

Initiating Coverage:

TPI Composites Inc (\$TPIC)

Blades, Backlogs, and a Breath of Fresh Air

Key Take-away: The market is overly pessimistic about TPI's survival odds, pricing in a near-failure scenario. In reality, policy tailwinds (e.g. the U.S. Inflation Reduction Act's support for wind manufacturing) and a global push for renewables are boosting demand for TPI's wind blades. The company's strong order book visibility – including multi-year contracts with major OEMs – provides revenue stability, and recent results show signs of margin improvement after heavy restructuring. With a ~\$40 million market cap implying severe distress, the stock offers asymmetric upside if TPI executes its turnaround and is underpriced for a recovery scenario.

Policy Tailwinds and Order Backlog: TPI is riding a wave of pro-wind energy policies and rising demand. Governments worldwide are pushing to accelerate wind capacity additions (forecast ~8.8% CAGR through 2030), underscored by record global installations of 117 GW in 2024. In the U.S., the Inflation Reduction Act (IRA) is spurring investment in wind projects and domestic manufacturing – including a \$0.02 per watt production credit for blades produced domestically. These tailwinds directly benefit TPI as the largest independent blade manufacturer (33% global onshore share, ex-China). During 2024, TPI secured extensions of its long-term supply agreements with top customers Vestas and GE Vernova through 2025, locking in production on 34 dedicated lines across its factories. In fact, demand from these OEM partners currently exceeds TPI's available capacity for 2025 – prompting TPI to ramp up 24/7 operations in its Mexico plants and reopen its Iowa facility by mid-2025 to fulfill orders. This robust backlog and policy-driven demand surge give TPI a long runway of revenue growth.

Operational Restructuring to Restore Margins: After several loss-making years, TPI has taken aggressive steps to improve its profitability. In 2024 the company divested its underperforming automotive composites division and shut down a loss-making blade plant (Nordex-focused) in Matamoros, Mexico. It also transitioned several production lines to next-generation, longer blades that command higher prices, and rationalized its workforce in Turkey amid local inflation headwinds. The impact of these actions is already evident – TPI's adjusted EBITDA flipped to a slight positive in Q4 2024 (\$1.2 million) from a \$24.5 million loss a year prior. Utilization of manufacturing capacity jumped to 91% in Q4 2024 (from 71% in Q4 2023) as idle lines were reactivated and efficiency improved. Management expects these trends to continue, guiding for \$1.4–\$1.5 billion in 2025 sales and a 2–4% EBITDA margin as new high-margin blade models scale up. Furthermore, TPI's ability to negotiate price adjustments and indexation in its supply contracts (to account for materials and inflation) has improved after the recent industry shakeout, which should protect and gradually expand its gross margins. In short, TPI has “right-sized” its operations for the current market, and 2025 is set to mark a financial inflection point from heavy losses to break-even profitability.

Valuation: We initiate coverage with a \$1.38 PT.



Consortium Research Group
Energy & Sustainability | Renewables
July 16th, 2025

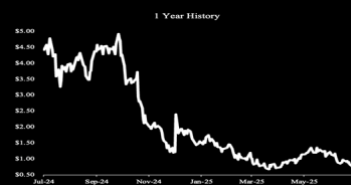
Stock Rating: Overweight

Price Target: \$1.40

Price: \$0.88

Potential Upside/Downside: 59.09%

Ticker: \$TPIC



Energy & Sustainability

Analyst
Shaunak Pandey
Yale University
Shaunak.pandey@yale.edu

Company Overview

Company Description: TPI Composites, Inc. is a leading independent manufacturer of composite wind turbine blades, supplying many of the world's top wind turbine OEMs. Founded in 1968 (headquartered in Scottsdale, AZ), TPI originally produced composite materials for boats and other industrial applications before pivoting to wind energy in the early 2000s. The company has since become a critical outsource partner for turbine makers looking to scale up blade production. In 2023, TPI produced 7,752 wind blades, accounting for approximately 33% of all onshore wind blades installed globally (excluding China) by capacity. This makes TPI the largest U.S.-based blade manufacturer.

Global Manufacturing Footprint: TPI operates factories in multiple low-cost, strategic locations. Major plants include facilities in Mexico (supplying North American and export markets), Turkey (serving Europe and Middle East demand), India (a hub for Asian and global orders), and soon a reactivated plant in Newton, Iowa to support U.S. projects for GE. By situating plants near customer end-markets or in cost-efficient regions, TPI minimizes logistics costs and can offer competitive pricing. Under long-term supply agreements, each plant typically dedicates a set number of production lines to a specific OEM and blade model. For example, GE has nine lines contracted with TPI through 2025, and TPI's new Matamoros, Mexico facility is running six lines for Vestas' 4 MW turbines under a multi-year deal. This dedicated capacity model gives customers reliable output while providing TPI with volume visibility. As of Q1 2025, TPI had 36 manufacturing lines installed (34 of them under long-term contracts) across its facilities, with overall blade line utilization at ~70–80% and rising. Notably, the average blade size and price are increasing – TPI's average selling price per blade was \$192k in 2024, up from \$175k in 2023, reflecting the shift to larger, higher-value blades.

Products and Services: TPI's core product is the wind blade itself, built to each customer's specifications using advanced composite materials (fiberglass and carbon fiber fabrics, resins, and adhesives). Blades can exceed 80 meters in length for the latest onshore turbines, requiring precision molding and stringent quality control. TPI handles the full manufacturing process from tooling and mold development to lamination, curing, finishing, and inspection.

Strategic Partnerships and History: TPI's success is closely tied to its long-term partnerships. It began supplying GE in 2008, producing blades in Iowa for GE's turbines, and expanded that relationship to Mexico in 2014. With Vestas, TPI entered a multi-year agreement in 2016 and has since been a major external supplier for Vestas in India and Mexico. The company also partnered with Nordex in a unique arrangement from 2018–2024, where TPI took over Nordex's blade plant in Mexico to produce exclusively for Nordex. Though that particular contract ended (TPI exited the Nordex Mexico plant in mid-2024), TPI signed a new multi-year supply deal with Nordex in India in late 2023, indicating continued demand from that customer. TPI brought in strategic capital – notably a \$350 million PIPE investment in late 2021 and a \$400 million secured term loan from Oaktree Capital in 2023 – and undertook the operational restructurings described above.

Industry Overview

Global Wind Energy Momentum: The wind power industry is in the midst of a long-term growth trend driven by decarbonization goals, though short-term volatility has been evident. In 2024, global wind installations reached a record 117 GW of new capacity, bringing total worldwide wind capacity to over 1.1 TW. However, this fell short of what is needed to meet climate targets – the Global Wind Energy Council (GWEC) estimates that annual installations must roughly triple to ~320 GW per year by 2030 to align with net-zero pathways. China continues to dominate new additions (68% of 2024 installs), but the U.S., Europe, and India are all expected to accelerate wind deployment under renewed policy support. GWEC forecasts nearly 1 terawatt of

new wind capacity will be added globally from 2025 to 2030, an ~8–9% CAGR, representing a huge opportunity for equipment suppliers. Notably, offshore wind – while still a smaller segment – is growing (2024 saw 8 GW offshore added) and could open a new frontier of demand for larger blades and composites. Overall, wind energy remains one of the fastest-growing sources of electricity generation.

Policy and Regulatory Landscape: Recent policies, especially in the U.S. and EU, are providing strong tailwinds for the wind industry’s growth and supply chain localization. The U.S. Inflation Reduction Act is a game-changer – it extended the Production Tax Credit (PTC) for wind power projects at \$26/MWh through at least 2025 (with bonus credits for local content and prevailing wages), ensuring a stable incentive for project developers. Perhaps more critically for manufacturers, the IRA introduced advanced manufacturing credits (45X) for U.S.-made renewable components: for wind, this translates to \$0.02 per watt for blades, \$0.05/W for nacelles, and \$0.03/W for towers. These credits (available for components produced from 2023 and phasing down after 2030) effectively subsidize domestic production – a boon for companies like TPI if they operate U.S. factories. Europe, meanwhile, has proposed its own Green Deal Industrial Plan and wind industry support schemes to streamline permitting and boost local manufacturing, responding to supply chain issues and competition from China.

Outsourcing and Supply Chain Trends: Wind turbine OEMs are increasingly turning to outsourcing for large components, and blade manufacturing is at the forefront of this shift. Building blades in-house requires significant capex, specialized labor, and flexibility to handle different blade designs – challenges that have led giants like Vestas and GE to partner with specialists such as TPI. By outsourcing, OEMs can convert fixed costs to variable and rapidly scale production up or down with market demand. Approximately half of onshore wind blades globally are now made by independent manufacturers, a share that has risen steadily over the past decade.

Peer Comparisons

Comparable Companies						
Smm						
Ticker	Mkt Cap	EV	P/E LTM	Revenue LTM	EBITDA LTM	
Array Technologies, Inc. (NasdaqGM:ARRY)	\$1,132	\$1,901	-608.5x	\$1,065	\$155	
Nexttracker Inc. (NasdaqGS:NXT)	\$9,303	\$8,571	2681.0x	\$2,959	\$653	
Shoals Technologies Group, Inc. (NasdaqGM:STG)	\$975	\$1,081	8860.0x	\$389	\$64	
Shanghai Electric Wind Power Group Co., Ltd.	\$1,565	\$1,891	-19565.0x	\$1,495	-\$71	
TPI Composites	\$36	\$600	-8.7x	\$1,373	-\$36	

Ticker	LTM EV/EBITDA	Gross Margin	EBITDA Margin	EBIT Margin	1 Yr Rev Growth	Rate of Change
Array Technologies, Inc. (NasdaqGM:ARRY)	12.3x	30.0%	14.5%	11.3%	(21.3%)	
Nexttracker Inc. (NasdaqGS:NXT)	13.1x	34.1%	22.1%	21.6%	18.4%	
Shoals Technologies Group, Inc. (NasdaqGM:STG)	16.9x	34.4%	16.5%	13.2%	(18.1%)	
Shanghai Electric Wind Power Group Co., Ltd.	-26.5x	6.0%	(4.8%)	(8.0%)	16.8%	
TPI Composites	-16.7x	0.0%	(2.6%)	(4.7%)	3.1%	

High	16.86x	34.4%	22.1%	21.6%	18.4%	
75th Percentile	13.14x	34.1%	16.5%	13.2%	16.8%	
Average	-0.19x	20.9%	9.1%	6.7%	-0.2%	
Median	12.31x	30.0%	14.5%	11.3%	3.1%	
25th Percentile	-16.72x	6.0%	-2.6%	-4.7%	-18.1%	
Low	-26.53x	0.0%	-4.8%	-8.0%	-21.3%	

General Dynamics Valuation	
Implied Enterprise Value (25th Percentile)	\$ 600
Implied Enterprise Value (Median)	\$ (442)
Implied Enterprise Value (75th Percentile)	\$ (472)

Implied Share Price (25th Percentile)	\$ 0.74
Implied Share Price (Median)	\$ (20.53)
Implied Share Price (75th Percentile)	\$ (21.14)

Source: CapIQ

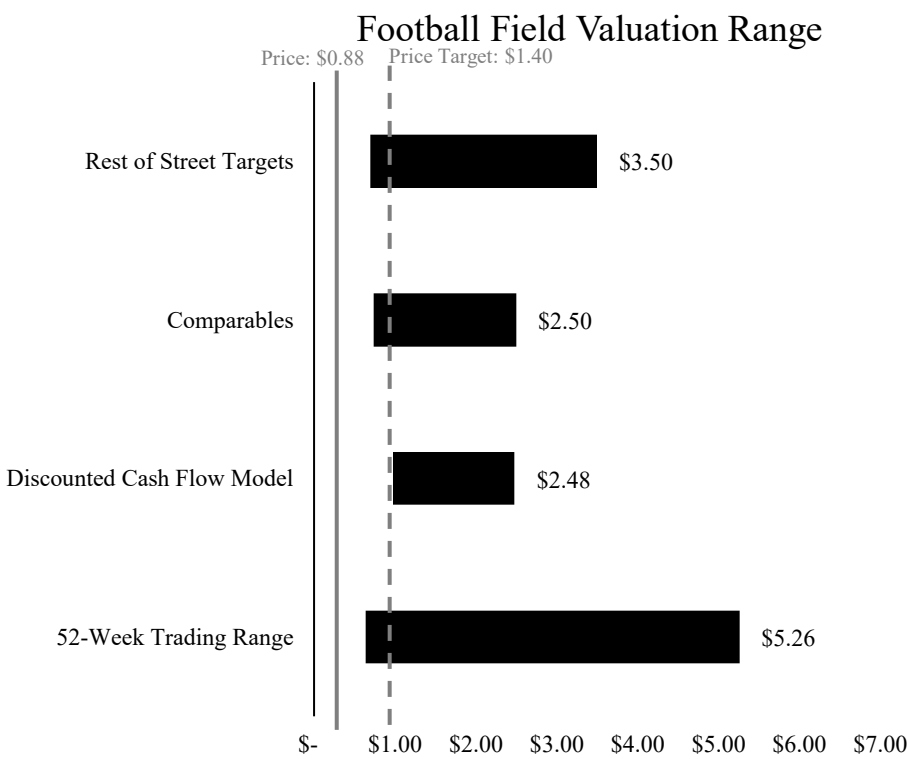
Investment Theses

Turnaround Backed by Structural Changes and Policy Support: TPI's stock has collapsed ~85% from its 2021 highs, reflecting investor fears around insolvency and dilution. However, recent performance suggests the worst is behind it. The company returned to positive operating cash flow in early 2025, and EBITDA margins turned slightly positive in late 2024. With a leaner cost structure after divesting its automotive unit and closing loss-making plants, TPI is guiding to 2–4% EBITDA margins on ~\$1.4B of 2025 sales. As capacity utilization climbs and next-gen blades scale, we expect operating leverage to accelerate profitability. Despite this, TPI still trades at just 0.4x EV/Sales, a steep discount to peers, presenting an asymmetric risk-reward profile if management executes.

Well-Positioned in a Growing Industry: As the largest independent blade supplier outside China, TPI is a critical enabler of global wind capacity expansion. Wind installations are forecast to grow ~8–9% annually through 2030, supported by decarbonization mandates and industrial policy tailwinds. In the U.S., IRA production credits (\$0.02/W for blades) materially improve TPI's economics for domestic manufacturing, while long-term contracts with GE and Vestas provide visibility and backlog. TPI offers direct exposure to the global renewable buildout without project-level risk, making it a high-leverage, “picks and shovels” play on the energy transition. As execution improves and policy incentives flow through, we believe TPI will re-rate meaningfully.

Price Target & Valuation

Our analysis gives (\$TPIC) a price target of \$1.40 and an overweight weight rating.



Potential Downsides to Our Rating

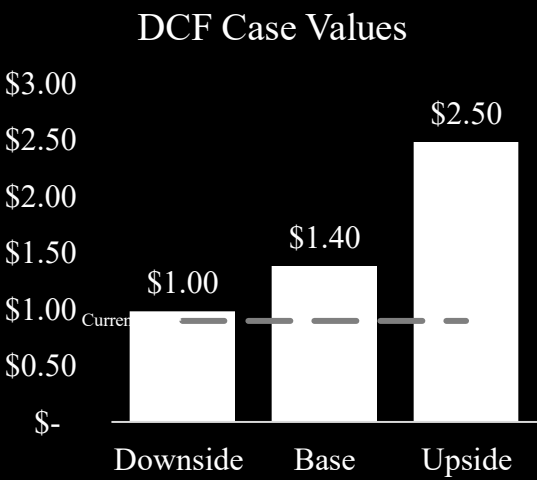
Ramp-up & Execution Risk: TPIC’s overweight thesis hinges on the successful restart of its Juárez plant for GE Vernova and the smooth launch of two new lines in India and Türkiye. Any slip in customer qualifications, blade quality, or labor productivity could push working-capital needs higher and delay the margin inflection we model for 2025-26. Because three OEMs still account for roughly 80 % of revenue, a single contract cancellation or deferral would quickly erode EBITDA and test covenant headroom.

Balance-Sheet & Refinancing Pressure: Net leverage sits above 6× and the company pays ~11 % cash interest despite a zero-tax shield. While the 2023 green converts pushed out maturities to 2028, TPIC remains reliant on the high-yield market and/or additional preferred equity to fund growth cap-ex. A weaker macro backdrop, rating downgrade, or miss on free-cash-flow could force a dilutive equity raise or punitive refinancing that drags the equity value well below our base case.

Our Price Target: \$1.40
We value TPIC using a blended methodology: Discounted Cash Flow (60%), peer EV/Sales & EV/EBITDA multiples (30%), and 52-week trading context (10%). Our base-case DCF yields an equity value of approximately \$67 mm, or \$1.38/share, supported by moderate top-line growth, margin normalization, and a ~10% WACC incorporating a debt-heavy capital structure. This represents a 56.9% upside from the current ~\$0.88 share price and supports our Overweight rating.

Our Upside Case: \$2.50
If wind-turbine demand recovers faster than expected, TPIC successfully executes its cost-out roadmap, and the company refinances its 2027–28 maturities at more favorable rates, equity could re-rate to 0.6× EV/Sales (vs. 0.4× currently) and 9× forward EBITDA. This scenario implies a share price of \$2.48.

Our Downside Case: \$1.00
In a scenario of continued weakness in onshore wind demand, elevated supply-chain costs, or a dilutive capital raise, EBITDA could fall below \$50 mm. A compression in valuation to 0.3× EV/Sales would result in a downside value of \$0.98/share, representing modest downside from current levels.



Policy, Input-Cost & Supply-Chain Volatility: TPIC benefits from the U.S. Inflation Reduction Act and EU green-energy subsidies, but the firm is exposed to possible changes after the 2024 U.S. election and ongoing trade-tariff negotiations (e.g., Section 301 composites, Mexican labor disputes). At the same time, carbon-fiber, resin, and epoxy prices remain volatile, and shipping lanes through the Red Sea and Panama Canal are still disrupted.

Projections

Income Statement (\$mm)	2024A	2025E	2026E	2027E	2028E	CAGR%
Revenue	1,331	1,411	1,482	1,545	1,599	6.3%
EBITDA	96	57	49	65	82	-4.9%
EBIT	64	25	15	31	48	-9.3%
NOPAT	23	29	88	75	61	37.5%
Margin & Growth Data	2024A	2025E	2026E	2027E	2028E	AVG%
EBITDA Margin	7.2%	4.0%	3.3%	4.2%	5.2%	4.8%
EBIT Margin	4.8%	1.8%	1.0%	2.0%	3.0%	2.5%
Revenue Growth	-7.1%	6.0%	5.0%	4.3%	3.5%	2.3%
EBIT Growth	-20.1%	-61.1%	-40.7%	108.5%	55.3%	8.4%
Valuation Metrics	2024A	2025E	2026E	2027E	2028E	AVG%
P/FCF	0.8x	2.0x	3.2x	1.6x	1.0x	1.7x
EV/Sales	0.5x	0.4x	0.4x	0.4x	0.4x	0.4x
EV/EBITDA	6.3x	11.8x	12.4x	9.3x	7.4x	9.4x
FCF Yield	133.0%	51.2%	30.9%	63.1%	97.9%	78.3%

About \$TPIC

TPI Composites, Inc. (\$TPIC), founded in 1968 and headquartered in Scottsdale, Arizona, is a global leader in manufacturing composite wind blades for the renewable energy sector. The company operates advanced manufacturing facilities across the U.S., Mexico, Turkey, India, and China, serving major wind turbine OEMs through long-term supply agreements. Its core business segments include wind blade production, precision tooling, and field service operations, all tailored to support the global transition to clean energy. TPI's mission is to enable decarbonization by delivering cost-effective, high-performance composite solutions for wind and e-mobility applications.

Disclosures & Ratings

Consortium Equity Research does not hold any professional relationships with any reported equities.

Overweight means the analyst team believes the stock price will outperform the coverage industry benchmark (TMT, Healthcare, Industrial, Consumer, FIG, Energy & Sustainability) in the next 6-12 months. **Equal Weight** means the team expects performance in line with the industry benchmark. **Underweight** means the team expects underperformance relative to the industry benchmark.

Appendix

TPI Composites
Discounted Cash Flow

Active Case:	2 Base
Current Share Price	\$0.88

DCF Analysis (\$mm)											
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24	12/31/2025	12/31/26	12/31/27	12/30/28	12/30/29	12/31/30
Stub						0.54	1.54	2.54	3.54	4.54	5.54
Discount Period						0.23	0.96	1.96	2.96	3.96	4.96
Revenue	1,662	1,957	1,630	1,432	1,331	1,411	1,482	1,545	1,599	1,643	1,675
Revenue Growth	0%	18%	-17%	-12%	-7%	6%	5%	4%	4%	3%	2%
Wind blade & tooling s	1,634	1,907	1,586	1,378	1,300	1,373	1,442	1,503	1,556	1,598	1,630
Field-service revenue	28	50	44	55	31	38	40	42	44	45	45
Other	0	0	0	0	0	0	0	0	0	0	0
EBIT	26	34	92	81	64	25	15	31	48	66	84
EBIT Margin	2%	2%	6%	6%	5%	2%	1%	2%	3%	4%	5%
Tax Expense	3	4	4	5	4	0	3	6	9	12	15
Effective Tax Rate	12%	12%	4%	6%	6%	0%	21%	20%	20%	19%	18%
NOPAT	23.29	29.34	87.84	75.32	60.54	25.00	11.71	24.64	38.62	53.40	68.69
D&A	34	36	36	35	31	31	34	34	34	34	34
Capex	45	54	41	31	26	27	30	29	28	27	25
Changes in NWC	6	14	2	5	9	3	3	3	3	3	3
UFCF	6	(3)	81	74	57	22	13	27	42	58	74
PV of FCF						21	12	22	31	39	45

Terminal Value	
Perpetuity Growth Method	
2034 FCF	\$74
Growth	1.50%
Terminal Value	\$819
PV of Terminal Value	\$499
PV of Projection Period	\$171
PV of Terminal Value	\$499
Implied TEV	\$670
(-) Debt	\$736
(+) Cash	\$172
Implied Equity Value	\$106
Basic Shares Outstanding	49
Implied Share Price	\$2.16
Upside/Downside	145.65%

Implied Exit BF EV/EBIT	8.0x
-------------------------	------

Terminal Value	
Exit Multiple Method	
2034 EBIT	\$84
EV/EBIT Exit Multiple	9.0x
Terminal Value	\$754
PV of Terminal Value	\$460
PV of Projection Period	\$171
PV of Terminal Value	\$460
Implied TEV	\$630
(-) Debt	\$736
(+) Cash	\$172
Implied Equity Value	\$66
Diluted Shares Outstanding	49
Implied Share Price	\$1.35
Upside/Downside	53.4%

Implied PGR	-4.8%
-------------	-------

Blended Share Price	
Perpetuity Growth Method	0%
Exit Multiple Method	100%
Blended Share Price	\$1.35
Upside/Downside	57.19%

Weighted Average Cost of Capital (\$mm)	
Market Risk Premium	4.33%
Beta	1.99
Risk Free Rate	4.39%
Cost of Equity	0.71%
Weighted Average Cost of Debt	13.00%
Tax Rate	21.00%
Cost of Debt	11.01%
Total Equity	\$43
Total Debt	\$564
Equity/Total Capitalization	5.49%
Debt/Total Capitalization	94.51%
WACC	10.50%