

JK LAKSHMIPAT UNIVERSITY, JAIPUR
INSTITUTE OF MANAGEMENT

End-Term, December 2025

BBA, Semester V, 2025-26

ST1103: Business Strategy

Time: 2 hours, Max. Marks: 30

Roll No.: **Name:**

Instructions to students:

1. Read the entire question paper before beginning.
2. Write your **Roll No.** and **Name** clearly on the question paper before starting.
3. **No digital devices** are permitted.
4. *Note:* Irrelevant or redundant answers will be penalized.

CASE

Solar panels have become so cheap so quickly, that they have gone from curiosity to commodity in less than four decades.

The global glut means panels have fallen in price dramatically, leading to widespread proliferation. They are sometimes considered cheap enough to be used as an alternative material for garden fencing; in some locations, new panels enable households to sever their connection to the grid.

A virtuous cycle is under way in which rising manufacturing capacity leads to lower costs and increased demand. Everyone benefits – except for the solar-panel makers.

Producers such as Longi Green Energy Technology, a leading Chinese supplier, are now reckoning with a harsh reality. The once-profitable mass production of panels they pioneered has led to overcapacity and plummeting prices, squeezing manufacturers and spurring lay-offs and cost-cutting.

What is a dominant first mover, such as Longi, to do?

Vertical vs horizontal expansion

Solar installations have decreased in price from more than \$100 per installed watt to under \$1 within four decades, with every doubling of global solar capacity cutting prices by about 20 per cent. Most expenses are soft costs such as labour and grid connection. Panel producers' revenues are now roughly between 10 per cent and 30 per cent, or 10 cents to 30 cents a watt.

One potential path for Longi would be to enter other parts of the solar supply chain, such as the solar developer business – that is, vertical expansion. This could extend to operating solar farms and the sale of electricity, in which Longi would in effect turn itself into a utility. But those options provide little overlap with the company's core manufacturing expertise. Competitors such as First Solar, one of the largest US solar-panel makers, made similar moves into development projects but faced setbacks and withdrew.

The other possibility is horizontal integration – moving into other renewables businesses. One of the more compelling opportunities might be to make the electrolyzers that produce green hydrogen. The market is still small, potentially allowing Longi to replicate its achievements in solar panels in which it learnt fast and cut costs quickly. Longi could use further synergies with ever-cheaper solar power to cut the cost of green hydrogen. Current government incentives – in countries from China to Europe and the US – mirror those for solar power a decade ago.

A third option could be for Longi to diversify its product mix by focusing on making more expensive new photovoltaic technologies – such as windows, skylights, shingles and even walking surfaces – that produce electricity. Those who are willing to pay for solar garden fences may be willing to pay a premium for other building-integrated photovoltaics.

Geographic Expansion given US subsidies and tariffs

A fourth option for the company is geographic expansion of its production base from China and south-east Asia in order to reach new markets by increasing its manufacturing capacity in Europe and the US.

Longi has already launched Illuminate USA, a joint venture with Chicago-based renewable energy developer Invenergy, to build a \$600mn panel-assembly plant in Pataskala, Ohio. It began assembling its first panels in early 2024 using solar photovoltaic cells produced by a Longi plant in Malaysia. At full operational capacity, Illuminate will produce around 9mn solar panels annually, which are capable of producing 5 gigawatts of power.

Expanding manufacturing allows Longi to take advantage of tax incentives and subsidies under the US Inflation Reduction Act of 2022, and to avoid rising tariffs on imported goods, which are designed to encourage domestic manufacturing. The Ohio joint venture qualifies for up to \$350mn a year in federal tax credits through 2030. That amounts to roughly a 25 per cent subsidy of Illuminate's solar panel modules.

But there is considerable policy uncertainty. Higher tariffs on Chinese imports might favour the Ohio plant for panels intended for the domestic market. The big question is whether the federal tax incentives will survive the Trump administration's policy moves. One reason they might do is that they help create jobs in Ohio and other Republican states.

Conclusion

Longi may have no choice but to face the US policy pendulum head-on, while exploring other markets and strategies. Large companies rarely pursue a straightforwardly single path, and Longi is no exception.

But there are plenty of decision points along the way. Opting for horizontal expansion could result in it pursuing green hydrogen electrolyzers or building integrated photovoltaics. Vertical expansion could lead to strategic partnerships rather than becoming a solar developer. And, of course, its geographic expansion need not focus on the US but could instead turn to the EU or other countries with more stable policy environments.

QUESTIONS

1. (10 marks) Write a 150-word synopsis of the above case. (CO 1, 2)
 2. (20 marks) Which of the three growth options for Longi — horizontal, vertical or geographic expansion — appears most promising? (CO 3, 4)
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