



Company Report: Huadian Fuxin (00816 HK)

公司报告: 华电福新 (00816 HK)

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Cut TP on Lower-than-expected Hydro Performance

水电业务表现差于预期，下调目标价

- HDFX's total power generation in September 2018 increased 8.0% YoY; accumulated total power generation for the first 3 quarters in 2018 was up by 7.1% YoY.** The Company's monthly hydro power generation saw notable improvement in September due to better water conditions in Fujian. Total non-hydro renewable power generation was up by 19.6% YoY for the first 9 months of 2018. Currently, we estimate growth of the Company's total power generation for 2018 full year to be around 8.6% on a YoY basis.
- The Company's 1H18 shareholders' profit was slightly up by 0.9% YoY to RMB 1,428 mn, representing 56.7% of our previous full-year estimate and was lower than expected.** Revenue increased 10.8% YoY contributed by higher gross power generation and higher average tariff from the increase in new energy power generation. Due to extremely poor water flows in Fujian during 1H18, operating profit from the Company's hydro power segment plunged 85.9% YoY. We think the significant profit decline for related segments may affect the Company's earnings growth for FY18. That said, strong performance of the Company's wind, solar and nuclear business may partially compensate the profit decrease from hydro business; overall profitability remained stable.
- We maintain "Accumulate" rating for HDFX while cut TP to HK\$2.11.** Due to lower-than-expected interim results, we revise down the Company's EPS forecasts by 10.6%/ 4.6%/ 1.5% to RMB0.268/ RMB0.338/ RMB0.416 for 2018/ 2019/ 2020. Our current TP represents 6.9x/ 5.5x/ 4.5x 2018/ 2019/ 2020 PER.
- 华电福新 2018 年 9 月的总发电量同比增长 8.0%；2018 年前 3 季度的累计发电量同升 7.1%。** 由于福建省 9 月份来水情况有所好转，公司月度的水电发电量出现较明显改善。2018 年前 9 个月的非水可再生能源总发电量同比增长 19.6%。我们现预计公司 2018 全年的总发电量同比增速为 8.6%左右。
- 公司 2018 上半年股东净利同比微升 0.9%至人民币 14.28 亿元，相当于我们此前全年预测的 56.7%且低于预期。** 受益于总发电量的增长以及新能源发电量提升带来更高的平均电价，收入同比增长 10.8%。然而由于福建省上半年来水特枯，公司水电分部的经营利润同比大幅下降 85.9%。我们认为该业务板块利润的显著下跌将可能影响公司 2018 财年的盈利增速。尽管如此，公司风电、太阳能及核电业务的强劲表现预计将部分抵消水电业务利润的下降，总体盈利能力保持稳定。
- 我们维持对华电福新的“收集”评级但将目标价下调至 2.11 港元。** 鉴于中期业绩低于预期，我们将公司 2018/ 2019/ 2020 年每股盈利预测分别下调 10.6%/ 4.6%/ 1.5%至人民币 0.268 元/0.338 元/0.416 元。我们当前的目标价相当于 6.9 倍/ 5.5 倍/ 4.5 倍的 2018/ 2019/ 2020 年市盈率。

Rating:

Accumulate

Maintained

评级:

收集 (维持)

6-18m TP 目标价:

HK\$2.11

Revised from 原目标价:

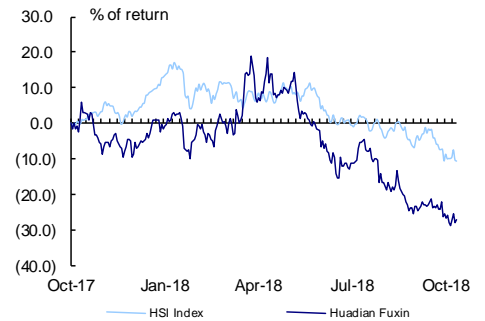
HK\$2.77

Share price 股价:

HK\$1.460

Stock performance

股价表现



Change in Share Price	1 M	3 M	1 Y
股价变动	1 个月	3 个月	1 年
Abs. % 绝对变动 %	(5.2)	(21.9)	(26.3)
Rel. % to HSI Index 相对恒指变动 %	3.0	(10.0)	(15.9)
Avg. share price(HK\$) 平均股价 (港元)	1.5	1.6	1.9

Source: Bloomberg, Guotai Junan International.

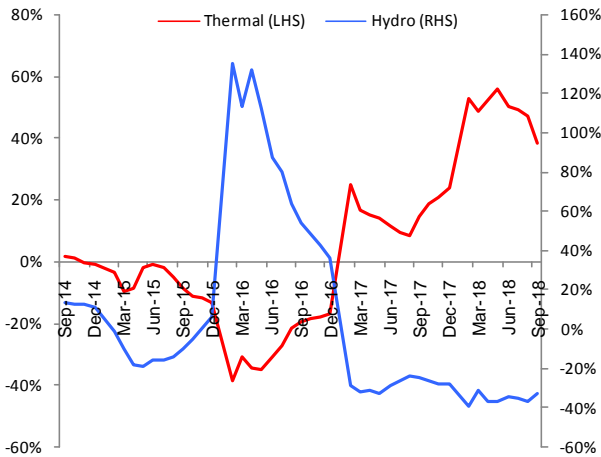
Year End	Turnover	Net Profit	EPS	EPS	PER	BPS	PBR	DPS	Yield	ROE
年结	收入	股东净利	每股净利	每股净利变动	市盈率	每股净资产	市净率	每股股息	股息率	净资产收益率
12/31	(RMB m)	(RMB m)	(RMB)	(Δ %)	(x)	(RMB)	(x)	(RMB)	(%)	(%)
2016A	15,998	1,953	0.232	7.2	5.6	2.391	0.5	0.051	3.9	10.1
2017A	16,813	1,986	0.236	1.7	5.1	2.786	0.4	0.056	4.6	9.1
2018F	18,434	2,250	0.268	13.3	4.8	2.972	0.4	0.054	4.2	9.3
2019F	20,780	2,838	0.338	26.1	3.8	3.229	0.4	0.068	5.3	10.9
2020F	23,703	3,494	0.416	23.1	3.1	3.551	0.4	0.083	6.5	12.3

Shares in issue (m) 总股数 (m)	8,408.0	Major shareholder 大股东	China Huadian Corp Ltd. 62.8%
Market cap. (HK\$ m) 市值 (HK\$ m)	12,275.6	Free float (%) 自由流通比率 (%)	30.6
3 month average vol. 3 个月平均成交股数 ('000)	4,102.3	FY18 Net gearing (%) FY18 净负债/股东资金 (%)	282.6
52 Weeks high/low (HK\$) 52 周高/低	2.440 / 1.420	FY18 Est. NAV (HK\$) FY18 每股估值 (港元)	3.2

Source: the Company, Guotai Junan International.

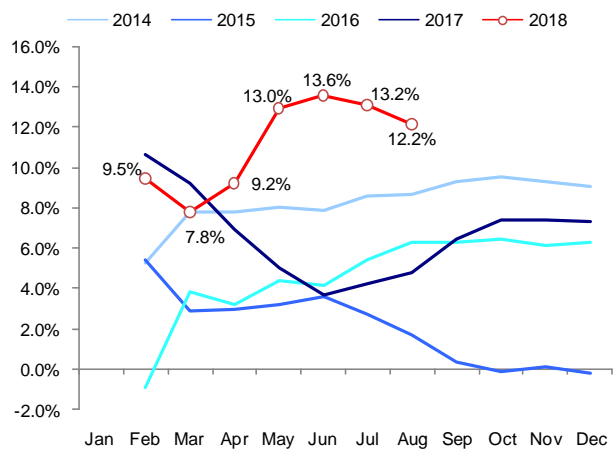
Cumulative hydro power generation in Fujian decreased by 32.9% YoY in Jan. - Sep. Hydro utilisation hours in Fujian during 1H18 was exceptionally poor due to the lack of rainfall, but gradually recovered in 3Q18 (especially in September because of typhoon MANGKHUT). Meanwhile, YTD power consumption in Fujian was up by 12.2% YoY for the first 8 months of 2018, leading to a notable increase in thermal power generation in Fujian. Considering the typhoon season from June to October, water conditions in Fujian may slightly improve during 2H18. We think this would help alleviate the YoY decrease in hydro utilisation hours for the province, but cumulative hydro utilisation hours for 2018 full year may still record YoY decrease of around 40.0%. Provincial power consumption in Fujian is expected to maintain double-digit percentage YoY growth given higher-than-average power consumption growth in east China.

Figure-1: YTD power generation growth in Fujian



Source: State Grid Fujian Electric Power Company.

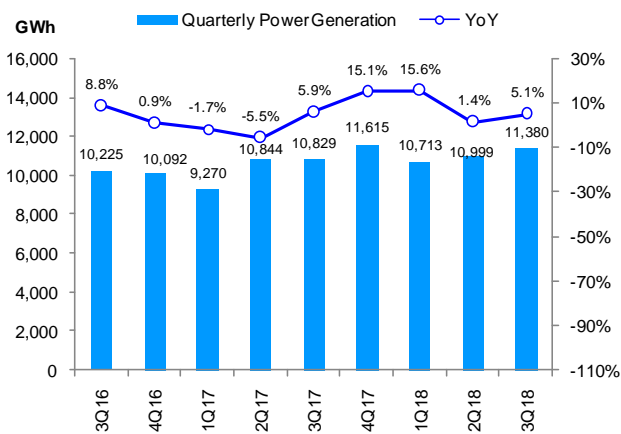
Figure-2: YTD power consumption growth in Fujian



Source: National Energy Administration.

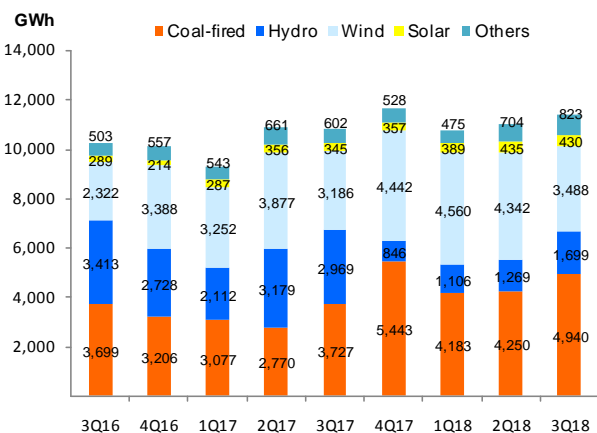
Huadian Fuxin's ("HDFX" or the "Company") total power generation in September 2018 increased 8.0% YoY; accumulated total power generation for the first 3 quarters in 2018 was up by 7.1% YoY. Due to better water flows in Fujian, the rate of decrease for the Company's monthly hydro power generation saw notable improvement in September, and the cumulative decrease in hydro power generation narrowed 3.7ppts MoM. For the first 9 months of 2018, the Company's aggregate power generation from its coal-fired and hydro segment decreased 2.2% YoY, while total non-hydro renewable power generation was up by 19.6% YoY during the same period. Wind power generation in September increased 12.2% YoY and estimated monthly utilisation hours was up by 7.5% YoY to 167 hours (155 hours for Sep. 2017). Cumulative wind utilisation hours was estimated to be around 1,615 hours for the first 3 quarters of 2018 (445 hours for 3Q18), up by 15.4% YoY. The Company's power generation performance in 3Q18 was in line with our expectation; currently we estimate growth of the Company's total power generation for 2018 full year to be around 8.6% on a YoY basis.

Figure-3: Quarterly Power Generation for HDFX



Source: the Company.

Figure-4: Power Generation Breakdown for HDFX



Source: the Company.

The Company's 1H18 shareholders' profit was slightly up by 0.9% YoY to RMB 1,428 mn, representing 56.7% of our previous full-year estimate and was lower than expected. Revenue increased 10.8% YoY contributed by higher gross power generation and the increase in the percentage of new energy power generation with higher tariff. Due to extremely poor water flows in Fujian during 1H18, the Company's hydro power generation plunged 55.1% YoY to merely 2,375GWh (33.2% below our expectation); operating profit for the segment decreased 85.9% YoY. Total operating expenses increased 19.4% YoY on higher cost of fuel. Net financing expenses was only up by 3.4% YoY, with average borrowing cost of 4.53%. As the profit margin for the Company's hydro segment is relatively high, a significant decline for such segment would likely affect the Company's earnings growth for FY18. That said, the strong performance of the Company's wind, solar and nuclear business may partially compensate for the profit decrease from hydro business; overall profitability remained stable.

Table-1: HDFX's 1H18 results review

	1H17*	1H18	YoY/ppt	Comments
Operation figures				
Total installed capacity (MW)	15,047	15,801	5.0%	
Installed coal-fired capacity (MW)	3,600	3,600	0.0%	
Installed hydro capacity (MW)	2,508	2,508	0.0%	
Installed wind capacity (MW)	7,374	7,840	6.3%	HDFX added 141.8MW wind capacity and 119.4MW gas-fired capacity in 1H18
Installed solar capacity (MW)	1,018	1,156	13.5%	
Installed gas capacity (MW)	521	673	29.0%	
Installed biomass capacity (MW)	25	25	0.0%	
Total electricity generation (GWh)	20,114	21,749	8.1%	
Coal-fired generation (GWh)	5,847	8,432	44.2%	
Hydro generation (GWh)	5,291	2,375	-55.1%	Hydro power generation in Fujian decreased 34.4% YoY during 1H18 due to the significant deterioration of water flows. As a major complementary energy for the province, the cumulative coal-fired power generation was up by 50.5% YoY.
Wind generation (GWh)	7,130	8,940	25.4%	
Solar generation (GWh)	643	822	27.9%	
Gas generation (GWh)	1,115	1,100	-1.3%	
Biomass generation (GWh)	89	79	-10.9%	
Avg coal-fired tariff (VAT excl.) (RMB/MWh)	326.8	335.9	2.8%	
Avg hydro tariff (VAT excl.) (RMB/MWh)	287.5	286.3	-0.4%	
Avg wind tariff (VAT excl.) (RMB/MWh)	447.8	433.7	-3.1%	
Avg solar tariff (VAT excl.) (RMB/MWh)	853.3	815.6	-4.4%	Due to the expansion of electricity market trading
Financial result (RMB Mn)				
Revenue	7,990	8,852	10.8%	
Other net income	141	184	30.5%	Government grants and penalty income increased
Cost of fuel	(1,880)	(2,739)	45.7%	Mainly driven by the increase in coal-fired power sold
Cost of substituted electricity	0	0	n.a.	
D&A	(2,140)	(2,271)	6.2%	Wind and solar capacity increased
Service concession construction	(49)	(36)	-26.0%	
Personnel costs	(633)	(654)	3.3%	
R&M	(111)	(147)	32.1%	
Coal sales cost	(9)	0	-100.0%	
Administration expenses	(193)	(180)	-7.0%	
Other operating expenses	(243)	(251)	3.4%	
Operating expenses	(5,258)	(6,278)	19.4%	
Operating profit	2,873	2,758	-4.0%	
Finance income	52	64	22.9%	
Finance expenses	(1,433)	(1,492)	4.1%	Average borrowing rate was around 4.53% in 1H18
Share of profits of Asso. & JV.	432	486	12.6%	All 4 units of Fuqing Nuclear were fully operational
PBT	1,923	1,815	-5.6%	
Income tax	(211)	(180)	-15.0%	
PAT	1,712	1,635	-4.4%	
Non-controlling interests	(238)	(96)	-59.5%	
Perpetual MT note & renewable bonds	(58)	(111)	92.7%	
Net profit to owners of the Company	1,473	1,539	4.5%	
Shareholders' profit	1,416	1,428	0.9%	
EPS	0.168	0.170	0.9%	
Margins & Ratios				
EBITDA margin	68.1%	62.3%	-5.8ppt	Profit contribution from hydro segment decreased
Operating margin	36.0%	31.2%	-4.8ppt	
Net margin	17.7%	16.1%	-1.6ppt	
Effective tax rate	11.0%	9.9%	-1.1ppt	
ROE (Annualized)	14.1%	12.6%	-1.5ppt	
Net gearing	313.3%	277.1%	-36.2ppt	

Source: the Company, Guotai Junan International. *: 1H17 financial results have been restated.

Key notes from HDFX's 1H18 results conference

- 1) Market trading electricity sales volume for the Company's thermal/ wind/ solar power business in 1H18 accounted for 29.8%/ 33.2%/ 32.2% of total segment electricity sold, respectively. The average discount to benchmark tariffs (VAT incl.) recorded 6.1%/ 26.1%/ 29.8%, respectively. The Company expects that the percentage and trading tariff for market electricity sales would basically remain the same during the second half of 2018.
- 2) The Company's guidance on wind/ solar capacity addition for 2018 was 500MW/ 100MW (the same as previously guided). Currently the Company has 1.2GW of wind capacity (24 projects in total) under construction and 2.5GW reserved capacity; wind turbine cost for the Company's on-shore/ off-shore projects is around RMB 3,000-3,200 per KW / RMB 7,000-7,800 per KW, respectively.
- 3) The Company expects its full-year thermal/ hydro utilisation hours in 2018 to be around 4,720 hours/ 2,350 hours, respectively. Wind utilisation hours is expected to be above 2,100 hours, with wind curtailment rate of 10.5% or lower. The Company also expects its nuclear utilisation hours for Fuqing and Sanmen Nuclear Power to be around 6,900 hours.
- 4) As at Jun. 30, 2018, the Company's accounts receivables that relate to renewable energy subsidies amounted to RMB7.46 bn. Nearly half of the outstanding receivables (RMB 3.40 bn) belonged to the 7th batch of renewable energy catalog, and the rest were from the first 6 batches.

Key adjustments for HDFX

- 1) **Revise down average operating capacity assumptions by 1.9%/ 2.9%/ 1.3% for 2018/ 2019/ 2020 to match the Company's guidance.** The Company's construction progress for its coal-fired power plants in Fujian was slightly behind our expectation. We now assume the 1st unit of Shaowu Phase III to commence operation in 4Q18; the 2nd unit is assumed to be operational in 4Q19. The 1st unit of the 1.2GW gas-fired CCHP project in Guangzhou is scheduled for commissioning at 2019 end according to the Company's latest updates. Also, we slightly revise down newly installed wind capacity assumptions to 500MW/ 550MW/ 600MW for 2018/ 2019/ 2020 considering the changes in the Company's project pipeline.
- 2) **Revise total power generation forecasts by -2.6%/ -1.3%/ 2.5% for 2018/ 2019/ 2020, respectively.** Despite the improvement during the 3rd quarter, we expect the Company's full-year hydro power generation for 2018 to record about 40.0%-45.0% decrease on a YoY basis to approximately 5.02MMWh, which is lower than the Company's guidance of 6.00MMWh. In order to meet regional power consumption demand in Fujian, we revise up coal-fired utilisation hours estimates by 3.6%/ 8.5%/ 12.0% for 2018/ 2019/ 2020; coal-fired power generation estimate for 2018 is revised down due to the change in newly installed capacity forecast.
- 3) **Slightly revise up finance expenses assumptions by 0.4%/ 1.3%/ 1.0% for 2018/ 2019/ 2020.** The Company's average balance of borrowings were slightly higher than expected, mainly due to relatively tight domestic liquidity and general increase in social financing costs in 1H18. Yet the Company's average borrowing rate was only up by 0.03 ppt YoY, and we expect it to remain at reasonable levels of 4.5%-4.6% for 2018-2020. HDFX has already adopted asset securitization as an alternative financing measure, and plans to issue about RMB10.0 bn worth of ABS/ ABN (RMB5.0 bn each) in 2H18. We think the Company's cash flow situation should remain healthy given its asset structure optimization, as well as policy support from the second consultation file of the Renewable Portfolio Standard.

We maintain our "Accumulate" rating for HDFX but revise down TP to HK\$2.11. We revise down the Company's 2018/ 2019/ 2020 EPS forecasts by 10.6%/ 4.6%/ 1.5% to RMB0.268/ RMB0.338/ RMB0.416, respectively, mainly due to lower power generation estimates. However, we expect the Company to maintain considerable earnings growth for 2019 and 2020 compared to its peers, attributable to stable and diversified capacity expansion. We also expect the profitability of the Company's renewable energy businesses to steadily increase with favorable policy support. The Company's valuation level is appealing after recent market pullbacks; current share price represents only 4.8x 2018 PER. We maintain our "Accumulate" rating for HDFX while cut TP from HK\$2.77 to HK\$2.11, reflecting the adjustments in our EPS forecasts and the decrease in the sector's valuation level. Our current TP represents 6.9x/ 5.5x/ 4.5x 2018/ 2019/ 2020 PER and 0.6x/ 0.6x/ 0.5x 2018/ 2019/ 2020 PBR.

Table-2: Key operating factors and adjustments for HDFX

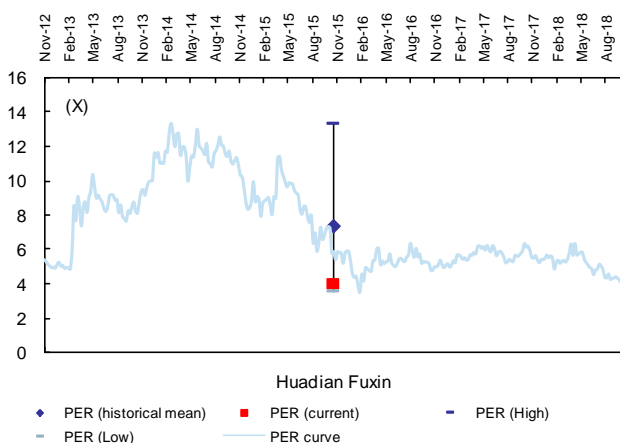
	Old			New			Change		
	2018F	2019F	2020F	2018F	2019F	2020F	2018F	2019F	2020F
Newly installed consolidated capacity (MW)	1,710.0	1,960.0	2,400.0	1,710.0	1,910.0	2,600.0	0.0%	-2.6%	8.3%
Coal-fired	660.0	660.0	1,000.0	660.0	660.0	1,000.0	0.0%	0.0%	0.0%
Hydro	100.0	0.0	0.0	100.0	0.0	300.0	0.0%	n.a.	n.a.
Wind	500.0	600.0	700.0	500.0	550.0	600.0	0.0%	-8.3%	-14.3%
Solar	100.0	100.0	100.0	100.0	100.0	100.0	0.0%	0.0%	0.0%
Distributed	350.0	600.0	600.0	350.0	600.0	600.0	0.0%	0.0%	0.0%
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	n.a.	n.a.	n.a.
Consolidated installed capacity (MW)	17,250.2	19,210.2	21,610.2	17,250.2	19,160.2	21,760.2	0.0%	-0.3%	0.7%
Coal-fired	4,260.0	4,920.0	5,920.0	4,260.0	4,920.0	5,920.0	0.0%	0.0%	0.0%
Hydro	2,607.9	2,607.9	2,607.9	2,607.9	2,607.9	2,907.9	0.0%	0.0%	11.5%
Wind	8,198.2	8,798.2	9,498.2	8,198.2	8,748.2	9,348.2	0.0%	-0.6%	-1.6%
Solar	1,255.6	1,355.6	1,455.6	1,255.6	1,355.6	1,455.6	0.0%	0.0%	0.0%
Distributed	903.2	1,503.2	2,103.2	903.2	1,503.2	2,103.2	0.0%	0.0%	0.0%
Biomass	25.3	25.3	25.3	25.3	25.3	25.3	0.0%	0.0%	0.0%
Average operating capacity (MW)	16,449.4	18,030.2	19,877.3	16,132.7	17,515.5	19,627.3	-1.9%	-2.9%	-1.3%
Coal-fired	3,930.0	4,315.0	5,087.1	3,655.0	4,312.8	5,087.1	-7.0%	-0.1%	0.0%
Hydro	2,582.9	2,607.9	2,607.9	2,541.2	2,607.9	2,682.9	-1.6%	0.0%	2.9%
Wind	8,098.2	8,348.2	8,973.2	8,098.2	8,335.7	8,898.2	0.0%	-0.1%	-0.8%
Solar	1,180.6	1,280.6	1,380.6	1,180.6	1,280.6	1,380.6	0.0%	0.0%	0.0%
Distributed	632.4	1,453.2	1,803.2	632.4	953.2	1,553.2	0.0%	-34.4%	-13.9%
Biomass	25.3	25.3	25.3	25.3	25.3	25.3	0.0%	0.0%	0.0%
Utilization hours (h)	2,877	2,938	2,890	2,858	2,986	2,999	-0.6%	1.6%	3.8%
Coal-fired	5,101	4,560	3,925	5,284	4,947	4,396	3.6%	8.5%	12.0%
Hydro	2,100	2,700	3,000	1,975	2,500	2,900	-6.0%	-7.4%	-3.3%
Wind	2,150	2,190	2,235	2,145	2,225	2,265	-0.2%	1.6%	1.3%
Solar	1,425	1,430	1,435	1,400	1,415	1,430	-1.8%	-1.0%	-0.3%
Distributed	4,100	4,115	4,130	4,100	4,115	4,130	0.0%	0.0%	0.0%
Biomass	6,570	6,580	6,590	6,500	6,525	6,550	-1.1%	-0.8%	-0.6%
Total power generation (GWh)	47,324	52,980	57,442	46,113	52,303	58,855	-2.6%	-1.3%	2.5%
Coal-fired (self)	20,048	19,678	19,968	19,313	21,337	22,365	-3.7%	8.4%	12.0%
Coal-fired (substituted)	0	0	0	0	0	0	n.a.	n.a.	n.a.
Hydro	5,424	7,041	7,824	5,019	6,520	7,780	-7.5%	-7.4%	-0.6%
Wind	17,411	18,283	20,055	17,371	18,547	20,154	-0.2%	1.4%	0.5%
Solar	1,682	1,831	1,981	1,653	1,812	1,974	-1.8%	-1.0%	-0.3%
Distributed	2,593	5,980	7,447	2,593	3,922	6,415	0.0%	-34.4%	-13.9%
Biomass	166	166	167	164	165	166	-1.1%	-0.8%	-0.6%
Average on-grid tariff (VAT excl.) (RMB/MWh)	407	419	423	405	404	411	-0.5%	-3.5%	-2.8%
Coal-fired (self)	340	331	329	336	328	328	-1.2%	-1.0%	-0.4%
Coal-fired (substituted)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hydro	280	279	278	286	282	271	2.1%	1.1%	-2.5%
Wind	444	443	441	433	433	431	-2.4%	-2.2%	-2.3%
Solar	823	808	794	815	803	789	-0.9%	-0.6%	-0.6%
Distributed	665	680	685	693	696	697	4.2%	2.4%	1.8%
Biomass	635	635	635	638	641	641	0.5%	0.9%	0.9%
Electricity sales (VAT excl.) (RMB Mn)	18,466	21,202	23,224	17,891	20,210	23,110	-3.1%	-4.7%	-0.5%
Coal-fired (self)	6,434	6,147	6,200	6,122	6,600	6,916	-4.9%	7.4%	11.6%
Coal-fired (substituted)	0	0	0	0	0	0	n.a.	n.a.	n.a.
Hydro	1,497	1,931	2,138	1,411	1,805	2,070	-5.7%	-6.6%	-3.2%
Wind	7,490	7,837	8,556	7,293	7,781	8,408	-2.6%	-0.7%	-1.7%
Solar	1,356	1,450	1,543	1,320	1,426	1,528	-2.7%	-1.7%	-1.0%
Distributed	1,583	3,731	4,682	1,640	2,492	4,081	3.6%	-33.2%	-12.8%
Biomass	106	106	106	105	106	106	-0.6%	0.0%	0.2%

Source: Guotai Junan International.

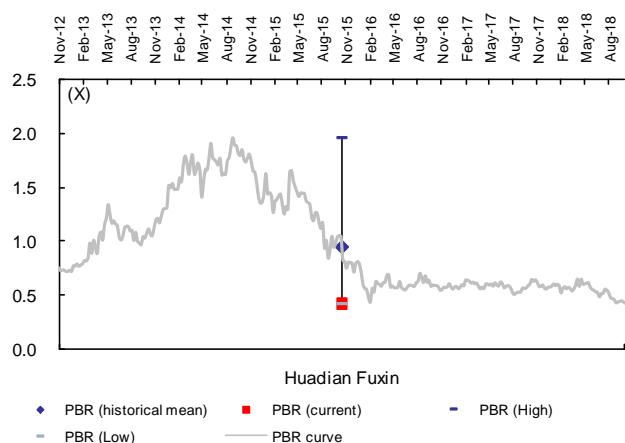
Table-3: Key financial results adjustments for HDFX

	Old			New			Change		
	2018F	2019F	2020F	2018F	2019F	2020F	2018F	2019F	2020F
Financials (RMB Mn)									
Revenue	19,009	21,773	23,815	18,434	20,780	23,703	-3.0%	-4.6%	-0.5%
Other net income	175	176	187	233	213	217	32.9%	20.9%	16.3%
Cost of fuel	(5,861)	(7,197)	(7,917)	(5,829)	(6,549)	(7,862)	-0.6%	-9.0%	-0.7%
Cost of substituted electricity	0	0	0	0	0	0	n.a.	n.a.	n.a.
Depreciation and amortization	(4,551)	(4,800)	(5,071)	(4,550)	(4,796)	(5,064)	0.0%	-0.1%	-0.1%
Service concession construction costs	(18)	(19)	(22)	(18)	(18)	(24)	-0.3%	-4.9%	11.1%
Personnel costs	(1,487)	(1,630)	(1,797)	(1,458)	(1,605)	(1,822)	-1.9%	-1.6%	1.4%
Repairs and maintenance	(526)	(577)	(636)	(516)	(564)	(636)	-1.9%	-2.2%	0.0%
Coal sales costs	(22)	(24)	(26)	(22)	(24)	(26)	0.0%	0.0%	0.0%
Administration expenses	(555)	(601)	(651)	(510)	(535)	(551)	-8.1%	-11.0%	-15.4%
Other operating expenses	(637)	(692)	(756)	(666)	(717)	(796)	4.6%	3.7%	5.3%
Total operating expenses	(13,657)	(15,539)	(16,875)	(13,570)	(14,808)	(16,780)	-0.6%	-4.7%	-0.6%
Operating profit	5,527	6,409	7,127	5,096	6,185	7,140	-7.8%	-3.5%	0.2%
Finance income	60	34	41	60	60	68	0.0%	74.5%	64.6%
Finance expenses	(3,062)	(3,187)	(3,322)	(3,075)	(3,229)	(3,356)	0.4%	1.3%	1.0%
Profits of associates and JV	1,120	1,205	1,352	1,124	1,250	1,293	0.4%	3.7%	-4.4%
Profit before tax	3,644	4,462	5,199	3,205	4,266	5,145	-12.0%	-4.4%	-1.0%
Income tax	(451)	(557)	(653)	(389)	(527)	(641)	-13.7%	-5.4%	-1.8%
Profit after tax	3,193	3,905	4,546	2,816	3,739	4,504	-11.8%	-4.3%	-0.9%
Non-controlling interests	(454)	(709)	(776)	(344)	(679)	(789)	-24.2%	-4.1%	1.6%
Perpetual MT note & renewable bonds	(221)	(221)	(221)	(221)	(221)	(221)	0.0%	0.0%	0.0%
Net profit	2,518	2,975	3,548	2,250	2,838	3,494	-10.6%	-4.6%	-1.5%
Basic EPS (RMB)	0.299	0.354	0.422	0.268	0.338	0.416	-10.6%	-4.6%	-1.5%
Margins and ratios									
EBITDA margin	58.9%	57.0%	56.9%	58.4%	58.9%	56.9%	-0.5ppt	1.8ppt	0.0ppt
Operating margin	29.1%	29.4%	29.9%	27.6%	29.8%	30.1%	-1.4ppt	0.3ppt	0.2ppt
Net profit margin	13.2%	13.7%	14.9%	12.2%	13.7%	14.7%	-1.0ppt	0.0ppt	-0.2ppt
Effective tax rate	12.4%	12.5%	12.6%	12.1%	12.4%	12.5%	-0.2ppt	-0.1ppt	-0.1ppt
Average borrowing rate	4.62%	4.64%	4.66%	4.55%	4.57%	4.59%	-0.07ppt	-0.07ppt	-0.07ppt
Interest coverage ratio	204.0%	224.3%	239.2%	191.7%	218.0%	237.9%	-12.3ppt	-6.2ppt	-1.3ppt
ROE	10.3%	11.3%	12.3%	9.3%	10.9%	12.3%	-1.0ppt	-0.4ppt	0.0ppt
Net debt / Shareholder equity	278.9%	266.4%	249.5%	282.6%	269.1%	255.9%	3.7ppt	2.7ppt	6.4ppt

Source: Guotai Junan International.

Figure-5: Estimated PER Curve of HDFX


Source: Bloomberg, Guotai Junan International.

Figure-6: Estimated PBR Curve of HDFX


Source: Bloomberg, Guotai Junan International.

Table-4: Sensitivity Analysis for HDFX

EPS Sensitivity Analysis	EPS (RMB)		
	2018F	2019F	2020F
Base Case EPS (RMB)	0.268	0.338	0.416
Base Case Assumptions			
QHD5,500Kcal coal price (RMB/t)	640	585	575
Avg coal-fired on-grid tariff (VAT excl.) (RMB/MWh)	336	328	328
Coal-fired utilisation hours (Hrs)	5,284	4,947	4,396
Wind utilisation hours (Hrs)	2,145	2,225	2,265
Hydro utilisation hours (Hrs)	1,975	2,500	2,900
Average borrowing rate	4.55%	4.57%	4.59%
EPS (RMB)			
QHD5,500Kcal coal price +5%	0.249	0.320	0.397
Coal-fired on-grid tariff +5%	0.295	0.366	0.445
Coal-fired utilisation hours +5%	0.276	0.347	0.426
Wind utilisation hours +5%	0.301	0.371	0.451
Hydro utilisation hours +5%	0.274	0.345	0.424
Average borrowing rate +25bps	0.252	0.323	0.400
EPS change (RMB)			
QHD5,500Kcal coal price +5%	(0.019)	(0.018)	(0.019)
Coal-fired on-grid tariff +5%	0.028	0.028	0.030
Coal-fired utilisation hours +5%	0.009	0.010	0.011
Wind utilisation hours +5%	0.033	0.033	0.036
Hydro utilisation hours +5%	0.006	0.008	0.009
Average borrowing rate +25bps	(0.015)	(0.015)	(0.015)
EPS change (%)			
QHD5,500Kcal coal price +5%	-7.1%	-5.3%	-4.5%
Coal-fired on-grid tariff +5%	10.4%	8.3%	7.1%
Coal-fired utilisation hours +5%	3.2%	2.9%	2.5%
Wind utilisation hours +5%	12.4%	9.8%	8.6%
Hydro utilisation hours +5%	2.4%	2.3%	2.1%
Average borrowing rate +25bps	-5.7%	-4.4%	-3.7%

Source: Guotai Junan International.

Table-5: Peers Valuation for Clean Energy IPPs

Company	Ticker	Currency	Price	Mkt cap (HK\$ Mn)	PER (x)				PB (x)				ROE (%)
					2017A	2018F	2019F	2020F	2017A	2018F	2019F	2020F	2018F
Hong Kong Market													
CHINA LONGYUAN POWER GROUP-H	916 HK	HKD	5.64	45,325	10.2	8.4	7.2	6.6	0.8	0.8	0.7	0.7	9.9
HUANENG RENEWABLES CORP-H	958 HK	HKD	2.07	21,873	5.9	5.3	4.8	4.3	0.7	0.7	0.6	0.5	14.0
CHINA DATANG CORP RENEWABL-H	1798 HK	HKD	0.92	6,692	9.1	4.4	3.7	3.3	0.5	0.5	0.4	0.4	12.1
HUADIAN FUXIN ENERGY CORP -H	816 HK	HKD	1.46	12,276	5.1	4.8	3.8	3.1	0.4	0.4	0.4	0.4	9.3
CGN NEW ENERGY HOLDINGS CO L	1811 HK	HKD	1.06	4,548	9.4	5.8	5.6	4.5	0.7	0.6	0.6	0.5	11.2
CGN POWER CO LTD-H	1816 HK	HKD	1.78	80,899	7.1	7.5	6.6	6.9	1.0	0.9	0.9	0.8	12.8
BEIJING JINGNENG CLEAN ENE-H	579 HK	HKD	1.52	12,532	4.9	3.6	3.4	4.4	0.5	0.5	0.4	0.4	14.0
Hong Kong Market Mean (Simple)					7.4	5.7	5.0	4.7	0.7	0.6	0.6	0.5	11.9
Hong Kong Market Mean (Weighted)					7.6	6.9	6.0	5.9	0.8	0.8	0.7	0.7	12.0
Hong Kong Market Median					7.1	5.3	4.8	4.4	0.7	0.6	0.6	0.5	12.1

Source: Bloomberg, Guotai Junan International.

Financial Statements and Ratios

Income Statement					
Year end 31 Dec (RMB m)	2016A	2017A	2018F	2019F	2020F
Total Revenue	15,998	16,813	18,434	20,780	23,703
Other Net Income & Gains	180	210	233	213	217
Cost of fuel	(3,059)	(4,601)	(5,829)	(6,549)	(7,862)
Cost of substituted electricity	0	0	0	0	0
D&A	(4,043)	(4,354)	(4,550)	(4,796)	(5,064)
Service concession costs	(3)	(133)	(18)	(18)	(24)
Personnel costs	(1,334)	(1,383)	(1,458)	(1,605)	(1,822)
R&M	(498)	(462)	(516)	(564)	(636)
Coal sales cost	(424)	(18)	(22)	(24)	(26)
Administration expenses	(513)	(512)	(510)	(535)	(551)
Other operating expenses	(895)	(699)	(666)	(717)	(796)
Operating Profit	5,407	4,861	5,096	6,185	7,140
Finance income	80	110	60	60	68
Finance expenses	(2,915)	(2,910)	(3,075)	(3,229)	(3,356)
Profits of associates and JV	630	742	1,124	1,250	1,293
Profit Before Tax	3,202	2,802	3,205	4,266	5,145
Income Tax	(534)	(337)	(389)	(527)	(641)
profit After Tax	2,668	2,466	2,816	3,739	4,504
Perpetual MT note & renewable bonds	(115)	(131)	(221)	(221)	(221)
Non-controlling Interest	(600)	(348)	(344)	(679)	(789)
Shareholders' Profit / Loss	1,953	1,986	2,250	2,838	3,494
Basic EPS	0.232	0.236	0.268	0.338	0.416

Cash Flow Statement					
Year end 31 Dec (RMB m)	2016A	2017A	2018F	2019F	2020F
PBT	3,202	2,802	3,205	4,266	5,145
D&A	4,043	4,354	4,550	4,796	5,064
Interest income	(56)	(53)	(38)	(44)	(52)
Interest expenses	2,870	2,891	3,046	3,198	3,323
Dividend income	(24)	(47)	(18)	(13)	(14)
Profits of associates and JV	(630)	(742)	(1,124)	(1,250)	(1,293)
Other adjustments	97	17	(97)	(71)	(70)
Changes in working capital	322	(768)	708	(225)	508
Income tax paid	(462)	(415)	(302)	(424)	(536)
Cash from Operating Activities	9,362	8,038	9,929	10,232	12,075
Investing activities					
Payments for PP&E	(10,768)	(9,133)	(9,328)	(9,094)	(11,445)
Payments for subsidiaries	(65)	(173)	100	100	100
Payments for interest in associates	(506)	(885)	(799)	(799)	(799)
Dividends received	425	619	636	993	1,106
Interest received	59	59	38	44	52
Others	620	163	27	10	5
Cash from Investing Activities	(10,235)	(9,350)	(9,325)	(8,746)	(10,981)
Financing activities					
Net proceeds from issuance of shares	0	0	0	0	0
Proceeds from borrowings	29,465	22,322	22,000	22,000	22,000
Government grant received	0	0	93	96	99
Repayment of borrowings	(23,558)	(19,874)	(18,232)	(18,986)	(19,589)
Dividends paid	(925)	(803)	(826)	(730)	(1,092)
Interest paid	(3,057)	(3,172)	(3,282)	(3,399)	(3,537)
Payments of finance lease obligations	(265)	(37)	(131)	(136)	0
Others	71	2,083	100	100	100
Cash from Financing Activities	1,730	520	(279)	(1,055)	(2,019)
Net Changes in Cash	857	(792)	325	431	(925)
Cash at Beg of Year	2,047	2,895	2,122	2,442	2,868
FX rate changes	(8)	18	(5)	(5)	(5)
Cash at End of Year	2,895	2,122	2,442	2,868	1,938

Balance Sheet					
Year end 31 Dec (RMB m)	2016A	2017A	2018F	2019F	2020F
PP&E	78,932	81,191	85,785	90,262	97,242
Lease prepayments	1,485	1,428	1,402	1,378	1,360
Intangible assets	1,130	1,299	1,272	1,248	1,232
Investment in associate	7,506	8,190	9,496	10,564	11,564
Deferred tax assets	365	377	398	424	456
Other non-current assets	3,955	3,431	2,574	1,963	1,616
Total Non-current Assets	93,373	95,915	100,928	105,840	113,469
Cash & Cash Equivalents	2,895	2,122	2,442	2,868	1,938
Inventories	249	277	342	381	447
Trade receivable	5,140	6,992	6,555	6,822	6,484
Prepayments	1,520	1,919	1,461	1,408	1,453
Tax recoverable	38	10	16	23	29
Restricted deposits	64	5	6	6	6
Total Current Assets	9,907	11,325	10,821	11,507	10,357
Total Assets	103,280	107,240	111,749	117,347	123,827
Current borrowings	14,269	15,382	16,044	16,708	17,238
Finance leases obligations	25	26	13	0	0
Trade payable	1,569	1,081	1,570	1,740	2,055
Other payables	10,064	8,715	7,228	6,937	7,468
Other current liabilities	291	163	223	298	366
Total Current Liabilities	26,218	25,366	25,079	25,682	27,127
Non-current borrowings	52,471	53,779	56,885	59,236	61,117
Finance leases obligations	252	226	118	0	0
Deferred income	466	483	507	534	561
Deferred tax liabilities	877	918	968	1,030	1,106
Total Non-current Liabilities	54,066	55,406	58,477	60,800	62,784
Total Liabilities	80,284	80,773	83,555	86,482	89,911
Total Shareholders' Equity	20,101	23,424	24,986	27,153	29,858
Minority Interest	2,895	3,043	3,208	3,712	4,058
Total Equity	22,996	26,467	28,194	30,865	33,915
BPS	2.391	2.786	2.972	3.229	3.551

Financial Ratios					
	2015A	2016A	2017F	2018F	2019F
Margins & Efficiency:					
EBITDA Margin (%)	63.0	59.2	58.4	58.9	56.9
Operating Margin (%)	33.8	28.9	27.6	29.8	30.1
Net Profit Margin (%)	12.2	11.8	12.2	13.7	14.7
Inventory Days	22.9	19.9	19.6	19.5	19.1
Receivable Days	117.3	151.8	129.8	119.8	99.8
Payable Days	143.9	77.7	90.0	89.0	88.0
Growth%:					
Revenue	3.9	5.1	9.6	12.7	14.1
Operating Profit	13.0	(10.1)	4.8	21.4	15.5
Net Profit	7.2	1.7	13.3	26.1	23.1
Profitability:					
ROE (%)	10.1	9.1	9.3	10.9	12.3
ROA (%)	1.9	1.9	2.1	2.5	2.9
ROCE (%)	5.8	5.3	5.5	6.3	6.7
Financial Ratios:					
Net Gearing (%)	319.0	287.3	282.6	269.1	255.9
Dividend Yield (%)	3.9	4.6	4.2	5.3	6.5
Current Ratio (x)	0.4	0.4	0.4	0.4	0.4
Interest Coverage Ratio (x)	1.9	1.8	1.9	2.2	2.4

Source: the Company, Guotai Junan International.

Company Rating Definition

The Benchmark: Hong Kong Hang Seng Index

Time Horizon: 6 to 18 months

Rating		Definition
Buy	买入	Relative Performance > 15%; or the fundamental outlook of the company or sector is favorable.
Accumulate	收集	Relative Performance is 5% to 15%; or the fundamental outlook of the company or sector is favorable.
Neutral	中性	Relative Performance is -5% to 5%; or the fundamental outlook of the company or sector is neutral.
Reduce	减持	Relative Performance is -5% to -15%; or the fundamental outlook of the company or sector is unfavorable.
Sell	卖出	Relative Performance < -15%; or the fundamental outlook of the company or sector is unfavorable.

Sector Rating Definition

The Benchmark: Hong Kong Hang Seng Index

Time Horizon: 6 to 18 months

Rating		Definition
Outperform	跑赢大市	Relative Performance > 5%; or the fundamental outlook of the sector is favorable.
Neutral	中性	Relative Performance is -5% to 5%; or the fundamental outlook of the sector is neutral.
Underperform	跑输大市	Relative Performance < -5%; Or the fundamental outlook of the sector is unfavorable.

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