

## **China Alternative Energy Sector**

Wind and solar to emerge on top under carbon policy targets

May 17, 2021





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# China Alternative Energy Sector Wind and solar to emerge on top under carbon policy targets

- China will raise installed capacity target for renewable energy to 50% of national total capacity by end-14<sup>th</sup> Five-Year Plan (FYP)
- Alternative energy power output would expand by 11%/11%YoY for 2021E/22E
- Hydropower operators are cash-cow companies; capacity growth of nuclear power would decelerate; wind power operators would be the key beneficiary of policy change
- OVERWEIGHT sector outlook; prefer China Yangtze Power (600900 CH) and Longyuan Power (916 HK)

The targets of carbon emission peak by 2030 and carbon neutrality by 2060 will change the energy structure of China. President Xi announced at the 75<sup>th</sup> UN General Assembly in Sep 2020 that China would strive to reach carbon emission peak by 2030 and carbon neutrality by 2060. The development of alternative energy in China will accelerate in the next 10 years.

Renewable energy installed capacity to contribute to 50% of national total capacity by end-14<sup>th</sup> FYP. National Energy Administration (NEA) officer announced at end-Mar that the government is targeting to boost the installed capacity of renewable energy (include wind, solar, hydro, and biomass) to 50% of national total capacity by end-2025. This target indicates a 74% jump from current renewable energy capacity, or 11.7% CAGR during 2020-25E. We believe the strong push in clean energy would bode well for wind and solar power.

**Alternative energy power output: 11%YoY growth in 2021E.** Total power output from alternative energy in 2020 accounted for only 32% of China's total energy output. To strive for the carbon emission peak carbon neutrality targets, we estimate alternative energy output would increase by 11%/10%YoY in 2021E/22E/23E, much higher than that in 2020.

**Hydropower operators: profitable cash cows though capacity growth is limited.** Hydropower output relies heavily on the geographic landscape and room for expansion is constrained in China. Existing operators are highly profitable, thanks to the low cost and limited competition.

**Nuclear power: change of policy would decelerate capacity growth.** China's ambitious carbon neutrality target would boost growth in wind and solar power while restraining the development of nuclear power, which has a long construction cycle and high safety standard.

**Wind power: key beneficiary of carbon neutrality policy.** The targets of carbon emission peak and carbon neutrality would raise output of wind power, which would expand by 27%/26%YoY in 2021E/22E due to strong capacity growth.

**OVERWEIGHT sector outlook; prefer China Yangtze Power and Longyuan Power.** We believe output from alternative energy would record 11%/11%YoY growth in 2021E-22E, higher than growth in the national power output. We advise investors to focus on profitable hydropower operator and fast-capacity growth wind power operator. Our sector top pick is **China Yangtze Power (600900 CH, BUY) and Longyuan Power (916 HK, BUY)**.

**Risks.** 1) Revenue of wind power operators may slide on tariff cut; 2) Weather conditions, more specifically, drought, may reduce hydropower output; 3) Wind power curtailment may worsen and reduce utilization hour; 4) Safety issues related to nuclear power; 5) High initial investment and long construction cycle of nuclear and hydropower plants may drive up net gearing of operators.

Sector Report May 17, 2021

### **OVERWEIGHT**

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Key Data	
Avg.21E P/E (x)	10.80
Avg.21E P/B (x)	1.32
Avg.21E Dvd. Yield (%)	3.48

Source(s): ABCI Securities estimates

Sector Performance						
	<u>Absolute</u>	Relative*				
1-mth	4.99%	9.96%				
3-mth	(6.81%)	4.87%				
6 mth	25 600/	27 150/				

\*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

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Source(s): Bloomberg, ABCI Securities

Sector Valuation Summary

Occioi Valuation Cam	illiai y								
Company	Ticker	Rating	TP	FY21E	FY22E	FY21E	FY22E	FY21E	FY22E
			(HK\$/RMB)	P/E(x)	P/E (x)	P/B (x)	P/B (x)	Yield(%)	Yield(%)
China Yangtze Power	600900 CH	BUY	23.00	16.5	12.0	2.5	2.3	3.9	5.4
Longyuan Power	916 HK	BUY	11.40	9.5	8.4	1.2	1.1	2.1	2.4
Datang Renewable	1798 HK	BUY	1.90	5.8	5.0	0.9	0.8	3.5	4.0
CGN Power – H	1816 HK	HOLD	1.80	8.0	7.8	0.7	0.7	5.0	5.1
CGN Power – A	003816 CH	HOLD	2.52	14.5	14.2	1.3	1.3	2.8	2.8

Source(s): Bloomberg, ABCI Securities estimates



## Alternative energy: the vision of carbon neutrality would boost alternative energy for the next 10 years

## The vision of achieving carbon neutrality by 2060 and coal shortage early this year would accelerate alternative energy development in China

During the United Nations General Assembly in Sep 2020, President Xi announced the targets of achieving 1) carbon emission peak by 2030 and 2) carbon neutrality by 2060. These goals were reiterated in the National People's Congress in Mar 2021. The vision of carbon neutrality will boost development of alternative energy; specifically, wind and solar power will be preferred due to their shorter construction period. Separately, coal shortage in early 2021 had resulted in power shortage in various parts of China, indicating an energy security problem. We believe the government is likely to reduce the dependence on coal-fired power to ensure energy self-sufficiency.

## National Energy Administration (NEA): renewable energy installed capacity to contribute to 50% of national total capacity by end-14<sup>th</sup> Five-year plan (FYP) period

NEA announced at end-Mar 2021 that the government would target to boost installed capacity of renewable energy (include wind, solar, hydro, and biomass) to 50% of the national total by end-2025. This target indicates at least 74% jump from the current renewable energy capacity, indicating 11.7% CAGR in 2020-25E. We believe the strong push in clean energy would present great opportunities for wind and solar power industries.

### China's total power output: 5%YoY growth in 2021E

Despite economic activities in China suffer in 2020 amid the COVID-19 pandemic, total power output went up 4.0%YoY, according to China Electricity Council (CEC), compared to our estimates at 2%YoY. Since foreign industrial activities are still suppressed, industrial order for Chinese goods will continue to increase, supporting power demand. We expect China's total power output to expand by 5%YoY for 2021E.

### Alternative energy power output: 11%YoY growth in 2021E

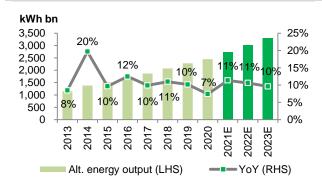
We believe the carbon neutrality target would spur demand for alternative energy (includes nuclear, hydro, wind, and solar). Total power output from alternative energy in 2020 accounted for only 32% of China's total. We estimate alternative energy output would go up by 11%/11%/10%YoY for 2021E/22E/23E, a much higher growth than that in 2020 (+7% YoY).

### Exhibit 1: China total power output outlook



Source(s): NEA, CEC, ABCI Securities estimates

Exhibit 2: China's alternative energy power output outlook



Source(s): NEA, CEC, ABCI Securities estimates



## Hydropower operators: profitable cash cows but capacity growth is low

## Hydropower is unlikely to be the key substitute for coal-fired power due to geographic limitations

Power output and capacity growth of hydropower is limited by the geographic landscape and water resources (e.g. rainfall), which is uncontrollable and whose capacity expansion is constrained (large dams have already been built in China's major rivers); we believe hydropower is unlikely to be the key substitute for coal-fired power in China.

### The most profitable alternative energy sub-segment in China

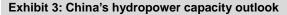
Hydropower has the lowest production cost among all alternative energies as the "fuel" is free. Key production cost of hydropower arises from depreciation. The unit cost of hydropower is ~RMB 0.10/kWh (ex. VAT), lower than the RMB 0.29/kWh (ex. VAT) for coal-fired, RMB 0.22/kWh (ex. VAT) for nuclear, RMB 0.34/kWh (ex. VAT) for wind, and RMB 0.44/kWh (ex. VAT) for solar. GPM of hydropower is the highest compared to its alternative peers (60% vs. 24% peer average).

### Hydropower operators are cash cows

Hydropower operators have a high GPM due to the low unit production cost. In addition, as hydropower tariff at RMB 0.24/kWh (ex. VAT) is far lower than that of the coal-fired (RMB 0.35/kWh ex. VAT), no subsidies are needed, thus avoiding the issue of a high account receivables (wind power and solar power operators have high receivables due to local government's deferred tariff subsidies). Without major capacity expansion plans, hydropower operators usually enjoy a strong cash flow, rendering them a good investment target especially in times of liquidity shortage.

### 4%/2%YoY growth in hydropower output in 2021E/22E

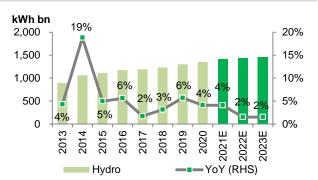
We believe capacity growth of China's hydropower is limited since capacity growth is constrained by the geographic landscape (e.g. requires hilly landscape with rivers). As most of the water resources in large rivers (e.g. Yangtze River, Yellow River etc.) have already been developed, headroom for capacity growth is limited. As such, we estimate hydropower output to inch up by 4%/2%YoY in 2021E/22E.





Source(s): NEA, CEC, ABCI Securities estimates

Exhibit 4: China's hydropower output outlook



Source(s): NEA, CEC, ABCI Securities estimates



### Nuclear power: policy change would decelerate capacity growth

China's ambitious carbon neutrality policy would boost rapid capacity growth in wind power, solar power, and nuclear power. To achieve an emission peak by 2030, speed is crucial. Nuclear power falls short in this aspect given its long construction cycle and high safety standard required.

### 7%/6%YoY growth in China's nuclear power output in 2021E/22E

National installed capacity of nuclear power expanded swiftly at a 20% CAGR 2011-18; since then, growth has slowed. In 2019, the capacity expansion was reported at 2.4%YoY. For the next few years, capacity growth of China's nuclear power will not be as rapid as that of wind and solar power due to its long construction period. For 2021E, new nuclear power plants in Tianwan unit 6 (Zhejiang province), Fuqing unit 6 (Fujian province) and Hongyanhe unit 5 (Liaoning province) are likely to commence operation, which would bring 3.4GW of new installed capacity. For 2022E, Hongyanhe unit 6 and Fangchenggang unit 3 and unit 4 are expected to commence operation, which would bring 3.5GW of new installed capacity. All in all, we expect China's nuclear power output growth to expand by 7%/6%YoY for 2021E/22E on the back of 7%/7%YoY capacity growth.

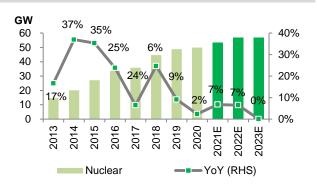
### Nuclear power remains the most feasible alternative to coal-fired power in China

In our view, nuclear power is the best alternative to coal-fired power due to its 1).high utilization hour; 2).low production cost; 3).clean nature, with no greenhouse gas being emitted in the process of generation; 4).unlike hydropower, nuclear power is not as heavily constrained by geographic factors and therefore is more scalable in comparison.

### Nuclear power output remains low in the overall energy structure

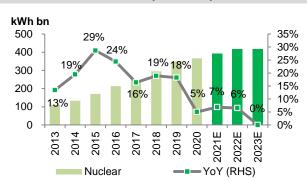
We believe China's switch to alternative energy (e.g. wind, solar, and nuclear) will continue. Nuclear power accounted for only 4.8%/4.8% to China's overall power output in 2019/2020, far below the average at ~30% among developed countries.

Exhibit 5: China's nuclear power capacity outlook



Source(s): NEA, CEC, ABCI Securities estimates

Exhibit 6: China's nuclear power output outlook



Source(s): NEA, CEC, ABCI Securities estimates



### Wind power: a key beneficiary of carbon neutrality policy

## The targets of carbon emission peak by 2030 and carbon neutrality by 2060 would accelerate wind and solar energy development

The construction period of nuclear power plants lasts between five to eight years and no less than five years for the hydropower. Wind/solar power, whose plants usually require a six-month construction period, are therefore preferred as the cleaner ways to boost power generation with the short time frame. We expect China's wind power capacity growth to be substantial to fulfill the government's long-term target.

## China's wind power output to expand rapidly by 27%/26%YoY in 2021E/22E due to strong capacity growth

We believe the carbon emission target would spur China's wind power capacity growth in the next few years despite the subsidy-free policy. Based on our previous estimates, China's total wind power capacity would report an 11%YoY growth in 2021E since the subsidy-free policy would lower the incentive for operators to invest in wind power capacity. Yet, with the carbon targets now in place, demand for wind power would increase. We now expect China's wind power capacity to go up by 28%/25%YoY in 2021E/22E. Driven by strong capacity, we expect wind power output would jump 27%/26%YoY for 2021E/22E.

### The implementation of subsidy-free policy would eliminate small players

National Development and Reform Commission (NDRC) announced in May 2019 that the government will cease subsidizing tariffs of onshore wind and solar power facilities approved before end-2018 but remain unfinished by end-2020; no subsidies will be made to onshore wind power facilities approved between Jan 1, 2019 and end-2020 but remain unfinished by end-2021. Starting from Jan 1, 2021, no tariff subsidy will be provided to newly-approved onshore wind power facilities. We believe the subsidy-free policy would lead to consolidation in the wind power industry, with small players being eliminated due to cost disadvantage.

### We continue to favor low-cost SOEs

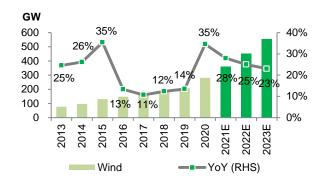
We believe low-cost operators would outperform, especially those with a state-owned background. Operators with the following characteristics would have additional advantages.

- Low operating cost. With no feed-in subsidies, operators with lower operating cost would have a higher free cash flow and a stronger balance sheet
- Higher utilization hour. Operators with a higher utilization hour usually have a lower operating cost due to greater efficiency.
- Located in higher-tier, coastal regions. Capacity located in affluent regions with higher power demand would entail a lower default risk; power curtailment in the coastal regions is usually lower since distant transmission is not required.

We believe State-owned Enterprise (SOE) operators would outperform the private ones because the former have 1) stronger ties with the local governments, which may facilitate approval for wind farm construction; 2) low financing cost, which reduces interest expenditure.



### Exhibit 7: China's wind power capacity outlook



Source(s): NEA, CEC, ABCI Securities estimates

### Exhibit 8: China's wind power output outlook



Source(s): NEA, CEC, ABCI Securities estimates

### Challenges in the alternative energy sector

### Safety and reliability concerns of alternative energy

We believe safety and reliability are the main issues constraining the development of alternative energy in China. Nuclear power incidents, such as the Fukushima nuclear accident in Japan in 2011, resulted in widespread panic. Subsequent increase in vigilance and scrutiny over nuclear development plans has delayed construction and approval for nuclear facilities. Separately, unstable wind resources, short sunshine hours, and power curtailment will affect reliability of wind and solar power generation.

### Drought and poor wind resources would reduce output of hydro and wind power

Hydropower and wind power rely on natural resources such as rainfall and wind; drought or windlessness will adversely affect power output.



# China Yangtze Power (600900 CH) New power plants to drive earnings growth

- 25%YoY net profit growth in 1Q21, slightly lower than our estimate
- 58%YoY growth in installed capacity for 2021E
- 5%/35%YoY growth in hydropower output for 2021E/22E
- Adjusted net profit to increase by 1%/37%YoY for 2021E/22E
- Maintain BUY with TP of RMB 23.00, which implies 19.3x 2021E P/E and 2.9x 2021E P/B

**25%YoY** net profit growth in 1Q21, slightly below our estimate. China Yangtze Power (CYP) 1Q21 revenue was RMB 8.87bn (+6%YoY), achieving 13% of our 2021 estimate, lower than the historical run rate of 16%. Net profit was RMB 2.869bn (+25%YoY), equivalent to 10% of our 2021 estimate, lower than the historical run rate of 12%.

**58%YoY** growth in installed capacity for 2021E. We believe the Wudongde hydropower plant is likely to be consolidated into CYP in 2H21, adding 10.2GW of capacity to the latter. In addition, Baihetan hydropower plant (16GW installed capacity), which completed construction in Mar 2021, is likely to be consolidated into CYP later this year. The two power plants would boost CYP's installed capacity by 58%YoY in 2021E. No new power plants will be completed in 2022 and 2023.

**5%/35%YoY** growth in hydropower output in **2021E/22E** is expected. We expect CYP's 2021E/22E hydropower output to be 238bn kWh (+5% YoY) and 321bn kWh (+35% YoY) based on the completion of new plants and gradual increase in utilization hour. In 2021, Wudongde and Baihetan power plants are expected to be consolidated into CYP in 2H21 therefore contribution to power output will be modest. For 2022E, we believe utilization hour would increase to support a 35%YoY output growth in CYP.

Adjusted net profit to increase by 1%/37%YoY for 2021E/22E. We expect a mild growth in adjusted net profit at 1%YoY due to a modest 5%YoY growth in power output in 2021. For 2022E, we expect a 37%YoY jump as utilization hour goes up in Wudongde and Baihetan power plants, boosting CYP's total output growth to 35%YoY.

**TP at RMB 23.00; maintain BUY.** Our DCF-derived TP at RMB 23.00 (previously at RMB 25.00) implied 19.3x 2021E P/E and 2.9x 2021E P/B. CYP will continue to benefit from hydropower's low generation cost and clean nature; its two new power plants will be the earnings growth driver. Maintain **BUY**.

### **Results and Valuation**

FY ended Dec 31	2019A	2020A	2021E	2022E	2023E
Revenue (RMB mn)	49,874	57,783	60,847	80,588	89,144
Chg (%, YoY)	-2.6	15.9	5.3	32.4	10.6
*Adj. net profit (RMB mn)	21,908	26,908	27,043	37,099	39,695
Chg (%, YoY)	-5.7	22.8	0.5	37.2	7.0
Adj. EPS (RMB)	0.996	1.213	1.189	1.632	1.746
Chg (%, YoY)	-5.7	21.8	-1.9	37.2	7.0
BVPS (RMB)	6.796	7.758	7.986	8.558	9.169
Chg (%, YoY)	5.1	14.2	2.9	7.2	7.1
P/E (x)	19.73	16.20	16.52	12.04	11.26
P/B (x)	2.89	2.53	2.46	2.30	2.14
ROAE (%)	14.77	16.35	15.29	19.73	19.70
ROAA (%)	7.28	8.38	7.52	8.99	8.54
DPS (RMB)	0.680	0.718	0.773	1.061	1.135
Yield (%)	3.46	3.65	3.93	5.40	5.78
**Net gearing (%)	60.2	41.7	68.8	82.8	93.1

<sup>\*</sup> Adj. net profit = net profit excluded impairment loss, fair value change and other non-operating profit and loss

Source(s): Bloomberg, ABCI Securities estimates

## Company Report May 17, 2021

Rating: BUY TP: RMB 23.00

Analyst : Kelvin Ng Tel: (852) 2147 8869 kelvinng@abci.com.hk

Share price (RMB)	19.65
Est. share price return	17.1%
Est. dividend yield	3.9%
Est. total return	21.0%
Previous Rating	BUY
Previous TP	25.00
Previous Report Date	Nov 17, 2020

Source(s): ABCI Securities estimates

Key Data	
52Wk H/L (RMB)	21.9/16.7
Issued shares (mn)	22,742
Market cap (RMB mn)	446,878
3-mth avg daily	745
turnover (RMB mn)	
Major shareholder(s):	
Three Gorges Corp.	55.99%

Source(s): Company, ABCI Securities

## Share Performance (%) Absolute Relative\* 1-mth (5.35) (7.50) 3-mth (0.20) 4.30

6-mth (3.49) (8.93)
\*Relative to SHCOMP
Source(s): Bloomberg, ABCI Securities

### 1-year share price performance (RMB)



Source(s): Bloomberg, ABCI Securities

<sup>\*\*</sup> Net gearing=Net debt/Total equity;



## 2021/22E outlook: strong output growth ahead driven by commencement of new power plants

### 58%YoY growth in installed capacity for 2021E

Wudongde hydropower plant has commenced operation in 2020, but its installed capacity has not yet been consolidated into CYP since the parent company would need to ensure all safety standard has been met prior to consolidation. We believe the Wudongde plant is likely to be consolidated in 2H21, adding 10.2GW to CYP's installed capacity. In addition, Baihetan hydropower plant (16GW installed capacity) has completed construction in Mar 2021, and is likely to be consolidated later this year. We believe CYP's installed capacity would increase by 58%YoY in 2021E as a result of the two consolidations. Based on its current schedule, no new power plants will be completed in 2022 and 2023.

### Utilization hour to drop 33%YoY in 2021E; 35%YoY rebound in 2022E

We estimate CYP's 2021E utilization hour to be 3,319 (-33%YoY) due to the addition of new plants (Wudongde and Baihetan), which usually have a lower utilization hour in the first year of operation. The figure, however, would rebound by 35% YoY in 2022E as the two plants ramp up utilization hour and post-pandemic economic activities increase.

### 5%/35%YoY growth in hydropower output in 2021E/22E

We expect CYP's 2021E/22E hydropower output to be 238bn kWh (+5% YoY) and 321bn kWh (+35% YoY) on the completion of new plants and gradual increase in utilization hour. Wudongde power plant would start contributing to power output in 2H21. The Baihetan power plant would add to the power output in 4Q21. Total output of CYP would go up by 5%/35% YoY in 2021E/22E.

### Net gearing ratio to trend up

We expect the net gearing ratio to be 69%/83% in 2021E/22E due to construction of the two new power plants. The situation would improve as contribution from the new plants improves cash flow.

### Adjusted net profit to increase by 1%/37%YoY for 2021E/22E

We expect 2021E adjusted net profit to edge up 1%YoY due to the modest 5%YoY growth in power output. For 2022E, we expect a 37%YoY jump as the addition of Wudongde and Baihetan power plants would boost CYP's total output growth by 35%YoY.

### TP at RMB 23.00; maintain BUY

We revise down our 2021E utilization hour by 16% to factor in the consolidation of Wudongde and Baihetan power plants, which would drag down the overall utilization hour; we also reduce the 2021E unit operation cost by 14% on improved cost control in 2020. For 2022E, we revise down the unit operation cost by 14% to factor in CYP's better cost control and the ramp-up of utilization hour of the new plants. Therefore we revise down earnings by 8.7% and up by 7.5% for 2021E/22E.

We believe CYP, the world's largest hydropower operators on the capacity basis, would benefit from China's ambitious plan to reach carbon neutrality by 2060. Hydropower's low generation cost and clean nature will no doubt be an ideal clean energy source in the long run. In addition, gradual increase in utilization hour of Wudongde and Baihetan power plants would boost CYP's future earnings growth and cash inflow.

Our DCF-derived TP at RMB 23.00 (previously at RMB 25.00) implies 19.3x 2021E P/E and 2.9x 2021E P/B. Maintain **BUY**.



**Exhibit 9: Changes in estimates** 

	Units	Old estimates		New es	New estimates		nge	Main reasons								
		2021E	2022E	2021E	2022E	2021E	2022E									
Adj. NP	RMBmn	29,626	34,506	27,043	37,099	-8.7%	7.5%	Consolidation of new power plants would lower utilization hour in first year but rebound in second year								
EPS	RMB	1.35	1.57	1.19	1.63	-11.7%	4.0%	Consolidation of new power plants would lower utilization hour in first year but rebound in second year								
Valuation	RMBmn	550,	000	523,063		523,063		523,063		-4.9%		523,063 -4.9		-4.9%		Decrease in 2021E earnings reduce valuation
TP	RMB	25.	.00	23.	00	-8.0%		Decrease in 2021E earnings reduce valuation								

Source(s): ABCI Securities estimates

### 1Q21 results highlight

### 25%YoY net profit growth in 1Q21, slightly below our estimate

CYP's 1Q21 revenue was RMB 8.87bn (+6%YoY), achieving 13% of our previous 2021 full-year estimate, lower than the historical run rate of 16%. Net profit was RMB 2.869bn (+25%YoY), equivalent to 10% of our previous full-year estimate and lower than the historical run rate of 12%.

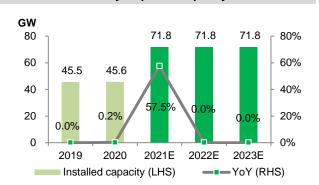
### 11%YoY decline in hydropower output was key drag

CYP's 1Q21 hydropower output was 32 bn kWh (-11%YoY), equivalent to 11% of our previous full-year estimate and lower than its historical rate of 15%. We believe poor water resource was the key reason for output decline. Consolidation of Wudongde and Baihetan power plants this year would be critical to CYP's earnings growth and we expect these plants to contribute to power output starting from 2H21.

### **Risk factors**

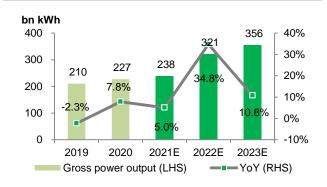
(1) Widespread drought would affect power output; (2) Construction risk; (3) High net gearing ratio prompts concern on fundraising activities; (4) Operation risk; (5) Policy risk

Exhibit 10: CYP's hydropower capacity outlook



Source(s): Company, ABCI Securities estimates

Exhibit 11: CYP's gross hydropower output



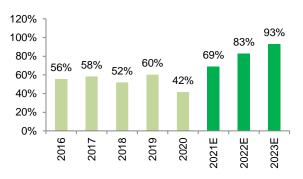


### Exhibit 12: CYP's utilization hour



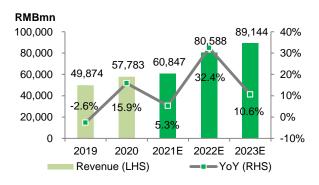
Source(s): Company, ABCI Securities estimates

### Exhibit 13: CYP's net gearing ratio



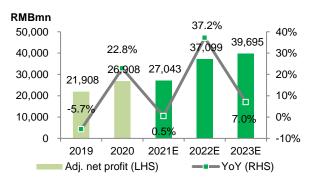
Source(s): Company, ABCI Securities estimates

### Exhibit 14: CYP's revenue outlook



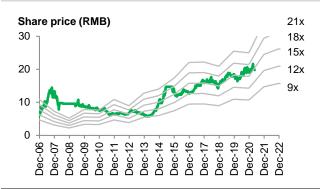
Source(s): Company, ABCI Securities estimates

### Exhibit 15: CYP's adjusted net profit outlook



Source(s): Company, ABCI Securities estimates

### Exhibit 16: CYP's fwd P/E chart



Source(s): Bloomberg, ABCI Securities estimates

### Exhibit 17: CYP's fwd P/B chart



Source(s): Bloomberg, ABCI Securities estimates



ABCI SECURITIES COMPANY LIMITED

### **Consolidated income statement**

FY Ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Revenue	49,874	57,783	60,847	80,588	89,144
Hydropower	49,659	52,882	55,456	74,658	82,621
Other	215	4,901	5,391	5,930	6,523
Cost of sales	(19,866)	(22,342)	(25,306)	(30,467)	(34,127)
Gross Profit	30,008	35,441	35,541	50,121	55,018
SG&A expenses	(882)	(1,448)	(1,083)	(1,434)	(1,587)
Net financial income (cost)	(5,211)	(4,986)	(4,038)	(6,782)	(8,770)
Other income/ (expenses)	2,712	3,448	3,657	4,843	5,358
Profit before tax	26,627	32,456	34,077	46,747	50,019
Tax	(5,060)	(5,949)	(6,815)	(9,349)	(10,004)
Profit after tax	21,567	26,506	27,261	37,398	40,015
Profit attributable to:					
Minority interest	24	208	218	299	320
Equity shareholders of the Co.	21,543	26,298	27,043	37,099	39,695
Adj. equity shareholders of the Co.	21,908	26,908	27,043	37,099	39,695
Basic EPS (RMB)	0.979	1.185	1.189	1.632	1.746
Adj. basic EPS (RMB)	0.996	1.213	1.189	1.632	1.746
DPS (RMB)	0.680	0.718	0.773	1.061	1.135

Source(s): Company, ABCI Securities estimates

### **Consolidated balance sheet**

As of Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Current assets	11,035	14,676	14,620	17,955	22,323
Cash	7,323	9,231	8,875	12,552	16,085
Trade and bill receivables	2,947	3,668	4,001	3,506	4,309
Other receivables and prepayments	83	546	552	562	660
Inventories	222	282	245	386	321
Other current assets	460	948	948	948	948
Non-current assets	285,448	316,151	373,469	419,371	470,002
Property, plant & equipment	226,292	231,120	256,144	297,732	337,319
Intangible assets	191	21,625	20,140	19,673	19,101
Investment in JV and associates	40,258	50,424	61,098	72,306	72,456
Deferred tax assets	369	385	385	385	385
Other non-current assets	18,337	12,598	35,702	29,275	40,741
Total Assets	296,483	330,827	388,089	437,326	492,325
Current Liabilities	55,959	78,467	102,743	134,089	163,562
Trade and bill payables	106	894	686	733	504
Other payables	23,278	21,449	20,189	19,024	20,421
Short term borrowings	29,307	31,558	59,712	93,918	122,402
Other current assets	3,268	24,565	22,157	20,414	20,236
Non-current liabilities	90,508	74,039	97,341	101,948	113,261
Deferred tax liabilities	875	1,960	1,960	1,960	1,960
Long-term borrowings	68,395	51,974	78,596	85,238	94,238
Other non-current assets	21,239	20,104	16,784	14,750	17,063
Total Liabilities	146,467	152,505	200,084	236,037	276,823
Minority interests	506	6,203	6,422	6,721	7,041
Shareholders' equities	149,510	172,118	181,583	194,568	208,461



Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Profit before tax	21,543	26,298	27,043	37,099	39,695
Change in depreciation and amortization	12,038	11,602	14,339	16,350	18,468
Change in Working Capital	(23,939)	17,424	(7,498)	(4,551)	2,467
Income tax paid	(14,968)	(14,960)	(15,919)	(17,578)	(24,114)
Others	41,791	673	1,604	3,559	5,204
Operating cash flow	36,464	41,037	19,569	34,878	41,719
CAPEX	(17,321)	(35,301)	(10,945)	(11,492)	(448)
Increase in intangible assets	0	0	(161)	(169)	(177)
Others	(3,915)	(8,409)	(35,497)	(54,794)	(54,004)
Investing cash flow	(21,236)	(43,710)	(46,603)	(66,455)	(54,630)
Net Capital raise	0	0	0	0	0
Net debt financing	5,419	3,102	47,682	57,009	47,473
Dividend payout	(14,968)	(14,960)	(15,919)	(17,578)	(24,114)
Others	(3,719)	16,523	(5,086)	(4,177)	(6,915)
Financing cash flow	(13,269)	4,666	26,677	35,255	16,443
Net change in cash	1,959	1,992	(356)	3,678	3,532
Cash at the beginning	5,337	7,323	9,231	8,875	12,552
Adjustment (Time deposit & FX effect)	27	(85)	0,201	0	0
Cash at the end	7,323	9,231	8,875	12,552	16,085

Source(s): Company, ABCI Securities estimates

**Key ratio** 

FY ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Sales mixed (%)					
Hydropower	99.57	91.52	91.14	92.64	92.68
Other	0.43	8.48	8.86	7.36	7.32
Total	100.0	100.0	100.0	100.0	100.0
Profit & loss ratios (%)					
Gross margin	60.17	61.33	58.41	62.19	61.72
Operating profit margin	60.40	60.34	58.64	62.42	61.95
Pre-tax margin	53.39	56.17	56.00	58.01	56.11
Net profit margin	43.24	45.87	44.80	46.41	44.89
Selling & administrative expenses/revenue	1.77	2.51	1.78	1.78	1.78
Effective tax rate	19.00	18.33	20.00	20.00	20.00
Growth (%)					
Revenue	(2.62)	15.86	5.30	32.44	10.62
Gross profit	(2.95)	18.11	0.28	41.02	9.77
Operating profit	(5.94)	15.74	2.33	40.99	9.77
Net profit	(4.78)	22.90	2.85	37.18	7.00
Balance sheet ratios					
Current ratio (x)	0.20	0.19	0.14	0.13	0.14
Trade and bill receivables days	20.41	20.89	23.00	17.00	16.00
Trade and bill payables turnover days	2.46	8.63	12.00	9.00	7.00
Inventory turnover days	4.31	4.35	4.00	4.00	4.00
Total debt / equity ratio (%)	65.13	46.84	73.57	89.00	100.53
Net debt / equity ratio (%)	60.25	41.67	68.85	82.77	93.06
Returns (%)					
ROAA	7.28	8.38	7.52	8.99	8.54
ROAE	14.77	16.35	15.29	19.73	19.70
Payout ratio	69.44	60.53	65.00	65.00	65.00
Source(s): Company ABCI Securities estimates					



## **Longyuan Power (916 HK)** Strong growth ahead; upgrade to BUY

- 1Q21 adjusted net profit was up 28%YoY, better than our estimate.
- A-share backdoor listing serves as future share price catalyst.
- Strong 14%/13%YoY wind power capacity growth in 2021E/22E.
- Adjusted net profit growth of 47%/13%YoY for 2021E/22E
- Upgrade to **BUY** with TP of HK\$ 11.40, implying 11.00x 2021E P/E and 1.34x 2021E

28%YoY net profit growth in 1Q21, better than our estimate. Longyuan 1Q21 revenue was RMB9.1bn (+26%YoY), achieving 30% of our 2021 full-year estimate, higher than the historical run rate of 25%. Net profit was RMB 2.55bn (+28%YoY), equivalent to 49% of our 2021 estimate, higher than the historical run rate of 37%.

A-share backdoor listing as future share price catalyst. On Jan 15, 2021, Longyuan has entered into an M&A agreement with Pingzhuang Energy (000780 CH, NR) to conduct A-shr backdoor listing. After the listing, we believe Longyuan is likely to issue more new shares to raise funds. As long as the valuation of A-shares is higher than that of H-shares, the new share placement would benefit the H-shareholders.

Strong 14%/13%YoY wind power capacity growth in 2021E/22E. We believe NEA's announcement issued in Mar 2021, on boosting renewable energy (including wind, solar, hydro and biomass) capacity to 50% of national total capacity by end-2025, is likely to strongly boost wind and solar power capacity. We forecast wind power operators would accelerate wind power capacity growth in next 5-year time. We expect Longyuan to report strong 14%/13%YoY capacity growth in 2021E/22E, and power output growth would therefore report robust 19%/14%YoY growth during the period.

Adjusted net profit growth of 47%/13%YoY in 2021E/22E. We believe capacity would expand by 14%/13%YoY in 2021E/22E and adjusted net profit (excl. one-off impairment loss impact) would be up by 47%/13%YoY.

TP at HK\$ 11.40; upgrade to BUY. Our DCF-derived TP at HK\$ 11.40 (previously at HK\$ 6.30) implies 11.00x 2021E P/E and 1.34x 2021E P/B. We believe NEA's new policy is likely to benefit Longyuan the most and the Company's A-share backdoor listing would serve as a share price catalyst. Upgrade to BUY.

### **Results and Valuation**

FY ended Dec 31	2019A	2020A	2021E	2022E	2023E
Revenue (RMB mn)	27,541	28,667	35,391	39,612	44,342
Chg (%,YoY)	4.4	4.1	23.5	11.9	11.9
*Adj. net profit (RMB mn)	4,328	4,726	6,956	7,861	8,805
Chg (%,YoY)	-2.5	9.2	47.2	13.0	12.0
Adj. EPS (RMB)	0.539	0.588	0.866	0.978	1.096
Chg (%,YoY)	-2.5	9.2	47.2	13.0	12.0
BVPS (RMB)	5.965	6.426	7.118	7.901	8.777
Chg (%, YoY)	8.3	7.7	10.8	11.0	11.1
P/E (x)	15.33	14.04	9.54	8.44	7.54
P/B (x)	1.38	1.28	1.16	1.05	0.94
ROAE (%)	9.38	9.49	12.78	13.03	13.14
ROAA (%)	2.85	2.85	3.70	3.68	3.62
DPS (RMB)	0.108	0.118	0.173	0.196	0.219
Yield (%)	1.30	1.42	2.10	2.37	2.65
**Net gearing (%)	122.7	127.7	138.2	144.5	152.0

<sup>\*</sup> Adj. net profit = net profit excluded impairment loss, fair value change and other non-operating profit and loss
\*\* Net gearing=Net debt/Total equity

### Company Report

May 17, 2021 Rating: BUY TP: HK\$ 11.40

Analyst : Kelvin Ng Tel: (852) 2147 8869 kelvinng@abci.com.hk

Share price (HK\$)	9.88
Est. share price return	15.4%
Est. dividend yield	2.1%
Est. total return	17.5%
Previous Rating	HOLD
Previous TP	6.30
Previous Report Date	Nov 17, 2020

Source(s): ABCI Securities estimates

Key Data	
52Wk H/L(HK\$)	15.8/3.5
Issued shares (mn)	8,036
Issued H-shares (mn)	3,340
Market cap (HK\$ mn)	79,400
H-share Market cap	32,999
(HK\$ mn)	
3-mth avg daily	209
turnover(HK\$ mn)	
Major shareholder(s)	
(%):	
CHN Energy	57.3%

Source(s): Company, ABCI Securities

### Share Performance (%)

	<u>Absolute</u>	Relative*
1-mth	(8.52)	(3.11)
3-mth	(30.13)	(17.71)
6-mth	55.84	57.17

\*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

### 1-Year share price performance (HK\$)



Source(s): Bloomberg, ABCI Securities

Source(s): Bloomberg, ABCI Securities estimates



## 2021/22E outlook: strong wind power output growth driven by policy change

### Wind power is the key beneficiary of 14th FYP renewable energy policy

NEA announced on Mar 30, 2021, that the government targets to boost installed capacity of renewable energy (include wind, solar, hydro, and biomass) to 50% of the national total capacity by end-2025. This target indicates at least 74% jump from the existing renewable energy capacity, representing a 11.6% CAGR in 2020-25E. We believe the new policy is likely to boost nationwide wind power capacity, especially for the large wind power operators.

### A-share backdoor listing to serve as future share price catalyst

In Jan 2021, Longyuan has entered an M&A agreement with Pingzhuang Energy (000780 CH, NR) to conduct A-share backdoor listing. Here are the key points of the agreement.

- ♦ Longyuan announced to merge and acquire Pingzhuang Energy (000780 CH, NR). Longyuan entered into an agreement on absorption and merger through share swap, the asset disposal agreement, and the agreement on purchase of assets through cash payment, respectively, for the possible Absorption and Merger of Pingzhuang Energy (000780 CH) through share swap and the material assets disposal and purchase of assets through cash payment.
- ♦ Share price. Longyuan will issue 341.9mn of A-shares priced at RMB11.42/share to swap with the 1,014mn shares from Pingzhuang Energy (000780 CH) at RMB3.85/share (10% premium to 20-trading day average price). Conversion ratio for the merger is 1: 0.3371.
- ♦ Assets to be disposed. All or part of the assets and liabilities of Pingzhuang Energy will be disposed to Inner Mongolia Power but the transaction price has not been confirmed.
- ♦ Asset acquisition from parent company. Longyuan will acquire 2.04GW of installed wind power capacity from the parent company, which accounts for around 10.2% of Longyuan's installed capacity by end-2019, but the transaction price has not yet confirmed.

After the A-share listing, we believe Longyuan is likely to issue more new shares for the development of wind power capacity. As long as the valuation of A-shares is higher than that of H-shares, the new A-share placement would benefit the H-share investors.

### Strong 14%/13%YoY wind power capacity growth in 2021E/22E

We believe China's wind and solar power capacity would expand on the push for renewable energy. Given hydropower capacity is limited by geographic landscape and long construction period, wind and solar power will be the main drivers for NEA to achieve 14<sup>th</sup> FYP target (wind and solar capacity accounted for 24% of total capacity by end-2020; we estimate the joint capacity to reach 42% by end-2025). We expect Longyuan to report 14%/13%YoY in capacity growth for 2021E/22E, and power output growth would be 19%/14%YoY.

### Utilization hour to stay high at 2,264/2,290 for 2021E/22E

Longyuan's utilization hour in 2020 was up 2.3%YoY amid the COVID-19 disruption. We believe the increase was mainly due to government's push for renewable energy. With the target of carbon neutrality, we expect curtailment rate would fall and utilization hour would go up. We therefore expect Longyuan's utilization hour to stay high at 2,264/2,290 for 2021E/22E.

### Adjusted net profit growth of 47%/13%YoY in 2021E/22E

We believe capacity would expand by 14%/13%YoY in 2021E/22E/23E and adjusted net profit (excluded one-off impairment loss and fair value change impact) would be up by 47%/13%YoY.



### Net gearing ratio to stay high at above 130% in 2021E-23E

Accelerating capacity growth would drive up Longyuan's net gearing ratio as CAPEX would surge. Longyuan forecasts a 2021 CAPEX of RMB25bn, and the figure is likely to stay high in the 14<sup>th</sup>FYP period (2021-25). We estimate 2021E/22E/23E net gearing would be 138%/144%/152% without potential capital rise from A-share listing.

### TP at HK\$ 11.40; upgrade to BUY

We revise up our 2021E/22E/23E wind power installed capacity by 8%/17%/26%. We believe increasing capacity would help reduce unit material cost by 2%/5%/8% respectively for 2021E/22E/23E. Our new adjusted net profit forecasts are revised up by 33%/38%/57% for 2021E/22E/23E.

Our DCF-derived TP at HK\$ 11.40 (previously at HK\$ 6.30) implies 11.00x 2021E P/E and 1.34x 2021E P/B. The wind power industry is likely to enter the fast track again. Longyuan, as an industry leader, would be a key beneficiary. We believe Longyuan's A-Share backdoor listing would further ease its pressure on raising capital for capacity growth. In addition, high valuation in A-share market may help push up prices of H-shares. Upgrade to **BUY**.

**Exhibit 18: Changes in estimates** 

	Units	Old estimates		New es	timates	Change		Change		Main reasons
		2021E	2022E	2021E	2022E	2021E	2022E			
Adj. NP	RMBmn	5,240	5,694	6,956	7,861	32.7%	38.1%	Increased capacity growth in 2021/22E/23E boost earnings growth		
Adj. EPS	RMB	0.65	0.71	0.87	0.98	32.7%	38.0%	Increased capacity growth in 2021/22E/23E boost earnings growth		
Valuation	RMBmn	43,2	257	76,	551	77.	0%	Increased 2021E/22E/23E earnings boost valuation		
TP	HK\$	6.3	30	11.	40	81.0%		Increased 2021E/22E/23E earnings boost valuation		

Source(s): ABCI Securities estimates

### 1Q21 results highlight

### 28%YoY net profit growth in 1Q21, better than our estimate

Longyuan 1Q21 revenue was RMB9.1bn (+26%YoY), achieving 30% of our previous 2021 full-year estimate, higher than the historical run rate of 25%. Net profit was RMB 2.55bn (+28%YoY), equivalent to 49% of our previous 2021 estimate, higher than the historical run rate of 37%.

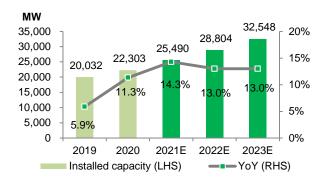
### 24%/42%YoY growth in wind power/coal-fired power output boosted earnings

Longyuan wind power output was 14,404GWh (+24%YoY), equivalent to 31% of our previous 2021 estimate, higher than its historical run rate of 26%. For coal-fired power, Longyuan reported 2,773GWh of output (+42%YoY) in 1Q21, achieving 31% of our previous full-year estimate, higher than its historical run rate of 25%. Strong growth in the two energy businesses helped boost Longyuan's earnings growth in 1Q21.

### **Risk factors**

(1) Power curtailment risk; (2) Wind resources risk; (3) Construction risks; (4) Fundraising risk; (5) Government policy to deleverage may constrain growth. (6) High account receivables

## Exhibit 19: Longyuan's wind power installed capacity outlook



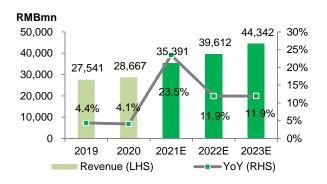
Source(s): Company, ABCI Securities estimates

### Exhibit 21: Longyuan's wind power output outlook



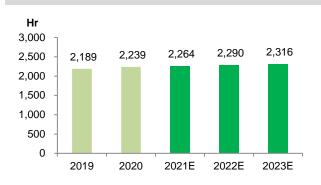
Source(s): Company, ABCI Securities estimates

### Exhibit 23: Longyuan's revenue outlook



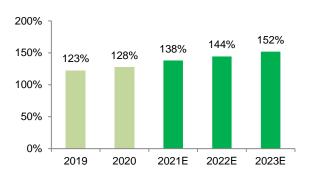
Source(s): Company, ABCI Securities estimates

### Exhibit 20: Longyuan's utilization hour outlook



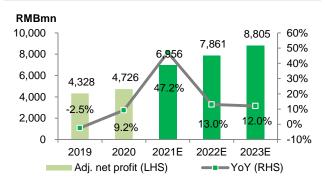
Source(s): Company, ABCI Securities estimates

### Exhibit 22: Longyuan's net gearing ratio outlook



Source(s): Company, ABCI Securities estimates

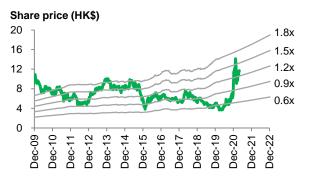
### Exhibit 24: Longyuan's adjusted net profit outlook



#### Exhibit 25: Longyuan's fwd P/E chart Share price (HK\$) 18x 20 15x 16 12x 12 9x 8 6x 4 0 Dec-16 Dec-09 Dec-11 Dec-13 Dec-14 Dec-15 Dec-17 Dec-18 Dec-19 Dec-20

### Source(s): Bloomberg, ABCI Securities estimates

### Exhibit 26: Longyuan's fwd P/B chart



Source(s): Bloomberg, ABCI Securities estimates



### **Consolidated income statement**

FY Ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Revenue	27,541	28,667	35,391	39,612	44,342
Wind power	18,981	20,403	24,327	27,665	31,456
Coal-fire power	6,632	7,593	9,417	9,801	10,136
Other	1,927	671	1,647	2,146	2,750
Cost of sales	(16,840)	(17,420)	(20,647)	(23,269)	(26,147)
Gross Profit	10,701	11,247	14,744	16,343	18,195
SG&A expenses	(564)	(607)	(708)	(792)	(887)
Net financial income (cost)	(3,486)	(3,083)	(3,639)	(4,001)	(4,593)
Other income/ (expenses)	(201)	(636)	(177)	0	222
Profit before tax	6,450	6,922	10,220	11,550	12,936
Tax	(1,131)	(1,236)	(1,840)	(2,079)	(2,329)
Profit after tax	5,320	5,685	8,381	9,471	10,608
Profit attributable to:					
Minority interest	753	661	1,006	1,137	1,273
Perpetual medium-term note holders	242	299	419	474	530
Equity shareholders of the Co.	4,325	4,726	6,956	7,861	8,805
Adj. equity shareholders of the Co.	4,328	4,726	6,956	7,861	8,805
Basic EPS (RMB)	0.538	0.588	0.866	0.978	1.096
Adj. basic EPS (RMB)	0.539	0.588	0.866	0.978	1.096
DPS (RMB)	0.108	0.118	0.173	0.196	0.219

Source(s): Company, ABCI Securities estimates

### **Consolidated balance sheet**

As of Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Current assets	23,029	31,184	40,469	48,087	59,273
Cash	2,908	5,226	6,718	10,823	14,773
Pledged and restricted bank deposits	523	361	361	361	361
Trade and bill receivables	16,365	21,603	28,817	31,957	38,505
Other receivables and prepayments	1,963	2,831	2,986	3,525	3,764
Inventories	819	806	1,230	1,065	1,514
Other current assets	450	356	356	356	356
Non-current assets	133,773	144,102	160,045	178,940	200,241
Property, plant & equipment	114,607	124,918	143,008	162,661	184,648
Investment properties	9	8	8	8	8
Intangible assets	10,886	10,344	7,351	7,223	7,098
Investment in JV and associates	4,328	4,056	4,233	4,431	4,653
Deferred tax assets	157	210	210	210	210
Other non-current assets	3,786	4,566	5,234	4,407	3,623
Total Assets	156,803	175,286	200,513	227,028	259,513
Current Liabilities	43,538	52,907	65,350	73,746	85,452
Trade and bill payables	3,411	3,615	4,870	4,693	6,053
Other payables	11,070	11,392	11,891	11,715	11,864
Short term borrowings	28,965	37,875	48,590	57,339	67,536
Other current assets	92	25	0	0	0
Non-current liabilities	52,610	55,930	62,144	72,837	85,300
Deferred tax liabilities	263	173	173	173	173
Long-term borrowings	48,881	52,598	59,388	70,081	82,544
Other non-current assets	3,465	3,158	2,583	2,583	2,583
Total Liabilities	96,148	108,837	127,494	146,583	170,752
Minority interests	7,732	8,761	9,767	10,904	12,177
Perpetual medium-term note	4,991	6,045	6,045	6,045	6,045
Shareholders' equities	47,932	51,642	57,207	63,496	70,539



### Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Profit before tax	6,450	6,922	10,220	11,550	12,936
Change in depreciation and amortization	7,633	7,735	9,377	10,642	12,066
Change in Working Capital	(3,668)	(4,813)	(6,040)	(3,866)	(5,727)
Income tax paid	(1,064)	(1,048)	(1,236)	(1,840)	(2,079)
Others	3,163	3,479	3,029	3,374	3,594
Operating cash flow	12,515	12,273	15,350	19,861	20,790
CAPEX	(11,787)	(20,215)	(26,961)	(29,774)	(33,516)
Increase in intangible assets	0	0	(374)	(393)	(412)
Others	1,013	236	374	251	319
Investing cash flow	(10,774)	(19,979)	(26,960)	(29,915)	(33,610)
Net Capital raise	0	0	0	0	0
Net debt financing	2,642	14,036	17,504	19,442	22,660
Dividend payout	(1,138)	(1,398)	(945)	(1,391)	(1,572)
Others	(3,204)	(2,641)	(3,458)	(3,890)	(4,319)
Financing cash flow	(1,700)	9,997	13,102	14,160	16,769
Net change in cash	41	2,292	1,491	4,106	3,949
Cash at the beginning	2,861	2,908	5,226	6,718	10,823
Adjustment (Time deposit & FX effect)	7	26	0	0	0
Cash at the end	2,908	5,226	6,718	10,823	14,773
Course(s), Company ADCI Consuition antimotes					

Source(s): Company, ABCI Securities estimates

Key ratio

Rey ratio					
FY ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Sales mixed (%)					
Wind power	68.92	71.17	68.74	69.84	70.94
Coal-fire power	24.08	26.49	26.61	24.74	22.86
Other	7.00	2.34	4.65	5.42	6.20
Total	100	100	100	100	100
Profit & loss ratios (%)					
Gross margin	38.86	39.23	41.66	41.26	41.03
Operating profit margin	36.12	35.08	38.66	38.76	39.03
Pre-tax margin	23.42	24.14	28.88	29.16	29.17
Net profit margin	19.32	19.83	23.68	23.91	23.92
Selling & administrative expenses/revenue	2.05	2.12	2.00	2.00	2.00
Effective tax rate	17.53	17.86	18.00	18.00	18.00
Growth (%)					
Revenue	4.37	4.09	23.45	11.93	11.94
Gross profit	3.03	5.11	31.09	10.84	11.33
Operating profit	1.98	1.08	36.06	12.21	12.74
Net profit	8.10	6.88	47.41	13.01	12.00
Balance sheet ratios					
Current ratio (x)	0.53	0.59	0.62	0.65	0.69
Quick ratio (x)	0.45	0.51	0.55	0.59	0.63
Cash ratio (x)	0.08	0.11	0.11	0.15	0.18
Trade and bill receivables days	178.30	241.71	260.00	280.00	290.00
Trade and bill payables turnover days	59.28	73.61	75.00	75.00	75.00
Inventory turnover days	18.11	17.03	18.00	18.00	18.00
Total debt / equity ratio (%)	162.41	175.19	188.75	200.67	212.76
Net debt / equity ratio (%)	122.68	127.75	138.18	144.49	152.03
Returns (%)					
ROAA	2.85	2.85	3.70	3.68	3.62
ROAE	9.38	9.49	12.78	13.03	13.14
Payout ratio	19.99	20.00	20.00	20.00	20.00
0 () 0 10010 ''' ''					



## Datang Renewable (1798 HK) Policy beneficiary; rerating in sight

- 153% YoY net profit growth in 1Q21, much better than our estimate.
- Strong 18%/16%YoY wind power capacity growth in 2021E/22E
- 25%/28%YoY solar power capacity growth in 2021E/2E.
- 2021E/22E earnings to grow 84%/15%YoY, driven by strong wind power and solar power output growth.
- Upgrade to BUY with TP of HK\$ 1.90, which implies 6.9x 2021E P/E and 1.11x 2021E

**153%YoY** net profit growth in 1Q21, much better our estimate. Datang Renewable (DTR)'s 1Q21 revenue was RMB 3.4bn (+41%YoY), achieving 34% of our 2021 estimate, higher than the historical run rate of 25%. Net profit was RMB 1.12bn (+153%YoY), equivalent to 103% of our 2021 estimate, much better than our forecast.

**18%/16% YoY wind power capacity growth in 2021E/22E expected.** As NEA announced to boost renewable energy capacity to 50% of national total capacity by end-2025, we believe wind power operators would accelerate capacity expansion. We expect DTR's wind power capacity to increase by 18%/16%YoY in 2021E/22E. Wind power output is likely to surge 25%/17%YoY for the same periods.

25%/28%YoY solar power capacity growth in 2021E/22E. NEA's renewable energy push is likely to benefit the solar power segment as well. We expect DTR's solar power installed capacity to increase by 0.26GW/0.37GW in 2021E/22E, representing 25%/28%YoY growth. Benefit from strong capacity growth, DTR's solar power output growth would jump 144%/109%YoY in 2021E/22E on the back of reduced power curtailment rate.

**2021E/22E earnings to grow 84%/15%YoY.** Driven by strong capacity growth, we expect DTR's 2021E revenue is likely to report 31%YoY growth and net profit is likely to jump 84%YoY due to reduced unit maintenance cost. For 2022E, as CAPEX rose on robust capacity growth, net finance cost is likely to go up by 23%YoY, eroding growth in net profit. 2022E net profit would go up by 15%YoY despite a 21%YoY growth in revenue.

**TP at HK\$1.90; upgrade to BUY.** We believe the government's change in policy would push the development of wind power. Our DCF-derived TP at HK\$ 1.90 (previously at HK\$ 1.05) implies 6.9x 2021E P/E and 1.11x 2021E P/B. Upgrade to **BUY**.

### **Results and Valuation**

FY ended Dec 31	2019A	2020A	2021E	2022E	2023E
Revenue (RMB mn)	8,325	9,372	12,258	14,771	17,278
Chg (%, YoY)	0.1	12.6	30.8	20.5	17.0
Net profit (RMB mn)	936	1,187	2,180	2,511	2,557
Chg (%, YoY)	-22.6	26.7	83.6	15.2	1.8
EPS (RMB)	0.113	0.128	0.234	0.270	0.275
Chg (%, YoY)	-25.0	13.0	83.6	15.2	1.8
BVPS (RMB)	1.333	1.266	1.457	1.673	1.893
Chg (%, YoY)	4.0	-5.1	15.1	14.8	13.1
P/E (x)	12.04	10.66	5.80	5.04	4.95
P/B (x)	1.02	1.07	0.93	0.81	0.72
ROAE (%)	8.76	10.39	17.20	17.24	15.41
ROAA (%)	1.21	1.40	2.22	2.12	1.79
DPS (RMB)	0.026	0.023	0.047	0.054	0.055
Yield (%)	1.93	1.73	3.45	3.97	4.04
*Net gearing (%)	367.0	330.8	356.3	404.8	441.1

<sup>\*</sup> Net gearing=Net debt/Total equity;

Source(s): Bloomberg, ABCI Securities estimates

### **Company Report**

May 17, 2021 Rating: BUY TP: HK\$ 1.90

Analyst : Kelvin Ng Tel: (852) 2147 8869 kelvinng@abci.com.hk

Share price (HK\$)	1.59
Est. share price return	19.5%
Est. dividend yield	3.6%
Est. total return	23.1%
Previous Rating	SELL
Previous TP	1.05
Previous Report Date	Nov 17, 2020

Source(s): ABCI Securities estimates

Key Data	
52Wk H/L(HK\$)	2.3/0.5
Issued shares (mn)	7,274
Issued H-shares (mn)	2,501
Market cap (HK\$ mn)	11,565
H-share Market cap	3,977
(HK\$ mn)	
3-mth avg daily	17.1
turnover(HK\$ mn)	
Major shareholder(s):	
Datang Group.	57.4%

Source(s): Company, ABCI Securities

### Share Performance (%)

	<u>Absolute</u>	Relative*
1-mth	18.66	24.06
3-mth	(20.10)	(7.68)
6-mth	32.50	33.83

\*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

### 1-Year share price performance (HK\$)



Source(s): Bloomberg, ABCI Securities



## 2021/22E outlook: strong output growth in wind and solar; high net gearing ratio to stay

### 18%/16%YoY wind power capacity growth in 2021E/22E are expected

As NEA announced to boost renewable energy capacity to 50% of national total capacity by end-2025, we believe wind power operators would expand capacity in the next few years. We expect DTR's capacity to increase by 18%/16%YoY in 2021E/22E. Its wind power output would expand by 25%/17%YoY in 2021E/22E.

### Robust 25%/28%YoY solar power capacity growth in 2021E/22E

We expect DTR's solar installed capacity is likely to increase by 0.26GW and 0.37GW in 2021E/22E, reflecting 25%/28%YoY growth. Solar power output growth is likely to jump 144%/109%YoY in 2021E/22E on the back of reduced curtailment rate.

### Wind power utilization hour to stay firm at 2,100 in 2021E and 2022E

DTR's utilization hour was 2,162 in 2020, 5% higher than 2,064hr in 2019, mainly because 1).the government's strong push in wind power development, 2). COVID-19 disrupted coal transportation and therefore, coal-fired power generation. For 2021E and 2022E, we believe wind power capacity and output growth would stay high with a reduced curtailment rate. DTR's utilization hour would be at 2,100.

### A-share backdoor listing is possible

Like Longyuan Power, DTR has the potential to conduct A-share backdoor listing or seek for IPO dual listing in A-share in coming years to raise capital for substantial expansion. After the recent surge in share price, the counter is now trading at 5.8x 2021E P/E and 0.93x 2021E P/B based on our estimate, the highest in three years. Yet, the current valuation is still too low for DTR to raise capital without diluting its shareholding significantly. Given the major wind power operators are not listed in the A-share market and A-shares generally have a higher valuation, we believe DTR is likely to seek for A-share backdoor listing or IPO. This would serve as share price catalyst to DTR's H-shares.

### Net gearing to trend up without fundraising activities

We expect DTR's 2021E/22E capacity to increase by 18%/16%YoY for wind and 25%/28%YoY capacity growth for solar. Strong capacity growth would drive up CAPEX and net gearing ratio. Without any fundraising activities, we expect its net gearing ratio to be 356%/405% in 2021E/2022E.

### 2021E/22E earnings to grow 84%/15%YoY

Driven by strong capacity growth, we expect DTR's 2021E revenue is likely to report a 31%YoY growth and net profit is likely to jump 84%YoY due to reduced unit maintenance cost. For 2022E, as CAPEX rose on robust capacity growth, net finance cost is likely to go up by 24%YoY, eroding growth in net profit. 2022E net profit would go up by 15%YoY despite a 21%YoY growth in revenue.

### TP at HK\$1.90; upgrade to BUY

We revise up our 2021E/22E/23E wind power installed capacity by 17%/29%/44% and solar power capacity by 380%/514%/660% upon NEA's push for nationwide capacity growth. Our new net profit forecasts are revised up by 85%/126%/277% for 2021E/22E/23E

We believe the government's ambition to reach the carbon emission peak by 2030 and carbon neutrality by 2060 would drive forward the expansion of wind and solar power in China during 2020-25 (14<sup>th</sup> FYP period). DTR, an SOE, would benefit from close relationship with local governments and lower borrowing cost from banks. DTR's H-share is now trading below book due to the slow revenue and earnings growth in previous years. We believe the change in policy would trigger a rerating of DTR's shares.



Our DCF-derived TP at HK\$ 1.90 (previously at HK\$ 1.05) implies 6.9x 2021E P/E and 0.97x 2021E P/B. Upgrade to **BUY**.

**Exhibit 27: Changes in estimates** 

	Units	Old est	imates	New estimates		Change		Main reasons
		2021E	2022E	2021E	2022E	2021E	2022E	
Net Profit	RMBmn	1,179	1,112	2,180	2,511	84.9%	125.8%	Increased capacity growth in 2021/22E/23E boost earnings growth
EPS	RMB	0.14	0.13	0.23	0.27	64.9%	101.4%	Increased capacity growth in 2021/22E/23E boost earnings growth
Valuation	RMBmn	7,4	79	15,	112	102.1%		Increased 2021E/22E/23E earnings boost valuation
TP	HK\$	1.0	05	1.9	90	80	.2%	Increased 2021E/22E/23E earnings boost valuation

Source(s): ABCI Securities estimates

### 1Q21 results highlight

### 153%YoY net profit growth in 1Q21, much better our estimate

Revenue was RMB3.4bn (+41%YoY), achieving 34% of our previous 2021 estimate, higher than the historical run rate of 25%. Net profit was RMB1.12bn (+153%YoY), achieving 103% of our previous 2021 estimate, much better than our forecast.

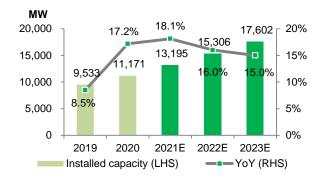
### 37%/159%YoY growth in wind power/solar power output boosted earnings

DTR wind power output reported 7,348GWh (+37%YoY), achieving 33% of our previous 2021 estimate, higher than its historical run rate of 25%. For solar power, DTR reported 172GWh (+159%YoY) in 1Q21; reaching 47% of our previous 2021 estimate, much higher than its historical run rate of 26%.

### **Risk factors**

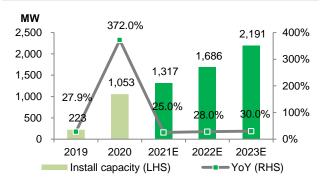
(1) Power curtailment risk; (2) Wind resources risk; (3) Construction risks; (4) Fundraising risk; (5) Government policy to deleverage may constrain growth. (6) High account receivables; (7) High net gearing ratio

## Exhibit 28: DTR's wind power installed capacity outlook



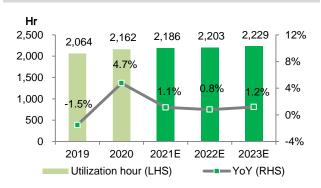
Source(s): Company, ABCI Securities estimates

## Exhibit 30: DTR's solar power installed capacity outlook



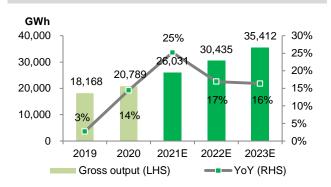
Source(s): Company, ABCI Securities estimates

### Exhibit 32: DTR's wind power utilization hour outlook



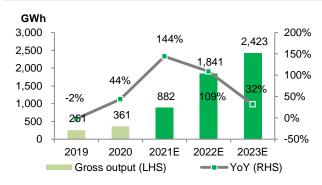
Source(s): Company, ABCI Securities estimates

### Exhibit 29: DTR's wind power output outlook



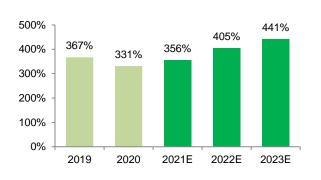
Source(s): Company, ABCI Securities estimates

### Exhibit 31: DTR's solar power output outlook



Source(s): Company, ABCI Securities estimates

### Exhibit 33: DTR's net gearing ratio outlook

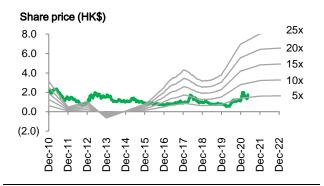


### Exhibit 34: DTR's revenue outlook



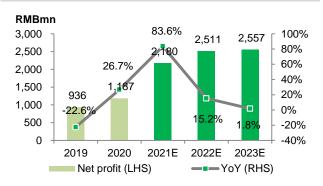
Source(s): Company, ABCI Securities estimates

### Exhibit 36: DTR's fwd P/E chart



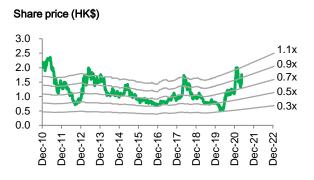
Source(s): Bloomberg, ABCI Securities estimates

### Exhibit 35: DTR's net profit outlook



Source(s): Company, ABCI Securities estimates

### Exhibit 37: DTR's fwd P/B chart



Source(s): Bloomberg, ABCI Securities estimates



### Consolidated income statement

FY Ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Revenue	8,325	9,372	12,258	14,771	17,278
Wind power	8,100	9,109	11,693	13,603	15,749
Solar power and others	225	263	565	1,168	1,530
Cost of sales	(4,579)	(4,977)	(6,165)	(7,528)	(9,059)
Gross Profit	3,745	4,395	6,093	7,243	8,220
SG&A expenses	0	0	0	0	0
Net financial income (cost)	(2,146)	(2,100)	(2,126)	(2,645)	(3,444)
Other income/ (expenses)	(160)	(416)	(515)	(620)	(726)
Profit before tax	1,440	1,879	3,452	3,977	4,050
Tax	(296)	(327)	(621)	(716)	(729)
Profit after tax	1,144	1,553	2,831	3,262	3,321
Profit attributable to:					
Minority interest	(208)	(366)	(651)	(750)	(764)
Equity shareholders of the Co.	936	1,187	2,180	2,511	2,557
Basic EPS (RMB)	0.113	0.128	0.234	0.270	0.275
DPS (RMB)	0.026	0.023	0.047	0.054	0.055

Source(s): Company, ABCI Securities estimates

### Consolidated balance sheet

As of Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Current assets	14,801	17,215	20,023	24,151	27,389
Cash	3,517	3,053	3,669	3,869	4,796
Trade and bill receivables	9,546	12,406	14,462	17,913	19,958
Other receivables and prepayments	1,500	1,483	1,607	2,035	2,225
Inventories	194	222	285	334	411
Other current assets	44	52	0	0	0
Non-current assets	65,223	72,694	86,333	106,299	128,012
Property, plant & equipment	59,055	64,704	78,471	97,448	118,495
Intangible assets	2,092	3,934	364	364	365
Investment in JV and associates	833	990	990	990	990
Deferred tax assets	12	12	12	12	12
Other non-current assets	3,230	3,053	6,495	7,484	8,149
Total Assets	80,023	89,909	106,356	130,449	155,401
Current Liabilities	26,457	21,737	28,672	35,968	43,527
Trade and bill payables	367	283	258	278	317
Other payables	5,959	7,300	8,164	9,423	10,693
Short term borrowings	20,131	14,155	20,250	26,266	32,517
Other current assets	0	0	0	0	0
Non-current liabilities	39,065	40,439	47,517	61,556	76,139
Deferred tax liabilities	18	16	16	16	16
Long-term borrowings	36,650	40,172	47,250	61,288	75,872
Other non-current assets	2,398	251	251	251	251
Total Liabilities	65,523	62,176	76,189	97,524	119,666
Minority interests	3,432	3,700	4,351	5,102	5,865
Perpetual note	0	12,250	12,250	12,250	12,250
Shareholders' equities	11,069	11,782	13,565	15,574	17,620



Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Profit before tax	1,440	1,879	3,452	3,977	4,050
Change in depreciation and amortization	3,566	3,839	4,743	5,801	6,999
Change in working capital	(1,586)	(2,264)	(1,202)	(3,211)	(997)
Income tax paid	(265)	(326)	(366)	(651)	(750)
Others	2,220	2,362	2,017	2,029	2,538
Operating cash flow	5,375	5,490	8,644	7,945	11,841
CAPEX	(6,349)	(9,238)	(18,826)	(25,168)	(28,522)
Increase in intangible assets	0	0	(22)	(23)	(24)
Others	(62)	250	0	0	0
Investing cash flow	(6,411)	(8,988)	(18,847)	(25,191)	(28,545)
Net Capital raise	0	0	0	0	0
Net debt financing	3,101	5,436	13,174	20,055	20,834
Dividend payout	(300)	(240)	(218)	(436)	(502)
Others	(1,881)	(2,157)	(2,137)	(2,173)	(2,700)
Financing cash flow	921	3,039	10,819	17,446	17,631
Net change in cash	(116)	(459)	616	201	926
Cash at the beginning	3,633	3,517	3,053	3,669	3,869
Adjustment (Time deposit & FX effect)	0	(5)	0	0	0
Cash at the end	3,517	3,053	3,669	3,869	4,796

Source(s): Company, ABCI Securities estimates

**Key ratio** 

FY ended Dec 31	2019A	2020A	2021E	2022E	2023E
Sales mixed (%)					
Wind power	97.30	97.19	95.39	92.09	91.15
Solar power and others	2.70	2.81	4.61	7.91	8.85
Total	100	100	100	100	100
Profit & loss ratios (%)					
Gross margin	44.99	46.90	49.71	49.03	47.57
Operating profit margin	42.36	41.85	44.91	44.23	42.77
Pre-tax margin	17.30	20.05	28.16	26.93	23.44
Net profit margin	13.74	16.57	23.09	22.08	19.22
Selling & administrative expenses/revenue	0.00	0.00	0.00	0.00	0.00
Effective tax rate	20.55	17.39	18.00	18.00	18.00
Growth (%)					
Revenue	0.06	12.58	30.80	20.50	16.97
Gross profit	(7.45)	17.36	38.63	18.86	13.49
Operating profit	(6.83)	11.22	40.36	18.69	13.11
Net profit	(19.80)	35.72	82.32	15.22	1.82
Balance sheet ratios					
Trade and bill receivables days	373.08	427.45	400.00	400.00	400.00
Trade and bill payables turnover days	29.13	23.81	16.00	13.00	12.00
Inventory turnover days	14.40	15.23	15.00	15.00	15.00
Total debt / equity ratio (%)	512.98	461.09	497.61	562.19	615.16
Net debt / equity ratio (%)	367.01	330.83	356.28	404.76	441.10
Returns (%)					
ROAA	1.21	1.40	2.22	2.12	1.79
ROAE	8.76	10.39	17.20	17.24	15.41
Payout ratio	23.30	18.39	20.00	20.00	20.00

### CGN Power (1816 HK / 003816 CH) Renewable energy boost to restrain growth in nuclear

- 1Q21 adjusted net profit was up 54% YoY, better than our estimate
- Change in national policy may restrain the development of nuclear power
- 4%/11%YoY growth in installed capacity for 2021E/22E
- Adjusted net profit would drop 2%YoY in 2021E; 2%YoY growth in 2022E expected
- Downgrade to **HOLD** on CGN-H with revised TP of HK\$ 1.80
- Maintain HOLD on CGN-A with TP of RMB 2.52

**54%YoY** net profit growth in 1Q21, above our estimate. CGN 1Q21 revenue was RMB17.1bn (+25%YoY), achieving 26% of our previous 2021 estimate, higher than the historical run rate of 21%. Net profit recorded RMB2.37bn (+54%YoY), equivalent to 23% of our previous 2021 estimate, running ahead of its historical run rate of 21%. This set of results is better than our estimates.

Change of national policy may restrain development of nuclear power. NEA announced in Mar 2021 the target to boost installed capacity of renewable energy (include wind, solar, hydro, and biomass) to 50% of national capacity by end-2025. The push on renewable energy is likely to reduce room for nuclear power. With the policy change, we expect a single-digit YoY growth in output for CGN in the next 3 years.

**4%/11%YoY growth in installed capacity for 2021E/22E.** According to CGN's schedule, there is only one new plant, Hongyanhe unit 5, commencing operation in 2021E, adding 4%YoY to the Group's installed capacity growth. For 2022, three power plants, Hongyanhe unit 6, Fangchenggang unit 3 and unit 4, will commence operation, boosting installed capacity growth by 11%YoY.

Adjusted net profit would drop 2%YoY in 2021E; 2%YoY growth in 2022E is expected. Despite nuclear power output growth is likely to go up by 8%YoY in 2021E amid the capacity growth of 4%YoY, increasing unit maintenance cost is likely to erode margin and slash net profit growth. We expect net profit to fall by 2%YoY in 2021E. For 2022E, installed capacity would go up by 11%YoY and push up net profit by 2%YoY.

H-share (1816 HK) TP at HK\$ 1.80; downgrade to HOLD. Our DCF-derived TP is HK\$ 1.80 (previously at HK\$ 1.95), implying 7.88x 2021E P/E and 0.73x 2021E P/B. Downgrade to HOLD.

**A-share (003816 CH) TP at RMB2.52; maintain HOLD.** Our TP for CGN-A was at RMB 2.52 (previous at RMB 2.64), which implies 13.22x 2021E P/E and 1.22x 2021E P/B based on our estimate.

### **Results and Valuation**

FY ended Dec 31	2019A	2020A	2021E	2022E	2023E
Revenue (RMB mn)	60,875	70,585	74,370	78,848	81,055
Chg (%,YoY)	19.8	15.9	5.4	6.0	2.8
*Adj. net profit (RMB mn)	9,955	9,820	9,649	9,829	10,456
Chg (%,YoY)	11.7	-1.3	-1.7	1.9	6.4
Adj. EPS (RMB)	0.211	0.194	0.191	0.194	0.207
Chg (%, YoY)	8.1	-8.2	-1.7	1.9	6.4
BVPS (RMB)	1.907	1.883	2.072	2.189	2.313
Chg (%,YoY)	22.2	-1.2	10.0	5.6	5.7
**Net Gearing (%)	143.0	137.9	123.8	112.6	100.3
P/E (x) –H shr	7.19	7.83	7.97	7.83	7.36
P/E (x) -A shr	13.06	14.22	14.47	14.21	13.36
P/B (x)–H shr	0.80	0.81	0.73	0.69	0.66
P/B (x) -A shr	1.45	1.47	1.33	1.26	1.19
ROAE (%)	11.76	10.33	9.64	9.12	9.18
ROAA (%)	2.50	2.45	2.44	2.44	2.56
DPS (RMB)	0.081	0.080	0.076	0.078	0.083
Yield (%) - H shr	5.36	5.25	5.02	5.11	5.44
Yield (%) - A shr	2.95	2.89	2.76	2.82	3.00

<sup>\*</sup> Adj. net profit = net profit excluded impairment loss, fair value change and other non-operating profit and loss

### Company Report

### May 17, 2021

Rating (H): HOLD Rating (A): HOLD TP (H): HK\$ 1.80 TP (A): RMB 2.52

Analyst : Kelvin Ng Tel: (852) 2147 8869 kelvinng@abci.com.hk

Price (H/A shr)	HK\$ 1.82/
	RMB 2.76
Est. price return (H/A)	(1.1%)/(8.7%)
Est. dvd yield (H/A)	5.1%/2.8%
Est. total return (H/A)	4.0%/(5.9%)
Last Rating &TP (H/A)	BUY, HK\$ 1.95
	HOLD, RMB 2.64
Previous Report Date	Nov 17, 2020

Source(s): ABCI Securities estimates

### Key Data

52Wk H/L (HK\$) (H shr)	2.0/1.6
52Wk H/L (RMB) (A shr)	3.4/2.6
Total issued shares (mn)	50,499
Issued H shr (mn)	10,973
Issued A shr (mn)	5,050
Unlisted shr (mn)	34,475
H-shr market cap (HK\$ mn)	19,971
A-shr market cap (RMB mn)	13,938
3-mth avg daily turnover	52.3
(HK\$ mn) (H shr)	
3-mth avg daily turnover	202.9
(RMB mn) (A shr)	
Major shareholder(s):	
CGNPC	58.2%

Source(s): Bloomberg, ABCI Securities

### Share Performance H-Share (%)

	<u>Absolute</u>	Relative*
1-mth	(0.55)	4.86
3-mth	7.69	20.11
6-mth	7.69	9.02

\*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

### **Share Performance A-Share (%)**

	<u>Absolute</u>	Relative*
1-mth	(1.43)	(4.83)
3-mth	4.55	11.32
6-mth	2.22	1.11

\*Relative to SZCOMP Source(s): Bloomberg, ABCI Securities

<sup>\*\*</sup> Net gearing=Net debt/Total equity;

Source(s): Bloomberg, ABCI Securities estimates



## 2021/22E outlook: nuclear power output growth would record a high-single-digit growth

### Change in national policy may slow the development pace of national nuclear power

NEA announced on Mar 30, 2021, that the government targets to boost installed capacity of renewable energy (include wind, solar, hydro, and biomass) to 50% of the national total capacity by end-2025. The push on renewable energy is likely to reduce room for nuclear power. The reason that renewable energy is preferred over the nuclear one is that the former usually has a shorter construction cycle (six months for wind and solar, versus five years for nuclear). Acceleration in renewable energy development would help China reach its carbon neutrality target by end-2060. Consequently, we believe national nuclear power capacity would only record a single-digit growth in 2021E-23E.

### 4%/11%YoY growth in installed capacity for 2021E/22E

Only one new power plant, Hongyanhe unit 5, is commencing operation in 2021E, adding 4%YoY to CGN's installed capacity growth. For 2022E, three power plants, Hongyanhe unit 6, Fangchenggang unit 3 and unit 4, will start operation, boosting CGN's installed capacity growth by 11%YoY.

### 8%/8%YoY growth in nuclear power output for 2021E/22E

Benefiting from increased capacity and post-COVID economic recovery, we expect CGN to report an 8%YoY power output growth in 2021E. For 2022E, we expect an 8%YoY growth despite the addition of three new plants because utilization would be lower in the first year of commencement.

### Positive free cash flow

Since 2017, CGN has managed to achieve a positive free cash flow every year. For 2020, RMB 16.7bn of free cash flow was reported. Negative free cash flow during 2013-16 was mainly a result of CAPEX for power plant expansion. Since there is no significant increase in CGN's nuclear power capacity, we estimate its free cash flow would remain positive at RMB14.0bn/RMB17.3bn for 2021E/22E.

### Net gearing ratio to trend down in 2021E-23E

CGN's new projects, such as Huizhou unit 1, unit 2, and Cangnan unit 1, are in the early stage of construction and CAPEX will therefore be limited. Most of the projects under construction have entered the final construction stage, meaning that CAPEX is unlikely to increase significantly over the next few years. We therefore expect net gearing ratio to trend down to 124%/113%/100% for 2021E/22E/23E.

### Increase in unit maintenance cost would drag earnings

CGN reported RMB44.4bn in cost of sales in 2020. Based on our estimates, maintenance cost was RMB12.2bn, 18%YoY higher than that in 2019. Unit maintenance cost at RMB 0.542/W was also up 18% YoY. We believe staff cost and other material cost would trend up as inflation occurs. Increasing unit maintenance cost would erode margins and drag earnings.

### Adjusted net profit would drop 2%YoY in 2021E; 2%YoY growth for 2022E

For 2021E, nuclear output growth is likely to go up by 8%YoY in 2021E while capacity growth would be up by 4%YoY. Increasing unit maintenance cost is likely to erode margin, dragging net profit to -2%YoY in 2021E. For 2022E, installed capacity would increase by 11%YoY, diluting the unit maintenance cost, and net profit would increase by 2%YoY.

### H-share (1816 HK) TP at HK\$ 1.80; downgrade to HOLD

We revise up unit maintenance cost by 22%/24%/25% for 2021E/22E/23E to reflect increasing staff cost and material cost impact. We revise down CGN's overall utilization hour by 0.4%/2.3%/2.0% for 2021E/22E/23E to factor in the reduced growth rate of nuclear power consumption of rising proportion



of renewable energy consumed in China. Our new adjusted net profit forecasts therefore are revised down by 0.3%/8%/11% for 2021E/22E/23E.

We believe change in the government's policy to expand wind and solar power capacities would restrain the development of nuclear power in 14<sup>th</sup> FYP (2020-25). Approval for new nuclear power plants is likely to slow in the next five years and CGN's capacity growth is unlikely to increase substantially. Our DCF-derived TP is HK\$ 1.80 (previously at HK\$ 1.95), implying 7.88x 2021E P/E and 0.73x 2021E P/B. Downgrade to **HOLD**.

### A-share (003816 CH) TP at RMB 2.52; maintain HOLD

Our TP for CGN-A was at RMB 2.52 (previous at RMB 2.64), which implies 13.22x 2021E P/E and 1.22x 2021E P/B based on our estimate.

**Exhibit 38: Changes in estimates** 

	Units	Old estimates		New estimates		Change		Main reasons
		2021E	2022E	2021E	2022E	2021E	2022E	
Adj. NP	RMBmn	9,677	10,680	9,649	9,829	-0.3%	-8.0%	Increased maintenance cost lowers earnings growth
Adj. EPS	RMB	0.19	0.21	0.19	0.19	-0.5%	-8.1%	Increased maintenance cost lowers earnings growth
Valuation - H	RMBmn	84,	140	76,0	043	-9.6%		Decrease in 2021E/22E earnings lowers valuation
Valuation - A	RMBmn	133,488		127	517	-4.5%		Decrease in 2021E/22E earnings lowers valuation
TP – H	HK\$	1.95		1.80		-7.8%		Decrease in 2021E/22E earnings lowers valuation
TP – A	RMB	2.	64	2.52		-4.7%		Decrease in 2021E/22E earnings lowers valuation

Source(s): ABCI Securities estimates

### 1Q21 results highlight

### 54%YoY net profit growth in 1Q21, above our estimate

CGN 1Q21 revenue was RMB17.1bn (+25%YoY), achieving 26% of our previous 2021 estimate, higher than the historical run rate of 21%. Net profit recorded RMB2.37bn (+54%YoY), equivalent to 23% of our previous 2021 estimate, running ahead of its historical run rate of 21%. This set of results is better than our estimates.

### 11%YoY growth in nuclear power output in 1Q21

CGN's nuclear power output was 45,606GWh (+11%YoY), corresponding to 23% of our previous 2021 estimate, higher than its historical run rate of 21%. Key drivers were Yangjiang and Taishan power plants whose output increased by 11% /15%YoY (contributed to 21% and 13% of total power output).

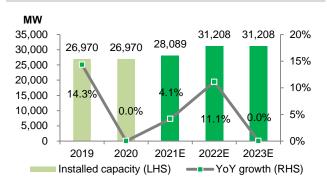
### 28%YoY decrease in net finance cost was key driver to earnings beat

Net finance cost was RMB 1.53bn in 1Q21, 28% lower than RMB 2.13bn in 1Q20. Sharp decrease in net finance cost can be attributed to strong cash inflow and lower net gearing ratio. NPM was 13.8% in 1Q21, 2.6ppt higher than that in 1Q20.

### **Risk factors**

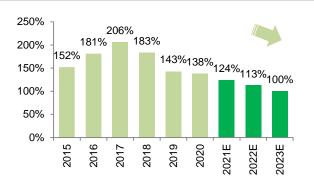
(1) Operation safety; (2) Slower-than-expect construction progress; (3) Fuel cost risk; (4) Currency and interest rate risks; (5) Fundraising activities to finance upcoming M&A

### Exhibit 39: CGN's installed capacity outlook



Source(s): Company, ABCI Securities estimates

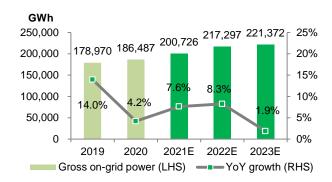
### Exhibit 41: CGN's net gearing ratio will trend down



Source(s): Company, ABCI Securities estimates

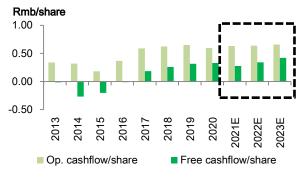
### China Alternative Energy Sector May 17, 2021

### Exhibit 40: CGN's nuclear power output outlook

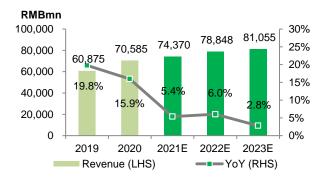


Source(s): Company, ABCI Securities estimates

### Exhibit 42 CGN's free cash flow will stay positive

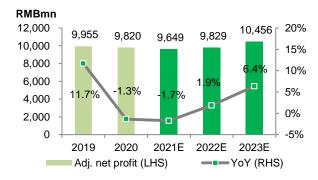


### Exhibit 43: CGN's revenue outlook



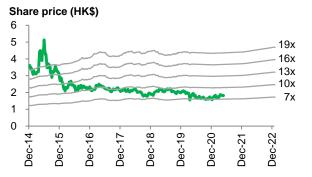
Source(s): Company, ABCI Securities estimates

### Exhibit 44: CGN's adjusted net profit outlook



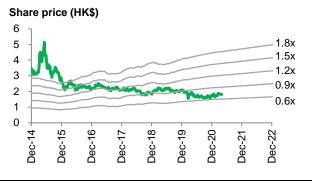
Source(s): Company, ABCI Securities estimates

### Exhibit 45: CGN-H's fwd P/E chart



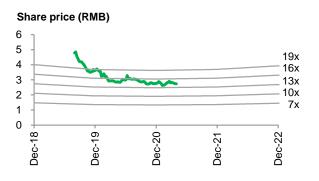
Source(s): Bloomberg, ABCI Securities estimates

### Exhibit 46: CGN-H's fwd P/B chart



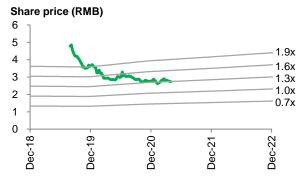
Source(s): Bloomberg, ABCI Securities estimates

### Exhibit 47: CGN-A's fwd P/E chart



Source(s): Bloomberg, ABCI Securities estimates

### Exhibit 48: CGN-A's fwd P/B chart



Source(s): Bloomberg, ABCI Securities estimates



### Consolidated income statement

FY Ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Revenue	60,875	70,585	74,370	78,848	81,055
Electricity	52,783	55,512	57,651	60,635	61,747
Service revenue	6,164	12,777	14,054	15,179	15,937
Other	1,028	1,362	1,702	2,043	2,349
Cost of sales	(36,171)	(45,041)	(48,558)	(52,570)	(53,951)
Gross Profit	24,704	25,544	25,812	26,277	27,104
SG&A expenses	(2,658)	(2,464)	(2,670)	(2,831)	(2,910)
Net financial income (cost)	(7,020)	(7,828)	(8,178)	(8,273)	(7,917)
Other income/ (expenses)	1,529	1,598	2,169	2,279	2,288
Profit before tax	16,555	16,850	17,133	17,453	18,565
Tax	(1,770)	(1,974)	(2,056)	(2,094)	(2,228)
Profit after tax	14,785	14,876	15,077	15,358	16,337
Profit attributable to:					
Minority interest	5,320	5,313	5,428	5,529	5,881
Equity shareholders of the Co.	9,466	9,562	9,649	9,829	10,456
Adj. equity shareholders of the Co.	9,955	9,820	9,649	9,829	10,456
Basic EPS (RMB)	0.201	0.189	0.191	0.194	0.207
Adj. basic EPS (RMB)	0.211	0.194	0.191	0.194	0.207
DPS (RMB)	0.081	0.080	0.076	0.078	0.083

Source(s): Company, ABCI Securities estimates

### **Consolidated balance sheet**

As of Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Current assets	61,923	63,244	59,662	61,214	66,726
Cash	19,572	12,128	17,244	11,605	19,563
Trade and bill receivables	8,153	10,690	10,908	11,991	11,549
Other receivables and prepayments	9,345	18,082	18,594	20,290	21,903
Inventories	18,371	15,021	12,917	17,329	13,711
Other current assets	6,483	7,323	0	0	0
Non-current assets	326,052	328,654	340,221	344,526	345,775
Property, plant & equipment	256,955	248,456	263,348	266,288	265,906
Investment properties	184	245	245	245	245
Intangible assets	6,401	6,406	4,920	4,972	5,015
Investment in JV and associates	11,199	11,924	13,350	14,920	16,478
Deferred tax assets	1,904	2,177	2,177	2,177	2,177
Other non-current assets	49,409	59,447	56,181	55,925	55,953
Total Assets	387,975	391,898	399,883	405,740	412,500
Current Liabilities	67,018	77,153	57,782	60,974	55,974
Trade and bill payables	22,602	23,117	22,116	26,854	21,924
Other payables	7,426	9,866	1,470	1,470	1,470
Short term borrowings	36,172	43,311	33,947	32,400	32,331
Other current assets	817	859	250	250	250
Non-current liabilities	185,663	173,115	185,477	176,715	176,320
Deferred tax liabilities	1,217	1,205	1,205	1,205	1,205
Long-term borrowings	176,847	164,183	177,197	168,435	168,040
Other non-current assets	7,599	7,727	7,075	7,075	7,075
Total Liabilities	252,681	250,268	243,259	237,689	232,294
Minority interests	45,492	46,357	51,785	57,314	63,195
Shareholders' equities	89,802	95,273	104,840	110,737	117,011



Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2019A	2020A	2021E	2022E	2023E
Profit before tax	16,555	16,850	17,133	17,453	18,565
Change in depreciation and amortization	10,155	11,451	12,063	12,579	13,003
Change in Working Capital	4,777	(5,653)	(1,961)	(2,453)	(2,484)
Income tax paid	(1,218)	(1,770)	(1,974)	(2,056)	(2,094)
Others	330	9,276	6,753	6,704	6,359
Operating cash flow	30,599	30,155	32,013	32,227	33,349
CAPEX	(15,653)	(13,503)	(18,000)	(14,938)	(12,000)
Increase in intangible assets	(547)	(574)	(603)	(633)	(665)
Others	1,563	2,318	121	172	116
Investing cash flow	(14,637)	(11,759)	(18,482)	(15,399)	(12,549)
Net Capital raise	12,574	0	0	0	0
Net debt financing	(9,132)	(7,240)	3,649	(10,308)	(465)
Dividend payout	(7,477)	(8,244)	(4,040)	(3,860)	(3,932)
Others	(8,788)	(8,883)	(8,026)	(8,300)	(8,446)
Financing cash flow	(12,823)	(24,367)	(8,416)	(22,467)	(12,842)
Net change in cash	3,139	(5,971)	5,115	(5,639)	7,958
Cash at the beginning	15,208	19,572	12,128	17,244	11,605
Adjustment (Time deposit & FX effect)	1,225	(1,472)	0	0	0
Cash at the end	19,572	12,128	17,244	11,605	19,563
Source(s): Company, ABCI Securities estimates					

**Key ratio** 

Rey Tallo					
FY ended Dec 31	2019A	2020A	2021E	2022E	2023E
Sales mixed (%)					
Electricity	86.71	78.65	77.52	76.90	76.18
Service revenue	10.13	18.10	18.90	19.25	19.66
Other	3.17	3.25	3.58	3.85	4.16
Total	100.0	100.0	100.0	100.0	100.0
Profit & loss ratios (%)					
Gross margin	40.58	36.19	34.71	33.33	33.44
Operating profit margin	37.73	33.74	32.12	30.64	30.75
Pre-tax margin	27.20	23.87	23.04	22.13	22.90
Net profit margin	24.29	21.07	20.27	19.48	20.16
Selling & administrative expenses/revenue	4.37	3.49	3.59	3.59	3.59
Effective tax rate	10.69	11.72	12.00	12.00	12.00
Growth (%)					
Revenue	19.77	15.95	5.36	6.02	2.80
Gross profit	13.89	3.40	1.05	1.80	3.15
Operating profit	16.17	3.70	0.29	1.13	3.18
Net profit	8.07	0.61	1.35	1.87	6.37
Balance sheet ratios					
Current ratio (x)	0.92	0.82	1.03	1.00	1.19
Quick ratio (x)	0.41	0.30	0.49	0.39	0.56
Cash ratio (x)	0.29	0.16	0.30	0.19	0.35
Trade and bill receivables days	44.38	48.72	53.00	53.00	53.00
Trade and bill payables turnover days	206.10	185.24	170.00	170.00	165.00
Inventory turnover days	200.52	135.30	105.00	105.00	105.00
Total debt / equity ratio (%)	237.21	217.79	201.40	181.36	171.24
Net debt / equity ratio (%)	142.98	137.94	123.80	112.60	100.33
Returns (%)					
ROAA	2.50	2.45	2.44	2.44	2.56
ROAE	11.76	10.33	9.64	9.12	9.18
Payout ratio	40.55	42.25	40.00	40.00	40.00
Source(s): Company ARCI Securities estimates					



### **Disclosures**

### **Analyst Certification**

The analyst, NG King Chuen, 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 rate≥ Market return rate (~10%)
Hold	- Market return rate (-~10%) ≤ Stock return rate < Market return rate (+~10%)
Sell	Stock return < - Market return (-~10%)

Notes: Stock return rate: expected percentage change of share price plus gross dividend yield over the next 12 months Market return rate: average market return rate since 2008 (HSI total return index 2008-19 CAGR at 10%)

Time horizon of share price target: 12-month

Stock rating, however, may vary from the stated framework due to factors including but not limited to: corporate governance, market capitalization, historical price volatility relative to corresponding benchmark index, average daily turnover of the stock relative to market capitalization of the stock, competitive advantages in corresponding industry, etc.

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