



Managing Contract and Supply chain disruptions to deliver successful solar PV projects in Africa

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LONGi

Agenda

- LONGi introduction
- Manufacturing capacity
- Product trends 2020
- Product portfolio
- Effect on price levels

About LONGi

The world's leading solar technology company

LONGi leads the solar PV industry to new heights with **product innovations** and **optimized power-cost ratio** with breakthrough monocrystalline technologies. LONGi supplies more than **30GW** of high-efficiency solar wafers and modules worldwide yearly, about **a quarter of global market demand**. LONGi is recognized as the world's most valuable solar technology company with the highest market value. **Innovation** and **sustainable** development are two of LONGi's core values.



Y2000
Established



30000+
Employees



\$186 Million
R&D Investment
(5.60% of revenue, Y2018)



\$3.3 Billion
Revenue
(Y2018)



\$386.5 Million
Net Profit
(Y2018)



MIT Science and Technology Review
50 Smart Companies



Forbes
Asia's 200 Best Over A Billion 2019



Fortune Magazine
China's Top 500



**NEW CHINA
NIFTY 50**

Goldman Sachs
New China NIFTY 50
(*The Only New Energy Enterprise on the list)

Leadership

World's leading capacity of monocrystalline solar products

World's record for **P-Type monocrystalline** cell and module efficiency. World's largest scale in monocrystalline silicon wafers, monocrystalline modules and bifacial modules deliveries. World's healthiest solar company in financial strength, according to the latest BloombergNEF report. LONGi demonstrates its leadership in the PV industry in energy transformation. LONGi's products fulfilled **15% of new energy installations** in the world each year, and is the **world's largest supplier of power generation equipment in the PV sector**.



40%

Total capacity of monocrystalline silicon wafers, ranked No. 1 worldwide in 2018



7.1GW

Total shipment of monocrystalline cell and modules, ranked No. 1 worldwide in 2018



3.0GW +

Total shipment of bifacial modules, ranked No. 1 worldwide by December 2019



BloombergNEF

Altman-Z Score 3.60, highest of all manufacturers (Bloomberg NEF 4Q-2019 PV Outlook,)



Photon
CONSULTING

No. 1 in Financial Health Index for successive quarters



PVTECH

AA Rating in the new PV ModuleTech Bankability (AA is currently the highest rating)

Leadership

Industry leading financial health

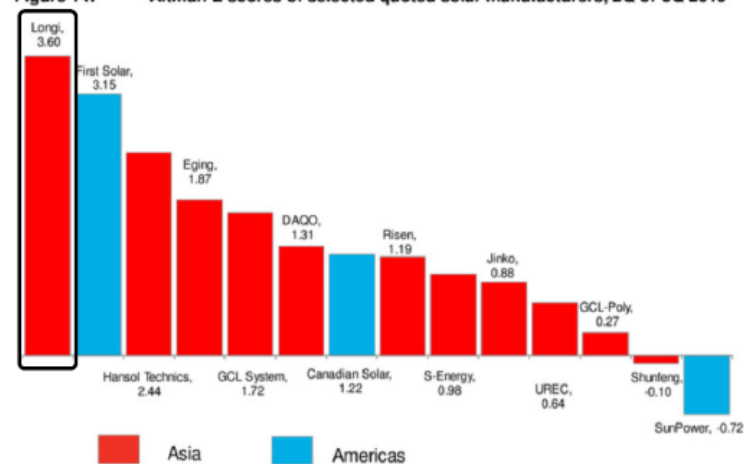
Adhering to the philosophy of **stable operation** and **sustainable development**, LONGi has maintained a low asset-liability ratio through the years.

The strong return on asset, **good profitability** and **proven bankability** has been validated and recognized by industry authorities.

Table 3: BloombergNEF Tier 1 module maker list as of 4Q 2019

Firm/ brand	Annual module capacity, MW/year	Firm/ brand	Annual module capacity, MW/year
Jinko*	16,000	SunPower/ Maxeon*	2,400
Longi*	15,000	Sumeo/ Phono Solar	2,000
Hanwha Q-Cells*	10,700	Jinneng/ Jinerjy	2,000
JA Solar*	10,500	Waa:ee	2,000
Canadian Solar	9,400	REC Group*	1,800
Risen Energy	9,100	HT-SAAE*	1,500
Trina Solar*	8,000	Adani/Mundra*	1,500
GCL Systems*	7,200	Vietnam Sunergy (VSUN Solar)	1,500
First Solar*	6,200	Vikram Solar*	1,100
Talesun	5,800	Jolywood	1,100
Seraphim*	5,000	Hengdian DMEGC	1,000
Chint/Astronergy*	4,200	Boviet*	1,000
Wuxi Suntech*	3,900	S-Energy	530
Renesola	3,650	Recom	500
ZNShine*	3,500	Hansol Technics	480
Akcome	2,600	Shinsung	300
Eging	2,600	Hyundai	600
I G Electronics*	2,500	Sharp	210
BYD	2,400	Win Win/ Winalco	200
Total		149,970	

Figure 14: Altman-Z scores of selected quoted solar manufacturers, 2Q or 3Q 2019

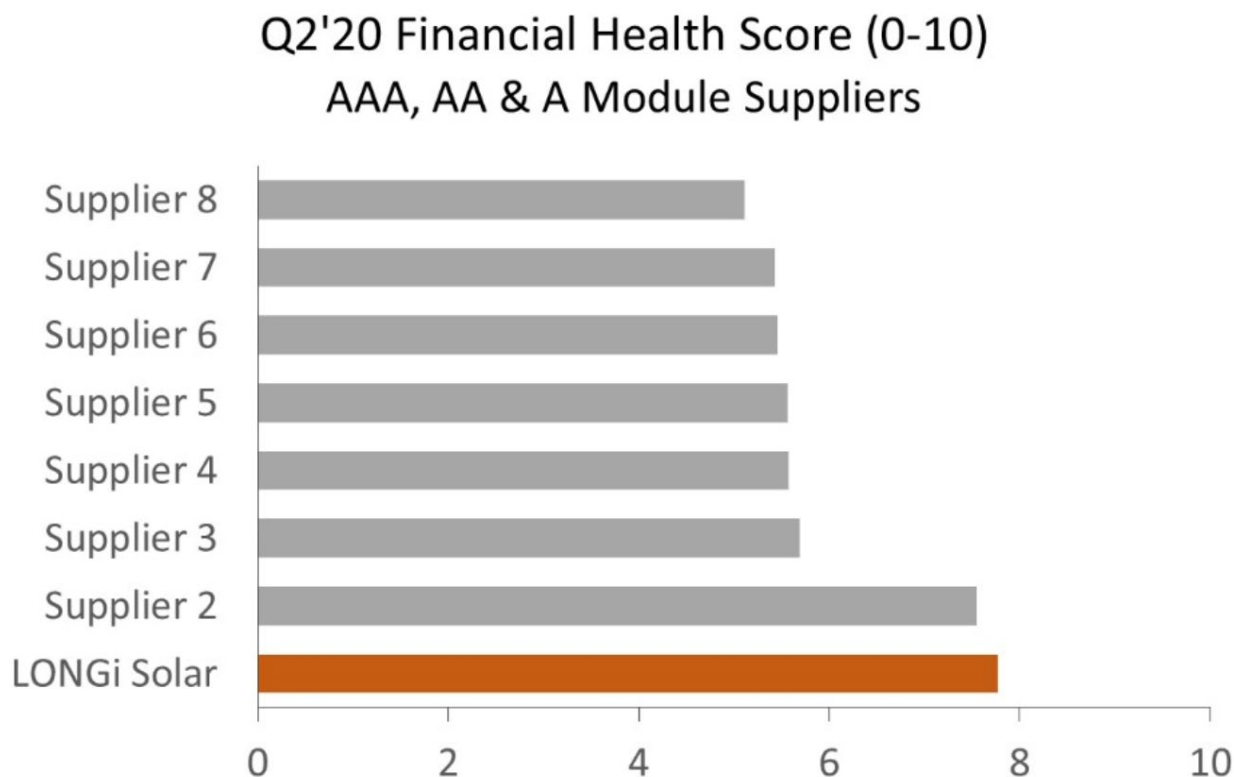


Source: BloombergNEF

Leadership

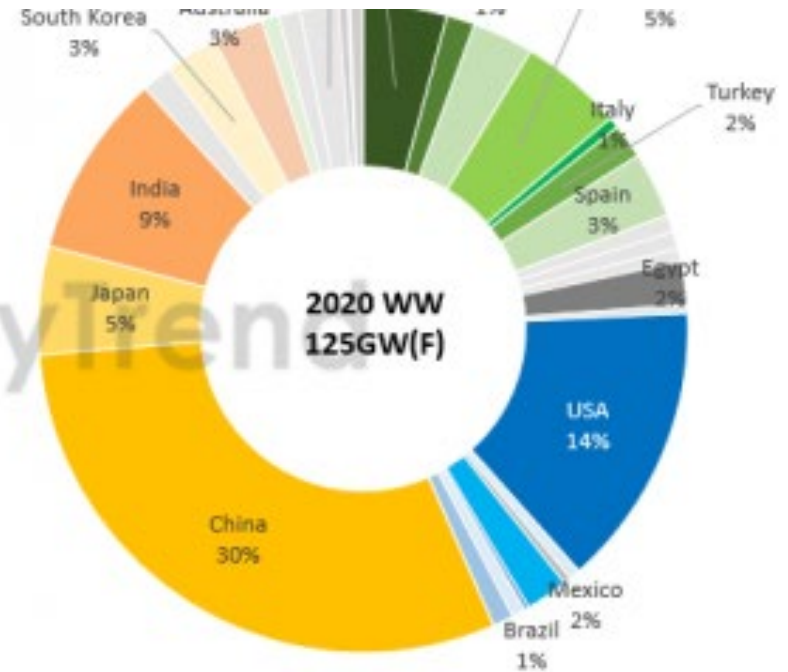
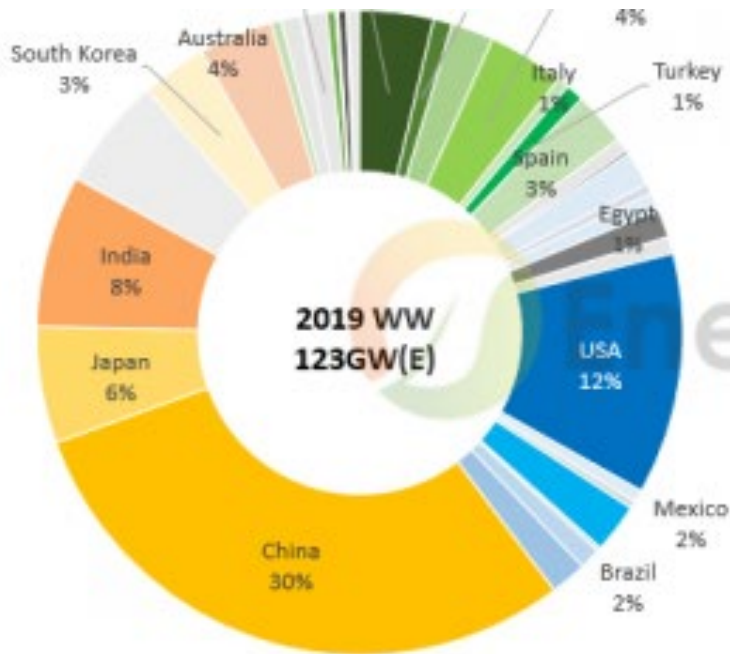
Industry leading financial health

LONGi retains status as only AAA-Rated solar module supplier



Manufacturing capacity

- Q1 2020 – Two week shut down from Chinese manufacturing caused panic buying in local markets
- Q2 2020 – Global demand decreases as global lock down procedures restricts trade/installations of new projects
- Chinese manufacturers still plan up to 60% increase production capacity for 2020
- China still plan to install between 33.4 – 45GWp of solar for 2020
- Global sales expected to drop 18% from 129.5GWp to 106.4GWp



Source: EnergyTrend Demand Quarterly Report, 2019 Oct.

Product trends 2020

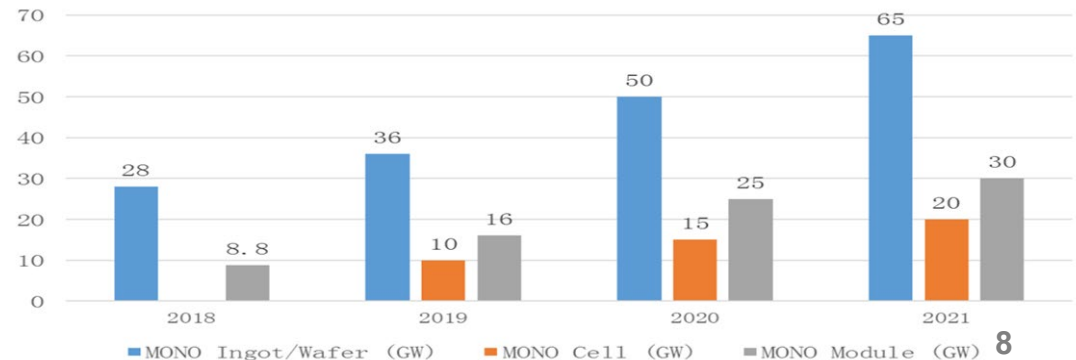
- Mono PERC wafers to represent 80% of market share off al wafers by end 2020
- Module power increase above 500Wp

Wafer size transition forecast

Source: PV InfoLink



Capacity Planning

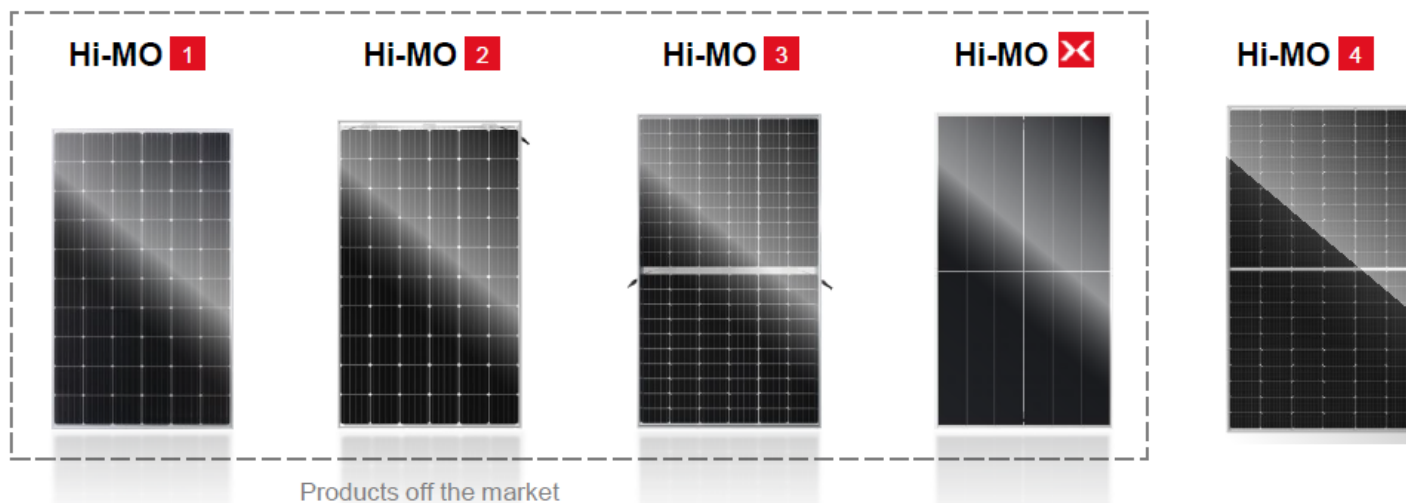


Product Portfolio

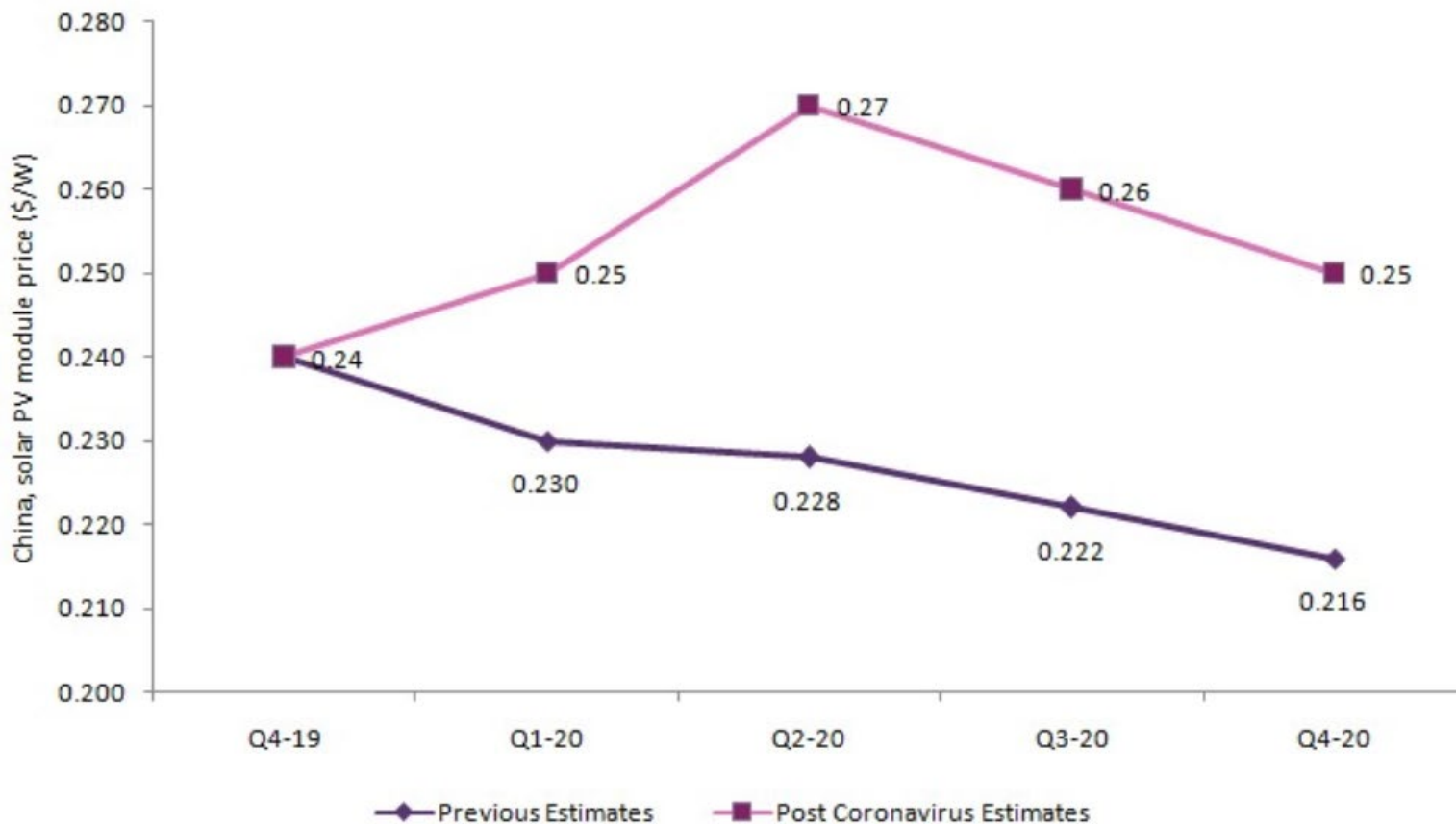
Industry Benchmark

From standard monocrystalline, PERC monocrystalline, bifacial, to the Hi-MO 4 modules with the new M6 (166mm) wafer, every of LONGi's new product spearheads **the transformation of the PV industry**.

Hi-MO Series | Leading the industry with Mono PERC technology



Effect on price levels



Conclusion

As the global markets is still easing up on restrictions of trade due to global pandemic it has caused an over supply situation with module manufacturers in Q2 – 2020, we do believe that this will change in Q3 - 2020 and price levels will become under pressure to increase.

Module / wafer efficiencies is still improving making it important to keep up with current trends to assure best LCOE solution to the end clients.



Propelling the transformation