

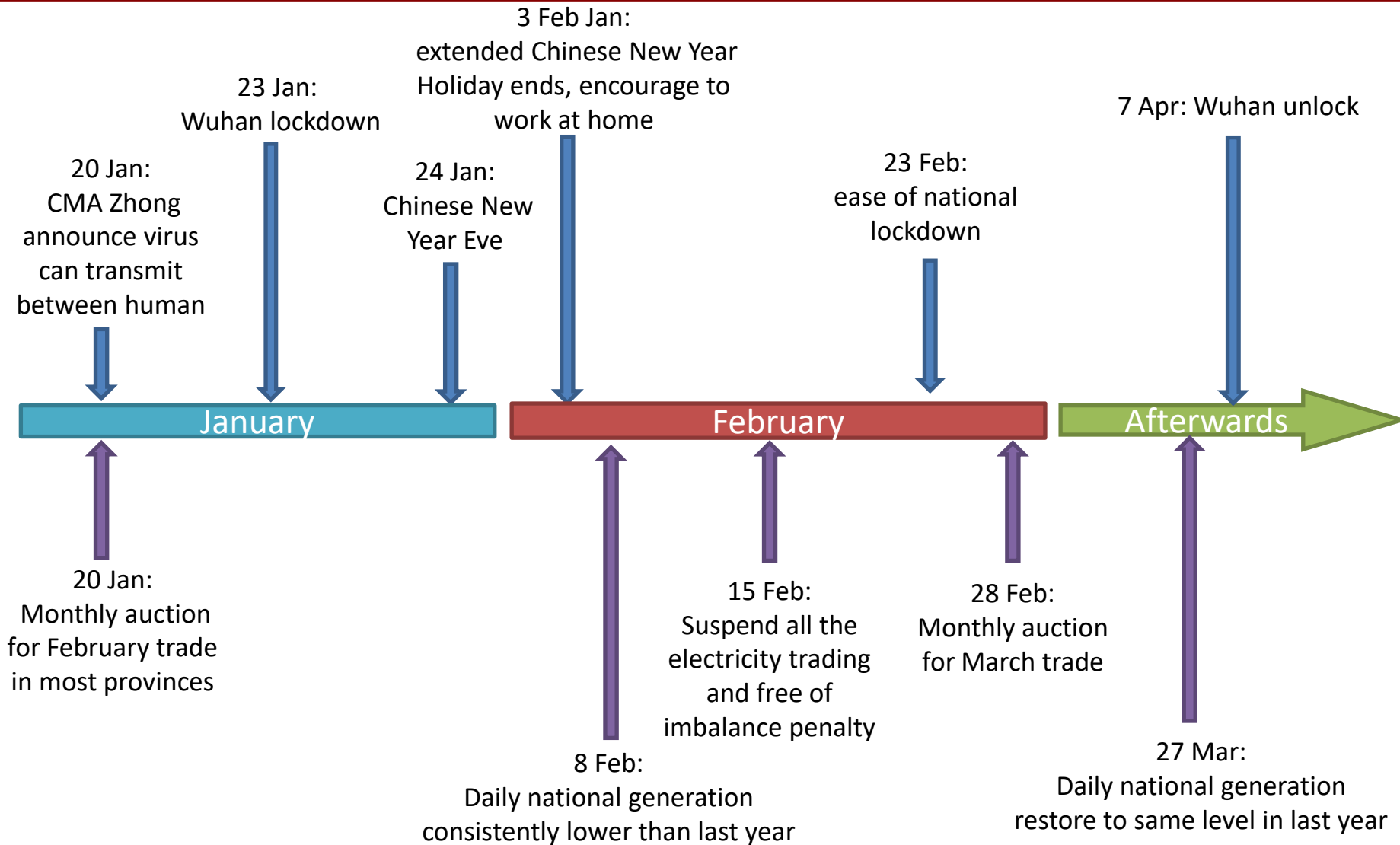
Impact of Covid-19 on China Electricity Sector

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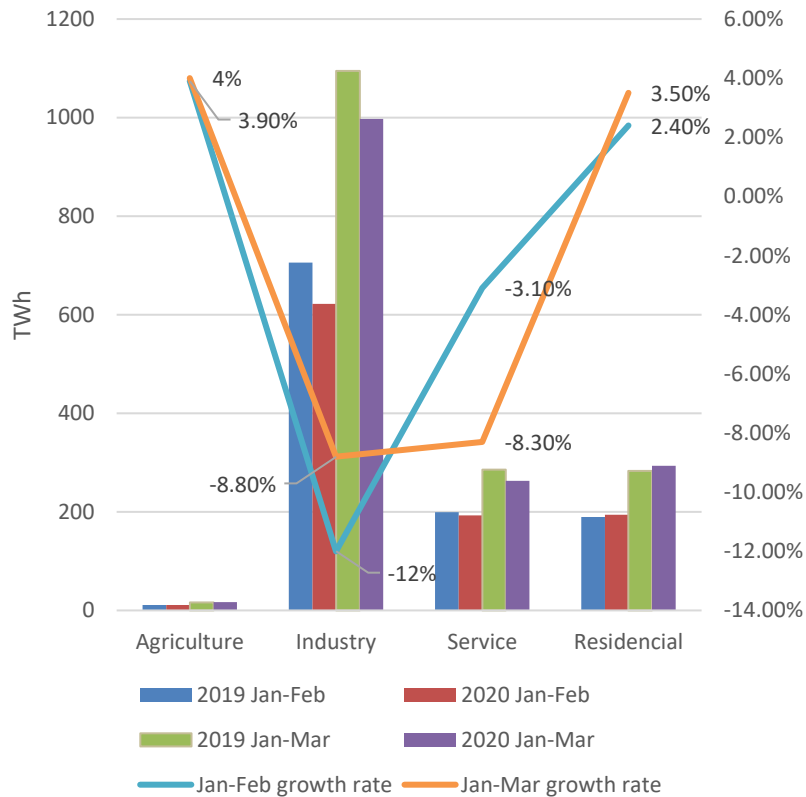
Timeline



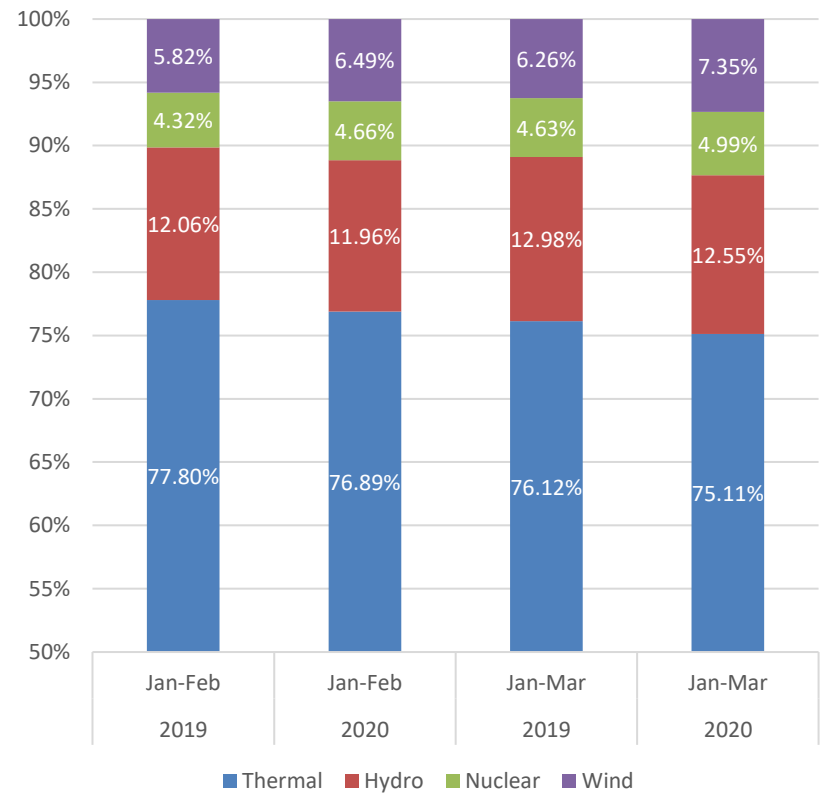


National Electricity Consumption and Generation

Accumulated Consumption



Accumulated Generation Mix



Source: China Electricity Council

Electricity consumption and Economic indicator

National wide in 1 st quarter		Electricity consumption(TWh)	Growth rate	GDP(CNY Billion)	Growth rate
Total		1569.8	-6.5%	20650.4	-6.8%
Agriculture		16.7	4%	1018.6	-3.2%
Industry		997.1	-8.8%	7363.8	-9.6%
Service		262.8	-8.3%	12268	-5.2%
including	Wholesale and Retail Trade			1875	-17.8%
	Hotel and Catering Service			282.1	-35.3%
	Finance			2134.7	6%
	Telecommunication, Software and IT			892.8	13.2%
Residential		293.2	3.5%		

Source: National Bureau of Statistics and China Electricity Council



Government Electricity Policy to Boost Economy

Temporary Tariff Reduction

- From 1st Feb to 30th Jun, customers(including customers in market) only need to pay **95%** of electricity bill

Flexible grid connection charge

- For business which can't operate normally can apply to reduce connection capacity to pay less for connection charge.

Two grid companies agree to bear the cost

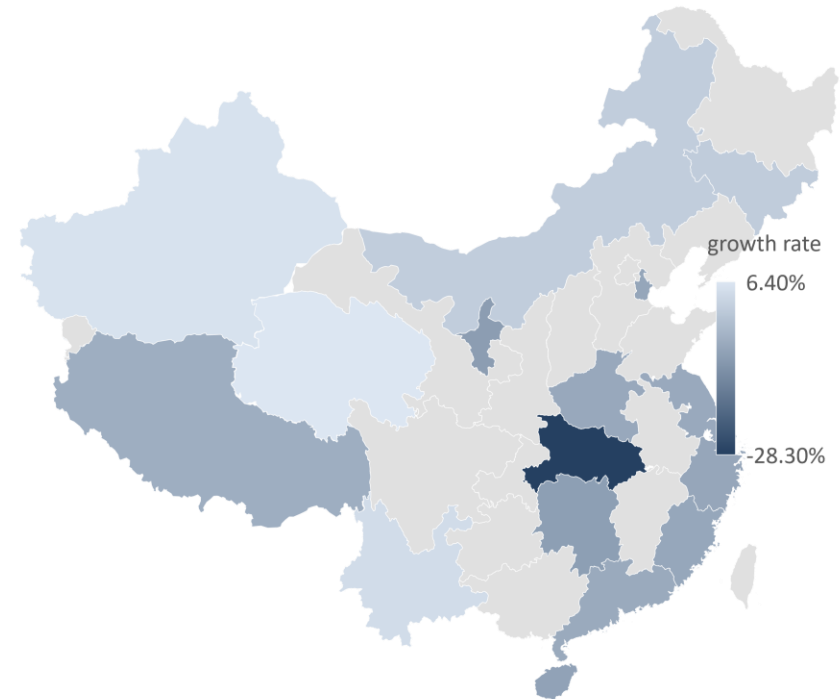
Estimated cost	Tariff Reduction	Flexible grid charge	Ratio of revenue
SGCC	£4.22billion	£1.41 billion	1.84%(2019)
CSG	£830 million	£360 million	1.97%(2018)

Covid-19 different impacts on provinces

Cumulated cases (until 28th Apr)



Electricity consumption decrease rate (March)



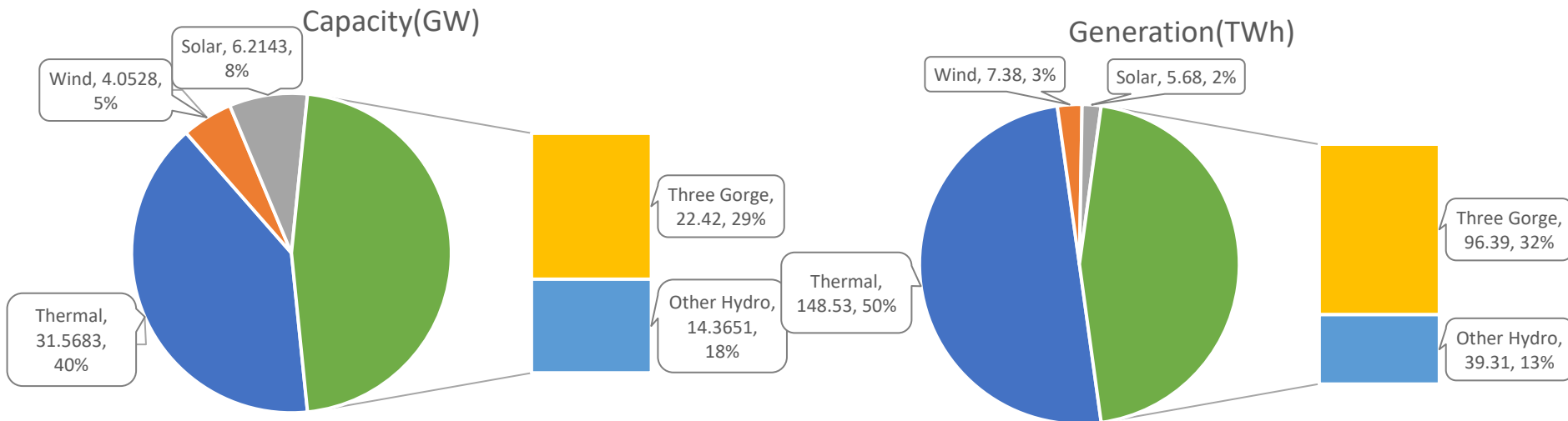
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Source: National Health Commission and China Electricity Council

Electricity Trade and Profile of Hubei

- Electricity trade arrangement in 2019: starts at Jun (Annually) and Sep(Monthly)
- Electricity trade arrangement in 2020: starts at May(Annually) and Jul(Monthly)

200.9TWh generation, 221.4TWh consumption in 2019





Electricity Operation of Hubei during Crisis

Stage 1: FGD material restrict power generation(20th Jan - 10th Feb)

Max load reach 27.2GW(12.75% increase) at Chinese New Year Eve(24th Jan), 7GW thermal capacity is affected

Inter-provincial HV interconnector increase 12GWh daily, major generator share fuel supply info.



Stage2: Widening peak valley gap(11th Feb – 10th Mar)

Peak and valley load gap widening, averages at 7.078GW with largest gap reach 10.668GW at 15th Feb, nearly half of max load

Shift inflexible imports to neighbouring provinces, increase available hydro capacity (like Three George)



Stage3: Surplus power with ease of lockdown(10th mar-)

How to cope with surplus power when most generation units starts

Neighbouring province helps to importing almost daily 2GW power, accumulating 2.7TWh