



Concord New Energy Group Ltd.(0182.hk)

—— An Experienced Wind & Solar Developer and Operator

**2020**

# Interim Results Presentation

10<sup>th</sup> Aug. 2020

## Disclaimer

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Unit: Million RMB

		As of 30 <sup>th</sup> Jun. 2020	As of 31 <sup>st</sup> Dec. 2019	Change
Key Financial Data	Total Assets	19,692.56	19,892.44	-1.00%
	Net Assets	6,140.72	5,969.20	+2.87%
	Cash and Cash Equivalents	1,434.57	1,605.13	-10.63%
		As of 30 <sup>th</sup> Jun. 2020	As of 30 <sup>th</sup> Jun. 2019	Change
	Revenue	999.54	963.35	+3.76%
	Profit Attributable to Owners of the Company	379.39	399.23	-4.97%
	Fully Diluted EPS	4.31cents	4.54 cents	-5.07%
Segment Revenue	<b>Power Generation<sup>1</sup></b>	<b>908.42</b>	<b>886.33</b>	<b>+2.49%</b>
	Others	91.12	77.02	+18.31%
Segment Results <sup>2</sup>	<b>Power Generation</b>	<b>581.00</b>	<b>601.48</b>	<b>-3.40%</b>
	Others	2.64	0.6	-

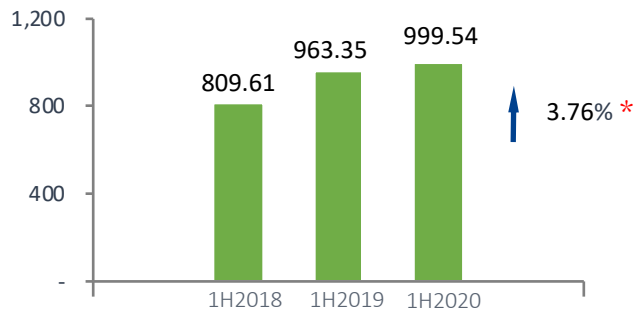
1. Power generation revenue from consolidated power plants

2. The Segment Results are the earnings before interest and tax and disposal gain. The Power Generation includes the power generation, URP release, deferred tax contribution and shared profits of joint ventures.



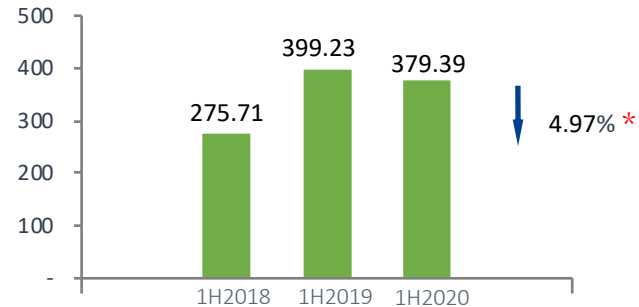
# Business Performance Remains Stable, Epidemic Impact Controlled Overall

## Revenue (Million RMB)



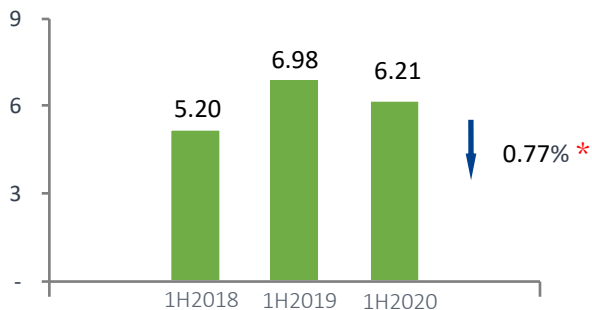
\* Change% between 1H2020 & 1H2019

## Profit Attributable to Owners of the Company (Million RMB)



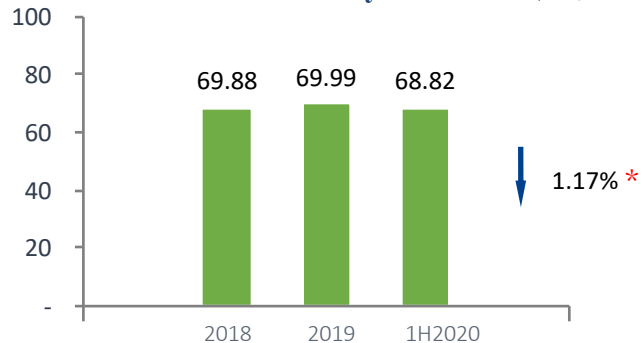
\* Change% between 1H2020 & 1H2019

## Return on Equity (%)



\* Change% between 1H2020 & 1H2019

## Assets Liability Ratio \* (%)



\* Assets Liability Ratio=Total Liability/Total Assets

\* Change% between 1H2020 & 2019



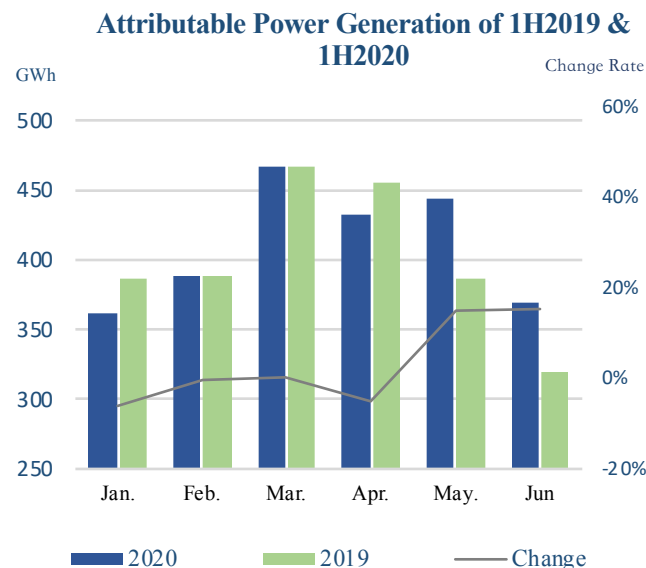
## Power Generation Slowed Down the Growth, Gradually Recovered from 2<sup>nd</sup> Quarter

In the first half of 2020, affected by COVID-19, decline of radiation and some other issues, the revenue growth rate of company's power generation business slowed down and the profit declined slightly. However, power plants performance gradually picked up in the 2<sup>nd</sup> quarter, and the attributable power generation output had more than 15% year-on-year increase in June.

	Power Generation Revenue			Attributable Power Generation Net Profit			Attributable Power Generation (GWh)		
	1H2020	1H2019	Change	1H2020	1H2019	Change	1H2020	1H2019	Change
<b><u>Total Wholly-owned Power Plants</u></b>	<b>908,420</b>	<b>886,330</b>	<b>2.5%</b>	<b>390,750</b>	<b>410,250</b>	<b>-4.8%</b>	<b>1,759</b>	<b>1,650</b>	<b>6.6%</b>
Wind	722,080	678,636	6.4%	332,619	337,780	-1.5%	1,523	1,395	<b>9.2%</b>
Solar	186,334	207,689	-10.3%	58,130	72,460	-19.8%	236	255	<b>-7.4%</b>
<b><u>Total Associates and JV Power Plants</u></b>	-	-	-	95,270	101,850	-6.5%	704	753	<b>-6.5%</b>
<b><u>Total</u></b>	<b>908,420</b>	<b>886,330</b>	<b>2.5%</b>	<b>486,020</b>	<b>512,100</b>	<b>-5.1%</b>	<b>2,463</b>	<b>2,403</b>	<b>2.5%</b>

Unit : '000RMB

Remark: Attributable Net Profit refers to the sum of net profit of power plants based on attributable calculation. The income of associates and JV power plants are not consolidated.



Operational Indicators	As of 30 <sup>th</sup> June 2020	As of 30 <sup>th</sup> June 2019	Change
<b><u>Weighted Average Utilization Hours</u></b>			
Wind Plants (attributable)	1,177Hours	1,189Hours	-1.0%
Wind Plants (wholly-owned)	1,303Hours	1,240Hours	5.1%
PV Plants (attributable)	751Hours	813Hours	-7.6%
PV Plants (wholly-owned)	743Hours	806Hours	-7.8%
<b><u>Weighted Average Tariff (traded power adjustment considered)</u></b>			
Wind Plants (attributable)	0.5408/kWh	0.5519/kWh	-2.0%
Wind Plants (wholly-owned)	0.5690/kWh	0.5932/kWh	-4.1%
PV Plants (attributable)	0.9577/kWh	0.9616/kWh	-0.4%
PV Plants (wholly-owned)	0.9224/kWh	0.9301/kWh	-0.8%
<b><u>Total Attributable Average Grid Curtailment</u></b>			
	4.7%	4.1%	↑ 0.6 Percentage
Wind Plants (attributable)	4.4%	3.9%	↑ 0.5 Percentage
Wind Plants (wholly-owned)	3.4%	2.1%	↑ 1.3 Percentage
PV Plants (attributable)	10.1%	7.1%	↑ 3.0 Percentage
PV Plants (wholly-owned)	11.1%	7.8%	↑ 3.3 Percentage

Remark : in the 1H 2020, the national average utilization hours of wind power was 1,123hours and 595 hours for the PV power

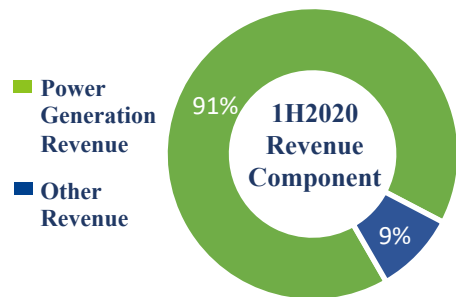


## Power Plants Construction Proceeds Steadily, Attributable Capacity Remains Stable

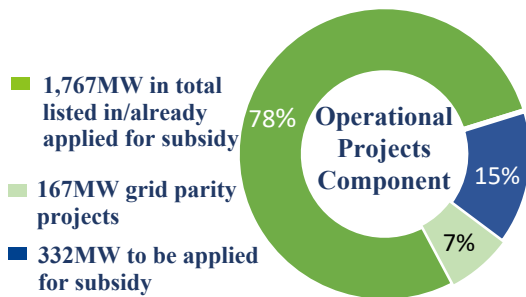
- In the first half of 2020, 100MW wholly-owned newly added wind projects were in operation. Total attributable capacity in operation was 2,266MW and wind projects accounted for 86.1%
- 710MW projects were under construction, all of which were smoothly proceeded according to the company's construction plan and will be in operation orderly

	As of 30 <sup>th</sup> June 2020	As of 30 <sup>th</sup> June 2019	Change rate
<b><u>Operational Attributable Installed Capacity</u></b>	<b>2,266MW</b>	<b>2,205MW</b>	<b>2.8%</b>
Wholly-owned Wind Power Plants	1,273MW	1,212MW	5.0%
Associates and JV Wind Power Plants	679MW	679MW	-
Wholly-owned PV Power Plants	303MW	303MW	-
Associates and JV PV Power Plants	11MW	11MW	-

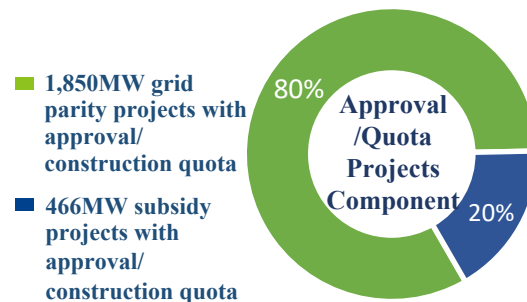
- With company's most attributable capacity getting listed in the subsidy catalog and the Government has been actively seeking for the solutions to solve the subsidy problems, the cash flow of the company's assets will be significantly improved, and the assets quality will be further improved
- Meanwhile, the LCOE of grid-parity projects is much lower than thermal power projects, and wind and PV grid-parity projects represent outstanding competitiveness in electricity market



**91%** of revenue was from power generation, which further confirmed the nature of company as a power operator



**85%** attributable operating capacity has been listed in/already applied for subsidy catalogue or grid parity projects, and the subsidy dependence effectively controlled



**80%** of pipeline projects with approval/construction quota are grid parity projects, and future cash flow will be more certain



- As a renewable energy operator, company actively embraces the grid parity era, to strengthen the development of grid parity projects and enlarge high-quality projects pipeline
- In the first half of 2020, company achieved further breakthrough in grid parity projects development , 858MW wind and PV projects were listed in NEA's 2020 grid parity projects construction plan, providing sufficient pipeline for the company's sustainable development and asset replacement strategy

#### Approved Projects Under Construction

No	Project	Province	Type	Capacity (MW)	Tariff (RMB/kWh)
1	Xuwulin	Hebei	Wind	48	0.5
2	Qiaodong	Anhui	Wind	50	0.6
3	Qiaobei	Anhui	Wind	100	0.57
4	Mengzhuling	Hunan	Wind	50	0.6
5	Yingshanmiao	Henan	Wind	50	0.6
6	Dongda	Hunan	Wind	48	Grid parity
7	Xinfa D	Jilin	Wind	49.5	Grid parity
8	Yilan	Heilongjiang	Wind	200	Grid parity
9	Fangzheng	Heilongjiang	Wind	50	Grid parity
10	Kailu II	Inner Mongolia	Wind	64.32	0.5
<b>Total</b>				<b>709.82</b>	

#### Approved/Filed/Construction Quota Projects Pipeline

No	Province	Type	Capacity (MW)	Tariff (RMB/kWh)
1	Hunan	Wind	100	Grid parity
2	Gansu	Wind	200	Grid parity
3	Liaoning	Wind	100	Grid parity
4	Heilongjiang	Wind	200	Grid parity
5	Hebei	Wind	49	Grid parity
6	Guangxi	Wind	48	Grid parity
7	Hubei	Wind	100	Grid parity
8	Hebei	PV	70	Grid parity
9	Hubei	PV	140	Grid parity
10	Guangdong	PV	200	Grid parity
11	Guangxi	PV	150	Grid parity
12	Qinghai	PV	100	Grid parity
13	Tianjin	PV	45	Trade Price
14	-	Distributed Wind	104	-
<b>Total</b>			<b>1,606</b>	



## Assets Replacement Continuously Taken Place, Assets Quality Further Optimized

- Continuously implementing the “build-transfer” strategy, improving the cash flow and optimizing the assets quality, and further reducing the dependency on subsidy
- In the first half of 2020, 196MW projects with subsidy were sold, which reduced 130 million subsidy receivable in total and over 80 million annual increment of subsidy will be cut down
- Through projects disposal, large amount of funds will be received to support the development of grid parity projects
- At the same time, 148.5MW grid parity projects have been put into operation. Through assets replacement, company will continuously improve the assets quality and reduce the reliance on subsidy

## Latest Industry Outlook



In the first half of 2020, due to the impact of COVID-19 epidemic, National GDP decreased 1.6% year-on-year and electricity consumption reduced 1.3% year-on-year, however, which were all turned from negative to positive in second quarter. Red alert was removed from all wind power investments in China



The Government actively studies to solve the subsidy problems, and the revaluation of wind power and PV assets is just around the corner



Government has promulgated the favorable policies and measures, focusing on optimizing the transmission and consumption of electricity. Zhangbei Flexible DC Project and Yunnan-Guizhou Interconnect Gateway Project were in operation, and Zhangbei-Xiong'an ultra-high voltage AC project was fully launched, which further improved the consumption of the renewable energy, as well as inter-provincial and inter-regional transmission



The Ministry of finance launched the administration approval of the subsidy catalog, and clarified that the wind power projects connected to the grid before the end of December 2019 and the PV projects connected to the grid before the end of July 2017 are qualified to apply for the subsidy, and the list of subsidy catalogue has been announcing progressively



PV modules capacity continuous increased and the price repeatedly reached the new lows, with the average market price of mono wafer PERC modules down to RMB1.33/W; with the rush for wind power installation coming to a close, the price of wind turbine have already shown a drop, with the lowest public tender price delivered in 2021 down to RMB3,000-3,300/kW



The investment enthusiasm of market participants is increasing, the wind and PV projects M&A market is booming



Financing environment positively improved. The People's Bank of China reduced the reserve requirements for three times to encourage financial institutions to support the real economy and reduce the financing costs of enterprises

1 Attributable power generation output increased steadily; the average utilization hours of wind and PV power plants were above the national average

2 822MW projects are qualified and already applied for the subsidy catalogue, which are in the process of confirming and announcing

3 Through variety methods to strictly control the leverage ratio, the company's debt ratio was further decreased



4 858MW wind power and PV projects were listed in the NES's 2020 grid parity projects construction plan

5 196MW subsidy projects were sold, and the more than RMB 650mil will be received

6 Full cycle digital intelligent internet of things management was realized, and operation efficiency was further improved

- In recent years, the favorable policies of the industry have been gradually clarified, and technological progress will further reduce the cost. Company will seize the opportunity and implement positive development strategies
- Company will continue to straighten the investment and development of grid parity projects to continuously optimize the assets quality and to achieve high-quality development

### Prospects



Ensure Safe Production and Steady Power Generation



Increase High-quality Projects in the Pipeline and Expedite the Progress of Project Construction



Continuously Optimize Asset Quality and Increase Efforts in Asset Swapping



Explore the Energy IoT Business Model and Strengthen Synergetic Development in Service Businesses



Continue to Fight the Epidemic and Actively Explore a New Operation Model under the New Norm of Routine Prevention and Control of Epidemic

- To pursue the lowest LCOE as the core competitiveness of the Group to welcome the advent of grid parity era



I: To improve the project development quality, invest in the profitable projects



II: Actively tracking and applying new technologies, new turbine types, and new processes in the construction of the Group's invested projects and build high-quality, high-efficiency power plants



III: Comprehensively promoting the application of energy internet in power plants operation, to improve the efficiency by providing the refined management and regional control, actively implementing technical reform measures such as blade lengthening to further reduce the LCOE



IV: Optimizing the asset structure through capital replacement, improving the asset quality of power plant

- Company implemented the blade extension technological transformation in power plants in Anhui and Liaoning, and the assessment showed that there were increases in the amount of power generation ranging from 5% to 7%
- The “super doubly-feed” technical modification test of two types of doubly-feed models can improve the annual power generating hours by more than 50H, reduce the standby time by 1/3, and reduce the power consumption of power plants
- The implementation of turbine blades ice prevention technological transformation was expected to reduce the ice-covering loss of RMB 100,000/year /turbine

- The monitoring & control centers in Anhui, Hunan, Hubei and Tibet have been perfecting in operation and estimated to reduce O&M cost of RMB 10 million; newly built monitoring & control center in Yunnan has been in operation
- Initiated a total of 34 items of technical modifications in respect of safety to ensure the safe production, such as the converters technical modification, technical upgrade of lightning protection design and grounding modification of wind turbines and PV modules

# Appendix

## CNE Concord New Energy Group Limited (0182.hk)

- Total Assets: 19.71bn
  - Net Assets: 6.14bn
  - Net Profit: 0.38bn
- (As of 30<sup>th</sup> Jun. 2020 Unit: RMB)

### Power Generation



- Owns and operates 74 wind power plants (attributable capacity 2,266MW)
- Focusing on the investment in wind and PV projects



### Other Businesses

- Consultation & Design
- Engineering Construction and Equipment Procurement
- Professional O&M, Intelligent Energy
- Energy Storage and Electricity Ancillary Service
- Finance Lease



P&L(RMB'000)	1H2020	1H2019
<b>Revenue</b>	999,540	963,349
Cost of sales and services rendered	(357,088)	(338,228)
Gross profit	642,452	625,121
<b>Other income</b>	17,333	15,846
<b>Other gains and losses, net</b>	63,990	19,760
<b>Impairment losses under expected credit loss model, net of reversal</b>	(24,025)	(2,634)
Distribution and selling expenses	(6,134)	(3,329)
Administrative expenses	(156,700)	(127,407)
Other expenses	(202,575)	(198,681)
Share of profit of joint ventures	83,622	89,042
Share of profit of associates	6,186	12,807
<b>Profit before income tax</b>	424,149	430,525
Income tax expense	(42,579)	(26,932)
<b>Profit for Reporting Period</b>	381,570	403,593
<b>Profit attributable to:</b>		
Owners of the Company	379,389	399,232
Non-controlling interests	2,181	4,361

Asset (RMB'000)	1H2020	2019
Current assets	6,829,428	5,024,267
Non-current assets	12,863,130	14,868,170
Total assets	19,692,558	19,892,437
Current liabilities	(6,436,375)	(4,308,295)
Non-current liabilities	(7,115,459)	(9,614,941)
Total liabilities	(13,551,834)	(13,923,236)
Net current assets	393,053	715,972
Net Asset	6,140,724	5,969,201
Share Capital	72,615	73,652
Reserves	6,045,480	5,869,651
Cash Flow ('000)	1H2020	1H2019
Net cash from operating activities	303,293	406,734
Net cash used in investing activities	(184,358)	(779,698)
Net cash from financing activities	(278,880)	(280,340)
Net increase/(decrease) in cash and cash equivalents	(159,945)	(653,304)
cash and bank balances	1,434,569	720,834
Total Liability	13,551,834	
Liability with Interest	10,096,101	
Weighted Average Cost	5.67%	
Medium and Long Term Borrowing (>5Years)	7,856,959	

## Attributable Power Generation (GWH)

Business Segments and Regions	Attributable Power Generation in Total			Wholly-owned Power Plants		
	1H2020	1H2019	Change Rate	1H2020	1H2019	Change Rate
<b>Wind Power</b>	<b>2,218.4</b>	<b>2,138.8</b>	<b>3.7%</b>	<b>1,523.4</b>	<b>1,395.1</b>	<b>9.2%</b>
Northeastern China	269.8	204.8	31.7%	120.6	-	-
Northern China	236.2	246.6	-4.2%	-	-	-
Northwestern China	78.4	80.5	-2.6%	-	-	-
Eastern China	443.0	381.4	16.2%	316.7	267.8	18.3%
Central Southern China	1,058.3	1,081.8	-2.2%	953.4	983.8	-3.1%
Southernwestern China	132.7	143.6	-7.6%	132.7	143.6	-7.6%
<b>PV Power</b>	<b>244.7</b>	<b>264.2</b>	<b>-7.4%</b>	<b>235.7</b>	<b>254.6</b>	<b>-7.4%</b>
Northeastern China	0.4	0.4	-	0.4	0.4	-
Northern China	22.6	24.1	-6.2%	16.4	17.2	-4.7%
Northwestern China	7.5	6.7	11.9%	7.5	6.7	11.9%
Eastern China	30.2	32.1	-5.9%	27.5	29.4	-6.5%
Southernwestern China	173.6	190.3	-8.8%	173.6	190.3	-8.8%
Overseas Regions	10.4	10.5	-1.0%	10.4	10.5	-1.0%
<b>Total</b>	<b>2,463.0</b>	<b>2,403.0</b>	<b>2.5%</b>	<b>1,759.2</b>	<b>1,649.7</b>	<b>6.6%</b>

## Attributable Installed Capacity (MW)

Business Segments and Regions	Power Plants of the Group			Wholly-owned Power Plants		
	1H2020	1H2019	Change Rate	1H2020	1H2019	Change Rate
<b>Wind Power</b>	<b>1,952</b>	<b>1,891</b>	<b>3.2%</b>	<b>1,273</b>	<b>1,212</b>	<b>5.0%</b>
Northeastern China	278	162	71.6%	149	-	-
Northern China	319	186	71.5%	100	-	-
Northwestern China	103	103	-	-	-	-
Eastern China	346	379	-8.7%	228	261	-12.6%
Central Southern China	826	981	-15.8%	716	871	-17.8%
Southernwestern China	80	80	-	80	80	-
<b>PV Power</b>	<b>314</b>	<b>314</b>	<b>-</b>	<b>303</b>	<b>303</b>	<b>-</b>
Northeastern China	1	1	-	1	1	-
Northern China	26	26	-	20	20	-
Northwestern China	9	9	-	9	9	-
Eastern China	44	44	-	40	40	-
Southernwestern China	215	215	-	215	215	-
Overseas Regions	18	18	-	18	18	-
<b>Total</b>	<b>2,266</b>	<b>2,205</b>	<b>2.8%</b>	<b>1,576</b>	<b>1,515</b>	<b>4.0%</b>

2,919MW-Total Capacity; 1,952MW-Attributable Capacity

## Associates and JV Projects: 679MW attributable installed

Year	Project	Regions	Province	Capacity (MW)	CNE's Stake	Tariff (RMB/kWh)	Attributable Capacity
2006	Chantu Phase I	NE	Liaoning	50.25	25%	0.64	12.56
2008	Taiqi Phase I	N	Inner Mongolia	49.5	49%	0.52	24.26
2008	Erlianhaote Phase I	N	Inner Mongolia	21	49%	0.52	10.29
2009	Linchang Phase I	NE	Jilin	49.5	49%	0.61	24.26
2009	Mazongshan	NE	Liaoning	49.5	24.5%	0.61	12.13
2009	Qujiagou	NE	Liaoning	49.5	24.5%	0.61	12.13
2009	Zhaqi Phase I	N	Inner Mongolia	49.5	49%	0.54	24.26
2009	Heiyupao Phase I	NE	Jilin	49.5	49%	0.61	24.26
2010	Wuchuan	N	Inner Mongolia	49.5	46%	0.51	22.77
2010	Huadeng Phase I	N	Inner Mongolia	49.5	32%	0.54	15.84
2010	Huadeng Phase II	N	Inner Mongolia	49.5	32%	0.54	15.84
2010	Zhalute Phase II	N	Inner Mongolia	49.5	32%	0.54	15.84
2010	Zhalute Phase III	N	Inner Mongolia	49.5	32%	0.54	15.84
2010	Guazhou	NW	Gansu	201	51.5%	0.52	103.52
2011	Touzhijian	N	Inner Mongolia	49.5	51.0%	0.51	25.25
2011	Kailu	N	Inner Mongolia	49.5	32%	0.54	15.84
2011	Maniuhu	NE	Liaoning	49.5	30%	0.61	14.85
2011	Gulibengao	NE	Liaoning	49.5	30%	0.61	14.85
2012	Tianchang	E	Anhui	48	49%	0.62	23.52
2013	Chaoyang Wanjia	NE	Liaoning	49.5	30%	0.61	14.85
2013	Guanshan	E	Anhui	48	49%	0.61	23.52
2013	Suzhou Fuli	E	Anhui	48	49%	0.61	23.52
2013	Jianghua	CS	Hunan	48	59%	0.61	28.32
2014	Zilingpu	CS	Hubei	48	59%	0.61	28.32
2014	Huolonggang	CS	Henan	49.5	59%	0.61	29.21
2014	Yantai Gaotong	E	Shandong	48	49%	0.61	23.52
2016	Lingshan	E	Anhui	48	49%	0.61	23.52
2018	Shenzhagtang	CS	Hunan	48	25%	0.61	12
2018	Jingtang	CS	Hunan	48	25%	0.6	12
2019	Kailu Phase II	N	Inner Mongolia	50	32%	0.5	16
2019	Zhaqi Phase IV	N	Inner Mongolia	50	32%	0.5	16

## Wholly-owned Projects: 1,273MW attributable installed

Year	Project	Regions	Province	Capacity (MW)	CNE's Stake	Tariff (RMB/kWh)	Attributable Capacity
2015	Feixi	E	Anhui	34	100%	0.61	34
2016	Jiepai	CS	Hunan	48	100%	0.61	48
2016	Jiagou	E	Anhui	48	100%	0.61	48
2016	Cangfang	SW	Yunnan	48	100%	0.61	48
2016	Fuchuan Shijia	CS	Guangxi	48	100%	0.61	48
2016	Fuchuan Chaodong	CS	Guangxi	48	100%	0.61	48
2016	Bainijing	SW	Yunnan	32	100%	0.61	32
2016	Nanzhao	CS	Henan	100	100%	0.61	100
2017	Wuhe	E	Anhui	48	100%	0.61	48
2017	Qiaotoupu	CS	Hunan	48	100%	0.61	48
2017	Xinzao	CS	Guangxi	48	100%	0.61	48
2017	Hongtang	CS	Hunan	48	100%	0.61	48
2017	Jinmen	CS	Hubei	48	100%	0.61	48
2018	Tianchang Phase II	E	Anhui	48	100%	0.6	48
2018	Yushan	CS	Hubei	48	100%	0.61	48
2018	Zaoyang	CS	Hubei	47	100%	0.61	47
2018	Lixi	CS	Hubei	48	100%	0.6	48
2018	Jindashan	E	Anhui	50	100%	0.6	50
2019	Baimangying	CS	Hunan	48	100%	0.6	48
2019	Yushan Phase II	CS	Hubei	89	100%	0.57	89
2019	Wulanhua D	NE	Jilin	49.5	100%	0.3731	49.5
2019	Wulanhua E	NE	Jilin	49.5	100%	0.3731	49.5
2019	Wulanhua F	NE	Jilin	49.5	100%	0.3731	49.5
2020	Fanshi	N	Shanxi	100	100%	0.6	100

332MW-Total Capacity; 314MW-Attributable Capacity

Year	Projects	Regions	Province	Capacity (MW)	CNE's stake	Tariff (RMB/kWh)	Attributable Capacity
Associates and JV Projects: <b>10.78MW</b> attributable installed capacity							
2011	Suqian	E	Jiangsu	8.88	49%	2.4	4.35
2015	Zhaer	N	Inner Mongolia	20	32.16%	0.95	6.43
Controlled Projects: <b>303.22MW</b> attributable installed capacity							
2011	Wuwei	NW	Gansu	9	100%	1.15	9
2012	Hawaii(Hoko)	—	US	0.9	80%	USD 0.46 (2-3% increase/Y)	0.72
2013	Yongren	WS	Yunnan	50	100%	1	50
2013	Wisconsin(Jefferson)	—	US	1	100%	USD 0.21 (1% increase/Y)	1
2014	Naidong	WS	Tibet	20	100%	1.15	20
2014	Pingyuan	E	Shandong	40	100%	1.2	40
2015	Indiana	—	USA	10	100%	USD 0.20	10.2
2015	Huaping	WS	Yunnan	50	100%	0.95	50
2015	Eryuan	WS	Yunnan	30	100%	0.95	30
2015	Yanyuan	WS	Sichuan	30	100%	0.95	30
2015	Rhode Island(Johnston)	—	USA	1.5	100%	USD 0.175	1.5
2015	Rhode Island (North kingstown)	—	USA	0.5	100%	USD 0.19	0.5
2016	Ohio(Minster)	—	USA	4.3	100%	USD 0.08 (2% increase/Y)	4.3
2017	Cuomei	WS	Tibet	20	100%	1.15	20
2017	Haixing	N	Hebei	20	100%	1.18	20
2017	Jiangzi	WS	Tibet	15	100%	1.15	15
2018	Haerbin	NE	Heilongjiang	1	100%	0.7012	1





# Grid-Parity Wind Power Plant Economics (Tongyu Project)

## Wind Power Plant Economics Assumptions:

1. Capacity of wind farm = 198MW	4. Total Investment = RMB 1.4553bn (RMB7.35/W)	7. Bank Loan Term = 10 Years
2. Utilization Hours = 3,800hours	5. Project Financing Ratio: 70%	8. VAT for CAPEX offset by VAT for power sales
3. Tariffs = RMB0.3731/kWh (include VAT)	6. Interest rate = 5.41%	

## Project Income Statement:

(in RMB mil)	Year 0	Year 1	Year2	Year3	Year4	Year5	Year6	Year7	Year8	Year9	Year 10
Net Electricity tariffs (exclude VAT)		248.43	248.43	248.43	248.43	255.31	264.57	264.57	264.57	264.57	264.57
VAT Refund		-	-	-	-	6.88	16.15	16.15	16.15	16.15	16.15
Total revenue		248.43	248.43	248.43	248.43	255.31	264.57	264.57	264.57	264.57	264.57
Depreciation (a)	20Years	62.11	62.11	62.11	62.11	62.11	62.11	62.11	62.11	62.11	62.11
O & M costs		4.05	4.17	4.30	4.43	4.56	6.10	6.28	6.47	6.67	6.87
Repair costs		0.78	0.78	0.79	0.79	0.80	1.85	1.89	4.12	1.96	2.00
Others		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Operating expense		1.40	1.44	1.49	1.53	1.58	1.62	1.67	1.72	1.77	1.83
Total		69.59	69.75	69.94	70.11	70.30	72.93	73.20	75.67	73.76	74.06
Operating profit		178.84	178.68	178.49	178.32	185.01	191.64	191.37	188.90	190.81	190.51
Loan balance at end of the year	10Years 1,018.71	967.77	865.90	764.03	662.16	560.29	458.42	356.55	254.68	152.81	50.94
Interest expense	10Years 5.41%	53.73	49.60	44.09	38.58	33.07	27.56	22.04	16.53	11.02	5.51
Profit before tax		125.10	129.07	134.41	139.74	150.58	160.86	166.10	169.14	176.56	181.78
Tax		-	-	-	22.29	22.96	23.55	47.04	46.42	46.90	46.82
Profit after tax (b)		125.10	129.07	134.41	122.27	131.75	140.75	124.58	126.85	132.42	136.34
Capital	436.59										
VAT offset (c)		32.30	32.30	32.30	32.30	18.53	-	-	-	-	-
Loan repayment (d)	10Years	-	50.94	101.87	101.87	101.87	101.87	101.87	101.87	101.87	101.87
Cash Flow (a)+(b)+(c)-(d)		-436.59	145.52	121.62	126.95	114.82	101.12	84.83	87.11	92.68	96.59
20-year equity IRR	28.51%										
20-year project IRR	15.17%										
LCOE (RMB/kWh)	0.1862										
ROE		29.00%	30.00%	31.00%	28.00%	30.00%	32.00%	29.00%	29.00%	30.00%	31.00%

CAUTION : The numbers above are hypothetical numbers illustrating a sample financial model for a wind farm in Hunan. Such numbers do not derive from any wind power plant in which CNE has invested or plan to invest.

# CNE Grid-Parity Wind Power Plant Economics (sample)

**Assumptions:** Tariff = Desulfurization Coal-fire Benchmark tariff, real time tariff by the Power Grid Corp

1. Capacity = 48MW 2. Tariffs = Desulfurization Coal-fire Benchmark tariff	3. Project Financing Ratio: 70% 4. Interest rate = 5.41%	5. Bank Loan Term = 10 Years 6. VAT for CAPEX offset by VAT for power sales
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## Project Cash Flow

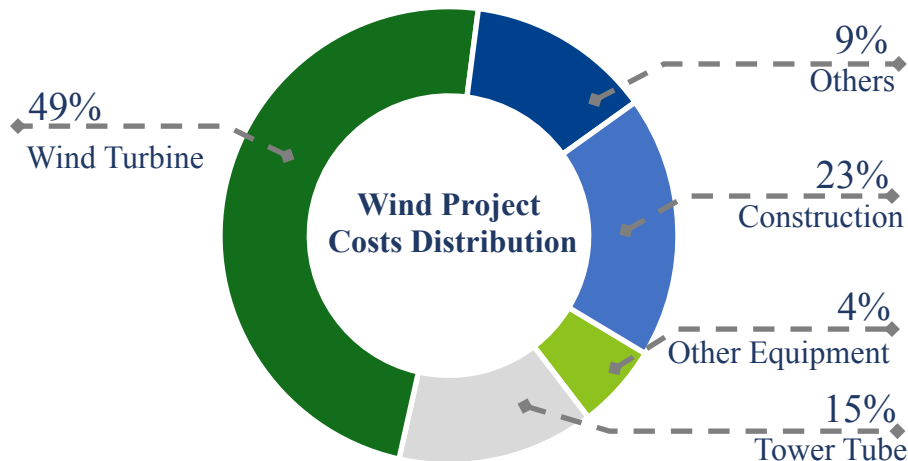
Province	Benchmark tariff (RMB)	Utilization (Hours)	Investment (RMB/kW)	Equity IRR	Cash Flow (in: '000RMB)										
					Year0	Year1	Year2	Year3	Year4	Year5	Year6	Year7	Year8	Year9	Year 10
Jilin	0.3731	3,500	6,500	26.27%	-93,600	20,200	21,290	32,400	24,660	25,600	23,640	17,760	18,080	19,320	20,100
Helongjiang	0.374	2,800	6,500	16.58%	-93,600	8,820	9,910	18,950	13,640	14,580	15,130	12,610	9,440	10,690	11,460
Hunan	0.45	2,500	6,900	17.24%	-99,360	10,200	11,360	21,090	15,300	16,300	16,910	13,750	10,750	12,050	12,880
Hubei	0.4161	2,400	6,900	13.17%	-99,360	4,640	5,800	14,520	9,900	10,900	11,520	10,140	8,950	7,830	8,660

Wind power projects are much less relied on subsidies than PV and the cash flow will be positive without subsidies

CAUTION : The numbers above are hypothetical numbers illustrating a sample financial model for a wind farm in China. Such numbers do not derive from any wind power plant in which CNE has invested or plan to invest.

## Sensitivity/ Scenario Analysis:

Scenario (assuming other factors held constant)	Impact on 1 <sup>st</sup> Year Profit	Impact on IRR (Compared with 28.51%)	Equity IRR	Current Level
Utilization Hours dropped by 200 hours	-RMB 13.07mil	-2.85%	25.66%	3,500-3,900 hours
Interest rate decreased by 0.50% to 4.91%	+RMB 4.97mil	+0.76%	29.27%	4.9-5.9%
Project Cost Decreased to RMB 6,900/kW	+RMB 7.16 mil	3.53%	32.04%	RMB 6.4-7.4 /W





## Stable Shareholder Structure, Professional Management Team



### Executive Directors

#### Mr. Liu Shunxing

An Executive Director of China Energy Council. He once worked in NDRC and China Energy Conservation Investment Corporation

#### Ms. Liu Jianhong

Former Chief Legal Officer of China Energy Conservation Investment Corporation, possessing over 20 years experiences in renewable energy industry

#### Mr. Yu Weizhou

Former Deputy Chief Engineer of Guohua Energy Investment Ltd. Also previously served at State Electricity Regulatory Commission of the PRC (SERC) and the Nation's Electric Dept

#### Mr. Gui Kai

Has more than 20 years experience in power industry. He was General Manager of Shenhua Trading Group and vice general manager of Guohua Energy Investment Co., Ltd

#### Mr. Niu Wenhui

Has over 20 years financial management experience. He was the Vice President of China Ruilian Industry Group and CFO of Rainbow Group Shenzhen Branch

#### Mr. Shang Li

Holds a Ph. D degree in Princeton University, USA. He was formerly the Chief Architect and Vice President of Intel China Research and an Associate Professor in University of Colorado

#### Mr. Zhai Feng

Has over 20 years experience in capital market management. He was the director, vice president of Shanghai Shenhua Holdings

#### Mr. Liu & Management Team

24.39%

#### Huadian Fuxin

10.49%

#### Others

65.12%





# CNE Professional and Experienced Management Team

## Non-Executive Director

**Mr. Wang Feng** holds a Master degree in North China Electric University. He is currently works for Huadian Fuxin Energy Limited Company as Director of Planning and Investment Department

## Independent Non-Executive Directors

**Mr. Yap Fat Suan, Henry** fellow Member of the Institute of Chartered Accountant in England and Wales and an Associate Member of Hong Kong Institute of Certified Public Accountants

**Dr. Jesse, Zhixi Fang** holds a doctor degree in University of Nebraska-Lincoln. He was the global vice president of Intel and founded Intel Labs China, ILC as its first dean

**Ms. Huang Jian** holds a Master degree in Central University of Finance and Economics. She is currently a partner of Yongxinzhonghe Certified Public Accountants

**Mr. Zhang Zhong** holds a Master degree in Renmin University of China. He is currently a partner of ZhongLun Law Firm

## Other Management Team

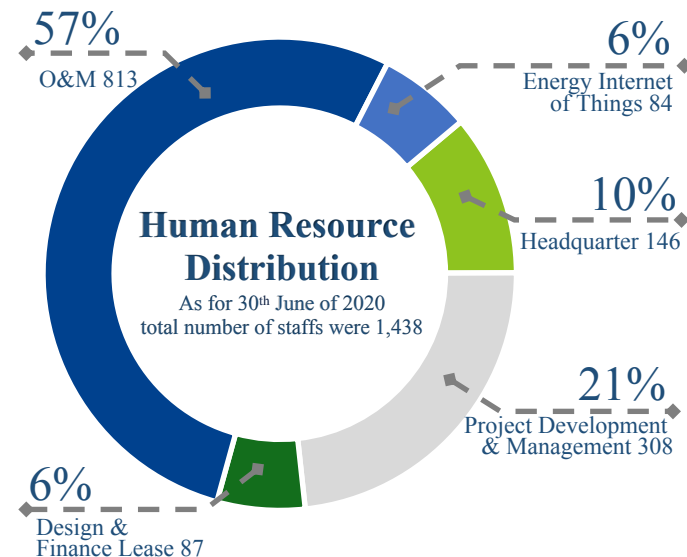
**Mr. Jiang Yingjiu -- Vice President** Joined the company in 2006, he had worked for Beijing Municipal Commission of Housing and Urban-Rural Development and China Energy Conservation Investment Corporation

**Mr. Wang Xigang -- Vice President** Joined the company in 2009, he had worked for AVIC

**Mr. Wang Meihai -- Vice President** Joined the company in 2019, he had worked for China Datang Corporation

**Mr. Lu Yichuan -- Vice President** Joined the company in 2019, he had worked for Longyuan Power Group and U.S. Energy Fund

**Mr. Zhou Xiaole -- Vice President** Joined the company in 2007, he had worked for Yili Group



# *Thank You for Your Interest in CNE*

Please feel free to contact us for any inquiries:

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