1-mth	-19.66%	-9.07%
3-mth	-29.18%	-14.18%
6-mth	-31.07%	-11.35%

\*Relative to HSI

Source(s): Bloomberg, ABCI Securities

**1-Year stock performance**



Source(s): Bloomberg, ABCI Securities

**CGN Power (1816 HK)**  
Bright future ahead; reiterate BUY

- China is likely to enter nuclear power era with output expanding by 16% CAGR in 2015-20E
- With the completion of new plants, CGN's attributable capacity is likely to increase by 26%/23% YoY in 2016E/17E, bring the earnings up by 17%/30% YoY
- Injection of Fangchenggang power plant from CGN's parent company will boost CGN's future earnings growth.
- Reiterate BUY with TP at HK\$3.60, equivalent to 19x/15x 2016E/17E P/E

**China to enter the nuclear power era; nuclear power output would grow by 16% CAGR in 2015-20.** According to the Nuclear Power Mid-to-Long term Development Plan, China government targets to expand nuclear power capacity from 27.2GW by end-2015 to 58GW by end-2020, suggesting a 16% CAGR for the period. If we assume nuclear power to maintain at current utilization hour, nuclear power output should be able to meet the target. This would provide huge opportunities for nuclear power operators.

**Earnings should see 17%/30% YoY growth in 2016E/17E.** Maintenance work at the power plants in the Hongyanhe and Ningde dragged down CGN's utilization hour in 2015 and therefore we expect earnings for the year would record a low-single-digit growth. We expect CGN's earnings to increase by 17%/30% YoY in 2016E/17E, driven by strong capacity growth in the future. For its subsidiaries, we expect Yangjiang Unit 3 & 4 and Taishan unit 1 & 2 to commence commercial operation in 2016 and 2017; For its JVs and associates we estimate Ningde Unit 4 and Hongyanhe Unit 4 would contribute to power output in 2016 and 2017. We therefore expect CGN to record an attributable capacity growth of 26%/23%YoY in 2016E/17E and earnings should record 17%/30%YoY robust growth in the same period.

**Fangchenggang power plant serves as a future earnings driver.** CGN's parent company has a 61% stake of Fangchenggang nuclear power plant located in the Guangxi province. Injection of the power plant should help boost CGN's future earnings beyond 2016 as the attributable capacity would increase by 1,220MW, or 15% of CGN's existing attributable total capacity. This serves as future earnings booster for CGN.

**Reiterate BUY, TP at HK\$3.60.** We believe CGN should continue to be the key beneficiary of upcoming nuclear power campaign in China. We therefore reiterate BUY with TP at HK\$3.60. Our DCF-derived TP, based on a WACC of 8.4%, is equivalent to 19x/15x 2016/17E P/E, representing a discount to its A-Share listed peer China National Nuclear Power (601985 CH).

**Risk factors:** (1) Over-capacity risk of power industry; (2) Falling utilization hours; (3) Operation safety; (4) Slower-than-expect construction progress; (5) Fuel cost risk; (6) Tariff risk; (7) Currency and interest rate risks; (8) Fundraising activities to finance M&A activities.

**Results and Valuation**

FY ended Dec 31	2013A	2014A	2015E	2016E	2017E
Revenue (RMB mn)	17,365	20,793	20,121	25,016	31,986
Chg (% YoY)	-1.2	19.7	-3.2	24.3	27.9
Net Income (RMB mn)	4,195	5,713	6,250	7,332	9,523
Chg (% YoY)	1.2	36.2	9.4	17.3	29.9
EPS (RMB)	0.144	0.181	0.138	0.161	0.210
Chg (% YoY)	-14.2	25.4	-24.0	17.3	29.9
BVPS (RMB)	0.824	1.511	1.283	1.409	1.546
Chg (% YoY)	23.3	83.3	-15.1	9.9	9.7
P/E (x)	13.7	10.9	14.4	12.3	9.5
P/B (x)	2.4	1.3	1.5	1.4	1.3
ROE (%)	18.20	11.25	10.72	11.45	13.56
ROA (%)	3.29	3.64	4.11	3.87	4.17
DPS (RMB)	0.352	0.049	0.048	0.056	0.073
Dividend yield (%)	17.8	2.5	2.4	2.9	3.7
Net gearing* (%)	217.9	78.7	111.7	135.0	151.5

Source(s): The Company, ABCI Securities estimates



## Sector outlook – China to enter the nuclear era

We believe development alternative energy would remain the main theme of the 13<sup>th</sup> Five-Year Plan (FYP). The demand for higher living and hygiene standards would accelerate the shift from traditional energy to renewable ones.

### **Nuclear power continues to be the key alternative energy that investors would focus on**

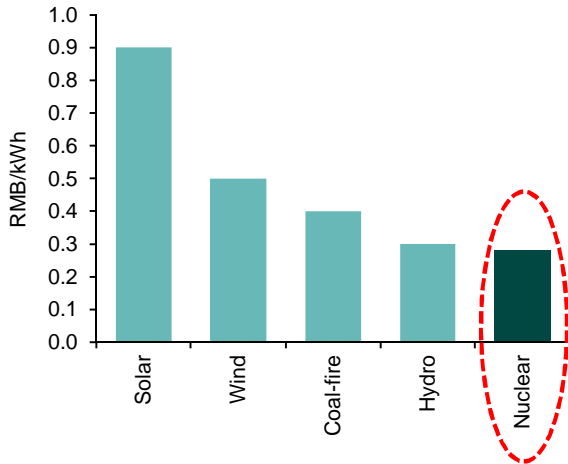
We believe nuclear power would be the key alternative energy source in China to replace traditional coal-fire power. Compared to other alternative energy such as wind, solar and organic, etc., nuclear power has the following advantages:

- **Lower production cost.** According to the data by Huadian Fuxin (816 HK, NR, a China multi-energy operator), the unit production cost for nuclear power is ~RMB 0.28/kWh, similar to RMB0.3/kWh for hydro but much lower than RMB 0.4/kWh for coal-fire, RMB 0.5/kWh for wind, and RMB 0.9/kWh for solar.
- **Powerful and efficient.** Traditionally, utilization of nuclear power plants could reach 7,000 hours, much higher than the 5,000 hours in coal-fire plants and 3,000 hours for hydro power plants.
- **Low pollution.** Nuclear power generation has a low impact on the environment since it does not release gases such as carbon dioxide or methane, which are largely responsible for the greenhouse effect
- **More reliable than other alternative energy sources.** Unlike wind, hydro and solar energy whose generation is affected by natural factors such as wind resources, rainfall and sunlight, nuclear energy can be produced from nuclear power plants under most weather conditions.

**China is likely to boost nuclear power development. We expect to see nuclear power output to expand by 16% CAGR growth in 2015-20E.** The average proportion of nuclear power to overall power output in developed countries is ~30% while the global average is 14%, China's figure is low at 2% in 2014, suggesting China has ample room for nuclear power development.

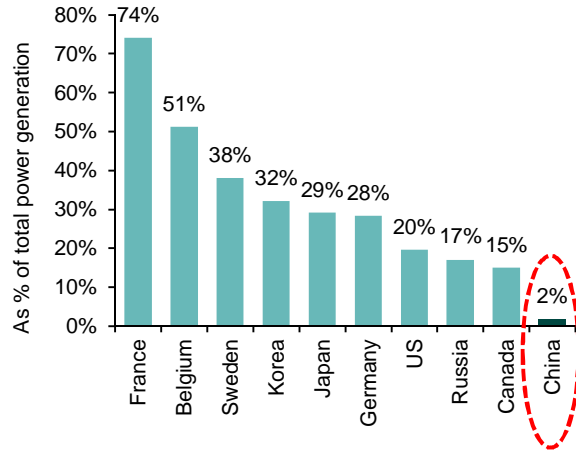
According to the Nuclear Power Mid-to-Long term Development Plan, the Chinese government is targeting to boost nuclear power capacity from 27.2GW by end-2015 to 58GW by end-2020 (+ 16% CAGR in 2015-20E). If we assume nuclear power to maintain at current utilization hour, nuclear power output should be able to expand by 16% CAGR in 2015-20E as well. In addition, we believe more pro-nuclear policies and development targets will be announced when more details of the 13<sup>th</sup> FYP are released.

**Exhibit 1: Nuclear power has a lower power generation cost than other energy sources**



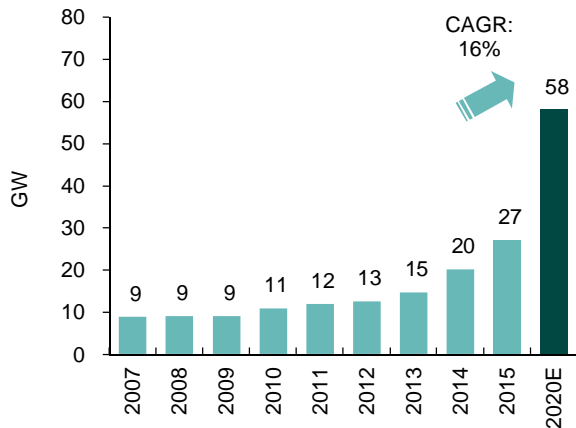
Source(s): Huadian Fuxin, ABCI Securities

**Exhibit 2: China still has ample room for nuclear power development**



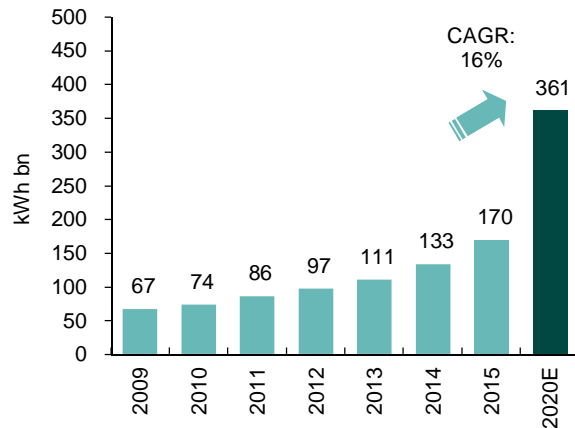
Source(s): Caijing.com, ABCI Securities

**Exhibit 3: China to accelerate nuclear power development with robust capacity growth**



Source(s): NEA, ABCI Securities

**Exhibit 4: Nuclear power output should grow strongly in 2015-20E**



Source(s): NEA, ABCI Securities

## Future earnings outlook – robust earnings growth is expected in upcoming future

As the largest nuclear power operator in China, we believe CGN should benefit the most from China's nuclear power development. Despite China's national power demand may see modest growth in future; nuclear power should remain the bright spot as government's determination in tackling pollution. We therefore expect CGN to attain a solid earnings growth in 2016 and 2017.

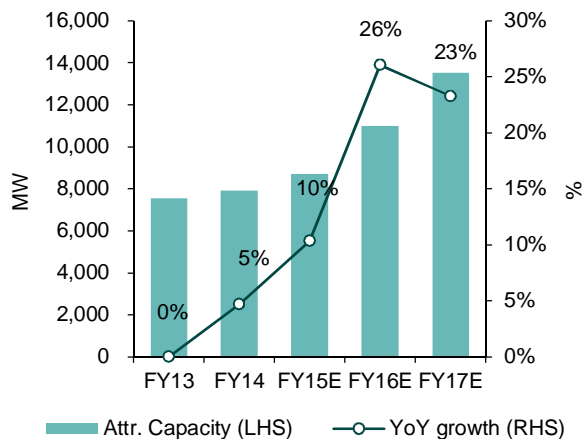
### 2016/17 earnings should see 17%/30%YoY robust growth

Due to the maintenance work at Hongyanhe and Ningde power plants in 2015, CGN's 2015 earnings are likely to record a low single-digit growth due to the lower utilization hour. CGN should record a 17%/30%YoY earnings growth in 2016E/17E driven by strong capacity growth. For the subsidiaries, we expect Yangjiang Unit 3 & 4 and Taishan Unit 1 & 2 to commence commercial operation in 2016 and 2017; For JVs and associates, Ningde Unit 4 and Hongyanhe Unit 4 should start contributing to power output in 2016 and 2017. We therefore expect CGN's attributable capacity growth to increase by 26%/23%YoY in 2016E/17E. Hence, earnings would also go up by 17%/30%YoY for the same period.

### Fangchenggang power plant serves as the future earnings driver

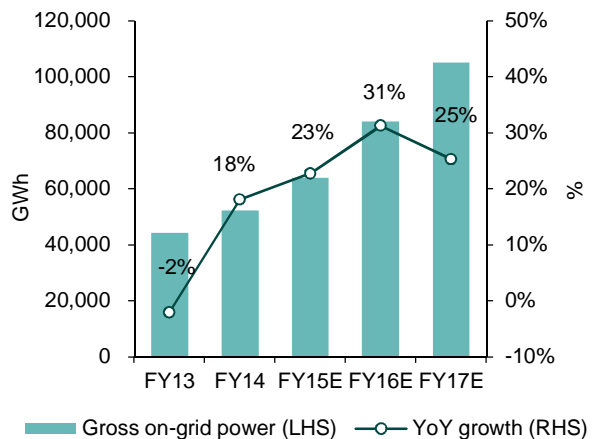
CGN's parent company has a 61% stake in Fangchenggang nuclear power plant located in the Guangxi province. The injection of this power plant should boost earnings after 2016 as it will add 1,220MW of attributable capacity, equivalent to ~15% of CGN's existing attributable total capacity. We believe this serves as future earnings booster for CGN.

**Exhibit 5: CGN's attributable capacity growth outlook**

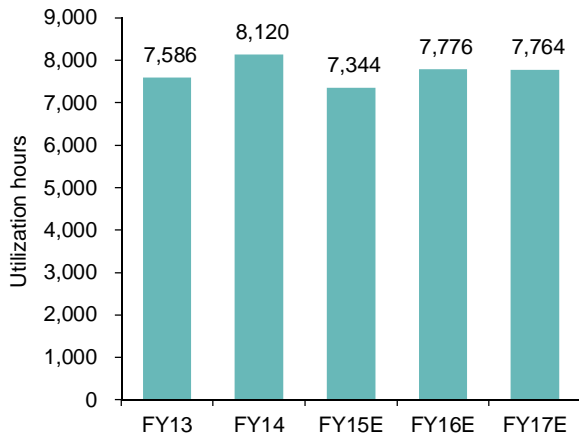


Source(s): Company data, ABCI Securities

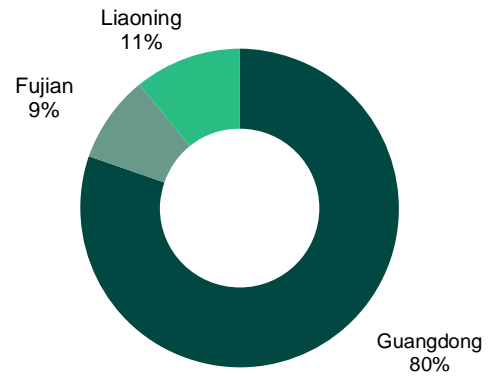
**Exhibit 6: CGN's net power output outlook**



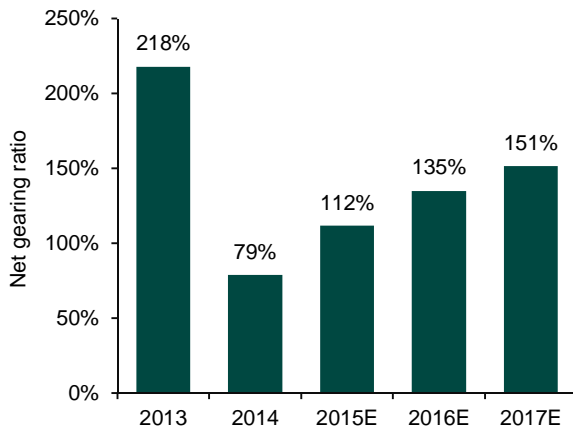
Source(s): Company data, ABCI Securities

**Exhibit 7: CGN's utilization hour outlook**


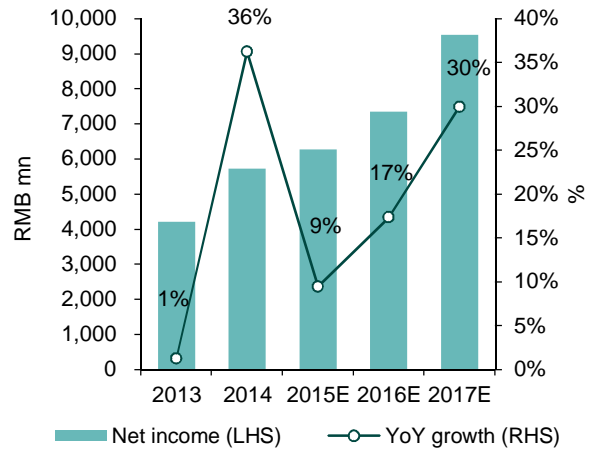
Source(s): Company data, ABCI Securities

**Exhibit 8: CGN's capacity breakdown by region (2014)**


Source(s): Company data, ABCI Securities

**Exhibit 9: CGN's net gearing ratio outlook**


Source(s): Company data, ABCI Securities

**Exhibit 10: CGN's earnings growth outlook**


Source(s): Company data, ABCI Securities



## Valuation

### Reiterate BUY with TP at HK\$ 3.60

Our DCF-derived TP of HK\$3.60 is based on an 8.4% WACC, representing 19x/15x 2016E/17E P/E, representing 28%/34% discount to CGN's closest A-share listed peer, China National Nuclear Power (601985 CH, NR). Despite our TP represents a premium over the international peers average of 13x/13x, CGN is the only nuclear power operator listed in Hong Kong and is likely to enjoy the robust growth driven by China's nuclear power campaign. We believe CGN deserves a premium to peers in mature nuclear markets such as Japan and Korea. In addition, based on our estimates, CGN's EPS should record a 24% CAGR growth in 2015E-18E on strong capacity growth during the period. Our TP is equivalent to ~1x PEG, which is undemanding in our view.

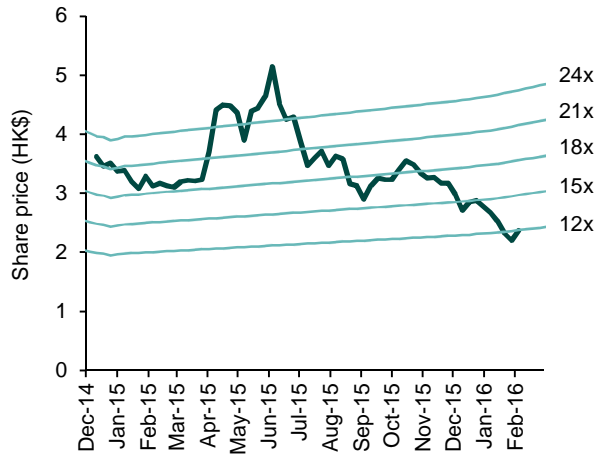
### Share price catalysts

We believe CGN's positive share price catalysts would include: (1).earlier-than-expected commercial operation of nuclear power plants (2).more supportive policies from government on nuclear power in the near future (3).asset injection from its parent company.

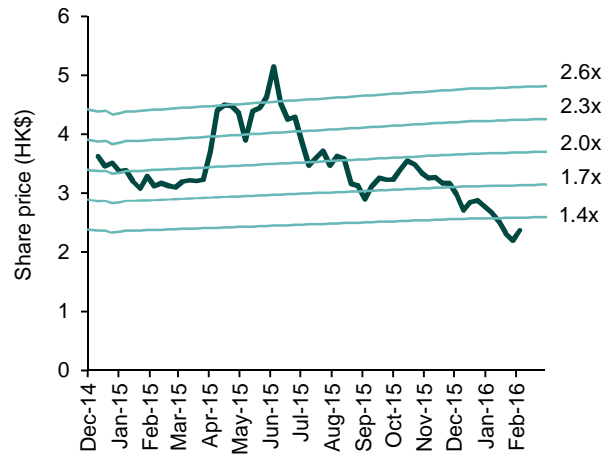
### Exhibit 11: Peer comparison

Name	Stock code	Price	Mkt Cap (USDmn)	PER (x)		PBR (x)		Dvd Yield		ROE	
				FY15E	FY16E	FY15E	FY16E	FY15E	FY16E	FY15E	FY16E
<b>HK &amp; China</b>											
CGN Power Co Ltd	1816 HK	2.33	13,617	14.2	12.3	1.5	1.4	2%	3%	11%	12%
China National Nuclear	601985 CH	6.90	16,326	26.5	22.8	2.8	2.6	1%	2%	14%	13%
<b>Avg.</b>				<b>20.4</b>	<b>17.5</b>	<b>2.2</b>	<b>2.0</b>	<b>2%</b>	<b>2%</b>	<b>12%</b>	<b>13%</b>
<b>Asia</b>											
Tokyo Electric Power	9501 JP	619	8,218	3.6	6.6	0.5	0.4	0%	0%	14%	7%
Kansai Electric Power	9503 JP	1,334	10,342	8.8	12.0	1.0	0.9	0%	2%	12%	10%
Kyushu Electric Power	9508 JP	1,254	4,913	9.7	9.9	1.3	1.2	1%	1%	15%	12%
Korea Electric Power	015760 KS	53,200	28,326	7.1	5.4	0.5	0.5	3%	3%	21%	9%
<b>Avg.</b>				<b>7.3</b>	<b>8.4</b>	<b>0.8</b>	<b>0.8</b>	<b>1%</b>	<b>1%</b>	<b>15%</b>	<b>10%</b>
<b>International</b>											
E.On Se	EOAN GR	9.55	20,808	11.9	12.4	1.0	1.0	5%	5%	7%	7%
Edf	EDF FP	11.81	24,697	5.7	6.7	0.7	0.6	10%	9%	10%	10%
Duke Energy Corp	DUK US	77.00	53,002	16.8	16.5	1.3	1.3	4%	4%	8%	8%
Nextera Energy Inc	NEE US	112.98	52,031	18.3	17.3	2.2	2.1	3%	3%	12%	12%
Exelon Corp	EXC US	30.00	27,587	11.9	11.8	1.0	1.0	4%	4%	9%	8%
Firstenergy Corp	FE US	33.05	13,982	12.3	11.6	1.1	1.0	5%	4%	9%	9%
Entergy Corp	ETR US	71.60	12,772	12.1	14.3	1.3	1.2	5%	5%	11%	9%
<b>Avg.</b>				<b>12.7</b>	<b>12.9</b>	<b>1.2</b>	<b>1.2</b>	<b>5%</b>	<b>5%</b>	<b>9%</b>	<b>9%</b>

Source(s): Bloomberg, ABCI Securities estimates, prices are as of 1 Feb 2016

**Exhibit 1: CGN's forward P/E chart**


Source(s): Bloomberg, ABCI Securities

**Exhibit 2: CGN's forward P/B chart**


Source(s): Bloomberg, ABCI Securities



**Consolidated income statement (2013A-2017E)**

<b>FY Ended Dec 31 (RMB mn)</b>	<b>2013A</b>	<b>2014A</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>
<b>Revenue</b>	<b>17,365</b>	<b>20,793</b>	<b>20,121</b>	<b>25,016</b>	<b>31,986</b>
Electricity	16,268	19,327	18,653	23,475	30,367
Service revenue	843	1,214	1,153	1,211	1,271
Sales of other goods	254	252	315	331	347
<b>COGS</b>	<b>-9,217</b>	<b>-10,703</b>	<b>-11,059</b>	<b>-13,625</b>	<b>-16,835</b>
<b>Gross profit</b>	<b>8,148</b>	<b>10,090</b>	<b>9,062</b>	<b>11,391</b>	<b>15,151</b>
SG&A	-1,031	-1,469	-1,312	-1,631	-2,085
Net financial income (cost)	-2,642	-3,045	-3,289	-3,754	-5,110
Other income and gains	1,594	2,224	4,096	4,031	5,083
<b>Pre-tax profit</b>	<b>6,070</b>	<b>7,800</b>	<b>8,557</b>	<b>10,038</b>	<b>13,038</b>
Income tax	-998	-925	-1,027	-1,205	-1,565
<b>Net profit</b>	<b>5,071</b>	<b>6,875</b>	<b>7,530</b>	<b>8,833</b>	<b>11,474</b>
Profit attributable to:					
Minority interests	-877	-1,162	-1,280	-1,502	-1,951
<b>Equity shareholders of the Company</b>	<b>4,195</b>	<b>5,713</b>	<b>6,250</b>	<b>7,332</b>	<b>9,523</b>
<b>Basic EPS (HK\$)</b>	<b>0.144</b>	<b>0.181</b>	<b>0.138</b>	<b>0.161</b>	<b>0.210</b>
<b>DPS (HK\$)</b>	<b>0.352</b>	<b>0.049</b>	<b>0.048</b>	<b>0.056</b>	<b>0.073</b>

Source(s): Company, ABCI Securities estimates

**Consolidated balance sheet (2013A-2017E)**

<b>As of Dec 31 (RMB mn)</b>	<b>2013A</b>	<b>2014A</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>
<b>Current assets</b>	<b>21,761</b>	<b>42,150</b>	<b>26,905</b>	<b>37,500</b>	<b>51,217</b>
Cash and equivalent	6,640	26,712	12,441	19,638	28,939
Pledged and restricted bank deposits	2,760	2,089	0	0	0
Trade and bill receivables	1,629	2,346	2,756	3,427	4,382
Other receivables and prepayments	1,143	874	1,103	1,371	1,753
Inventories	8,384	9,337	10,605	13,065	16,143
Other current assets	1,204	791	0	0	0
<b>Non-current assets</b>	<b>105,914</b>	<b>114,776</b>	<b>125,222</b>	<b>151,929</b>	<b>177,419</b>
Property, plant and equipment	87,042	93,983	101,235	126,685	153,399
Lease prepayment	183	697	0	0	0
Intangible assets	765	730	801	868	931
Investment in JV and associates	11,093	11,893	12,583	13,631	14,899
Other receivables and deposits	98	100	0	0	0
Other non-current assets	6,734	7,373	10,603	10,745	8,190
<b>Total assets</b>	<b>127,675</b>	<b>156,926</b>	<b>152,127</b>	<b>189,429</b>	<b>228,636</b>
<b>Current liabilities</b>	<b>26,462</b>	<b>23,559</b>	<b>11,197</b>	<b>14,673</b>	<b>18,565</b>
Trade and bill payables	10,350	6,166	6,363	7,839	9,686
Other payables	356	442	0	0	0
Short term borrowings	2,401	3,837	4,834	6,834	8,879
Other current liabilities	13,355	13,114	0	0	0
<b>Non-current liabilities</b>	<b>69,521</b>	<b>73,950</b>	<b>72,729</b>	<b>99,289</b>	<b>126,463</b>
Deferred tax liabilities	1,200	1,285	0	0	0
Long-term borrowings	57,222	64,942	72,729	99,289	126,463
Other non-current liabilities	11,099	7,723	0	0	0
<b>Total liabilities</b>	<b>95,983</b>	<b>97,510</b>	<b>83,926</b>	<b>113,962</b>	<b>145,027</b>
<b>Minority interests</b>	<b>8,640</b>	<b>8,628</b>	<b>9,908</b>	<b>11,409</b>	<b>13,360</b>
<b>Shareholders' equities</b>	<b>23,052</b>	<b>50,789</b>	<b>58,292</b>	<b>64,058</b>	<b>70,248</b>

Source(s): Company, ABCI Securities estimates





**Consolidated cash flow statement (2013A-2017E)**

<b>FY ended Dec 31 (RMB mn)</b>	<b>2013A</b>	<b>2014A</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>
<b>Profit before tax</b>	<b>6,070</b>	<b>7,800</b>	<b>8,557</b>	<b>10,038</b>	<b>13,038</b>
Change in depreciation and amortization	2,490	2,939	3,422	4,111	5,269
Change in working capital	-375	-1,394	-21,394	-1,923	-2,568
Net financial cost (income)	2,642	3,045	3,289	3,754	5,110
Income tax paid	-580	-742	-925	-1,027	-1,205
Net interest received	0	0	0	0	0
Others	-753	-693	-690	-1,048	-1,268
<b>CF Operating</b>	<b>9,493</b>	<b>10,955</b>	<b>-7,741</b>	<b>13,905</b>	<b>18,377</b>
Capex	-9,932	-12,301	-10,581	-29,456	-31,865
Increase in intangible assets	-179	-156	-164	-173	-181
Others	5,629	1,115	288	124	196
<b>CF Investing</b>	<b>-4,482</b>	<b>-11,343</b>	<b>-10,457</b>	<b>-29,504</b>	<b>-31,850</b>
Net Capital raise	0	21,604	0	0	0
Net debt financing	190	-1,880	8,784	28,559	29,219
Dividend payout	-1,655	-5,247	-1,653	-2,187	-2,566
Interest paid	-5,179	-4,775	-3,204	-3,577	-3,878
Others	2,708	10,773	0	0	0
<b>CF Financing</b>	<b>-3,937</b>	<b>20,474</b>	<b>3,927</b>	<b>22,795</b>	<b>22,775</b>
<b>Net change in cash</b>	<b>1,075</b>	<b>20,086</b>	<b>-14,271</b>	<b>7,196</b>	<b>9,302</b>
Cash at the beginning	5,434	6,640	26,712	12,441	19,638
Adjustment (Time deposit & FX effect)	131	-14	0	0	0
<b>Cash at the end</b>	<b>6,640</b>	<b>26,712</b>	<b>12,441</b>	<b>19,638</b>	<b>28,939</b>

Source(s): Company, ABCI Securities estimates

**Key Ratio (2013A-2017E)**

<b>FY ended Dec 31 (RMB mn)</b>	<b>2013A</b>	<b>2014A</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>
<b>Sales mixed (%)</b>					
Electricity	93.68	92.95	92.70	93.84	94.94
Service revenue	4.86	5.84	5.73	4.84	3.97
Sales of other goods	1.46	1.21	1.57	1.32	1.09
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Profit &amp; loss ratios (%)</b>					
Gross margin	46.92	48.52	45.04	45.54	47.37
Operating profit margin	47.58	51.72	55.44	50.94	52.77
Pre-tax margin	34.95	37.51	42.53	40.13	40.76
Net profit margin	29.20	33.06	37.42	35.31	35.87
Selling & administrative expenses/revenue	5.94	7.06	6.52	6.52	6.52
Effective tax rate	16.45	11.86	12.00	12.00	12.00
<b>Growth (%)</b>					
Revenue	-1.20	19.74	-3.23	24.33	27.86
Gross profit	-0.27	23.82	-10.19	25.71	33.01
Operating profit	-5.92	30.16	3.73	14.24	32.46
Net profit	1.89	35.56	9.53	17.31	29.89
<b>Balance sheet ratios</b>					
Current ratio (x)	0.82	1.79	2.40	2.56	2.76
Quick ratio (x)	0.42	1.32	1.36	1.57	1.79
Cash ratio (x)	0.36	1.22	1.11	1.34	1.56
Trade and bill receivables days	34.25	41.18	50.00	50.00	50.00
Trade and bill payables turnover days	409.89	210.26	210.00	210.00	210.00
Inventory turnover days	332.04	318.41	350.00	350.00	350.00
Total debt / equity ratio (%)	258.65	135.42	133.06	165.67	192.66
Net debt / equity ratio (%)	217.87	78.71	111.72	135.01	151.47
<b>Returns (%)</b>					
ROAA	3.4	4.0	4.0	4.3	4.6
ROAE	21.3	15.5	11.5	12.0	14.2
Payout ratio	234.72	28.93	35.00	35.00	35.00

Source(s): Company, ABCI Securities estimates

## Disclosures

### Analyst Certification

I, Ng King Chuen, Kelvin, being the person primarily responsible for the content of this research report, in whole or in part, hereby certify that all of the views expressed in this report accurately reflect my personal view about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. I and/or my associates have no financial interests in relation to the listed company (ies) covered in this report, and I and/or my associates do not serve as officer(s) of the listed company (ies) covered in this report.

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### Definition of equity rating

Rating	Definition
Buy	Stock return $\geq$ Market return rate
Hold	Market return $\pm$ 6% $\leq$ Stock return $<$ Market return rate
Sell	Stock return $<$ Market return $\pm$ 6%

Stock return is defined as the expected % change of share price plus gross dividend yield over the next 12 months

Market return: 5-year average market return rate from 2010-2014

Time horizon of share price target: 12-month

### Definition of share price risk

Rating	Definition
Very high	$2.6 \leq$ 180 day volatility/180 day benchmark index volatility
High	$1.5 \leq$ 180 day volatility/180 day benchmark index volatility $<$ 2.6
Medium	$1.0 \leq$ 180 day volatility/180 day benchmark index volatility $<$ 1.5
Low	180 day volatility/180 day benchmark index volatility $<$ 1.0

We measure share price risk by its volatility relative to volatility of benchmark index. Benchmark index: Hang Seng Index.

Volatility is calculated from the standard deviation of day to day logarithmic historic price change. The 180-day price volatility equals the annualized standard deviation of the relative price change for the 180 most recent trading days closing price.

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