COMPEDGE INTELLIGENCE BRIEF

FIRST SOLAR

Energy · Board Strategy Update

MEDIUM CONFIDENCE | THREAT SCORE 8/10

Generated September 30, 2026

EXECUTIVE SUMMARY

First Solar operates from a position of unprecedented financial strength, but this momentum is underwritten almost entirely by federal policy rather than baseline unit economics. The company delivered a 61 percent adjusted EBITDA margin in the second quarter of 2026 ($644 million on $1.06 billion of net sales), supported by Section 45X tax credits and an estimated $89 million net benefit related to IEEPA tariffs (expected recoveries, subject to refinement).

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01 Market Context

The United States utility-scale solar market is expanding rapidly, driven by compounding demand from data center load growth and electrification. However, the competitive environment is severely distorted by geopolitics and trade policy. Massive capacity over-expansion by Chinese crystalline silicon manufacturers has collapsed global module prices, creating a structural divide between the global market and the heavily protected US domestic market. U.S. solar manufacturing is currently shielded by Anti-Dumping and Countervailing Duties (AD/CVD) on Southeast Asian imports, and Section 232 measures on polysilicon and its derivatives (a 15% tariff plus minimum import prices, announced in August 2026) take effect on December 4, 2026. Simultaneously, the Section 45X advanced manufacturing production tax credit (Inflation Reduction Act, as amended by the One Big Beautiful Bill Act of 2025) heavily subsidises domestic production, making local manufacturing highly profitable. This dual layer of federal intervention has sparked a race among foreign competitors (such as JinkoSolar and Hanwha Qcells) to onshore their supply chains. As domestic capacity catches up, the market is expected to consolidate around players who can lock in long-term utility contracts and deliver bankable, geopolitically secure technology before Section 45X credits begin phasing down in 2030.

02 Executive Summary

First Solar operates from a position of unprecedented financial strength, but this momentum is underwritten almost entirely by federal policy rather than baseline unit economics. The company delivered a 61 percent adjusted EBITDA margin in the second quarter of 2026 ($644 million on $1.06 billion of net sales), supported by Section 45X tax credits and an estimated $89 million net benefit related to IEEPA tariffs (expected recoveries, subject to refinement). With a massive 45.1 GW contracted backlog extending through 2030, First Solar has exceptional revenue visibility. However, the strategic imperative for the board is mitigating the margin cliff that will occur if trade barriers erode or when 45X credits phase down from 2030. Its international facilities carry underutilisation costs (2026 guidance assumes $115 million to $135 million), and it is building a South Carolina facility to finish modules started abroad, deepening its reliance on US trade protection. To secure its terminal value, the board must prioritise capital allocation toward next-generation technology (CuRe and perovskite thin films) to build a structural cost advantage that survives beyond the current cycle of government subsidies.

03 Company Snapshot

First Solar, Inc. (CIK 1274494) is a publicly traded solar technology company incorporated in Delaware and headquartered in Phoenix, Arizona. The company manufactures photovoltaic solar modules using proprietary thin-film Cadmium Telluride (CdTe) semiconductor technology, which bypasses the heavily Chinese-dominated crystalline silicon supply chain. Under the leadership of CEO Mark Widmar, First Solar describes itself as the only U.S.-headquartered company among the world's largest solar manufacturers. It runs manufacturing facilities in Ohio, Alabama, and Louisiana, is building a sixth U.S. facility in South Carolina, and also manufactures in India, Malaysia, and Vietnam. It exited 2025 with almost 13 GW of US nameplate capacity and expects about 17 GW by 2027. The company operates a pure-play B2B business model, selling utility-scale modules to energy developers and large corporate buyers. The company's recent strategic shifts include a heavy consolidation of its supply chain within the US to maximise Section 45X tax credits, while aggressively defending its intellectual property through federal court litigation against rival module manufacturers.

04 Financial Health Indicators

EXHIBIT 1 Key financials

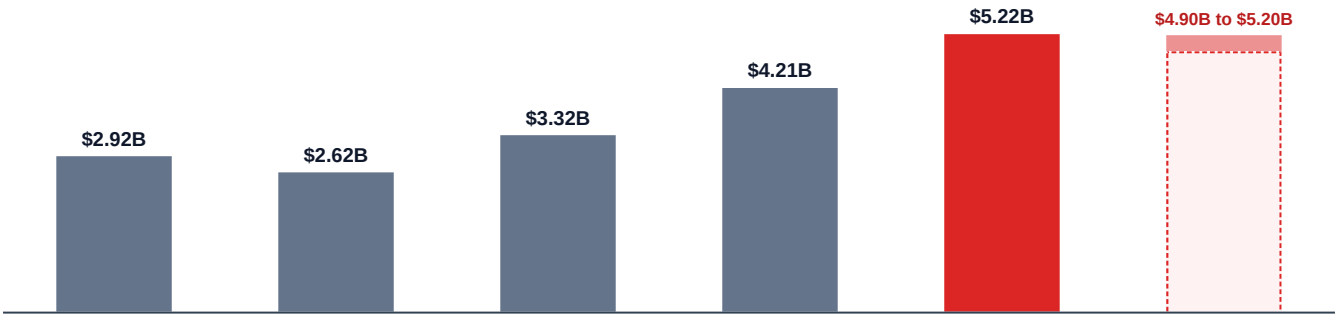
USD

REVENUE, FY25	**$5.22B** +24.1% year on year
REVENUE, Q2 FY26	**$1.06B** -3.7% year on year
GROSS MARGIN, FY25	**40.6%**
OPERATING MARGIN, FY25	**30.6%**
NET MARGIN, FY25	**29.3%**
FREE CASH FLOW, FY25	**$1.19B** 22.8% of revenue
REVENUE GUIDANCE, FY26	**$4.90B to $5.20B** -3.2% at the midpoint
CASH AND INVESTMENTS	**$1.73B**

Not found in the sources for this brief: Debt, Market cap.

EXHIBIT 2 Revenue by fiscal year

USD millions



Bottom row: growth year on year; for the outlook, at the midpoint of the range against the last reported year.

Q2 FY26: revenue $1.06B, -3.7% year on year.
FY26 guidance: $4.90B to $5.20B (company outlook), -3.2% at the midpoint.
Fiscal years end in December, so FY25 ended in December 2025.

EXHIBIT 3 Margins by fiscal year

% of revenue

	FY21	FY22	FY23	FY24	FY25	TREND	FY21 TO FY25
Gross margin	25.0%	2.7%	39.2%	44.2%	40.6%		+15.6 pts
Operating margin	20.1%	-1.0%	25.8%	33.1%	30.6%		+10.5 pts
Net margin	16.0%	-1.7%	25.0%	30.7%	29.3%		+13.3 pts
FCF margin	-10.4%	-1.1%	-23.6%	-7.3%	22.8%		+33.1 pts

Computed from the revenue and profit figures reported for each year.

First Solar exhibits exceptional financial health, characterised by no long-term debt and strong cash generation SEC (Sourced); after prepaying its India Credit Facility in May 2026, only $37.6 million of current debt remained at June 30,

2026. According to the company's SEC filings, reported revenue over the last five fiscal years was $2,923.38 million in FY21, $2,619.32 million in FY22, $3,318.60 million in FY23, $4,206.29 million in FY24, and $5,219.38 million in FY25 SEC (Sourced). Profitability has surged alongside revenue, reaching a reported net income of $1,528.23 million in FY25 SEC (Sourced). For the latest reported quarter, Q2 FY26, revenue was $1,056.19 million, a 3.7 percent decrease year on year SEC (Sourced), driven primarily by lower revenue associated with customer contract terminations. Despite the slight revenue dip, operating leverage remains immense, with the company ending the quarter holding $1,726.96 million in cash and short-term investments SEC (Sourced). However, this financial health is inextricably linked to government incentives. First Solar expects to recognise between $2.10 billion and $2.19 billion in Section 45X production credits for the full year 2026, meaning that tax subsidies account for the vast majority of its projected $2.6 billion to $2.8 billion adjusted EBITDA.

05 Recent Moves

September 2026
On September 15, First Solar said it would withdraw its Section 337 complaint at the USITC and pursue its stayed US District Court TOPCon lawsuits (against affiliates of Canadian Solar, JinkoSolar, T1 Energy, and Trina Solar), citing the new Section 232 action on polysilicon and its derivatives. This signals a shift toward prolonged domestic legal battles to tax or block competitors.

July 2026
On July 30, the company published its 2026 Corporate Responsibility Report, stating it expects to have invested over $5 billion in American manufacturing and R&D infrastructure since 2019 by the end of 2026. This serves as a strategic marker of its commitment to the US market.

July 2026
On July 30, First Solar reported Q2 2026 financial results with a 57 percent gross margin and $1.06 billion in net sales, reaffirming its full year guidance. Management attributed the margin improvement mainly to the estimated IEEPA tariff benefit, a higher mix of 45X-eligible modules, and lower logistics costs.

July 2026
Management confirmed the company surpassed 100 GW in cumulative global module sales and expanded its contracted backlog to 45.1 GW extending through 2030. This secures long-term baseline revenue volume.

July 2026
First Solar announced a delay for Phase 2 of its South Carolina finishing facility to mid-2027 to incorporate next-generation CuRe technology, while keeping Phase 1 on track for the second half of 2026. This reflects a calculated trade-off between immediate capacity and future product efficiency.

April 2026
On April 30, the company reported Q1 2026 earnings; its full-year guidance assumes $2.10 billion to $2.19 billion of Section 45X credits. This highlights the foundational dependency of current unit economics on federal policy.

06 Business Model Deep Dive

First Solar generates revenue primarily by manufacturing and selling advanced thin-film CdTe solar modules to utility-scale project developers and independent power producers. The company acquires customers by positioning its modules as highly bankable, sustainably produced, and immune to the geopolitical risks that plague imported silicon panels. Customer retention is driven by multi-year forward contracts, resulting in a contracted backlog that stretches to 2030. This creates substantial switching costs, as developers build project financing and engineering designs around First Solar's specific module form factors.

Underlying unit economics are structurally dependent on scale and policy. The fully integrated, continuous manufacturing process produces a module in a matter of hours, eliminating the multi-stage, multi-factory delays of crystalline silicon production. Currently, gross margins sit near 57 percent, but this is heavily distorted by the Inflation Reduction Act. The Section 45X manufacturing credits fundamentally alter the cost of goods sold; the company estimates it qualifies for up to approximately 17 cents per watt for each module fully produced in the United States and sold to a third party. A core dependency of this model is the preservation of AD/CVD tariffs, which artificially raise the clearing price of competing silicon modules in the US market, allowing First Solar to capture premium pricing.

EXHIBIT 4 **Revenue streams**

Thin-film Solar Module Sales
Section 45X Manufacturing Tax Credits

The split of revenue by stream is not publicly disclosed, so no shares are shown.

07 Strengths

Policy-Backed Pricing Power
First Solar benefits from large Section 45X tax credits and trade protection, and booked an estimated $89 million net benefit in Q2 2026 related to IEEPA tariffs (expected recoveries, not a recurring price effect). Gross bookings since the prior earnings call carried an average selling price of about $0.36 per watt including technology adjusters, in a US market insulated from global silicon oversupply.

Supply Chain Independence
By utilising a vertically integrated Cadmium Telluride (CdTe) thin-film technology, First Solar completely bypasses the polysilicon supply chain. This reduces exposure to forced-labor import bans and volatile silicon raw material pricing, making its products highly attractive to risk-averse utility and corporate buyers.

Unmatched Revenue Visibility
The company holds a contracted sales backlog of 45.1 GW, carrying an aggregate transaction value of $13.6 billion (excluding India contracts where payment is not fully secured), extending through 2030. This extraordinary forward booking provides deep financial certainty and de-risks the capital expenditure required to bring new US manufacturing facilities online.

Fortress Balance Sheet
With $1,726.96 million in cash and marketable securities and no long-term debt at the end of Q2 FY26, First Solar holds strong liquidity SEC (Sourced). This allows the company to self-fund its South Carolina facility (about $0.3 billion) and other capital expenditures without tapping expensive debt markets.

08 Weaknesses and Vulnerabilities

Subsidy Over-Reliance
The company expects between $2.10 billion and $2.19 billion in Section 45X credits for 2026, against a total adjusted EBITDA projection of $2.6 billion to $2.8 billion. Stripping away these federal tax credits would reveal fundamentally thinner organic unit economics, exposing the company to severe regulatory risk.

International Margin Drag
First Solar's 2026 guidance assumes $115 million to $135 million of underutilisation costs, and its 10-Q warns that tariffs limiting profitable imports could further reduce utilisation at international facilities. About 1.8 GW of finished capacity in Malaysia and Vietnam could be ramped, after accounting for capacity serving the South Carolina finishing line.

Technology Efficiency Deficit
CdTe modules historically lag behind next-generation crystalline silicon cells (such as TOPCon and Heterojunction) in pure conversion efficiency. First Solar must deploy significant capital into CuRe and perovskite R&D to close this gap before competitors successfully on-shore their own high-efficiency silicon production.

Execution Risk on Capacity Build
The company is scaling from almost 13 GW of US nameplate capacity at the end of 2025 toward about 17 GW by 2027. The recent delay of the South Carolina Phase 2 facility to mid-2027 illustrates the operational friction involved in deploying new manufacturing technologies at commercial scale.

EXHIBIT 5 **SWOT summary**

STRENGTHS
- Massive $13.6B contracted backlog through 2030
- Total independence from the Chinese polysilicon supply chain
- Unparalleled domestic pricing power driven by tariffs and 45X credits

WEAKNESSES
- Over-reliance on federal tax credits for EBITDA margins
- Lagging pure-play cell efficiency compared to TOPCon silicon
- Underutilisation costs at international facilities

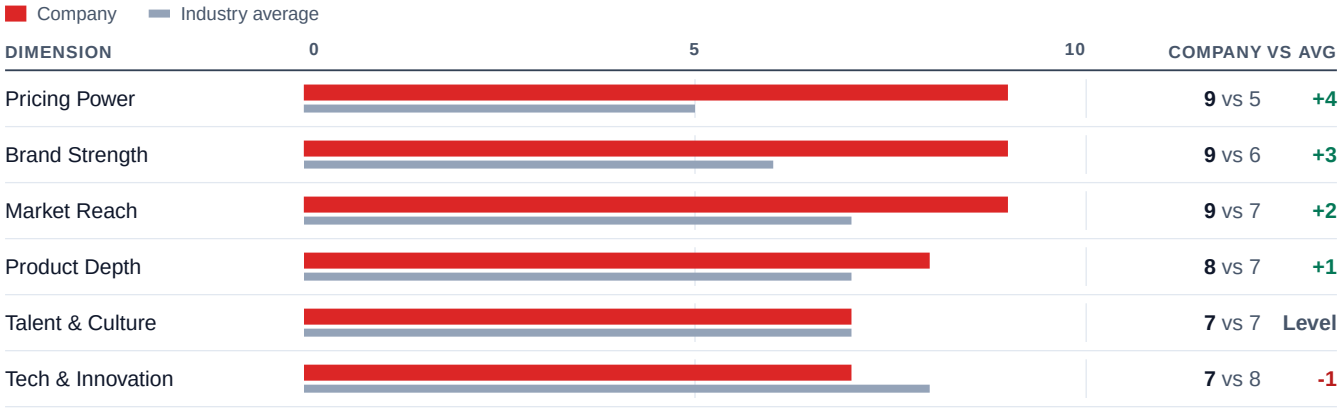
OPPORTUNITIES
- Data center and AI-driven corporate hyperscaler power demand
- A commercially scalable perovskite thin-film product
- Licensing revenue from aggressive TOPCon patent enforcement

THREATS
- Political reversals altering the Inflation Reduction Act provisions
- Competitors successfully setting up US plants to bypass tariffs
- Rising balance of system costs suppressing utility project viability

09 Competitive Positioning

First Solar dominates the US utility-scale solar environment, operating in a highly concentrated tier alongside Hanwha Qcells and heavily-tariffed Chinese manufacturers like JinkoSolar and Canadian Solar. Unlike its silicon-based competitors, First Solar's thin-film technology allows it to market itself as a U.S.-headquartered supplier outside the Chinese crystalline silicon supply chain. While competitors boast higher raw cell efficiencies using TOPCon technology, First Solar neutralises this via a highly aggressive patent litigation strategy and superior domestic supply availability. Over the next 12 to 24 months, First Solar's competitive advantage is highly durable, locked in by its 45.1 GW backlog and current tariff structures. However, as foreign rivals establish US-based module and cell factories to capture their own 45X credits, First Solar's pricing moat will face severe structural compression.

EXHIBIT 6 **Competitive position against the industry average** Analyst scores, 0 to 10



Sorted by the gap to the industry average: advantages first. Scores are analytical judgments, not measured data.

10 Strategic Implications

First Solar has executed well on the current policy environment, translating Section 45X credits and AD/CVD tariffs into a large cash windfall and a locked-in backlog, with Section 232 measures still to take effect on December 4, 2026. However, this creates a dangerous scenario where the board might conflate policy arbitrage with structural superiority. The immediate strategic threat is the scheduled phase-down of Section 45X credits beginning in 2030, coupled with the inevitable scaling of domestic silicon manufacturing by rivals like Hanwha Qcells and JinkoSolar, who will eventually bypass import tariffs by building in the US. If First Solar does not use today's subsidised margins to widen its organic technology moat, it risks margin collapse in the next decade. The board must focus entirely on terminal value resilience.

CompEdge recommends the board debate and action the following three moves:

1. Reinvest the 45X cash windfall aggressively into accelerating a commercially scalable perovskite product and the fleet-wide CuRe rollout, to counter domestic TOPCon deployments.
2. Restructure or divest the underutilised Southeast Asian manufacturing footprint (Malaysia/Vietnam), reallocating that operational bandwidth purely toward the US and European markets where premium pricing can be defended.
3. Form exclusive, direct-to-buyer joint ventures with major data center operators (such as hyperscalers), bypassing traditional utility developers to lock in premium corporate PPA pricing for the rest of the decade.

11 Watch Areas

> **H2 2026**
> Ramp-up of the South Carolina Phase 1 finishing facility. Any operational friction here will threaten the delivery schedules of the 45.1 GW backlog and defer revenue recognition.

> **Q4 2026**
> December 4, 2026 start of Section 232 measures on polysilicon and derivatives (15% tariff; minimum import price of $0.38 per watt for modules). This event will dictate the cost parity of imported rival modules and validate First Solar's domestic pricing floor.

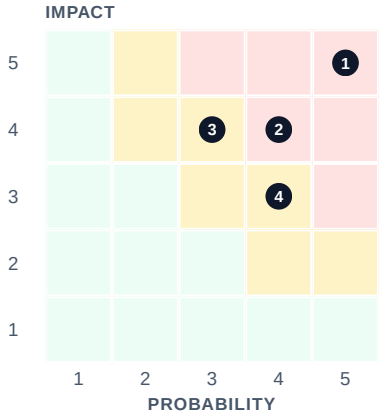
2026-2027
Replication of CuRe across the fleet after one Ohio facility was permanently converted in H1 2026. This technology milestone determines whether First Solar can match the efficiency gains of competing silicon technologies.

Mid-2027
Completion of the delayed South Carolina Phase 2 facility. This will test the company's ability to smoothly integrate CuRe technology into high-volume continuous manufacturing.

Ongoing 2026-2027
US District Court TOPCon patent litigation rulings. Favourable legal outcomes will allow First Solar to extract licensing fees from domestic silicon competitors, while losses will accelerate rival capacity.

EXHIBIT 7 Risk matrix

Probability and impact, each 1 to 5



#	RISK	CATEGORY	P	I	SCORE
1	Section 45X tax credit phase-down from 2030	Regulatory	5	5	25 High
2	Domestic on-shoring by Chinese crystalline silicon rivals	Market	4	4	16 High
3	Failure to achieve perovskite tandem efficiency breakthroughs	Operational	3	4	12 Medium
4	Underutilisation of international capacity dragging corporate margins	Operational	4	3	12 Medium

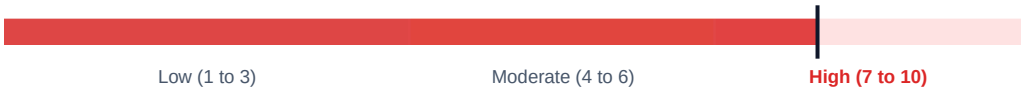
Ranked by probability times impact. Numbers in the grid match the table.

12 Competitive Threat Score

EXHIBIT 8 Competitive threat score

Out of 10

8 / 10
HIGH THREAT



First Solar is an apex competitor in the U.S. utility-scale market, wielding an insurmountable near-term advantage built on massive Section 45X tax subsidies, strong trade tariffs, and a flawless balance sheet. Its 45.1 GW contracted backlog effectively removes the company from immediate demand volatility. However, the threat score is capped at 8 because the company's moat is regulatory rather than purely operational. The extreme dependency on federal tax credits for its EBITDA margin, combined with the technology efficiency deficit of CdTe against emerging TOPCon silicon cells, leaves First Solar highly vulnerable to policy shifts and the eventual maturation of a fully domestic US silicon supply chain.

13 Analyst Note and Data Confidence

Data confidence is HIGH. Financials were directly sourced from First Solar's SEC filings, confirming no long-term debt, large cash reserves, and exceptional recent profitability. Forward-looking guidance, backlog figures, and recent operational moves were verified against the company's Q2 2026 earnings materials and recent trade press. The primary data gap relates to the exact unit economics of First Solar's international facilities, which management notes are underutilised but does not fully disaggregate in quarterly margin breakdowns. Readers should independently verify the outcomes of the ongoing District Court TOPCon patent lawsuits, as judicial decisions are unpredictable and carry material market-share implications. This brief is AI-assisted analysis synthesising real-time public disclosures and should be used to frame board-level strategic debates rather than serve as legal or tax advice.

14 Specific Question Analysis

THE QUESTION

How durable is First Solar's US margin advantage as Section 45X manufacturing credits and solar import tariffs change, and what should the board prioritise?

THE SHORT ANSWER

> **First Solar's US margin advantage is highly durable through 2029, but it remains critically dependent on Section 45X tax credits and trade protection (AD/CVD duties now, Section 232 measures from December 4, 2026) to mask underlying unit costs. Confidence: High.**

THE EVIDENCE

1. First Solar achieved a 61 percent adjusted EBITDA margin in Q2 2026, heavily driven by an expected $2.10 billion to $2.19 billion in Section 45X credits for the full year. - Q2 2026 Earnings, July 2026

2. Margins were further boosted by an estimated $89 million net benefit related to IEEPA tariffs in Q2 2026, reflecting expected recoveries that remain subject to refinement. - Q2 2026 Earnings Call, July 2026

3. Section 45X credits are available from 2023 to 2032, subject to phase-down beginning in 2030, providing a strict timeline for the current domestic cost advantage. - Form 10-Q, July 2026

4. While the 45.1 GW backlog extends to 2030, cash conversion depends heavily on AD/CVD and Section 232 trade policies continuing to suppress cheap Southeast Asian and Chinese imports. - Company Disclosures, July 2026

THE CONFIDENCE CAVEAT

While the backlog and current policy shield the margin for the next three years, the exact magnitude of long-term profitability post-2029 remains uncertain once 45X credits step down and rivals establish their own domestic manufacturing footprints.

THE RECOMMENDED ACTION

The board should aggressively channel the current 45X cash windfall into next-generation technology (CuRe and perovskite thin films) to build an organic cost and efficiency moat that outlives federal subsidies.

A Raw Data Appendix

Mechanical data extracted during research. Verify against primary sources before relying on any figure.

DIGITAL PRESENCE DATA	
Current website hero headline	*Not publicly available*
Current website tagline	A leading global provider of comprehensive PV solar solutions (site title)
Pricing page structure	Not publicly available (Enterprise B2B contracting)
Key product features listed on website	Thin film semiconductor, fully integrated continuous process, utility-scale focus
Active job postings detected	Yes
Estimated web traffic tier	Medium
App store presence	*Not publicly available*
LinkedIn company page followers	*Not publicly available*
Last detected pricing change	Not publicly available (Forward contract basis)
Last detected product launch	CuRe technology (one Ohio facility permanently converted in H1 2026)
Last detected hiring surge or freeze	*Not publicly available*
Last detected rebranding or major messaging change	2026 Corporate Responsibility Report (July 30, 2026)

CORPORATE DATA	
Registered legal company name	First Solar, Inc.
Relevant company identifier or registry number	CIK 1274494
Registered office address	4300 E Camelback Road, Suite 220, Phoenix, Arizona 85018 (principal executive offices)
Date of incorporation	Not publicly available (Delaware corporation)
Company type	Public Company (NASDAQ: FSLR)
Major registrations or licences if relevant	*Not publicly available*
Key executives	Mark Widmar (CEO), Alexander Bradley (CFO), Jason Dymbort (General Counsel and Secretary)
Board of directors (2026 proxy nominees)	Michael J. Ahearn (Chair), William J. Post (Lead Independent Director), Mark R. Widmar, Anita Marangoly George, Lisa A. Kro, Curtis A. Morgan, Venkata "Murthy" Renduchintala, Paul H. Stebbins, Michael Sweeney, Norman L. Wright
Investor list	Public Shareholders
Subsidiaries or group companies	Includes First Solar Malaysia Sdn. Bhd. and First Solar Holdings GmbH (full list not reviewed)
Pending insolvency, litigation, or regulatory proceedings	Active TOPCon patent infringement lawsuits in US District Court against Canadian Solar, Jinko Solar, T1 Energy, and Trina Solar

FINANCIAL SNAPSHOT	
Latest revenue figure with source and fiscal year	USD 5219.38 Mn (FY25 Audited SEC Sourced)
Latest net profit or loss figure with source and fiscal year	USD 1528.23 Mn (FY25 Audited SEC Sourced)
Latest EBITDA figure if available	USD 644 Mn (Q2 FY26 Adjusted)
Valuation at last funding round with date	*Not publicly available*
Total funding raised to date	Not publicly available (Public Market)
Cash or reserves estimate if available	USD 1726.96 Mn (Q2 FY26 SEC Sourced)
Revenue growth rate year on year if calculable	-3.7% (Q2 FY26 vs Q2 FY25 SEC Sourced)
Net margin if calculable	29.3% (FY25)

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