



農銀國際

ABC INTERNATIONAL

ABCI SECURITIES COMPANY LIMITED



China Alternative Energy Sector

Nuclear Power: The Future of Energy

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China Alternative Energy Sector Nuclear Power: The Future of Energy

- Contribution of alternative energy to China's power output is still low, making it a market with immense potential
- COVID-19 outbreak will shave power demand; overall power output would report a 2.1%YoY growth for 2020E; alternative energy to report 9%YoY growth.
- Nuclear power: capacity and power output will expand at 12%/12% CAGRs in 2019-22E.
- Wind power: capacity and power output would rise at 11%/10% CAGRs in 2019-22E.
- NEUTRAL** sector outlook; prefer **CGN Power (1816 HK, 003816 CH)**.

Contribution of alternative energy to China's power output is still low, making it a rapidly expanding market with immense potential. With the government continuing to promote a low-energy consumption economic growth model, alternative energy would continue to report better results compare to other energy sources (e.g. coal-fired and hydro) in 2020. In 2019, the alternative energy industry (wind, solar and nuclear) accounted for about 13.4% of China's overall power output, which is still low compared to the developed countries.

Nuclear power: capacity and power output will expand at 12%/12% CAGRs in 2019-22E. COVID-19 outbreak and global economic downturn may suppress growth of China's nuclear power output, but we believe China would continue to promote nuclear power nationwide; moreover, low contribution of nuclear power to overall national power output would provide much room for growth. We expect nuclear power capacity would expand at 12% CAGR during 2019-22E. Driven by the growing capacity, nuclear power output would expand; also, with the high utilization and priority dispatch to the power grid, nuclear power output would expand at 12% CAGR in 2019-22E.

Wind power capacity and power output would increase at 11%/10% CAGRs in 2019-22E. We expect wind power installed capacity growth in China will accelerate in 2020 due to National Development and Reform Commission's (NDRC) move to withdraw subsidy for wind power facilities completed after end-2020. As companies are rushing to complete the projects by end-2020 year, we estimate the national installed capacity would increase by 15% YoY in 2020E; the growth would slow after that and we expect an 11% capacity CAGR over 2019-22E. Given a utilization rate at above 1,900hr, wind power output would increase at 10% CAGR in 2019-22E based on our estimates.

NEUTRAL sector outlook; prefer CGN. We believe alternative energy would continue enjoying 12% CAGR power output growth in 2019-22E, yet outbreak of COVID-19 would shave the growth this year – we expect alternative energy to report 9%YoY growth in 2020 (lower than 17%YoY in 2019 and 26% CAGR during 2009-19). We have a NEUTRAL sector outlook and wait for a turnaround in years ahead. We believe the government would continue to expedite the development of nuclear power, benefiting the market leader **CGN (1816 HK, 003816 CH)**.

Risks. 1) Revenue risk due to wind tariff cut; 2) Decreased power demand may hinder alternative energy development; 3) Wind power curtailment may worsen and reduce utilization; 4) Safety issues related to nuclear power; 5) High initial investment for nuclear power may drive up net gearing.

Sector Report Apr 20 2020 NEUTRAL

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Key Data

Avg.20E P/E (x)	6.71
Avg.20E P/B (x)	0.60
Avg.20E Dvd. Yield (%)	3.20

Source(s): ABCI Securities estimates

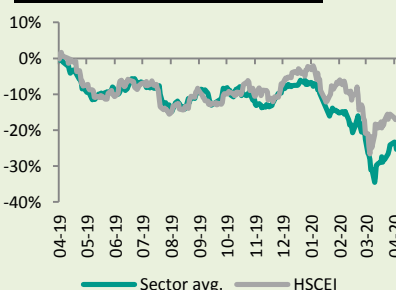
Sector Performance

	Absolute	Relative*
1-mth	(2.05%)	(3.72%)
3-mth	(18.65%)	(5.05%)
6-mth	(17.42%)	(10.79%)

*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

1-Year sector performance (%)



Source(s): Bloomberg, ABCI Securities

Sector Valuation Summary (data as of Apr 17, 2020)

Company	Ticker	Rating	TP (HK\$)	FY20E P/E(x)	FY21E P/E (x)	FY20E P/B (x)	FY21E P/B (x)	FY20E Yield(%)	FY21E Yield(%)
CGN Power - H	1816 HK	BUY	2.20	8.7	8.5	0.9	0.8	4.1	4.1
CGN Power - A	003816 CH	BUY	3.30	14.6	14.3	1.5	1.4	2.4	2.5
Longyuan Power	916 HK	HOLD	4.10	6.5	6.2	0.6	0.5	3.1	3.2
Datang Renewable	1798 HK	SELL	0.50	4.9	5.0	0.4	0.3	2.4	2.4

Source(s): Bloomberg, ABCI Securities estimates

Alternative energy: 2020 is tough, but expanding market continues to benefit operators

COVID-19 outbreak will shave power demand; overall power output would report a 2.1%YoY growth for 2020E; alternative energy to report 9%YoY growth

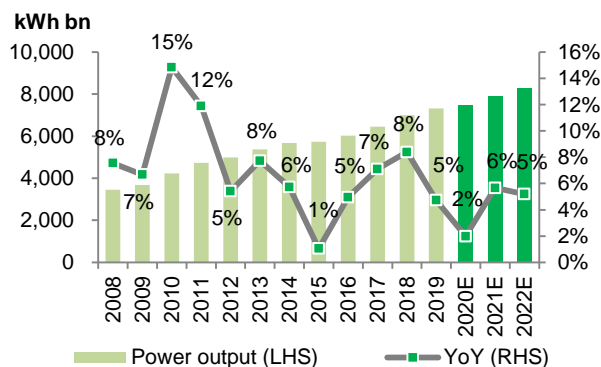
The COVID-19 outbreak halted economic activities in China in Jan/Feb 2020; consequently, power output in 2M20 dropped 8.2% YoY, according to China Electricity Council (CEC). Historically, output in Jan and Feb accounted for 14.9% of China's full-year power output; hence, an 8.2% decline in 2M20 would drag down China's power output by 1.22%. With the epidemic receding in China, we believe business would resume a degree of normalcy by end-Apr. China's power output is likely to report a 2.1% YoY growth in 2020E, vs. 4.7% YoY growth in 2019.

If the global economy recovers less than expected later this year after the pandemic-induced downturn, China's power output growth would stay flat or decline YoY. However, alternative energy would perform better - we expect power output from nuclear, wind and solar to grow by 9%YoY in 2020E. The figure is slower than 17% YoY growth of 2019 and 26% CAGR during 2009-19. We expect the growth to bounce back to 15%/12%YoY in 2021E and 2022E.

Contribution of China's alternative energy to nationwide power output is low

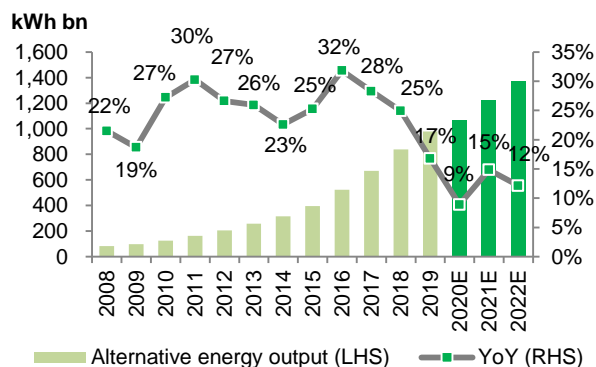
We believe the Chinese government would continue to follow the low-energy-consumption economic growth model, meaning that long-term power demand growth would be at the mid-single-digit level. Yet, alternative energy industry (wind, solar and nuclear) accounted for only about 13.4% of China's overall power output in 2019 (advanced countries at around 30%). Given that alternative energy is cleaner and more sustainable than fossil fuel, we believe the government would continue to increase the contribution from the current 13.4% to 30% or higher.

Exhibit 1: China's overall power output growth in 2020E would be slower than 2019



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

Exhibit 2: Power output of alternative energy would be low at 2020E but expected to bounce back in 2021E and 2022E



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

Nuclear power: Robust capacity and output growth, but rising debt is a concern

China's nuclear power output expanded by 18 YoY in 2019

According to China Electricity Council (CEC), China reported an 18YoY growth in nuclear power output in 2019, the second highest among all energy sources (solar as highest, + 27% YoY). Nuclear power output expanded quickly in the past few years (21% CAGR in 2013-19), and mid-to-high-teens YoY growth can be expected in the next few years.

Nuclear power output remains low in the energy structure

We believe China's switch to alternative energy (e.g. wind, solar, and nuclear) will continue. Nuclear power accounted for only 5% of China's overall power output in 2019, far lower than the ~30% among developed countries. We believe the government would construct more nuclear power plants in the future.

China's nuclear power capacity and output will expand at 12%/12% CAGRs in 2019-22E.

Although the COVID-19 outbreak, which triggers a global economic downturn, may slash China's nuclear power output in the near future, we believe China's continuous push for nuclear power and the low contribution of nuclear power would drive the industry forward. According to China's "Strategic Action Plan of Energy Development (2014-20)" (The Plan) announced in June 2014, China targets a nuclear power capacity of 58GW in 2020, representing a 19% growth from 48.7GW in 2019. Going forward, we expect nuclear power capacity to maintain a strong growth due to its low base (accounted for 2.4%/4.8% of energy capacity/output in 2019); nuclear power capacity would expand at 12% CAGR during 2019-22E. Together with the high utilization (usually ~ 7,000hr - much higher than 5,000hr for coal-fired, 2,000hr for wind, and 1,500hr for solar) and priority dispatch to the power grid, nuclear power output would expand at 12% CAGR in 2019-22E based on our estimates.

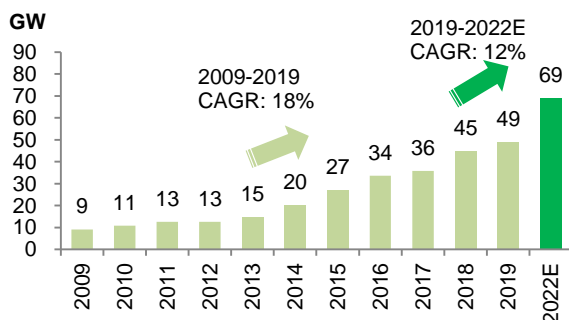
Concern 1: Security concerns

The Fukushima Daiichi nuclear power plant ceased operation immediately following the damage caused by the earthquake and tsunami in Mar 2011. In 2020, the power plant remains disabled and Japan has not resumed to previous level of nuclear power generation and relied on petroleum and coal instead. Similarly, major nuclear accident in China will bring the whole industry to a standstill.

Concern 2: High initial investment may lead to frequent fundraising

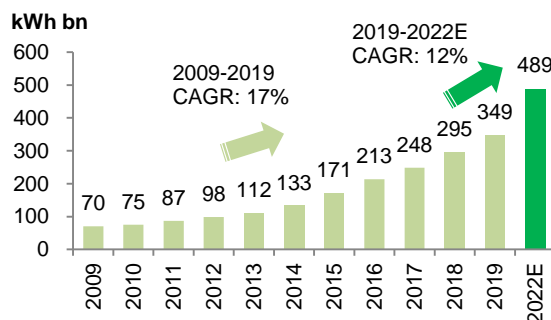
Initial investment in nuclear power plants are much higher than thermal, wind and solar ones due to the resources needed for scientific research, technical reserves, and safety construction. Due to the hefty capital required, net debt ratios in nuclear power companies usually increase rapidly during the expansion phase. As a result, many would raise funds in the capital market, which could hamper shareholders' interests in some cases.

Exhibit 3: China's nuclear power capacity will continue to grow strongly



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

Exhibit 4: China's nuclear power output would expand at 12% CAGR in 2019-22E



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

Wind power: Sizable SOE as winner

China's wind power output expanded by 11%YoY in 2019

According to CEC, China wind power output increased by 11%YoY in 2019, ranking third among all energy sources in China (solar power at 27%YoY, nuclear at 18%YoY) in terms of growth. China wind power output increased substantially at 31% CAGR in 2009-19.

National utilization would decline to 1,800hr in 2020E but would trend up to 1,900hr going forward

Wind power output would suffer from the pandemic disruption and global slowdown this year. Assuming that China's power demand growth would moderate, we estimate utilization of wind power plants would decrease from 1,931hr in 2019 to 1,814hr in 2020E. Going forward, as curtailment rate declines further, we believe utilization would stabilize at 1,900hr, which is positive to the industry.

Wind power capacity and power output would grow at 11%/10% CAGRs in 2019-22E

We expect nationwide wind power installed capacity growth will accelerate in 2020 after the National Development and Reform Commission (NDRC) announced the new policy in 2019, stating that tariff subsidy will be withdrawn for all wind power facilities completed and connected to state grid after 2020. Hence, companies are motivated to complete the projects by end-2020. We estimate China's installed capacity would expand by 15%YoY in 2020E since most would rush to complete the projects by end of the year; meanwhile, 2019-22E capacity CAGR would be 11%. Assuming that utilization would stay at above 1,900hr, wind power output would grow at 10% CAGR in 2019-22E.

New tender policy should benefit large state-owned enterprises (SOEs) in the long run

National Energy Administration (NEA) announced the new criteria on the selection of project bidders for wind farms on May 28, 2019:

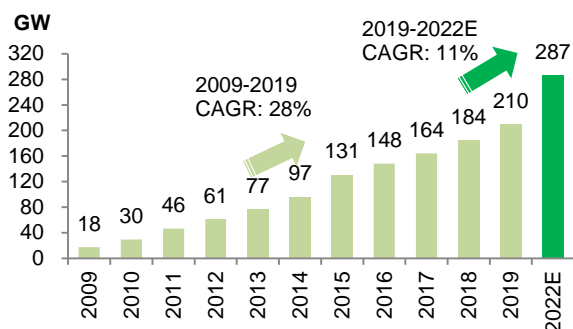
- ◆ **Business capability.** The government would consider the total registered capital, net assets and ROE of applicants
- ◆ **Equipment advancement.** Assessment on the capacity, utilization rate and efficiency of wind turbines of applicants
- ◆ **Technical solutions.** The intelligent design of wind farm and also the future demolition plan of wind farm
- ◆ **Preliminary research.** The government would consider whether the applicants have started the wind resource assessment and feasibility study design reports
- ◆ **Dispatched capability.** Evaluation of the applicants' project access system and consumption capacity assessment research program
- ◆ **Tariff.** Assessment of the applied tariff of applicants

We believe these requirements would favor industry leaders and large SOEs based on their advantages in industry experience, technology accumulation, and human resources. In our view, the new policy aims to strengthen the leading SOEs and facilitate sector consolidation, hence increasing efficiency in the use of the wind power resources.

Our stock pick: Longyuan Power (916 HK)

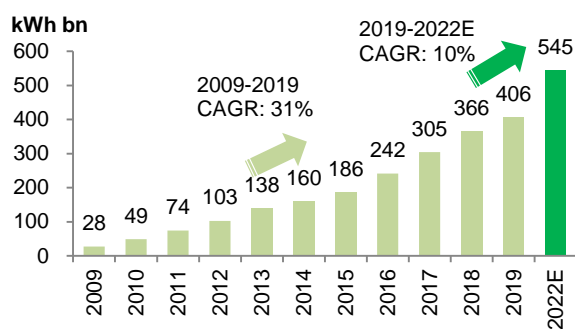
After the launch of NDRC's "subsidy-free tariff" policy in May 2019, we believe wind power industry has entered the maturity phase, meaning that rapid output/capacity growth of over 20% is unlikely to occur in the future. NEA's tender requirement announced in 2019 favor sizable operators with SOE background. We therefore recommend **BUY** on **Longyuan power (916 HK)**.

Exhibit 5: China's wind power capacity would expand at 11% CAGR in 2019-22E



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

Exhibit 6: China's wind power output would grow at 10% CAGR in 2019-22E



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

Challenges in the alternative energy sector

Decelerating national power demand may affect alternative energy development

The spread of COVID-19 have negatively impacted the economic activities in China and power demand as a result. Secondary and tertiary activities account for over 70% of total power demand in China - decelerated business activities will lower power demand and affect demand for alternative energy.

Construction rush in 2019/20 may increase power curtailment; future wind power capacity growth is likely to decelerate

NDRC's subsidy policy for wind turbines completed and connected to the grid before the end of 2020 would expedite facility construction as operators rush to meet deadline. The number of wind power projects will increase sharply in 2019 and 2020, whereas new construction starts after 2020 are likely to decelerate. Since a large number of wind power turbines will be connected to the grid in 2020/21, power curtailment may increase.

CGN Power (1816 HK / 003816 CH)

Dominant play in an expanding market

- CGN is the leader in an expanding nuclear power generation market
- Oligopolistic market structure means CGN's position as the top player would remain unchallenged
- Outbreak of COVID-19 would drag power demand in China; we expect economic momentum to resume 2021E
- Maintain **BUY** on CGN-H with revised TP of HK\$ 2.20.
- Initiate **HOLD** on CGN-A with TP of HK\$3.30

CGN is the leader in an expanding market. Nuclear power would remain the key alternative energy source in China due to its emission-free nature, high utilization, and low production costs. In our view, nuclear power would remain as one of the expanding industries in China's utility sector in the next decade.

Oligopolistic market structure secures CGN's position as the top player. Competition in China's nuclear power industry is limited – due to the sensitive nature and hefty investment required for the nuclear industry, only three companies were granted licenses, and we believe the government is unlikely to issue new license in the foreseeable future. CGN's leading position will remain unchallenged.

Outbreak of COVID-19 would slash power output, but situation would recover in 2021E. We expect CGN's 20E power output to decline by 1%YoY on reduced utilization as power demand falls. The situation would improve in 2021E with an 12%YoY growth in power output. We estimate 20E/21E/22E net profit growth to be 2%/2%/8% YoY.

H-share TP at HK\$2.20; maintain BUY. As the industry leader and the only listed nuclear power operator in the H-share market, we believe CGN would benefit immensely from the rise of nuclear power in China. We roll over our valuation to 2020E and our DCF-derived TP is HK\$ 2.20 (previously at HK\$ 2.45), implying 10x 2020E P/E and 1.0x 2020E P/B. Maintain **BUY**.

A-share TP at RMB3.30; upgrade to BUY. After the 39% share price decline in past 7 months' time, CGN's A-share is now trading at 15x 2020E P/E. We believe current valuation is fair to reflect its value. We upgrade A-share rating from HOLD to BUY. Yet we believe valuation of CGN-A is less attractive than CGN-H. Our TP of RMB 3.30 implies 16.5x 2020E P/E and 1.7x 2020E P/B.

Results and Valuation

FY ended Dec 31	2018A	2019A	2020E	2021E	2022E
Revenue (RMB mn)	50,828	60,875	64,095	69,629	74,660
Chg (% YoY)	11.4	19.8	5.3	8.6	7.2
Adj. net profit (RMB mn)	8,913	9,955	10,128	10,316	11,160
Chg (% YoY)	7.6	11.7	1.7	1.9	8.2
EPS (RMB)	0.196	0.211	0.201	0.204	0.221
Chg (% YoY)	7.5	8.1	-5.1	1.9	8.2
BVPS (RMB)	1.561	1.907	1.982	2.115	2.259
Chg (% YoY)	8.9	22.2	4.0	6.7	6.8
*Net Gearing (%)	183.4	143.0	128.7	109.2	99.0
P/E (x) –H shr	8.87	8.21	8.65	8.49	7.85
P/E (x) –A shr	14.93	13.81	14.56	14.29	13.21
P/B (x) –H shr	1.11	0.91	0.88	0.82	0.77
P/B (x) –A shr	1.87	1.53	1.47	1.38	1.29
ROAE (%)	12.76	11.76	10.67	9.97	10.10
ROAA (%)	2.41	2.50	2.57	2.57	2.74
DPS (RMB)	0.072	0.081	0.070	0.072	0.077
Yield (%) - H shr	4.14	4.70	4.05	4.12	4.46
Yield (%) - A shr	2.46	2.79	2.40	2.45	2.65

* Net gearing=Net debt/Total equity;

Source(s): Bloomberg, ABCI Securities estimates

Company Report

Apr 20, 2020

Rating (H): BUY
 Rating (A): BUY
 TP (H): HK\$ 2.20
 TP (A): RMB 3.30

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Price (H/A shr)	HK\$ 1.91 RMB 2.92
Est. price return (H/A)	15.2%/13.0%
Est. dvd yield (H/A)	4.0%/2.3%
Est. total return (H/A)	19.2%/15.3%
Last Rating & TP (H/A)	BUY, HK\$2.45 HOLD, RMB4.00
Previous Report Date	Oct 4, 2019

Source(s):, ABCI Securities estimates

Key Data

52Wk H/L (HK\$) (H shr)	2.3/1.5
52Wk H/L (RMB) (A shr)	5.3/2.9
Total issued shares (mn)	50,499
Issued H shr (mn)	11,164
Issued A shr(mn)	5,050
H-shr market cap (HK\$ mn)	21,323
A-shr market cap (RMB mn)	14,746
3-mth avg daily turnover (HK\$ mn) (H shr)	65.6
3-mth avg daily turnover (RMB mn) (A shr)	320
Major shareholder(s) :	
CGNPC	64.2%

Source(s): Bloomberg, ABCI Securities

Share Performance H-Share (%)

	Absolute	Relative*
1-mth	14.81	9.86
3-mth	(10.58)	4.72
6-mth	(8.82)	(0.18)

*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

Share Performance A-Share (%)

	Absolute	Relative*
1-mth	(1.68)	(4.00)
3-mth	(19.28)	(15.86)
6-mth	(28.36)	(34.99)

*Relative to SZCOMP

Source(s): Bloomberg, ABCI Securities

2019 results highlight

2019 adjusted net profit was up 14%YoY, better than consensus and our estimate

Net profit was RMB9,466mn, (+9%YoY); netting out net exchange loss and other disposal gain on fixed assets in last year, however, adjusted net profit was RMB 9,955mn (+12%YoY), 3% and 5% higher than our estimate and Bloomberg consensus, thanks to better-than-expected cost control.

Taishan and Yangjiang power plants boosted power output by 14% YoY

CGN reported a 14%YoY power output growth in 2019 which due to the commencement of Taishan Unit 2 and Yangjiang Unit 6, which boosted installed capacity by 12%YoY. As nuclear power plants usually take six months before reaching full utilization, we believe these new units would drive further output growth in 2020.

Net gearing ratio down by 40ppt YoY on A-share listing in Aug 2019

On Aug 26, 2019, CGN's A share was listed in the Shenzhen Stock Exchange, raising a total of RMB 12.6bn. Consequently, net gearing ratio fell from 183% by end-2018 to 143% by end-2019. We believe a lower net gearing would help ease concerns over debt structure and balance sheet position.

Slight decline in utilization

CGN's utilization hours totaled at 7,507 in 2019, down 1% YoY (2018: 7,554 hours). We believe this was mainly caused by the weak power demand in provinces, such as Fujian and Liaoning.

2020/21 outlook

CGN is the leader in an expanding market

Nuclear power will remain the key alternative energy source strongly promoted by China due to its high utilization, low production costs, and greenhouse gas emission-free nature. In our view, nuclear power would remain one of the blue-ocean industries within the utility sector - it will continue to develop and expand in the next decade and beyond. CGN controls around 60% of nuclear power installed capacity in China and will benefit from a rising contribution of nuclear power to the overall energy structure (1.9% in 2009 to 4.8% in 2019).

Oligopolistic market structure limits competition

Competition in China's nuclear power market is highly limited – so far, there are only three licensed players in the market, namely, CGN, China National Nuclear Power (CNNP), and State Power Investment Corporation. In the foreseeable future, the government is unlikely to issue new licenses as nuclear power development is capital intensive and politically sensitive. Entry barrier is high, which results in the oligopolistic structure in China today. CGN's is likely to maintain its dominant position in the market for a long time.

COVID-19 outbreak will restraint CGN's 2020 power output

No guidance was provided for power output in 2020; we believe the pandemic would reduce growth in CGN's total power output. According to CEC, power consumption declined by 7.8% YoY in 2M20. Assuming economic activities to resume over the next few months, power demand would report only a low-single-digit growth. CGN's power output, therefore, is likely to have moderate decline this year, but will rebound strongly in 2020E and 2021E.

Nuclear power is the best energy substitute for coal fire

Thanks to the low production cost, nuclear power is the only alternative energy that can compete with coal-fire energy on a cost basis excluding government subsidy. We believe China will continue to promote the development of nuclear power. Given nuclear power only accounted for around 4% of China's overall power output in 2019, (30% for developed nations), we believe the room for growth is immense.

No installed capacity growth in 2020E; 4%/11%YoY growth in 2021E/22E

For the first time in 5 years, CGN will not be commencing any new plants in 2020. Hongyanhe Unit 5 is scheduled to be launched in 2021E, while Hongyanhe Unit 6 and Fangchenggang Unit 3 and 4 would commence commercial operation in 2022E. CGN's installed capacity growth is estimated at 4%/11% YoY for 2021E/22E.

2020E power output dropped 1%YoY; 12%YoY power output growth in 2021E

CGN's power output growth would rely on the increment of utilization this year since no new plants will be commencing. In light of the weakening power demand, we estimate CGN's power output to decline by 1% YoY in power output growth for 2020E. For 2021E, we expect installed capacity to increase by 4% YoY and power output would rebound by 12% YoY on higher utilization.

Power tariff to decline by 0.3%/0.3%YoY in 2020E/21E

CGN's tariff can be subjected to a mixture of benchmark tariff and market price tariff; benchmark tariff is usually higher than the market price tariff by 3-5%. The proportion of benchmark tariff has been decreasing from 86% in 2017 to 67% in 2019 - we believe the downtrend would continue since the government has been encouraging free market competition. We therefore expect the proportion of benchmark tariff to reach 35%/35%/40% in 2020E/21E/22E; hence, overall tariff would fall by 0.3%/0.3%/0.2%YoY.

Net gearing ratio would lessen as CAPEX decreases

After the A-Share IPO in 2019, CGN's net gearing ratio dropped from 183% in 2018 to 143% in 2019. Since the new plants will only be commencing in 2021 and 2022, we estimate CAPEX would decrease from RMB 21.9bn in 2019 to RMB 19bn in 2020E and net gearing ratio would be ~129% for 2020E.

Adjusted net profit growth at 2%/2%YoY for 2020E/21E; 2022E would report a 8%YoY growth

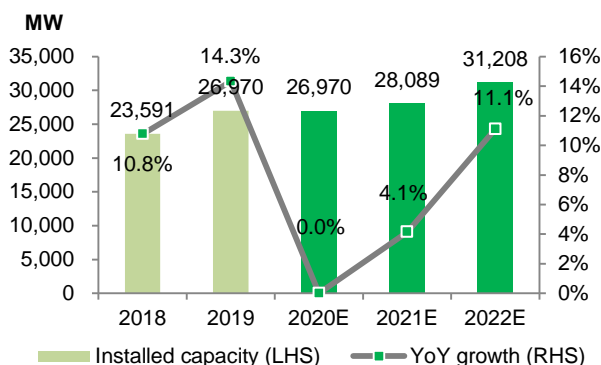
Despite outbreak of COVID-19 would negatively impact nationwide power demand, nuclear power has the top priority to dispatch to power grid, we believe CGN's overall utilization hour would have minor change as there is no new capacity commence operation this year. We therefore believe CGN's adjusted net profit (exclude impairment loss and fair value change) would grow by 2%YoY. In 2021E, we expect utilization hours to rebound on recovering economic activities; also, with the help of capacity growth, we expect adjusted net profit to go up by 2%YoY. For 2022E, we believe commencement of new power plants to drive up power output by 10%YoY with less financial burden and financing cost, CGN is expected to report 8%YoY adjusted net profit growth

H-share (1816 HK) TP at HK\$ 2.20; maintain BUY

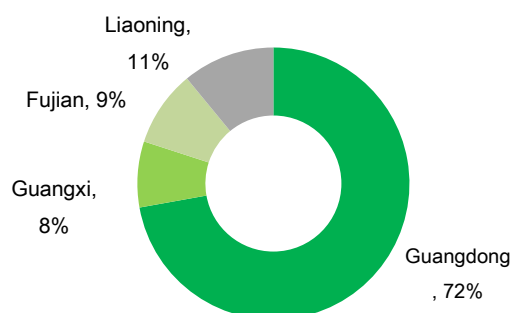
We roll over our valuation to 2020 and our DCF-derived TP is HK\$ 2.20 (previously at HK\$ 2.45), implying 10.0x 2020E P/E and 1.0x 2020E P/B. Maintain **BUY**. Despite the virus outbreak would reduce China's overall power demand, the government's direction to shift from coal-fired power to alternative energy remains unchanged. As the best substitute for coal-fired power in terms of cost, nuclear power would develop rapidly in the next decade. Being the industry leader in China, we believe CGN would benefit immensely from the rise of nuclear power in China. Also, it is the only listed nuclear power operator in the H-share market

A-share (003816 CH) TP at RMB 3.30; upgrade to BUY

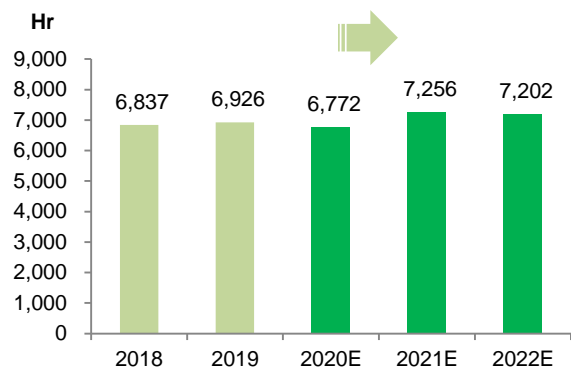
We roll over our valuation to 2020 and our DCF-derived TP is RMB 3.30 (previously at RMB 4.00), which implies 16.5x 2020E P/E and 1.7x 2020E P/B. After the 39% share price decline in past 7 months' time, CGN's A-share is now trading at 15x 2020E P/E. We believe current valuation is fair to reflect its value. We upgrade A-share rating from **HOLD** to **BUY**. Yet we believe valuation of CGN-A is less attractive than CGN-H.

Exhibit 7: CGN's installed nuclear power capacity outlook


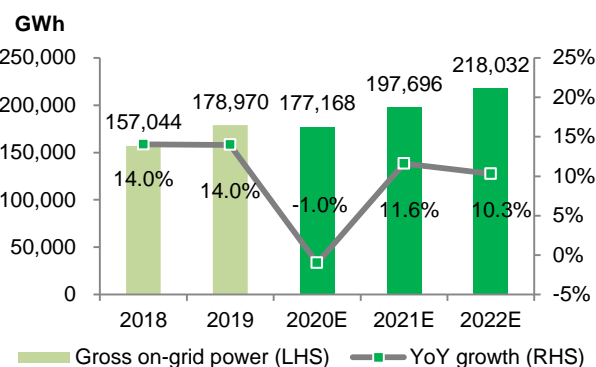
Source(s): Company, ABCI Securities estimates

Exhibit 8: CGN's capacity location by province (2019)


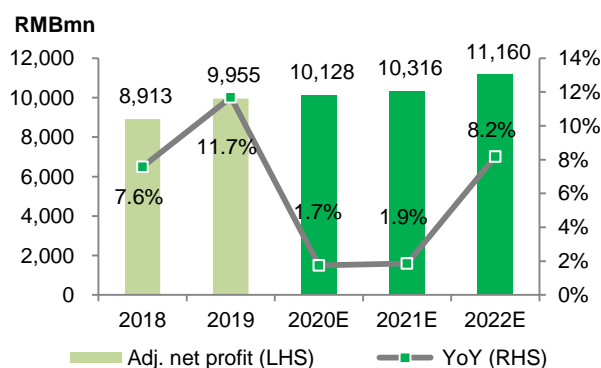
Source(s): Company, ABCI Securities

Exhibit 9: CGN's utilization hours would stay at above 7,000 after 2020E


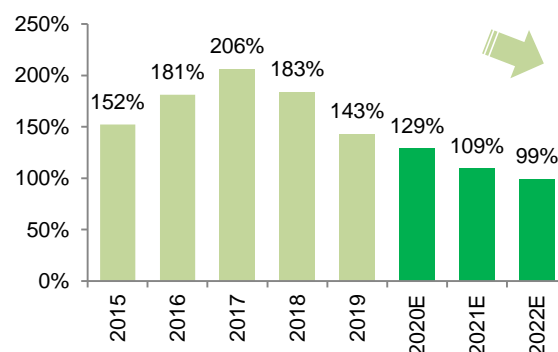
Source(s): Company, ABCI Securities estimates

Exhibit 10: CGN's gross power output outlook


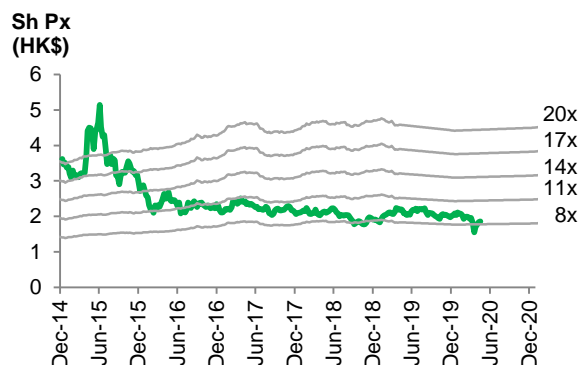
Source(s): Company, ABCI Securities estimates

Exhibit 11: CGN's adjusted net profit growth outlook


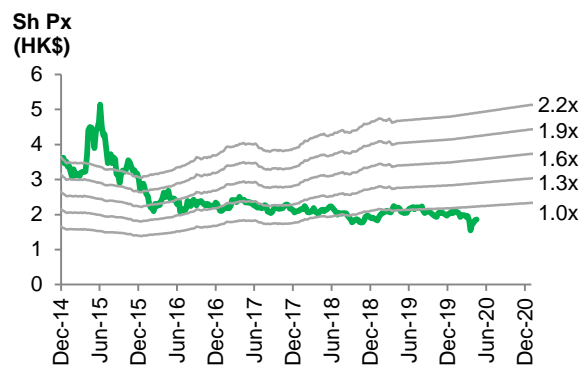
Source(s): Company, ABCI Securities estimates

Exhibit 12: CGN's net gearing ratio would continue to improve


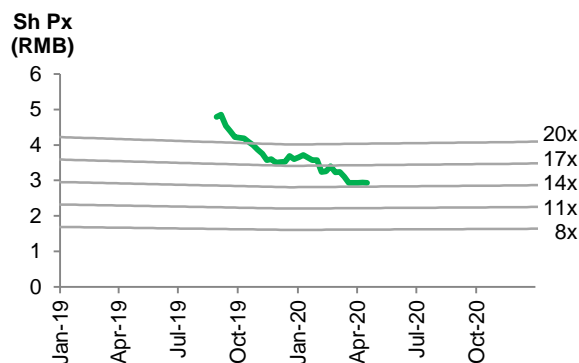
Source(s): Company, ABCI Securities estimates

Exhibit 13: CGN-H's fwd P/E chart


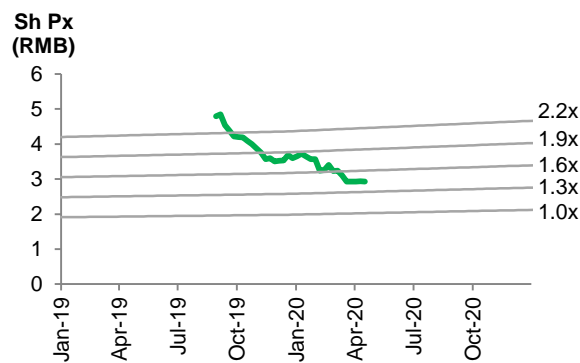
Source(s): Bloomberg, ABCI Securities estimates

Exhibit 14: CGN-H's fwd P/B chart


Source(s): Bloomberg, ABCI Securities estimates

Exhibit 15: CGN-A's fwd P/E chart


Source(s): Bloomberg, ABCI Securities estimates

Exhibit 16: CGN-A's fwd P/B chart


Source(s): Bloomberg, ABCI Securities estimates

Exhibit 17: Change in estimates and assumptions

	Units	Old estimates		New estimates		Change		Main reasons
		2020E	2021E	2020E	2021E	2020E	2021E	
Net profit	RMBmn	10,576	10,905	10,128	10,316	-4.2%	-5.4%	No capacity growth and negative impact from COVID-19 would reduce power output, yet modest change in tariff and recovery is expected in 2021E would support earnings growth
EPS	RMB	0.21	0.22	0.20	0.20	-4.1%	-5.2%	No capacity growth and negative impact from COVID-19 would reduce power output, yet modest change in tariff and recovery is expected in 2021E would support earnings growth.
Valuation – H	RMBmn	112,796		100,918		-10.5%		COVID-19 impact would slash power output and valuation
Valuation – A	RMBmn	202,369		166,648		-17.7%		COVID-19 impact would slash power output and valuation
TP – H	HK\$	2.45		2.20		-10.2%		COVID-19 impact would slash power output and valuation
TP – A	RMB	4.00		3.30		-17.5%		COVID-19 impact would slash power output and valuation

Source(s): ABCI Securities estimates



Consolidated income statement

FY Ended Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Revenue	50,828	60,875	64,095	69,629	74,660
Electricity	46,072	52,783	54,577	58,420	62,330
Service revenue	3,179	6,164	7,396	8,876	9,763
Other	856	1,028	1,131	1,244	1,368
Cost of sales	(29,137)	(36,171)	(39,899)	(43,195)	(46,307)
Gross Profit	21,691	24,704	24,195	26,434	28,354
SG&A expenses	(2,465)	(2,658)	(2,884)	(3,133)	(3,360)
Net financial income (cost)	(5,689)	(7,020)	(6,097)	(8,258)	(8,669)
Other income/ (expenses)	1,362	1,529	2,099	2,591	3,050
Profit before tax	14,899	16,555	17,313	17,634	19,375
Tax	(1,218)	(1,770)	(1,731)	(1,763)	(1,937)
Profit after tax	13,682	14,785	15,582	15,871	17,437
Profit attributable to:					
Minority interest	4,979	5,320	5,454	5,555	6,277
Equity shareholders of the Company	8,703	9,466	10,128	10,316	11,160
Adj. equity shareholders of the Company	8,913	9,955	10,128	10,316	11,160
Basic EPS (RMB)	0.191	0.201	0.201	0.204	0.221
Adj. basic EPS (RMB)	0.196	0.211	0.201	0.204	0.221
DPS (RMB)	0.072	0.081	0.070	0.072	0.077

Source(s): Company, ABCI Securities estimates

Consolidated balance sheet

As of Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Current assets	55,388	61,923	57,599	64,245	64,893
Cash	15,208	19,572	19,188	22,126	20,673
Pledged and restricted bank deposits	0	0	0	0	0
Trade and bill receivables	6,649	8,153	7,651	9,518	8,892
Other receivables and prepayments	6,037	9,345	5,406	10,618	6,564
Inventories	21,372	18,371	25,355	21,982	28,764
Other current assets	6,122	6,483	0	0	0
Non-current assets	313,168	326,052	341,916	339,061	345,278
Property, plant & equipment	210,850	256,955	264,750	262,637	267,812
Investment properties	210	184	184	184	184
Intangible assets	5,139	6,401	4,861	4,920	4,972
Investment in JV and associates	10,203	11,199	12,337	13,884	15,814
Deferred tax assets	1,775	1,904	1,904	1,904	1,904
Other non-current assets	84,990	49,409	57,880	55,531	54,592
Total Assets	368,556	387,975	399,515	403,306	410,171
Current Liabilities	60,625	67,018	47,636	51,234	49,005
Trade and bill payables	18,247	22,602	21,124	26,214	24,533
Other payables	6,819	7,426	1,457	1,457	1,457
Short term borrowings	34,589	36,172	25,055	23,564	23,015
Other current liabilities	970	817	0	0	0
Non-current liabilities	194,805	185,663	198,985	186,916	182,479
Deferred tax liabilities	1,177	1,217	1,217	1,217	1,217
Long-term borrowings	188,128	176,847	190,983	178,915	174,478
Other non-current liabilities	5,500	7,599	6,784	6,784	6,784
Total Liabilities	255,430	252,681	246,620	238,150	231,484
Minority interests	42,011	45,492	52,784	58,339	64,616
Shareholders' equities	71,115	89,802	100,111	106,817	114,071

Source(s): Company, ABCI Securities estimates



Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Profit before tax	14,899	16,555	17,313	17,634	19,375
Change in depreciation and amortization	9,194	10,155	11,712	12,048	12,638
Change in Working Capital	575	4,777	(5,141)	1,383	(3,781)
Net financial cost (income)	5,689	7,020	6,097	8,258	8,669
Income tax paid	(1,444)	(1,218)	(1,770)	(1,731)	(1,763)
Net interest received	0	0	0	0	0
Others	(504)	(6,690)	(1,138)	(1,547)	(1,930)
Operating cash flow	28,410	30,599	27,073	36,046	33,207
CAPEX	(16,631)	(15,653)	(19,000)	(9,392)	(17,232)
Increase in intangible assets	(354)	(547)	(574)	(603)	(633)
Others	602	1,563	294	384	443
Investing cash flow	(16,382)	(14,637)	(19,281)	(9,611)	(17,422)
Net Capital raise	0	12,574	0	0	0
Net debt financing	4,877	(9,132)	3,020	(13,560)	(4,986)
Dividend payout	(5,998)	(7,477)	(3,838)	(3,545)	(3,611)
Interest paid	(6,105)	(5,944)	(7,359)	(6,391)	(8,642)
Others	(3,684)	(2,844)	0	0	0
Financing cash flow	(10,910)	(12,823)	(8,177)	(23,496)	(17,238)
Net change in cash	1,118	3,139	(384)	2,939	(1,453)
Cash at the beginning	12,387	15,208	19,572	19,188	22,126
Adjustment (Time deposit & FX effect)	1,704	1,225	0	0	0
Cash at the end	15,208	19,572	19,188	22,126	20,673

Source(s): Company, ABCI Securities estimates

Key ratio

FY ended Dec 31	2018A	2019A	2020E	2021E	2022E
Sales mixed (%)					
Electricity	90.64	86.71	85.15	83.90	83.49
Service revenue	6.25	10.13	11.54	12.75	13.08
Others	3.10	3.17	3.31	3.35	3.44
Total	100.0	100.0	100.0	100.0	100.0
Profit & loss ratios (%)					
Gross margin	42.68	40.58	37.75	37.96	37.98
Operating profit margin	38.90	37.73	34.75	34.96	34.98
Pre-tax margin	29.31	27.20	27.01	25.33	25.95
Net profit margin	26.92	24.29	24.31	22.79	23.36
Selling & administrative expenses/revenue	4.85	4.37	4.50	4.50	4.50
Effective tax rate	8.17	10.69	10.00	10.00	10.00
Growth (%)					
Revenue	11.38	19.77	5.29	8.64	7.23
Gross profit	9.44	13.89	(2.06)	9.25	7.26
Operating profit	8.71	16.17	(3.03)	9.31	7.26
Net profit	7.52	8.07	5.39	1.85	9.87
Balance sheet ratios					
Current ratio (x)	0.91	0.92	1.21	1.25	1.32
Quick ratio (x)	0.36	0.41	0.56	0.62	0.60
Cash ratio (x)	0.25	0.29	0.40	0.43	0.42
Trade and bill receivables days	47.03	44.38	45.00	45.00	45.00
Trade and bill payables turnover days	222.93	206.10	200.00	200.00	200.00
Inventory turnover days	257.50	200.52	200.00	200.00	200.00
Total debt / equity ratio (%)	313.18	237.21	215.80	189.56	173.13
Net debt / equity ratio (%)	183.43	142.98	128.75	109.20	98.96
Returns (%)					
ROAA	2.41	2.50	2.57	2.57	2.74
ROAE	12.76	11.76	10.67	9.97	10.10
Payout ratio	37.60	40.55	35.00	35.00	35.00

Source(s): Company, ABCI Securities estimates

Longyuan Power (916 HK)

Short term head wind may hit market leader

- 2019 adjusted net profit was better than market estimates
- Expect 9%/8%YoY growth in wind power capacity for 2020E/21E
- Utilization hours would drop to 2,074 in 2020E but rebound to above 2,100 in 2021E.
- Positive free cash flow amid market fluctuations
- Net profit growth of 1%/5%YoY in 2020E/21E.
- Downgrade to **HOLD** with TP of HK\$ 4.10, implying 6.9x 2020E P/E and 0.6x 2020E P/B.

Adjusted net profit dropped 2%YoY, missing our estimates. Longyuan Power (Longyuan) reported 2019 net profit at RMB 4,325mn (+10% YoY); excluding impairment loss, adjusted net profit was RMB 4,328 (-2%YoY), missing our estimate by 5% .

9%/8%YoY growth in wind power capacity for 2020E/21E. Management guided 2020E CAPEX of RMB 19.3bn, of which RMB 16.9bn will be allocated for wind power capacity. We believe this investment would add ~ 1.73GW/1.74GW of wind power capacity in 2020E/21E, boosting the installed capacity by 9%/ 8%YoY.

Utilization hours will drop to 2,074 in 2020E but rebound to 2,134 in 2021E. Due to the outbreak of COVID-19, we estimate China's power demand would edge up by a mere 2% YoY. In light of the reduced demand, we expect Longyuan's utilization hours to drop 5% YoY to 2,074 in 2020E. However, the figure would bounce 2.9%YoY to 2,134 in 2021E on economic recovery and lessened competition in the wind power industry since subsidy-free policies would eliminate small competitors and discourage newcomers.

Positive free cash flow. We believe utility stocks would be favored in a volatile market on higher earnings visibility and stronger cash inflow. Longyuan has been reporting a positive free cash flow since 2015. Except for 2020E, which we estimate the Group would report a negative free cash flow, we expect the positive free cash flow pattern to resume in 2021E and beyond.

Net profit growth of 1%/5%YoY for 2020E/21E. We believe Longyuan's net profit growth would go 1%YoY in 2020E due to impacts of the COVID-19 outbreak. The situation would improve in 2021E as the economy resumes normalcy, pushing growth back up to 5% YoY in 2021E.

TP at HK\$4.10; downgrade to HOLD. We roll over our valuation to 2020 and our DCF-based TP is HK\$4.10 (previously at HK\$ 5.30), which implies 6.9x 2020E P/E and 0.6x 2020E P/B. Downgrade to **HOLD**.

Results and Valuation

FY ended Dec 31	2018A	2019A	2020E	2021E	2022E
Revenue (RMB mn)	26,388	27,541	27,183	29,500	31,607
Chg (% YoY)	7.3	4.4	-1.3	8.5	7.1
Adj. net profit (RMB mn)	4,438	4,328	4,363	4,566	4,935
Chg (% YoY)	17.0	-2.5	0.8	4.7	8.1
EPS (RMB)	0.552	0.539	0.543	0.568	0.614
Chg (% YoY)	17.0	-2.5	0.8	4.7	8.1
BVPS (RMB)	5.506	5.965	6.399	6.854	7.345
Chg (% YoY)	7.6	8.3	7.3	7.1	7.2
P/E (x)	6.41	6.58	6.52	6.23	5.77
P/B (x)	0.64	0.59	0.55	0.52	0.48
ROAE (%)	9.19	9.38	8.78	8.58	8.65
ROAA (%)	2.69	2.85	2.76	2.70	2.79
DPS (RMB)	0.098	0.108	0.109	0.114	0.123
Yield (%)	2.76	3.04	3.07	3.21	3.47
Net gearing (%)	127.0	122.7	122.3	125.2	112.9

Source(s): Bloomberg, ABCI Securities estimates

Company Report

April 20, 2020

Rating: **HOLD**

TP: HK\$ 4.10

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

Share price (HK\$)	3.90
Est. share price return	5.1%
Est. dividend yield	3.1%
Est. total return	8.2%
Previous Rating	BUY
Previous Report Date	Oct 4, 2019

Source(s): ABCI Securities estimates

Key Data

52Wk H/L(HK\$)	5.5/3.5
Issued shares (mn)	8,036
Issued H-shares (mn)	3,340
Market cap (HK\$ mn)	31,340
H-share Market cap (HK\$ mn)	13,026
3-mth avg daily turnover(HK\$ mn)	52
Major shareholder(s) (%)	
CHN Energy.	57.3%

Source(s): Company, ABCI Securities

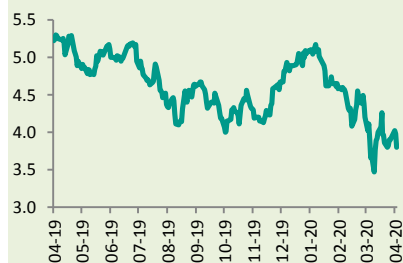
Share Performance (%)

	Absolute	Relative*
1-mth	(7.54)	(12.50)
3-mth	(24.60)	(9.30)
6-mth	(8.43)	0.21

*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

1-Year share price performance(HK\$)



Source(s): Bloomberg, ABCI Securities

2019 results highlight

Adjusted net profit dropped 2%YoY, missing our estimate but beating market consensus

2019 net profit was reported at RMB4,325mn (+10%YoY); netting out one-off impairment loss, adjusted net profit was RMB 4,328 (-2% YoY), missing our estimate by 5% but exceeding the Bloomberg consensus by 5%. The discrepancy mainly came from weaker power demand, which slashed utilization hours and earnings.

Wind capacity grew 6% YoY in 2019 on deleveraging

Wind power installed capacity was reported at 20.03GW by end-2019, 6% YoY higher than that at end-2018. The figure was lower than our estimates (9% YoY), mainly due to its slower-than-expected construction schedule and deleveraging that constrains capacity growth.

Feed-in tariff was the same as 2018, which is better than expected

Overall wind power tariff was RMB 0.56/kWh (incl. VAT), the same as 2018 and higher than our estimates (- 0.7% YoY). This is mainly due to increased capacity in Type 4 region (with higher tariffs than other regions) has raised the overall tariffs.

Improved net gearing ratio as bright spot

Longyuan's net gearing ratio was 123% in 2019, down 4.4ppt from 127% by end-2018. Deleveraging effort has been consistent - net gearing ratio fell from 164% in 2014, 161% in 2015, 155% in 2016, 136% in 2017, 127% in 2018 and 123% in 2019.

2020 / 21 outlook

Wind power capacity for 2020E/21E to grow by 9%/8%YoY

Management guided a CAPEX of RMB 19.3bn for 2020E, of which RMB 16.9bn is allocated for wind power capacity. We believe this investment would bring around 1.73GW and 1.74GW of new wind power capacity in 20E/21E, hence boosting the installed capacity by 9%YoY and 8%YoY respectively.

Outbreak of COVID-19 would negatively impact Longyuan's power output

We believe the COVID-19 outbreak would trim China's overall power demand in 2020 due to the reduced economic activities in general. We believe the impact would fade as more industries resume a degree of normalcy starting from April. We expect the national power demand would report a low single-digit growth at the most in 2020, and expect Longyuan's wind power output to increase at a similar mark at 2% YoY.

Positive free cash flow amid market turmoil

We believe utility stock would be favored in a volatile market for their higher earnings visibility with stronger cash inflow. Unlike other wind power operators, Longyuan has been reporting a positive free cash flow since 2015. We expect the Group to report a negative free cash flow for 2021E, mainly due to expedited construction schedule for subsidies. We expect the positive free cash flow pattern to resume after 2021.

Utilization will decline by 5% YoY to 2,074hr in 2020E but would rebound to 2,134 in 2021E

Due to the pandemic and global uncertainty, China's power demand would only report a 2%YoY growth based on our estimate, lower than the 5%YoY growth in 2019. Longyuan's utilization would decline by 5% YoY to 2,074hr in 2020E (2019: 2,189hr). However, the figure would rebound to 2,134hr in 2021E as the economy recovers; also, competition in wind power industry would lessen as smaller competitors would be eliminated with the withdrawal of subsidies by the government.

0.5%/0.5%YoY decline in Longyuan's wind power tariff in 2020E/21E

The new tariff is applicable to new capacity commencing operation after 2020 while existing capacity would maintain the previous and higher tariffs. Therefore, we expect the negative impact on Longyuan's overall tariff would be limited since new capacity in 2020E/21E would only account for 9%/8% of existing capacity. In our estimates, Overall wind power tariff would decline by 0.5YoY each to RMB0.48/kWh ex VAT and RMB0.477/kWh ex VAT in 2020E/21E.

Coal-fired business would be a drag

Around 11% of Longyuan's 2019 revenue was coming from coal-fired business, we believe China current weak power demand due to the outbreak of COVID-19 and government's attitude in switching nationwide energy structure from coal-fired to alternative would make Longyuan's coal-fired business report revenue decline in 2020. We expect coal-fired segment to report 5%YoY decline in 2020E due to 5%YoY drop in utilization hour.

Net gearing ratio may trend up in 2020E and 2021E, but will go down afterward

Under NDRC's new subsidy policy, we believe Longyuan would expedite project construction and operation. 2020E/2021E CAPEX would be high at RMB 19.0bn, before falling to RMB13bn in 2022E. As a result, net gearing would trend up to from 122% in 2019 to 125% in 2021E before falling to 113% in 2022E based on our estimates.

Adjusted net profit growth of 1%/5%YoY in 2020E/21E

We believe adjusted net profit growth would be 1%YoY in 2020E due to reduced utilization resulted from lower power demand in China. Assuming the economy to rebound in 2021E, we expect net profit would resume an 5%YoY growth for 2021E.

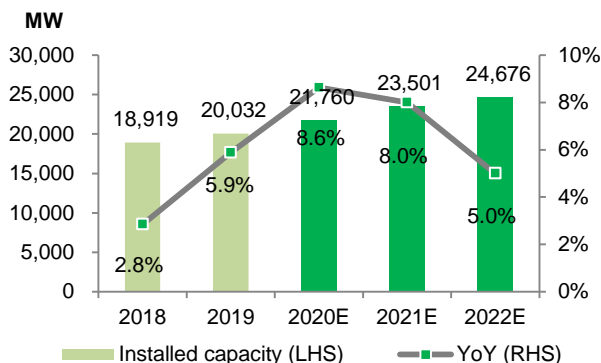
New policies should benefit the industry leader

The subsidy-free tariff policy and the stringent requirements for project tendering would benefit large operators by raising the hurdle for potential entrants. Longyuan has the highest overall wind power tariff among peers (due to Longyuan's existing facilities that enjoy higher tariffs set in the past), which would provide more margin buffer when bidding for new projects with less or no feed-in tariff. Its long experience in wind power industry would also enhances chances of bidding success.

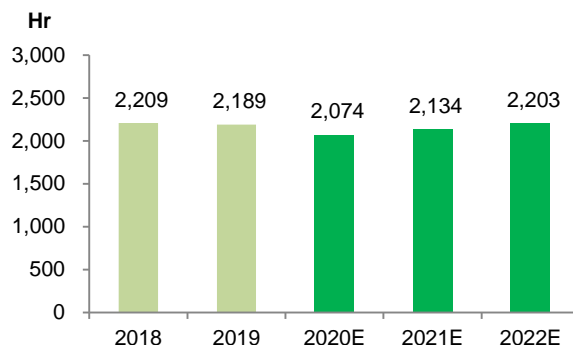
TP at HK\$ 4.10; downgrade to HOLD

We roll over our valuation to 2020 and our DCF-based TP is HK\$ 4.10 (HK\$ 5.30 previously), which implies 6.9x 2020E P/E and 0.58x 2020E P/B. Longyuan's 2019 results was worse-than-expected due to lower utilization hour and installed capacity growth. We believe the outbreak of COVID-19 would reduce China's power demand and therefore exert pressure on wind power output, in addition, Longyuan's coal-fired business would remain a drag to the Group's 2020E earnings. We therefore revised down Longyuan's 2020E/21E earnings by 9%/9% by shaving its wind power/coal-fired utilization hour by 10%/3% for 2020E and 10%/3% for 2021E. Downgrade to **HOLD**.

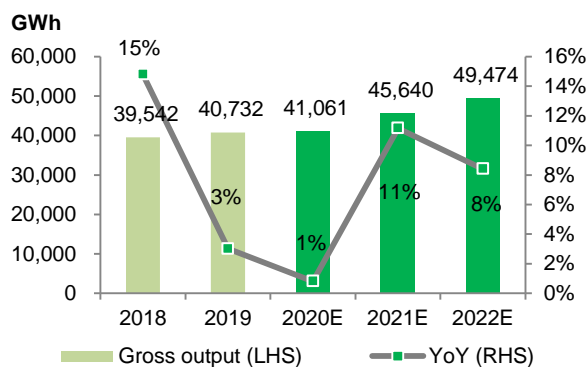
We believe the competition in China's wind power operation industry would decrease with the enforcement of the new policies favoring large state-owned operators. Longyuan's continuous deleveraging, along its prime assets and positive free cash flow pattern, prompt us continue to select it as our top pick for the wind power sector. .

Exhibit 18: Longyuan's wind power installed capacity outlook


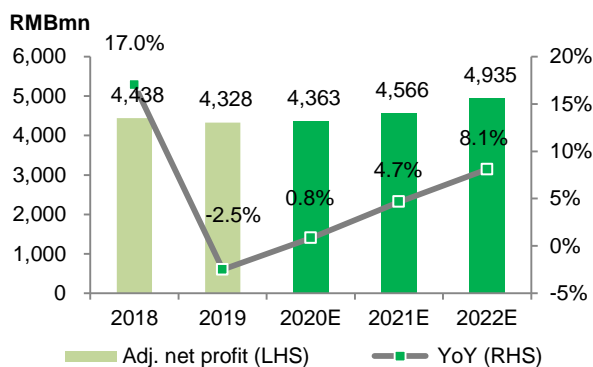
Source(s): Company, ABCI Securities estimates

Exhibit 19: Longyuan's wind power utilization outlook


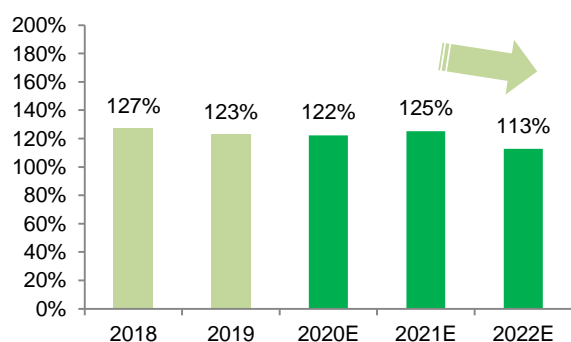
Source(s): Company, ABCI Securities estimates

Exhibit 20: Longyuan's wind power output outlook


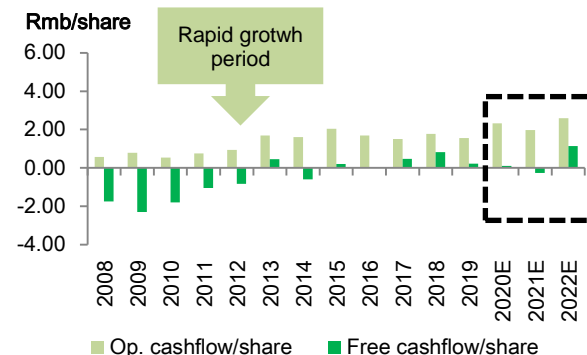
Source(s): Company, ABCI Securities estimates

Exhibit 21: Longyuan's net profit growth outlook


Source(s): Company, ABCI Securities estimates

Exhibit 22: Longyuan's net gearing ratio would trend down in next few years


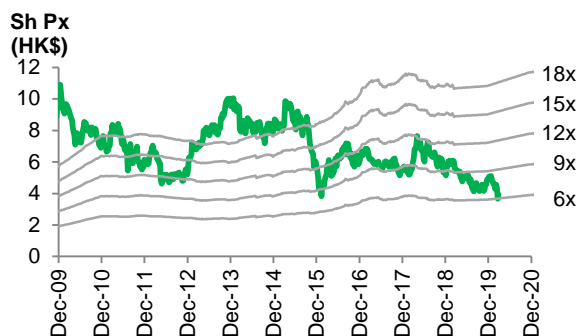
Source(s): Company, ABCI Securities estimates

Exhibit 23: Longyuan's free cash flow is likely to stay positive in after 2021


Source(s): Company, ABCI Securities estimates

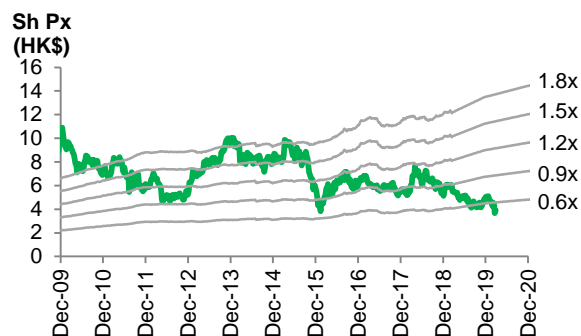


Exhibit 24: Longyuan's fwd P/E chart



Source(s): Bloomberg, ABCI Securities estimates

Exhibit 25: Longyuan's fwd P/B chart



Source(s): Bloomberg, ABCI Securities estimates

Exhibit 26: Change of estimates and assumptions

	Units	Old estimates		New estimates		Change		Main reasons
		2020E	2021E	2020E	2021E	2020E	2021E	
Net profit	RMBmn	4,813	5,035	4,363	4,566	-9.3%	-9.3%	COVID-19 impact on Longyuan's overall power demand
EPS	RMB	0.60	0.63	0.54	0.57	-9.3%	-9.3%	COVID-19 impact on Longyuan's overall power demand
Valuation	RMBmn	38,756		29,929		-22.8%		Decrease in 2020E/21E earnings lowers valuation
TP	HK\$	5.30		4.10		-22.8%		Decrease in 2020E/21E earnings lowers valuation

Source(s): ABCI Securities estimates



Consolidated income statement

FY Ended Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Revenue	26,388	27,541	27,183	29,500	31,607
Wind power	18,410	18,981	19,030	21,045	22,744
Coal-fire power	6,366	6,632	6,297	6,426	6,691
Other	1,612	1,927	1,856	2,030	2,172
Cost of sales	(16,002)	(16,840)	(17,126)	(18,497)	(19,676)
Gross Profit	10,386	10,701	10,057	11,004	11,932
SG&A expenses	(588)	(564)	(544)	(590)	(632)
Net financial income (cost)	(3,513)	(3,486)	(3,011)	(3,613)	(3,948)
Other income/ (expenses)	(388)	(201)	109	118	126
Profit before tax	5,897	6,450	6,611	6,919	7,478
Tax	(976)	(1,131)	(1,157)	(1,211)	(1,309)
Profit after tax	4,921	5,320	5,454	5,708	6,169
Profit attributable to:					
Minority interest	755	753	818	856	925
Perpetual medium-term note holders	242	242	273	285	308
Equity shareholders of the Company	3,924	4,325	4,363	4,566	4,935
Basic EPS (RMB)	0.552	0.539	0.543	0.568	0.614
DPS (RMB)	0.098	0.108	0.109	0.114	0.123

Source(s): Company, ABCI Securities estimates

Consolidated balance sheet

As of Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Current assets	17,786	23,029	15,696	25,670	17,785
Cash	2,861	2,908	2,392	2,874	2,057
Pledged and restricted bank deposits	253	523	523	523	523
Trade and bill receivables	10,542	16,365	8,956	18,524	10,918
Other receivables and prepayments	2,819	1,963	2,505	2,344	2,851
Inventories	852	819	870	954	986
Other current assets	460	450	450	450	450
Non-current assets	128,718	133,773	143,576	153,496	156,586
Property, plant & equipment	110,001	114,607	125,636	135,977	139,540
Investment properties	10	9	9	9	9
Intangible assets	8,171	10,886	7,549	7,370	7,194
Investment in JV and associates	4,549	4,328	4,464	4,612	4,770
Deferred tax assets	146	157	157	157	157
Other non-current assets	5,841	3,786	5,761	5,372	4,917
Total Assets	146,504	156,803	159,271	179,167	174,372
Current Liabilities	39,780	43,538	46,028	56,996	49,471
Trade and bill payables	2,059	3,411	812	3,749	1,102
Other payables	9,332	11,070	8,157	12,573	9,449
Short term borrowings	28,336	28,965	37,059	40,674	38,920
Other current liabilities	54	92	0	0	0
Non-current liabilities	50,158	52,610	48,279	52,697	50,554
Deferred tax liabilities	164	263	263	263	263
Long-term borrowings	46,645	48,881	45,295	49,713	47,569
Other non-current liabilities	3,349	3,465	2,721	2,721	2,721
Total Liabilities	89,939	96,148	94,307	109,693	100,025
Minority interests	7,329	7,732	8,551	9,407	10,332
Perpetual medium-term note	4,991	4,991	4,991	4,991	4,991
Shareholders' equities	44,245	47,932	51,422	55,076	59,024

Source(s): Company, ABCI Securities estimates



Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2018A	2019E	2020E	2021E	2022E
Profit before tax	5,897	6,450	6,611	6,919	7,478
Change in depreciation and amortization	7,286	7,633	8,474	9,310	9,879
Change in Working Capital	(1,078)	(3,668)	1,305	(2,139)	1,296
Net financial cost (income)	3,267	3,160	3,523	3,021	3,587
Income tax paid	(1,106)	(1,064)	(1,131)	(1,157)	(1,211)
Net interest received	0	0	0	0	0
Others	(10)	3	(136)	(148)	(158)
Operating cash flow	14,255	12,515	18,645	15,806	20,870
CAPEX	(8,720)	(11,787)	(19,012)	(19,149)	(12,926)
Increase in intangible assets	0	0	(308)	(323)	(339)
Others	87	1,013	140	103	93
Investing cash flow	(8,633)	(10,774)	(19,180)	(19,369)	(13,172)
Net Capital raise	0	0	0	0	0
Net debt financing	(2,606)	2,642	4,508	8,033	(3,897)
Dividend payout	(1,289)	(1,138)	(865)	(873)	(913)
Interest paid	(3,592)	(3,062)	(3,626)	(3,114)	(3,706)
Others	(315)	(143)	0	0	0
Financing cash flow	(7,802)	(1,700)	18	4,046	(8,516)
Net change in cash	(2,179)	41	(517)	482	(818)
Cash at the beginning	5,072	2,861	2,908	2,392	2,874
Adjustment (Time deposit & FX effect)	(31)	7	0	0	0
Cash at the end	2,861	2,908	2,392	2,874	2,057

Source(s): Company, ABCI Securities estimates

Key ratio

FY ended Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Sales mixed (%)					
Wind power	69.77	68.92	70.01	71.34	71.96
Coal-fire power	24.13	24.08	23.17	21.78	21.17
Other	6.11	7.00	6.83	6.88	6.87
Total	100	100	100	100	100
Profit & loss ratios (%)					
Gross margin	39.36	38.86	37.00	37.30	37.75
Operating profit margin	36.97	36.12	34.90	35.20	35.65
Pre-tax margin	22.35	23.42	24.32	23.45	23.66
Net profit margin	18.65	19.32	20.07	19.35	19.52
Selling & administrative expenses/revenue	2.23	2.05	2.00	2.00	2.00
Effective tax rate	16.55	17.53	17.50	17.50	17.50
Growth (%)					
Revenue	7.30	4.37	(1.30)	8.53	7.14
Gross profit	16.04	3.03	(6.02)	9.41	8.44
Operating profit	15.57	1.98	(4.65)	9.46	8.51
Net profit	8.16	8.10	2.53	4.65	8.08
Balance sheet ratios					
Current ratio (x)	0.45	0.53	0.34	0.45	0.36
Quick ratio (x)	0.34	0.45	0.26	0.38	0.27
Cash ratio (x)	0.08	0.08	0.06	0.06	0.05
Trade and bill receivables days	122.39	178.30	170.00	170.00	170.00
Trade and bill payables turnover days	45.05	59.28	45.00	45.00	45.00
Inventory turnover days	20.59	18.11	18.00	18.00	18.00
Total debt / equity ratio (%)	169.47	162.41	160.15	164.11	146.53
Net debt / equity ratio (%)	127.05	122.68	122.28	125.21	112.86
Returns (%)					
ROAA	2.69	2.85	2.76	2.70	2.79
ROAE	9.19	9.38	8.78	8.58	8.65
Payout ratio	20.01	19.99	20.00	20.00	20.00

Source(s): Company, ABCI Securities estimates



Datang Renewable (1798 HK)

Potential privatization is the only positive

- 2019 net profit was down 23% YoY, missing estimates.
- 7%/10%YoY wind power capacity growth in 2020E/21E.
- 4%YoY utilization hour decline in 2020E before rising by 2% YoY in 2021E.
- Potential privatization as share price catalyst
- 2020E/21E earnings to drop by 0.3%/1.6%YoY.
- Downgrade to **SELL** with TP of HK\$ 0.50, which implies 3.5x 2020E P/E and 0.22x 2020E P/B

23%YoY decline in 2019 earnings. Datang Renewable (DTR) 2019 net profit was RMB 936mn (-23%YoY), missing our/Bloomberg consensus estimates by 29%/13%. The discrepancy can be attributed to lower-than-expected utilization hour.

7%/10%YoY wind power capacity growth in 2020E/21E. DTR is likely to follow other wind power operators to expand installed wind power capacity in 2020E and 2021E due to the impending subsidy cut by end-2020/21. We expect DTR to add 752MW/1,029MW of new capacity in 2020E/21E, which translates into 7%/10%YoY growth in total wind power capacity.

Utilization hour to decline by 4%YoY in 2020E before rising by 2%YoY in 2021E. We expect utilization hour in the wind power segment to be 1,987 in 2020E, down 4%YoY. The decline was mainly due to DTR's high exposure in "three-north" region heavily hampered by the coronavirus outbreak. We believe the situation should improve in 2021E and utilization hours should recover by 2% YoY.

Potential privatization as share price catalyst. DTR has the lowest valuation among wind power operators in the market. The privatization of Huaneng Renewables (958 HK previously, privatized on Feb 24, 2020) has prompted speculation that DTR may follow suit, especially with its depressed valuation. We believe this can potentially be a share price catalyst.

2020/21E earnings to fall by 0.3%/1.6%YoY. Despite the 7%/10%YoY wind power capacity growth expected for 2020E/21E, negative impact from COVID-19 would reduce economic activities, dragging down DTR's utilization hours. In addition, subsidy-free tariff policy to be implemented in 2021 would also reduce DTR's overall wind power tariff. We therefore expect net profit to fall by 0.3%/1.6%YoY for 2020E/21E.

TP at HK\$0.50; downgrade to SELL. DTR's 2019 results were worse than expected due to weaker utilization hour. We revise down DTR's 2020E utilization hour assumptions to reflect the negative impact of COVID-19 and earnings. We downgrade to **SELL** with our new TP at HK\$0.50 (previously at HK\$ 0.80), which implies 3.5x 2020E P/E and 0.22x 2020E P/B.

Results and Valuation

FY ended Dec 31	2018A	2019A	2020E	2021E	2022E
Revenue (RMB mn)	8,319	8,325	8,745	9,680	10,477
Chg (% YoY)	17.1	0.1	5.0	10.7	8.2
Net profit (RMB mn)	1,209	936	933	918	795
Chg (% YoY)	66.2	-22.6	-0.3	-1.6	-13.4
EPS (RMB)	0.15	0.11	0.11	0.11	0.10
Chg (% YoY)	78.7	-25.0	-0.3	-1.6	-13.4
BVPS (RMB)	1.53	1.33	1.56	1.66	1.74
Chg (% YoY)	16.0	-12.7	17.0	6.2	5.1
P/E (x)	3.69	4.91	4.93	5.01	5.78
P/B (x)	0.36	0.42	0.36	0.33	0.32
ROAE (%)	10.21	8.02	7.77	6.87	5.64
ROAA (%)	1.67	1.21	1.14	1.02	0.81
DPS (RMB)	0.018	0.026	0.013	0.013	0.011
Yield (%)	3.26	4.74	2.43	2.39	2.07
Net gearing (%)	305.8	367.0	318.5	357.7	339.4

Source(s): Bloomberg, ABCI Securities estimates

Company Report

April 20, 2020

Rating: **SELL**

TP: HK\$ 0.50

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

Share price (HK\$)	0.61
Est. share price return	(18.0%)
Est. dividend yield	2.4%
Est. total return	(15.6%)
Previous Rating	HOLD
Previous Report Date	Oct 4, 2019

Source(s): ABCI Securities estimates

Key Data

52Wk H/L(HK\$)	0.9/0.5
Issued shares (mn)	7,274
Issued H-shares (mn)	2,501
Market cap (HK\$ mn)	4,437
H-share Market cap (HK\$ mn)	1,526
3-mth avg daily turnover(HK\$ mn)	1.8
Major shareholder(s) :	
Datang Group.	57.4%

Source(s): Company, ABCI Securities

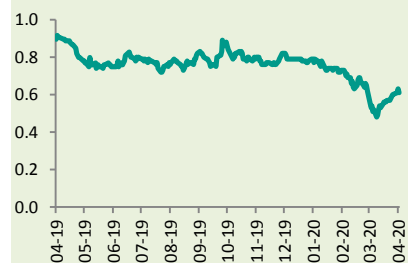
Share Performance (%)

	Absolute	Relative*
1-mth	15.09	10.14
3-mth	(22.78)	(7.48)
6-mth	(26.51)	(17.86)

*Relative to HSCEI

Source(s): Bloomberg, ABCI Securities

1-Year share price performance(HK\$)



Source(s): Bloomberg, ABCI Securities



2019 results highlight

23%YoY earnings decline in 2019 missed our/market estimates

2019 net profit was RMB936mn (-23%YoY), 29%/13% lower than our estimates and Bloomberg consensus.

8%/28%YoY wind/solar capacity growth as bright spots

DTR installed wind/solar capacity reached 9.5GW and 223MW in 2019, 8%/28% higher than that in 2018 and 0.3%/28% higher than our forecast. We believe the capacity growth was a result of the Group's expediting for construction completion by end-2020.

2%YoY decline in utilization hours drag earnings

2019 wind power utilization hours were 2,064, 2% lower than 2,096hr in 2018 and 8% below our estimate. Lower utilization hour limited the growth of gross power output and reduced earnings.

Net gearing ratio soared by 61ppt to 367%

DTR's net gearing ratio was 367% by end-2019, a 67ppt jump from 300% in 1H19 and 61ppt higher than 306% by end-2018. We believe the big leap can be attributed to the 190% YoY increase in CAPEX during the period as DTR has been accelerating project construction in a bid to complete by end-2020.

2020 / 21 outlook

7%/10%YoY wind power capacity growth in 2020E/21E

DTR is likely to follow other wind power operators to expand installed wind power capacity in 2020E and 2021E due to the impending subsidy cut by end-2020/21. We expect DTR to add 752MW/1,029MW of new capacity in 2020E/21E, which translates into 7%/10%YoY growth in total wind power capacity.

4%YoY utilization hour decline in 2020E; 2%YoY rebound in 2021E

We expect utilization hour in the wind power segment to be 1,987 in 2020E, down 4%YoY. The decline was mainly due to DTR's high exposure in "three-north regions" (Inner Mongolia, northeast and northwest) heavily hampered by the coronavirus outbreak. We believe the situation should improve in 2021E and utilization hours should recover by 2% YoY.

2.0%/1.5%YoY decline in wind power tariff in 2020E/21E

DTR is likely to continue to suffer from high exposure in "three-north regions" as power demand in these regions would be low, meaning that power generated in these regions would be transported to coastal regions. However, if China's overall power demand remains tepid, power generated in the "three-north regions" would be consumed locally, where the feed-in tariff is much lower than the coastal regions. Given power demand in 2020E is likely to be slashed by the epidemic, we expect DTR's wind power tariff to decline by 2%YoY, to be followed by a 1.5% YoY decline in 2021E.

Net gearing ratio stays high at above 300% in 2020E/21E

DTR's thin net margin (2012-2019 average at 5.4%, lower than Longyuan's 14.4%) means back the Group is highly susceptible to loss. Since the Company has been expediting construction pace for wind power and solar power facilities, we believe CAPEX is likely to stay high for 2020E and 2021E. Net gearing, as a result, would remain high at 319%/ 358% in 2020E/21E.

Potential privatization as share price catalyst

DTR has the lowest valuation among wind power operators in the market - it is now trading at 4.9x/5.0x 2020E/21E P/E and 0.36x/0.33x 2020E/21E P/B based on our estimates. The low valuation can be attributed to the location of its wind power assets in the "three north regions" and high net gearing ratio (2019 at 367%, the highest among peers). However, the privatization of Huaneng Renewables (958 HK previously, privatized on Feb 24, 2020) has prompted speculation that DTR may

follow suit, especially with its depressed valuation. We believe this will be a catalyst to DTR share price.

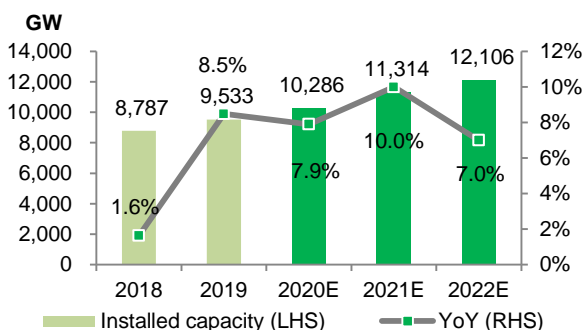
2020/21E earnings to drop by 0.3%/1.6%YoY

Despite the 7%/10%YoY wind power capacity growth expected for 2020E/21E, negative impact from COVID-19 would reduce economic activities, dragging down DTR's utilization hours. In addition, subsidy-free tariff policy to be implemented in 2021 would also reduce DTR's overall wind power tariff. We therefore expect net profit to fall by 0.3%/1.6%YoY for 2020E/21E.

TP at HK\$0.50; downgrade to SELL

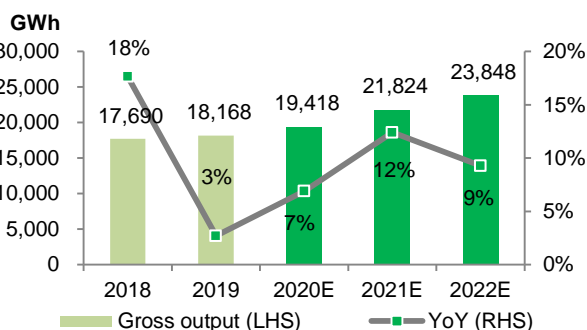
DTR's 2019 results are worse than expected due to lower utilization hours. We revise down our 2020E utilization hour estimates by 13% to reflect the negative impact of COVID-19 on China's power demand. We also shave wind power output forecasts by 15%. We revise down 2020E/21E earnings by 34%/40%. We downgrade to **SELL** with our new TP at HK\$ 0.50 (previously at HK\$0.80), which implies 3.5x 2020E P/E and 0.22x 2020E P/B

Exhibit 27: DTR's wind power installed capacity growth would accelerate in the next few years



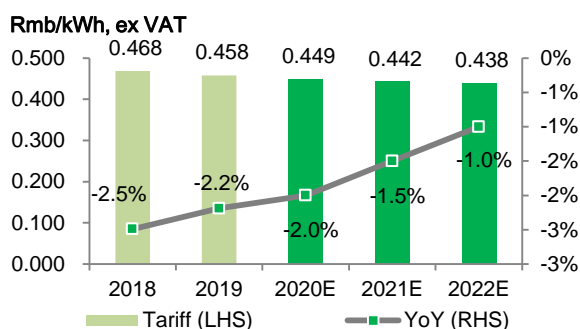
Source(s): Company, ABCI Securities estimates

Exhibit 28: DTR's wind power output outlook



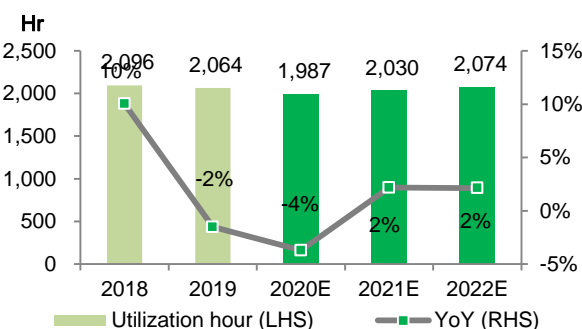
Source(s): Company, ABCI Securities estimates

Exhibit 29: DTR's wind power tariff outlook



Source(s): Company, ABCI Securities estimates

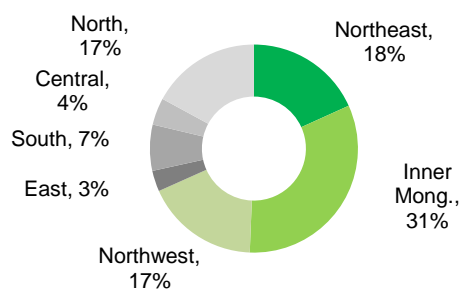
Exhibit 30: DTR's wind power utilization hour outlook



Source(s): Company, ABCI Securities estimates

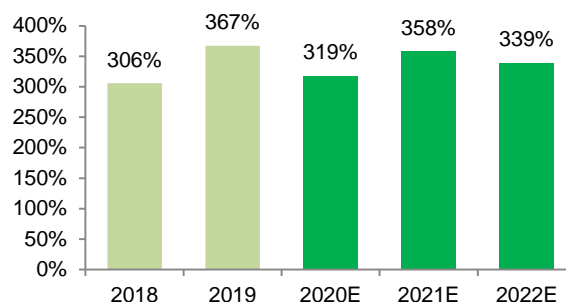


Exhibit 31: DTR's wind power capacity by regions (2019)



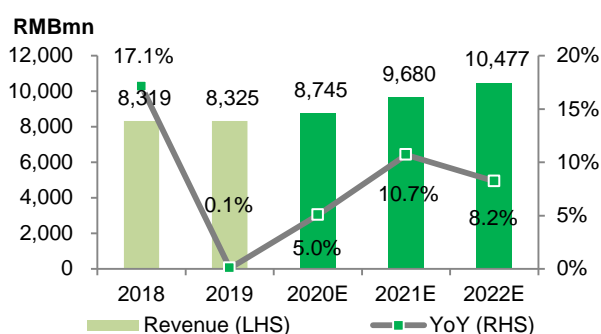
Source(s): Company, ABCI Securities estimates

Exhibit 32: DTR's net gearing ratio outlook



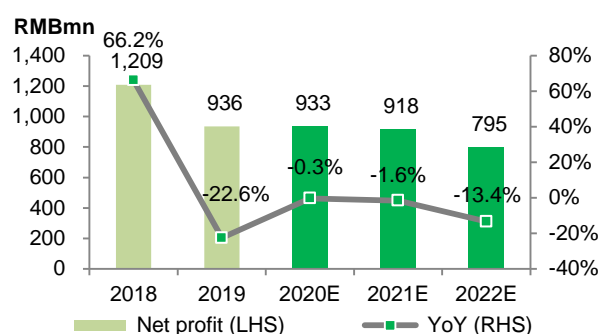
Source(s): Company, ABCI Securities estimates

Exhibit 33: DTR's revenue outlook



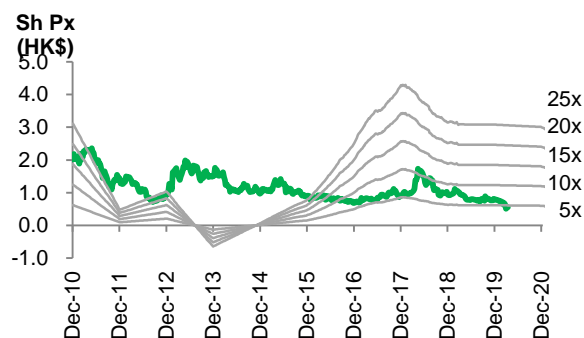
Source(s): Company, ABCI Securities estimates

Exhibit 34: DTR's net profit outlook



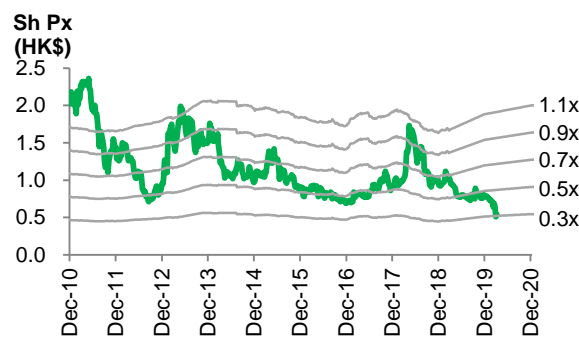
Source(s): Company, ABCI Securities estimates

Exhibit 35: DTR's fwd P/E chart



Source(s): Bloomberg, ABCI Securities estimates

Exhibit 36: DTR's fwd P/B chart



Source(s): Bloomberg, ABCI Securities estimates

Exhibit 37: Change of estimates and assumptions

	Units	Old estimates		New estimates		Change		Main reasons
		2020E	2021E	2020E	2021E	2020E	2021E	
Net profit	RMBm	1,418	1,521	933	918	-34.2%	-39.6%	Reduced by COVID-19's impact on overall power output and tariff decline
EPS	RMB	0.16	0.18	0.11	0.11	-31.4%	-37.1%	Reduced by COVID-19's impact on overall power output and tariff decline
Valuation	RMBm	5,857		3,787		-35.3%		Decrease in 2020E/21E earnings drag valuation
TP	HK\$	0.80		0.50		-37.5%		Decrease in 2020E/21E earnings drag valuation

Source(s): ABCI Securities estimates



Consolidated income statement

FY Ended Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Revenue	8,319	8,325	8,745	9,680	10,477
Wind power	8,088	8,156	8,543	9,458	10,232
Concession construction	5	0	0	0	0
Other	227	164	202	222	245
Cost of sales	(4,272)	(4,579)	(5,130)	(5,780)	(6,302)
Gross Profit	4,047	3,745	3,615	3,900	4,174
SG&A expenses	0	0	0	0	0
Net financial income (cost)	(2,112)	(2,146)	(1,952)	(2,234)	(2,674)
Other income/ (expenses)	(206)	(160)	(240)	(266)	(288)
Profit before tax	1,729	1,440	1,423	1,400	1,212
Tax	(303)	(296)	(285)	(280)	(242)
Profit after tax	1,426	1,144	1,138	1,120	970
Profit attributable to:					
Minority interest	(217)	(208)	(205)	(202)	(175)
Equity shareholders of the Company	1,209	936	933	918	795
Basic EPS (RMB)	0.150	0.113	0.112	0.111	0.096
DPS (RMB)	0.018	0.026	0.013	0.013	0.011

Source(s): Company, ABCI Securities estimates

Consolidated balance sheet

As of Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Current assets	12,801	14,801	14,253	18,723	19,020
Cash	3,633	3,517	4,015	5,179	6,822
Pledged and restricted bank deposits	41	44	0	0	0
Trade and bill receivables	7,473	9,546	8,184	11,442	9,798
Other receivables and prepayments	1,486	1,500	1,854	1,859	2,159
Inventories	168	194	200	244	240
Other current assets	0	0	0	0	0
Non-current assets	61,616	65,223	69,880	77,577	81,126
Property, plant & equipment	56,430	59,055	64,347	71,163	75,003
Investment properties	17	20	0	0	0
Intangible assets	1,199	2,092	530	513	496
Investment in JV and associates	802	833	833	833	833
Deferred tax assets	16	12	12	12	12
Other non-current assets	3,153	3,210	4,157	5,055	4,781
Total Assets	74,417	80,023	84,133	96,300	100,146
Current Liabilities	20,969	26,457	25,321	28,585	30,581
Trade and bill payables	364	367	477	473	563
Other payables	5,978	5,959	7,786	7,669	9,159
Short term borrowings	14,627	20,131	17,059	20,442	20,860
Other current liabilities	0	0	0	0	0
Non-current liabilities	38,166	39,065	42,219	50,114	51,088
Deferred tax liabilities	20	18	18	18	18
Long-term borrowings	35,781	36,650	39,803	47,698	48,672
Other non-current liabilities	2,365	2,398	2,398	2,398	2,398
Total Liabilities	59,135	65,523	67,541	78,699	81,670
Minority interests	2,990	3,432	3,637	3,838	4,013
Shareholders' equities	12,292	11,069	12,955	13,763	14,463

Source(s): Company, ABCI Securities estimates



Consolidated cash flow statement

FY ended Dec 31 (RMB mn)	2018A	2019A	2020E	2021E	2022E
Profit before tax	1,729	1,440	1,423	1,400	1,212
Change in depreciation and amortization	3,469	3,566	4,048	4,535	4,911
Change in Working Capital	(1,792)	(1,586)	3,233	(4,285)	3,304
Net financial cost (income)	2,108	2,181	2,151	1,947	2,223
Income tax paid	(284)	(265)	(208)	(205)	(202)
Net interest received	24	39	0	0	0
Others	52	0	(66)	(73)	(79)
Operating cash flow	5,306	5,375	10,581	3,320	11,369
CAPEX	(5,146)	(6,349)	(8,768)	(11,314)	(8,712)
Increase in intangible assets	0	0	(19)	(20)	(21)
Others	67	(62)	0	0	0
Investing cash flow	(5,080)	(6,411)	(8,788)	(11,335)	(8,734)
Net Capital raise	0	0	1,028	0	0
Net debt financing	4,562	3,101	81	11,278	1,392
Dividend payout	(318)	(300)	(218)	(112)	(110)
Interest paid	(2,121)	(2,216)	(2,187)	(1,987)	(2,274)
Others	59	335	0	0	0
Financing cash flow	2,182	921	(1,296)	9,179	(993)
Net change in cash	2,408	(116)	498	1,164	1,643
Cash at the beginning	1,224	3,633	3,517	4,015	5,179
Adjustment (Time deposit & FX effect)	1	0	0	0	0
Cash at the end	3,633	3,517	4,015	5,179	6,822

Source(s): Company, ABCI Securities estimates

Key ratio

FY ended Dec 31	2018A	2019A	2020E	2021E	2022E
Sales mixed (%)					
Wind power	97.22	97.98	97.69	97.70	97.67
Concession construction	0.06	0.00	0.00	0.00	0.00
Other	2.73	1.97	2.31	2.30	2.33
Total	100	100	100	100	100
Profit & loss ratios (%)					
Gross margin	48.65	44.99	41.33	40.29	39.84
Operating profit margin	45.50	42.36	37.83	36.79	36.34
Pre-tax margin	20.78	17.30	16.27	14.46	11.57
Net profit margin	17.15	13.74	13.01	11.57	9.26
Selling & administrative expenses/revenue	0.00	0.00	0.00	0.00	0.00
Effective tax rate	17.50	20.55	20.00	20.00	20.00
Growth (%)					
Revenue	17.11	0.06	5.05	10.69	8.23
Gross profit	25.27	(7.45)	(3.49)	7.89	7.03
Operating profit	31.98	(6.83)	(6.18)	7.63	6.92
Net profit	58.02	(19.80)	(0.52)	(1.62)	(13.37)
Balance sheet ratios					
Current ratio (x)	0.61	0.56	0.56	0.66	0.62
Quick ratio (x)	0.53	0.50	0.48	0.58	0.54
Cash ratio (x)	0.18	0.13	0.16	0.18	0.22
Trade and bill receivables days	274.54	373.08	370.00	370.00	370.00
Trade and bill payables turnover days	76.61	29.13	30.00	30.00	30.00
Inventory turnover days	13.05	14.40	14.00	14.00	14.00
Total debt / equity ratio (%)	410.09	512.98	438.92	495.10	480.76
Net debt / equity ratio (%)	305.82	367.01	318.51	357.70	339.41
Returns (%)					
ROAA	1.67	1.21	1.14	1.02	0.81
ROAE	10.21	8.02	7.77	6.87	5.64
Payout ratio	12.03	23.30	12.00	12.00	12.00

Source(s): Company, ABCI Securities estimates



Disclosures

Analyst Certification

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Definition of equity rating

Rating	Definition
Buy	Stock return rate \geq Market return rate (10%)
Hold	Market return rate (-10%) \leq 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 2005 (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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