



# Company Presentation

June 2019

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This presentation contains forward-looking statements within the meaning of the federal securities laws. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. In many cases, you can identify forward-looking statements by terms such as “may,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar words. Forward-looking statements contained in this presentation include, but are not limited to, statements about (i) growth of the wind energy market and our addressable market; (ii) the potential impact of the increasing prevalence of auction-based tenders in the wind energy market and increased competition from solar energy on our gross margins and overall financial performance; (iii) our future financial performance, including our net sales, cost of goods sold, gross profit or gross margin, operating expenses, ability to generate positive cash flow, and ability to achieve or maintain profitability; (iv) changes in domestic or international government or regulatory policy, including without limitation, changes in trade policy; (v) the sufficiency of our cash and cash equivalents to meet our liquidity needs; (vi) our ability to attract and retain customers for our products, and to optimize product pricing; (vii) our ability to effectively manage our growth strategy and future expenses, including our startup and transition costs; (viii) competition from other wind blade and wind blade turbine manufacturers; (ix) the discovery of defects in our products; (x) our ability to successfully expand in our existing wind energy markets and into new international wind energy markets; (xi) our ability to successfully expand our transportation business and execute upon our strategy of entering new markets outside of wind energy; (xii) worldwide economic conditions and their impact on customer demand; (xiii) our ability to maintain, protect and enhance our intellectual property; (xiv) our ability to comply with existing, modified or new laws and regulations applying to our business, including the imposition of new taxes, duties or similar assessments on our products; (xv) the attraction and retention of qualified employees and key personnel; (xvi) our ability to maintain good working relationships with our employees, and avoid labor disruptions, strikes and other disputes with labor unions that represent certain of our employees; (xvii) our ability to procure adequate supplies of raw materials and components to fulfill our wind blade volume commitments to our customers; and (xviii) the potential impact of one or more of our customers becoming bankrupt or insolvent, or experiencing other financial problems.

These forward-looking statements are only predictions. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other important factors that may cause our actual results, levels of activity, performance or achievements to materially differ from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on

these forward-looking statements as guarantees of future events. Further information on the factors, risks and uncertainties that could affect our financial results and the forward-looking statements in this presentation are included in our filings with the Securities and Exchange Commission and will be included in subsequent periodic and current reports we make with the Securities and Exchange Commission from time to time, including in our Annual Report on Form 10-K filed with the Securities and Exchange Commission.

The forward-looking statements in this presentation represent our views as of the date of this presentation. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we undertake no obligation to update any forward-looking statement to reflect events or developments after the date on which the statement is made or to reflect the occurrence of unanticipated events except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date after the date of this presentation. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

This presentation includes unaudited non-GAAP financial measures including total billings, EBITDA, adjusted EBITDA, net cash (debt) and free cash flow. We define total billings as the total amounts we have invoiced our customers for products and services for which we are entitled to payment under the terms of our long-term supply agreements or other contractual agreements. We define EBITDA as net income (loss) plus interest expense (including losses on the extinguishment of debt and net of interest income), income taxes and depreciation and amortization. We define Adjusted EBITDA as EBITDA plus any share-based compensation expense, plus or minus any gains or losses from foreign currency remeasurement and any gains or losses on the sale of assets. We define net cash (debt) as total unrestricted cash and cash equivalents less the total principal amount of debt outstanding. We define free cash flow as net cash flow generated from operating activities less capital expenditures. We present non-GAAP measures when we believe that the additional information is useful and meaningful to investors. Non-GAAP financial measures do not have any standardized meaning and are therefore unlikely to be comparable to similar measures presented by other companies. The presentation of non-GAAP financial measures is not intended to be a substitute for, and should not be considered in isolation from, the financial measures reported in accordance with GAAP. See the appendix for the reconciliations of certain non-GAAP financial measures to the comparable GAAP measures.

This presentation also contains estimates and other information concerning our industry that are based on industry publications, surveys and forecasts. This information involves a number of assumptions and limitations, and we have not independently verified the accuracy or completeness of the information.





# Investment Thesis

## Capitalizing on Wind Market Growth, Blade Outsourcing and Improving Economics

- Renewables and wind energy are mainstream, large, growing, competitive and desired by customers.
- Emerging markets around the world are growing faster than mature markets.
- Blades are being outsourced to access emerging growth markets, drive cost and efficiently utilize capital.
- Same competitive dynamics in place today that put us in business.

## Only Independent Blade Manufacturer with a Global Footprint

- We've made good choices – customers, locations and markets.
- Our factories are low cost, world class hubs that serve large, diverse and growing addressable markets, reducing the effect of individual market fluctuations.

## Advanced Composite Technology and Production Expertise Provide Barrier to Entry

- TPI holds important IP that is difficult to replicate (materials, process, tooling, inspection and DFM).
- >300 engineers and growing, opened Denmark office to attract even more talent.
- 60-70+ meter blades, larger than 787 wing span, with tolerances measured in millimeters.

## Collaborative Dedicated Supplier Model to Share Gain and Drive Down LCOE

- Our business model helps TPI customers to gain market share in a cost effective and capital efficient manner by sharing the investment, spreading overhead, driving down material cost, improving productivity and sharing a large portion of that benefit with our customers.

## Long-Term Supply Agreements Provide Significant Revenue Visibility

- Current agreements provide up to \$6.3B in potential revenue through 2023.
- Volume based pricing and shared investment motivate both parties to keep plants full.
- Shared gain/pain protects our margins.

## Compelling Return on Invested Capital

- Shared capital investment results in a “capital-light” model for TPI and our customers.
- New investments target an initial average five-year ROIC hurdle rate of 25%.

## Seasoned Management Team with Significant Global Growth Experience

- TPI has become a destination for top talent. Pleased with the exceptional leaders and managers that have joined the TPI team.

# Key Messages

- Applying our advanced composites technology to major growth trends including the decarbonization of the electric sector and clean transportation systems.
- BNEF estimates that \$11.5 trillion will be invested in renewable power generation capacity through 2050 the bulk of which will be for wind and solar.
- BNEF estimates that by 2040 annual global EV sales will reach 65 million units representing 55% of all new car sales. 33% of the global fleet will be electric.
- MarketsandMarkets projects the aerospace composites market to grow from \$24.5 billion in 2016 to \$43 billion by 2022, or a CAGR of 9.85% between 2017 and 2022.
- Wind industry and market dynamics are rationalizing. Large global players are competing.
- TPI is a large global player with ~14% global share, ~25% ex-China and ~53% ex-China outsourced and a strong global reach.
- TPI has executed really well delivering revenue growth, market share growth, cost reduction, operational improvements and profit expansion.
- 37% revenue CAGR 2013 through 2018 – estimate 43% revenue growth and 21% Adjusted EBITDA growth in 2019.
- Will continue to advance TPI technology, further expand global footprint, and drive world class cost to differentiate and win.
- Will utilize deep partnership business model to provide capacity, flexibility and share gain to help our customers increase market share while we maintain and grow our profit.
- TPI strategy of strong and diversified growth will continue to build shareholder value.

# Introduction to TPI Composites

## Business Overview

Only independent manufacturer of composite wind blades for the high-growth wind energy market with a global footprint

Provides wind blades to some of the industry's leading OEMs such as: Vestas, GE, Siemens/Gamesa, Nordex, and ENERCON

Operates ten wind blade manufacturing plants, with one more under construction, two transportation facilities, and four tooling and R&D facilities and an advanced engineering center across six countries:

- United States
- Mexico
- Denmark
- China
- Turkey
- India

Applying advanced composites technology to production of clean transportation solutions, including electric buses

Long-term supply agreements with customers, providing contracted volumes that generate significant revenue visibility and drive capital efficiency

Founded in 1968 and headquartered in Scottsdale, Arizona

Approximately 11,000 employees globally

## Strong Historical Financial Results

37%

Revenue  
CAGR

2013-2018

52%

Adjusted  
EBITDA  
CAGR

2013-2018

13.9%

↑  
7.0%

Adjusted  
EBITDA  
Margin Growth\*

2013 - 2018

\* Adjusted EBITDA margin is before startup and transition costs

**Vestas**

**ENERCON**  
ENERGY FOR THE WORLD



**NORDEX**

**SIEMENS Gamesa**  
RENEWABLE ENERGY

**PROTERRA**

# Strong Customer Base of Industry Leaders

## Key Customers with Significant Market Share

### Global Onshore Wind

Rank	OEM	2016–2018 Share <sup>(1)</sup>
1	Vestas	18%
2	Goldwind	12%
3	SGRE <sup>(2)</sup>	12%
4	GE Wind	12%
5	ENERCON	7%
6	Envision	6%
7	Nordex Group	6%
8	Mingyang	4%
9	United Power	3%
10	CSIC Haizhuang	3%

**TPI Customer Market Share ~56%**

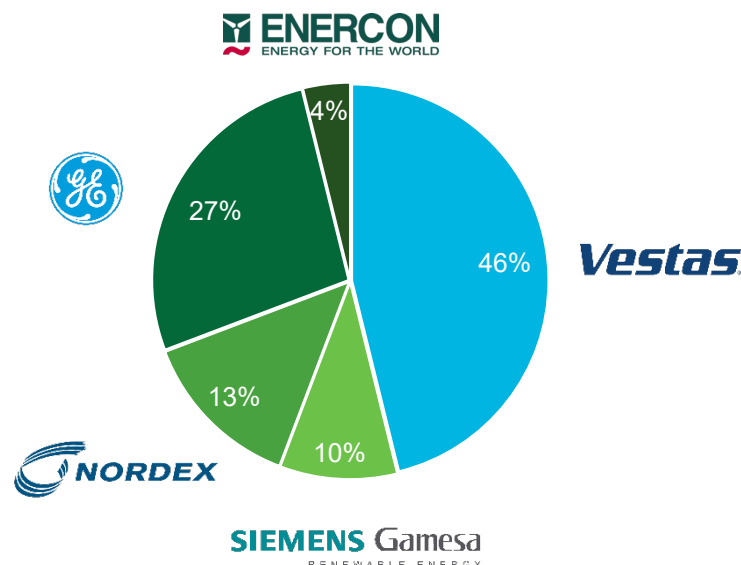
### Global Onshore Wind excl. China

Rank	OEM	2016–2018 Share <sup>(1)</sup>
1	Vestas	28%
2	SGRE <sup>(2)</sup>	19%
3	GE Wind	19%
4	ENERCON	11%
5	Nordex Group	10%
6	Senvion	4%
7	Suzlon	4%
8	INOX	1%
9	Goldwind	<1%
10	ReGen Powertech	<1%

**TPI Customer Market Share ~90%**

● = TPI Customer ● = Chinese Players

## Current Customer Mix – 52 <sup>(3)</sup> Dedicated Lines



TPI's customers account for **99%** of the U.S. onshore wind market and **56%** of the global onshore market

Source: Wood Mackenzie, "Historical Global Wind Turbine OEM Market Share"

(1) Figures are rounded to nearest whole percent

(2) Figures for Siemens/Gamesa are pro forma for the April 2017 merger of Gamesa Corporación Tecnológica and Siemens Wind Power

(3) Reflects the number of dedicated lines once the transitions for GE in Iowa and Mexico are completed and excludes Senvion

# Existing Contracts Provide for ~\$6.3 Billion in Revenue through 2023 <sup>(1)</sup>

Key Contract Terms	
Minimum Volume Visibility Mitigates Downside Risk	<ul style="list-style-type: none"> <li>Minimum Volume Obligations (MVOs) in place requiring the customer to take an agreed upon percentage of total production capacity or pay TPI its equivalent gross margin and operating costs associated with the MVO</li> </ul>
Incentivized Maximum Customer Volume	<ul style="list-style-type: none"> <li>Pricing mechanisms encourage customers to purchase 100% of the contract volume, as prices progressively increase as volumes decrease</li> <li>Customers fund the molds for each production line incentivizing them to maximize TPI's production capability to amortize their fixed cost</li> </ul>
Attractive Contract Negotiation Dynamic	<ul style="list-style-type: none"> <li>TPI typically renegotiates and extends contracts more than a year in advance of expiration in conjunction with blade model transitions</li> <li>Provisions allowing for reductions in lines generally provide for adequate time to replace a customer if a line reduction option is exercised</li> <li>Demand in locations where TPI already has a foothold (China, Turkey, Mexico and India) provides a substantial opportunity for synergies in the construction of new facilities</li> <li>TPI continues to expand its manufacturing facilities globally to meet increased demand</li> </ul>



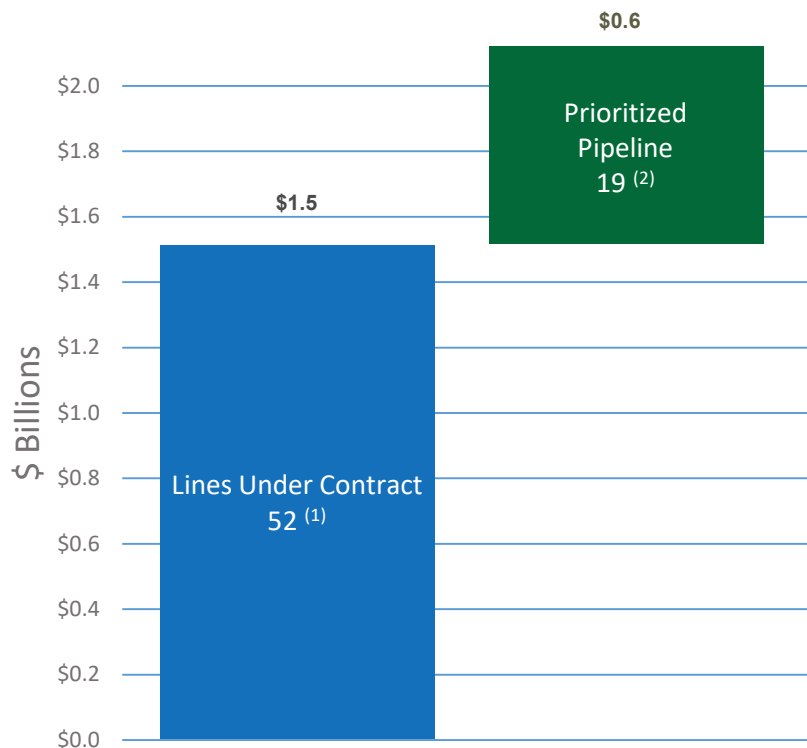
## Long-term contracts with minimum volume obligations provide strong revenue visibility

Note: Contracts with some of our customers are subject to termination on short notice with substantial penalties. Contracts with some of our customers also enable them to reduce number of lines, generally with 12 months notice, and in some cases with substantial penalties. Our contracts also contain liquidated damages provisions, which may require us to make unanticipated payments to our customers or our customers to make payments to us.

(1) As of March 31, 2019. The chart depicts the term of the longest contract in each location. Contract values do not include Servion.

# Prioritized Pipeline

Annual Revenue Potential – Wind Only > \$2.0 Billion



Pipeline Opportunities

Prioritized Pipeline represents those opportunities we have prioritized to close by the end of 2020

Size of Total Addressable Market

OEM(s) Share

Long-term Revenue Potential

Prioritized Pipeline – 19 lines

- 60-70m+ blades, >\$40M/yr./line
- New and Existing Customers
- New and Existing Geographies
- Onshore and Offshore

(1) Annual revenue potential based on 52 lines under contract as of March 31, 2019 (excluding Servion) at an average of \$35 million per line per year at **85%** utilization

(2) Annual revenue potential based on \$40 million per line per year at **80%** utilization.



# TPI Financial Targets

**Revenue Growth** 20%-25%  
2016 A – 2020 E

**Adj. EBITDA Margin** 12+%

**ROIC<sup>(1)</sup>** 35+%

(1) ROIC target is based on an estimate of tax effected income from operations plus implied interest on operating leases divided by beginning of the period capital which includes total stockholders' equity less cash and cash equivalents plus total outstanding debt and the net present value of operating leases.

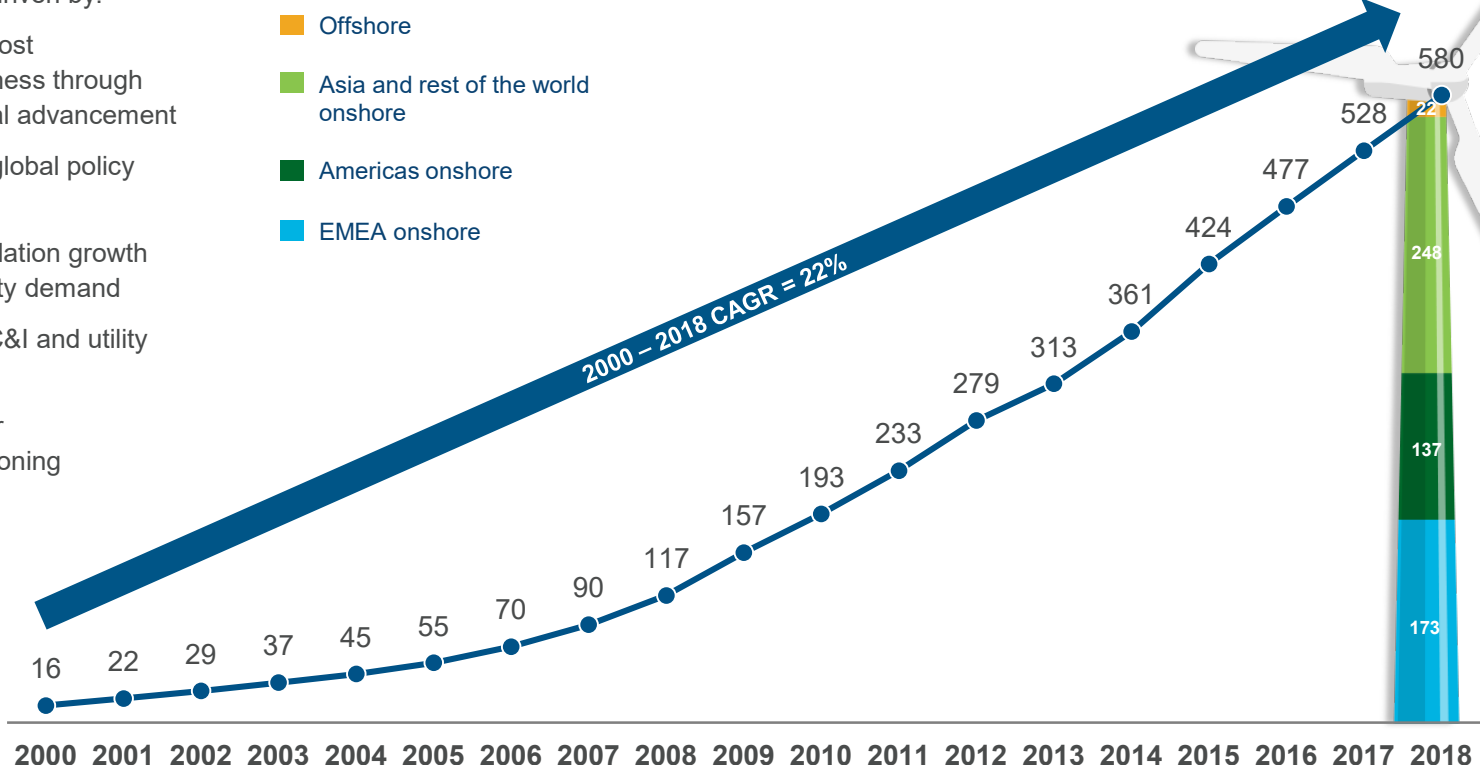
# Wind Power Generation Has Grown Rapidly and Expanded Globally in Recent Years

From 2008 to 2018, the cumulative global power generating capacity of wind turbine installations has gone up 5 times, with compound annual growth in cumulative global installed wind capacity of 22% since 2000.

Global Cumulative Installed Wind Capacity – 2000-2018 (GW) <sup>(1)</sup>

- Rapid growth driven by:

- ✓ Increasing cost competitiveness through technological advancement
- ✓ Supportive global policy initiatives
- ✓ Global population growth and electricity demand
- ✓ Increasing C&I and utility demand
- ✓ Coal/nuclear decommissioning
- ✓ Repowering
- ✓ EV trends



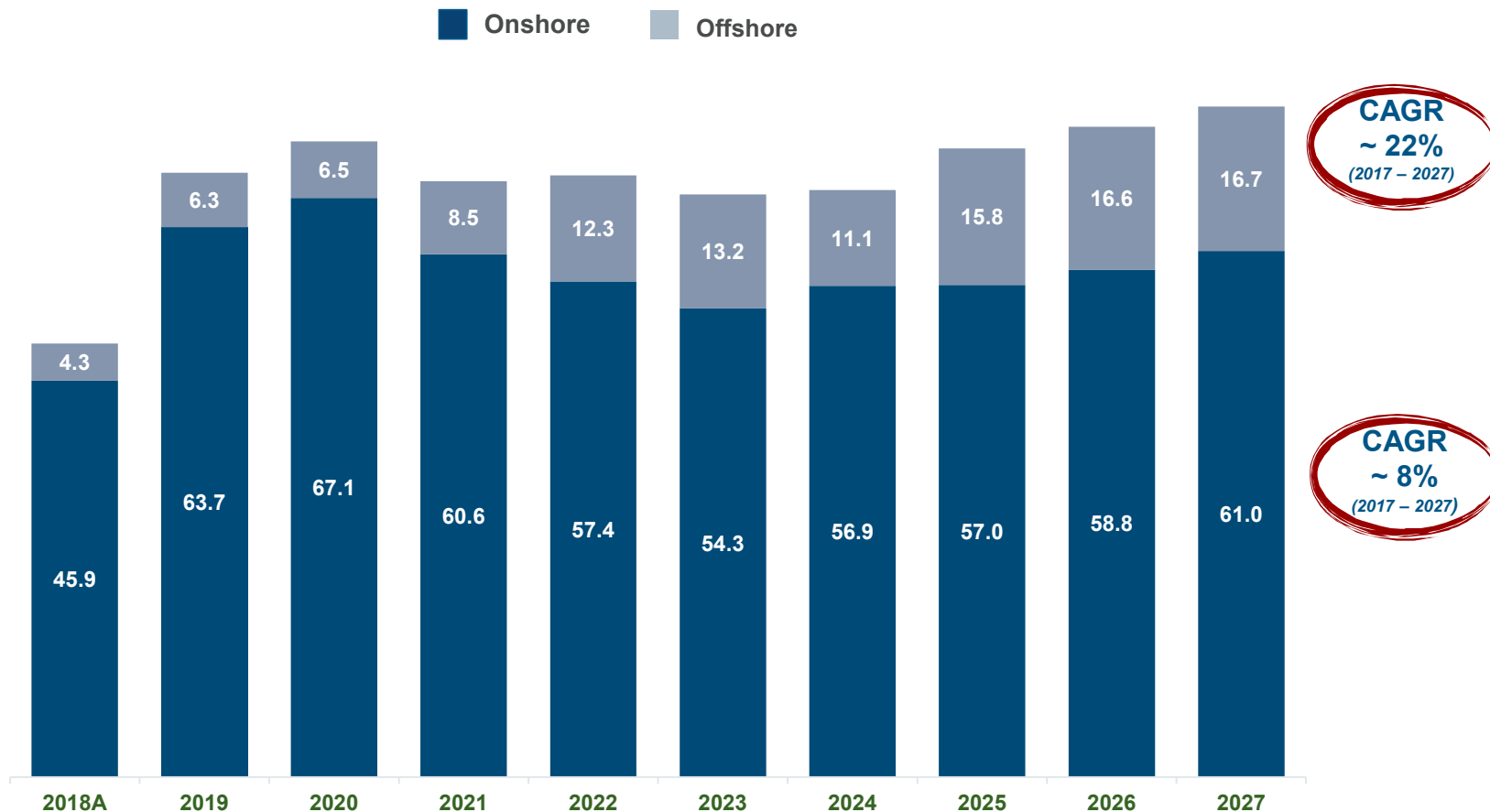
Wind energy is a large and rapidly growing worldwide business

Source: Bloomberg New Energy Finance

(1) Regional onshore and worldwide offshore figures presented for 2018 only

# Global Market Growth

## Annual Installed Global Wind Capacity (GW): 2018A – 2027E

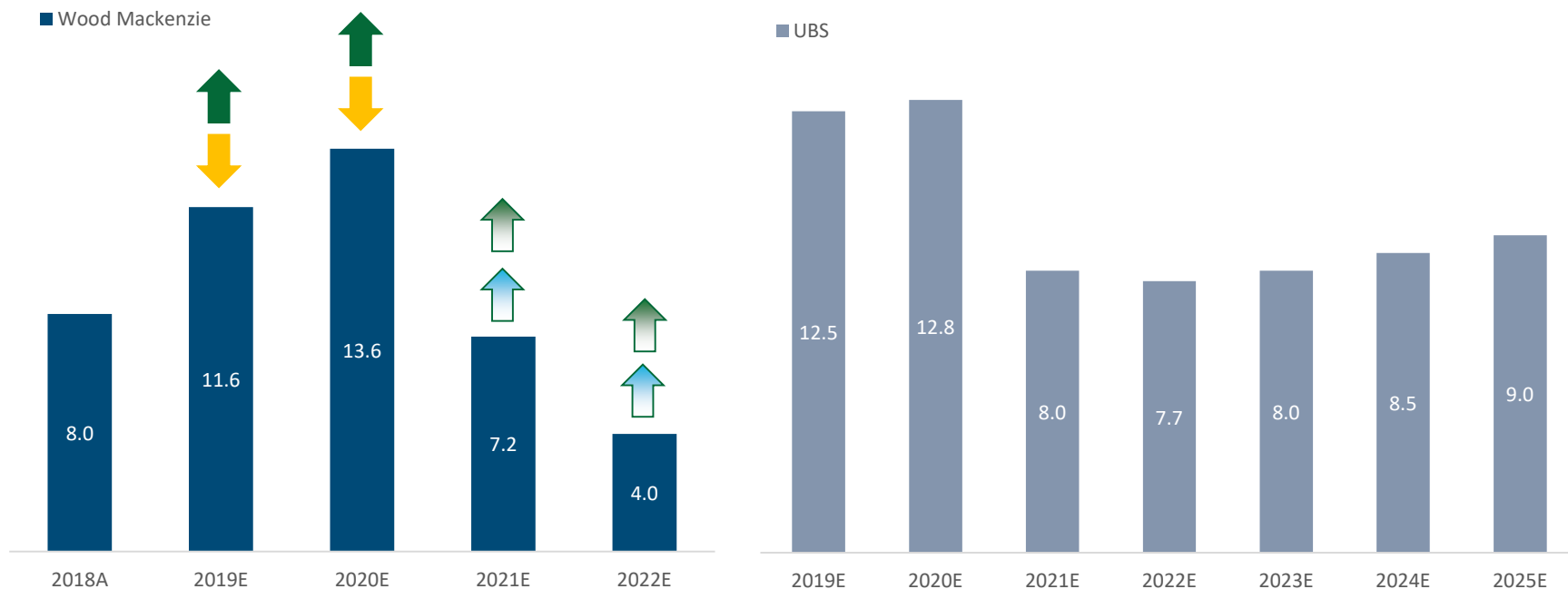


Annual installed wind capacity growth is projected to average 69GW between 2018 and 2027 and is propelled by offshore – 22% CAGR – and Emerging Markets - 25% CAGR. TPI is well positioned to participate in this growth.

Source: Wood Mackenzie, "Q1 2019 Global Wind Power Market Outlook Update"

# U.S. Onshore Market Growth

## U.S. Annual Installed Wind Capacity (GW): 2018A – 2025E



- Offtake demand
- Logistics limitations
- Cost-out and serial production of next-gen. turbines
- Demand from future RPS and C&I target increases

### Key Demand Drivers

- Economics of Onshore Wind
- Corporate and Industrial Buyers
- Utilities
- Decarbonization
- Economics of Offshore Wind
- Repowering
- Vehicle Electrification
- State RPS/Country Renewable Goals

The U.S. wind market is expected to experience consistent near-term growth

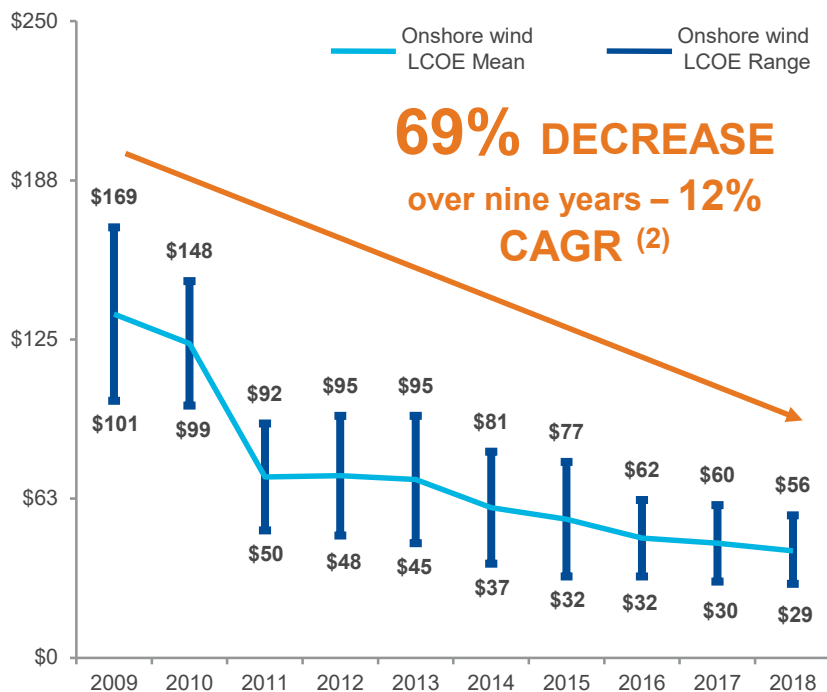
Source: Wood Mackenzie, "Q1 2019 Global Wind Power Market Outlook Update" and UBS Securities LLC

# Declining LCOE

## Allows Wind Energy to be More Competitive with Conventional Power Generation

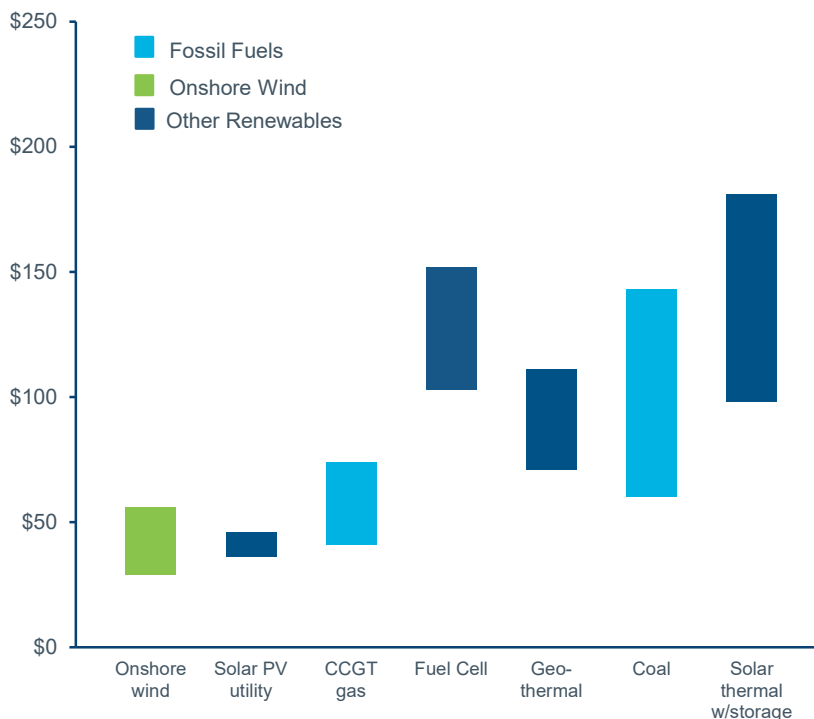
Global Onshore Wind LCOE Over Time <sup>(1)</sup>

— (\$/MWh)



Unsubsidized Global Levelized Cost of Power Generation Ranges by Technology <sup>(1)</sup>

— (\$/MWh)



Global LCOE for onshore wind generation has become increasingly competitive at or below new combined cycle gas turbines, unsubsidized, with an additional 50% decline expected by 2030 <sup>(3)</sup>

Source: Lazard Levelized Cost of Energy Analysis (version 12.0).

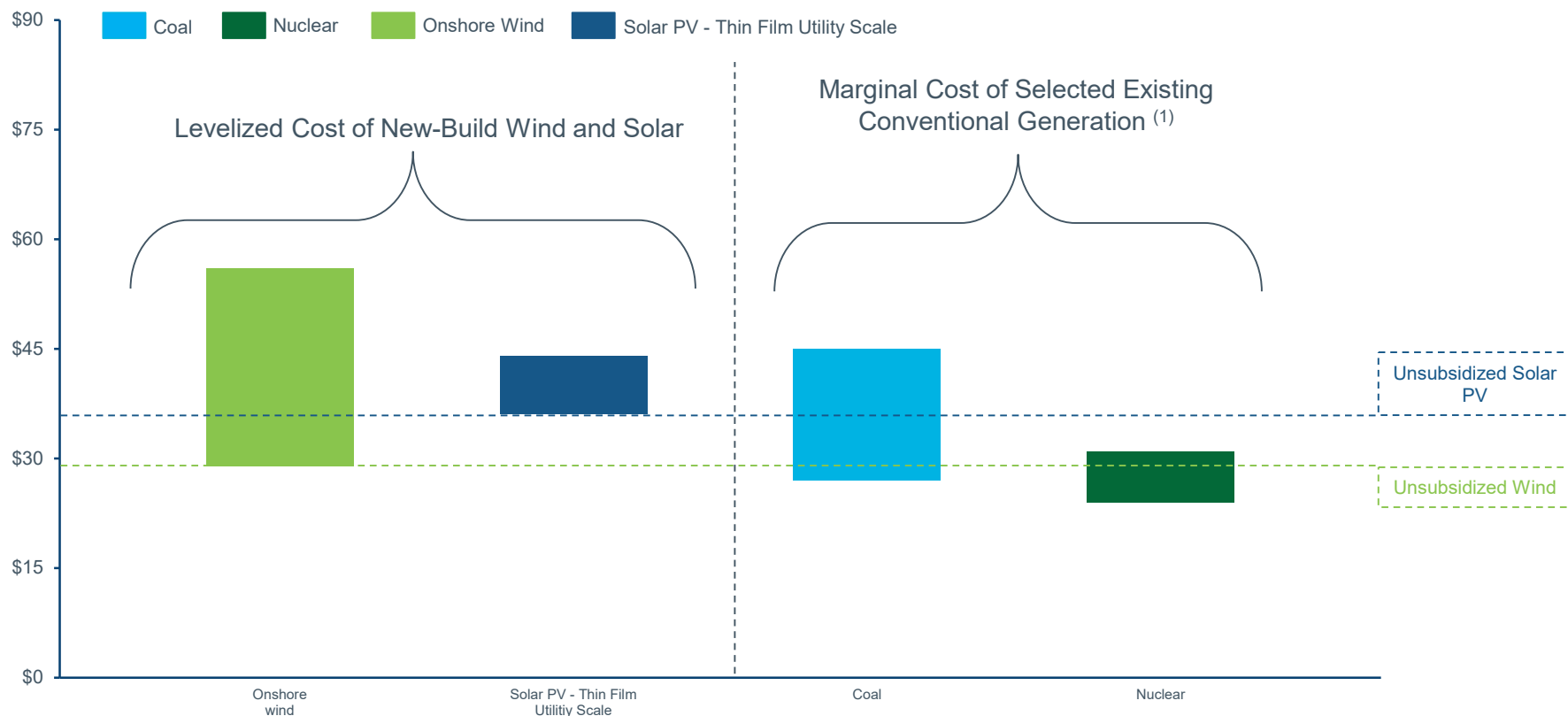
<sup>(1)</sup> Costs are on an unsubsidized basis. Ranges reflect differences in resources, geography, fuel costs and cost of capital, among other factors.

<sup>(2)</sup> Represents the average compound annual rate of decline of the high and low end of the LCOE range.

<sup>(3)</sup> U.S. Department of Energy National Renewable Energy Laboratory (NREL)



# LCOE Comparison – Alternative Energy versus Marginal Cost of Selected Existing Conventional Generation



Onshore wind, which became cost-competitive with conventional generation technologies several years ago, is, in some scenarios, approaching an LCOE that is at or below the marginal cost of operating existing conventional generation technologies.

Source: Lazard Levelized Cost of Energy Analysis (version 12.0).

(1) Represents the marginal cost of operating, fully depreciated coal and nuclear facilities, inclusive of decommissioning costs for nuclear facilities. Analysis assumes that the salvage value for a decommissioned coal plant is equivalent to the decommissioning and site restoration costs. Inputs are derived from a benchmark of operating, fully depreciated coal and nuclear assets across the U.S. Capacity factors, fuel, variable and fixed operating expenses are based on upper and lower quartile estimates derived from Lazard's research.

# Global Policy Support Coupled with Corporate Initiatives and Repowering Expected to Drive Additional Growth

1

## U.S. Policy Initiatives

**U.S. policy expected to support continued domestic wind capacity installation**

- Extension of the Wind Production Tax Credit (PTC) through 2019 for both new turbines and repowering of existing turbines along with IRS clarifications that expand PTC eligibility allowing developers a PTC benefit as late as 2023
- State Renewable Portfolio Standards
- Increased state programs/targets for offshore wind

**Increasing focus in board rooms regarding the economic and social benefits of adopting low-cost wind energy**

- Nearly 50% of Fortune 500 companies have set sustainability goals
- Furthermore, over 160 leading multinationals such as GM, Nike, Walmart, IKEA, BMW, Coca Cola and Proctor & Gamble have taken the RE100 pledge, organized by the Climate Group, to transition to 100% renewable energy

2

## Corporate and Utility Procurement

## International Policy Initiatives

3

**Recent global initiatives aimed at promoting the growth of renewable energy including wind**

- European Union finalized new climate rules targeting an uplift in the share of renewable energy to 32% by 2030
- China is targeting 210 GW of grid-connected wind capacity by 2020

**Paris Agreement is a landmark deal marking a significant commitment by the international community to further reduce fossil fuel consumption**

- Effective in 2020 and took effect on November 4, 2016
- 170 countries have ratified the agreement

## COP21 Paris Climate Talks

4

**Longer term policy visibility and an increase in corporate and utility procurement is expected to drive additional growth over the next decade**

Source: Bloomberg New Energy Finance, China National Development and Reform Commission, RE100

# The Industry is Shifting to a Predominantly Outsourced Wind Blade Manufacturing Model

## Outsourcing Trends

Vertically integrated OEMs are outsourcing wind blade manufacturing due to:

- the need to accelerate access to emerging markets
- the need for efficient capital allocation
- the need for supply chain optimization
- global talent constraints

Some have sold or shuttered in-house tower and blade manufacturing facilities in favor of an outsourced manufacturer

Geographically distributed, high precision blade manufacturing is more cost effective when performed by diversified, specialized manufacturers

TPI is the only independent manufacturer of composite wind blades with a global footprint and is well positioned to capitalize on global industry trends

**Vestas**



TPI selected as manufacturer of Vestas-designed blades in China, Mexico, India and Turkey



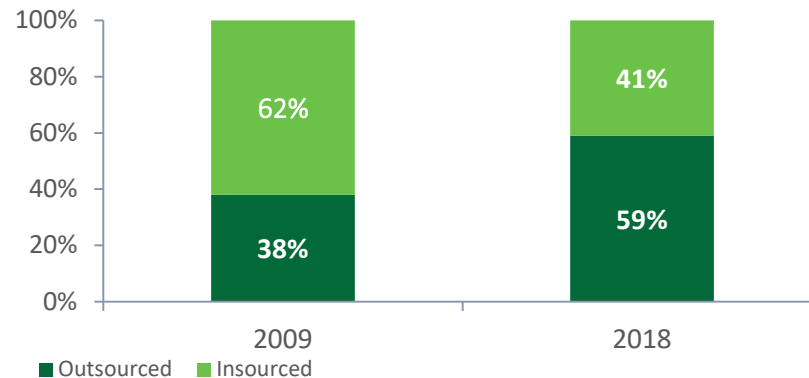
Expected to continue to outsource a significant percentage of blade needs notwithstanding acquisition of LM Wind Power. Expanded with TPI in 2018.

**SIEMENS Gamesa**  
RENEWABLE ENERGY

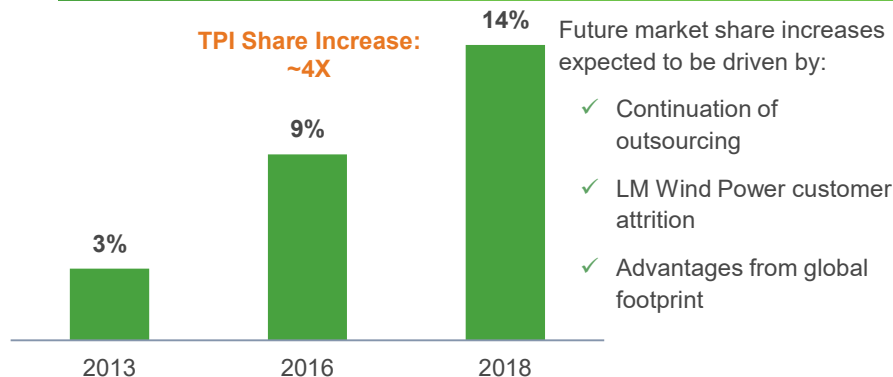


Currently outsources to TPI in Mexico and Turkey

## Global Wind Blade Manufacturing: Outsourced vs. Insourced <sup>(1)</sup>



## TPI Global Wind Blade Market Share 2013 – 2018 <sup>(2)</sup>



Several of the wind industry's largest participants have chosen TPI as their leading outsourced blade manufacturer

(1) Source: Wood Mackenzie, "Global wind turbine supply chain trends 2019" – based on % of MW

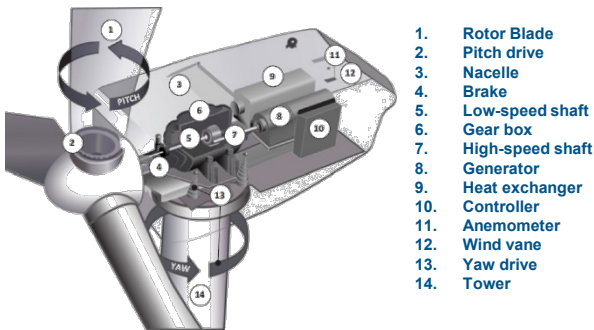
(2) TPI's market share based on TPI MW relative to Wood Mackenzie OEM total onshore MW for 2013, 2016 and 2018

# TPI is Well Positioned to Take Advantage of the Market Movement Towards Larger Blades

## Wind Turbine & Blade Overview

- A typical wind turbine consists of many components, the most important being the wind blades, gear box, electric generator and tower
- When the wind blows, the combination of the lift and drag of the air pressure on the wind blades rotate the rotor, which drives the gear-box and generator to create electricity

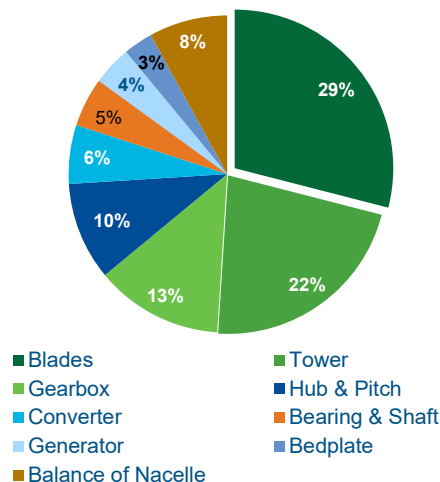
### A Typical Wind Turbine



## Turbine Cost by Component

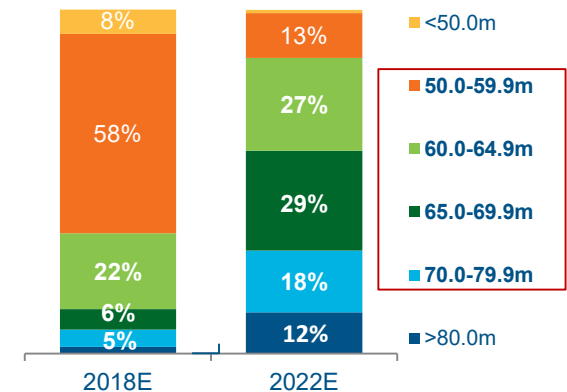
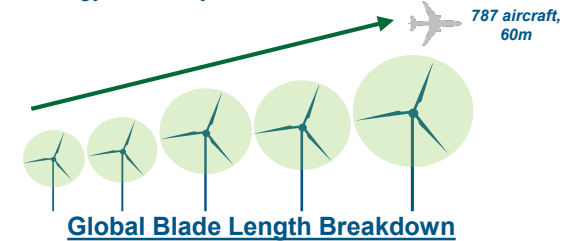
- Blades and pitch systems remain the most important elements in reducing LCOE driven by ongoing improvements in aerodynamic efficiency, load controls and cost reductions

### Turbine Cost Breakdown by Component <sup>(1)</sup>



## Movement Towards Larger Blade Lengths

- The trend toward larger wind blades indicates the potential phase out of smaller wind blades, as larger blades have the greatest impact on energy efficiency and LCOE reduction



Blade length and air foil shape contribute to efficiency in turning kinetic energy from the rotor into electricity

Wind blades represent ~22% of total installed turbine costs

On par with the movement toward larger wind blades, TPI blades are generally 50-70m in length

Source: Wood Mackenzie, American Wind Energy Association

(1) Costs included in turbine cost breakdown represent 77% of total installed turbine costs. Remaining 23% not represented in chart.

# Strong Barriers to Entry Will Allow TPI to Capture Additional Market Share

Wind blades are a critical component of our customers' strategy and, along with supply chain optimization, play an integral role bringing down LCOE

We believe that our extensive experience and track-record in delivering high quality wind blades combined with our established global scale and strong customer relationships creates a significant barrier to entry and is the foundation of our leadership position



TPI's ability to capitalize on recent growth trends in the wind energy market and outsourcing trends has allowed it to grow its revenue by nearly 400% from 2013 to 2018 while expanding its global manufacturing footprint over the same period



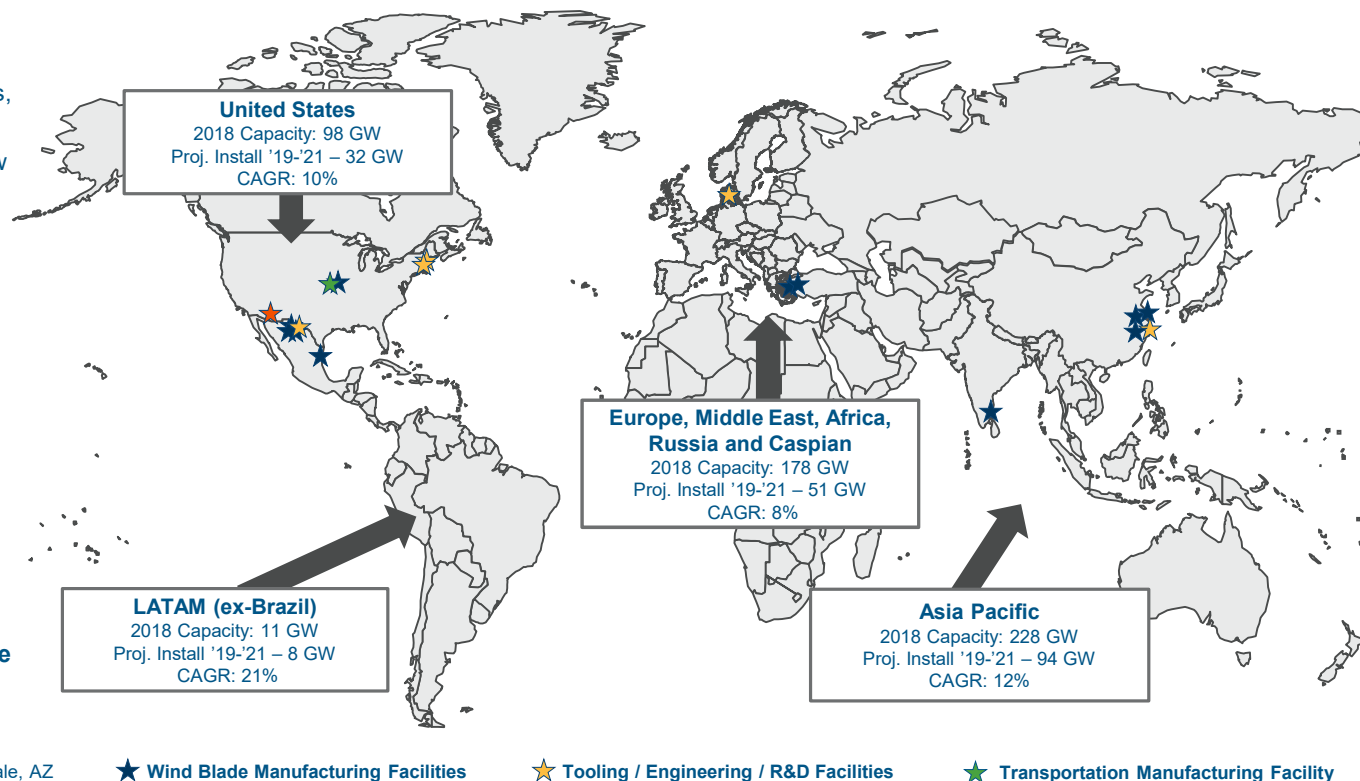
# Global Footprint Strategically Optimized for Regional Industry Demand

TPI has strategically built a strong global footprint that takes advantage of proximity to large existing regional markets, adjacent new markets and seaports for global export

## Demonstrated ability of global expansion

- TPI has developed a strong process to enter new markets, with an excellent track record of ramping and operating new facilities
- Significant “know how” in creating replicable and scalable manufacturing processes for ramping facilities globally
- Has successfully reduced costs and operational risks through the utilization of existing teams that have personally led similar startup processes

**TPI's operational expertise provides for a crucial competitive advantage as it continues to ramp new facilities in 2019 and beyond**



**16 manufacturing facilities in 5 countries; approximately 6 million square feet of manufacturing facilities, including India facility under construction**

Source: Wood Mackenzie, “Q1 2019 Global Wind Power Market Outlook – Onshore”

# Advanced Technology

## Customer Technology

## TPI Technology

### Collaborative Space

Design for Manufacturing  
Technical Due Diligence



#### Structural Design

Design of internal  
structure



#### Process Technology

Develop manufacturing  
process technology to  
enable manufacture



#### Material Technology

Develop new materials to  
reduce weight and cost



#### Tooling Design

Advanced tooling  
design to manufacture  
blades



#### Prototype Build

Manufacture of zero  
series blades

### Enhanced TPI Customer Collaboration

- **Technology Partnership** built on long-term relationships and mutual dependency
- **'True' Partnerships with customers** in their New Product Development process
- **Move upstream** - Collaborative due diligence on Design for Manufacturing and Risk Mitigation
- **Customer Intimacy** - Joint prototyping of blades with customers in customer facilities



#### Aero Design

Design of external shape (airfoil)

# Expanding Technology Development Footprint



## Rhode Island, US

- Deep historical partnerships with U.S. Gov't agencies to advance composite manufacturing technologies
- Pilot projects to demonstrate new technologies like thermoplastics

## Kolding, Denmark

- Established Advanced Engineering Center to enhance capabilities to serve European customer base
- Expand technical resource base to enable growth

## Izmir, Turkey

- Established AR-GE program to leverage Turkish Gov't R&D Funding
- R&D programs in tooling and process engineering

## Taicang, China

- Accredited materials lab
- Significant process and tooling development
- Tooling transition process expertise

★ **Applied Development at all Manufacturing Sites**  
Over 300 engineers globally. TPI is a destination for top talent.

# Industrialization

**Objective:** Create replicable and scalable processes to launch new sites, new blades and transition technology

## Approach

- Standard Stage Gate Model
- Clearly defined metrics and deliverables
- Consistent processes based on lessons learned
- Core team with functional expertise

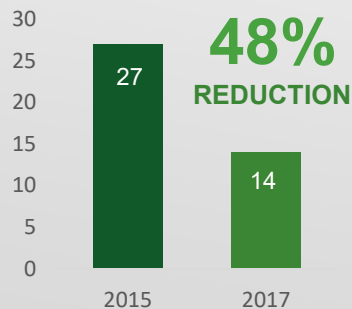
## Benefits

- Consistency, repeatability and scalability
- Speed – time to market
- Flexibility in dynamic environment
- Reduction in startup and transition costs

## Results IN DAYS

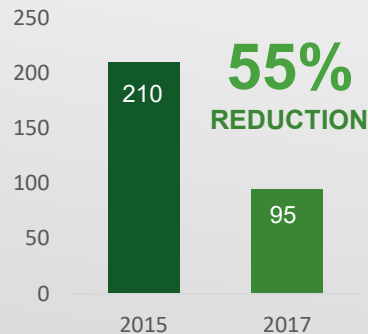
### Flexibility

Tooling Transition / Existing Facility



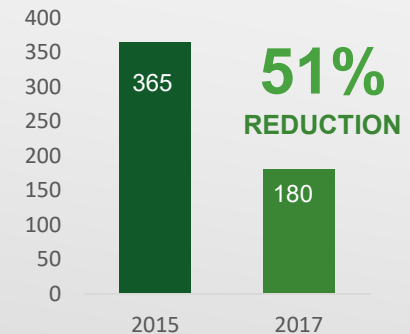
### Speed

Ramp up / Existing Facility



### Speed

Ramp up / New Facility



# Dedicated Supplier Model Encourages Stable Long-Term Customers

## Deeply Integrated Partnership Model

- Dedicated TPI capacity provides outsourced volume that customers can depend upon
- Joint investment in manufacturing with tooling funded by customers
- Long-term agreements with incentives for maximum volumes
- Strong visibility into next fiscal year volumes
- Shared pain/gain on increases and decreases of material costs and some production costs
- Cooperative manufacturing and design efforts optimize performance, quality and cost
- Global presence enables customers to repeat models in new markets



## High Customer Value Proposition

- ✓ Build-to-spec blades
- ✓ High quality, low cost
- ✓ Dedicated capacity
- ✓ Industry leading field performance
- ✓ Global operations



## Strong Customer Base of Leading OEMs

**Vestas**



**SIEMENS Gamesa**  
RENEWABLE ENERGY





# Diversification Strategy

**CLEAN TRANSPORTATION:** In EVs, lighter weight equates to longer range or fewer batteries which drives cost

**By 2040, 55% of all new car sales and 33% of global fleet will be electric <sup>(1)</sup>**

**Multiple development programs in:**

- Passenger automotive
- EVs
- Commercial vehicles



**NAVISTAR®**

**Growing with Proterra**

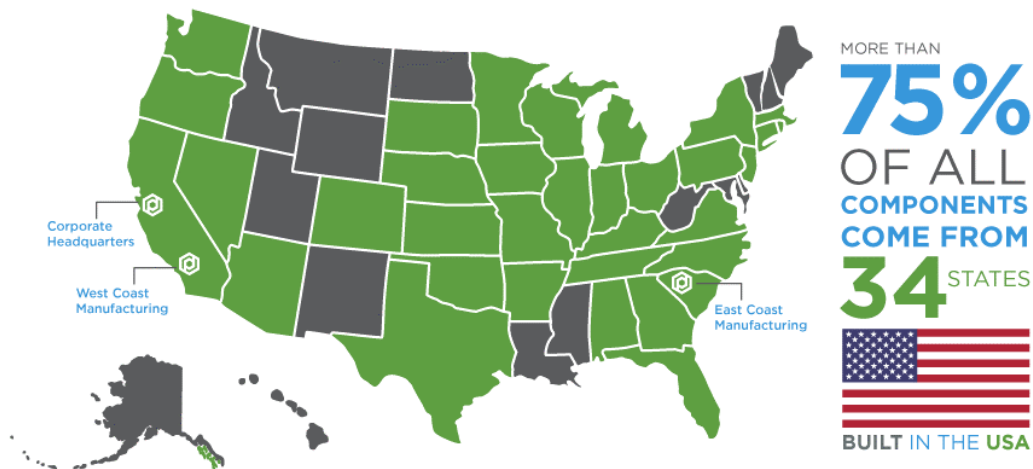


(1) Bloomberg New Energy Finance, "New Energy Outlook 2018"

# Diversification Strategy

## Proterra's Mission

*Advancing electric vehicle technology to deliver the world's best-performing heavy-duty vehicles*



- Offices and manufacturing in CA and SC
- 500+ employees, strong transportation expertise
- >90 customers; >700 vehicles sold
- >265 vehicles delivered; >7,000,000 service miles
- >39,000,000 pounds of CO<sub>2</sub> emissions avoided
- Demonstrated >1,100 miles on single charge

Source: Proterra, Inc.



## Strong Transportation Expertise

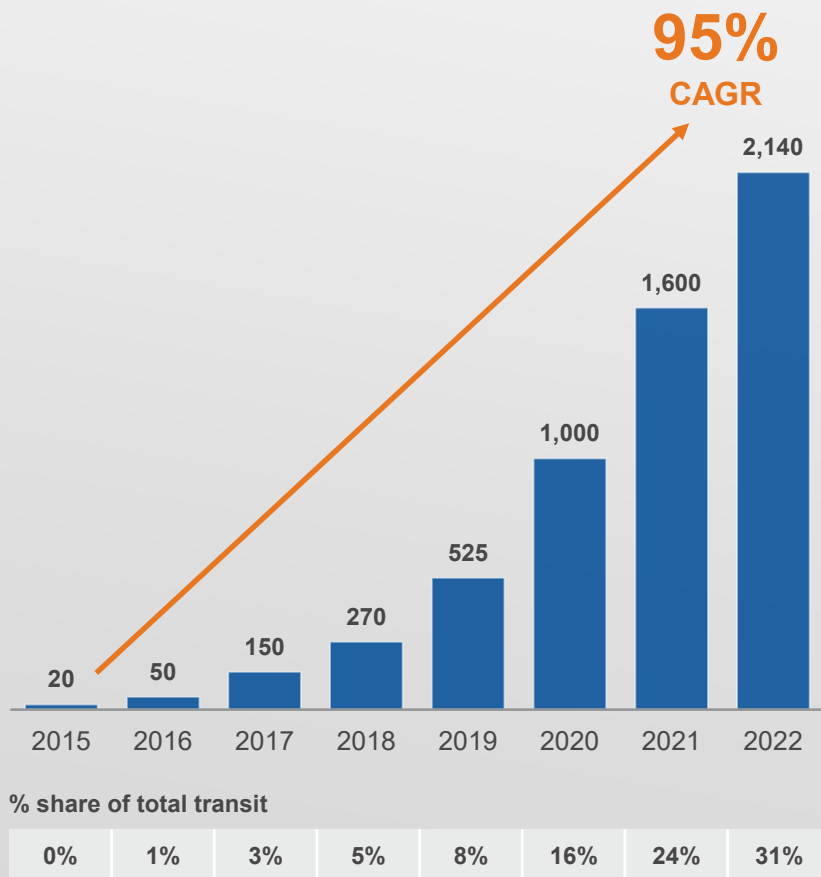


## World Class Financial Partners



# Large Market Opportunity

## North American Electric Bus Market (Units)



- Addresses **large opportunity** given **mission-critical nature of transit**
- Cusp of **wide-spread adoption**
- Technology **applicable everywhere**
- **Compelling** growth potential

Source: Frost & Sullivan, HD Transit Bus Market – Global Analysis, March 2016

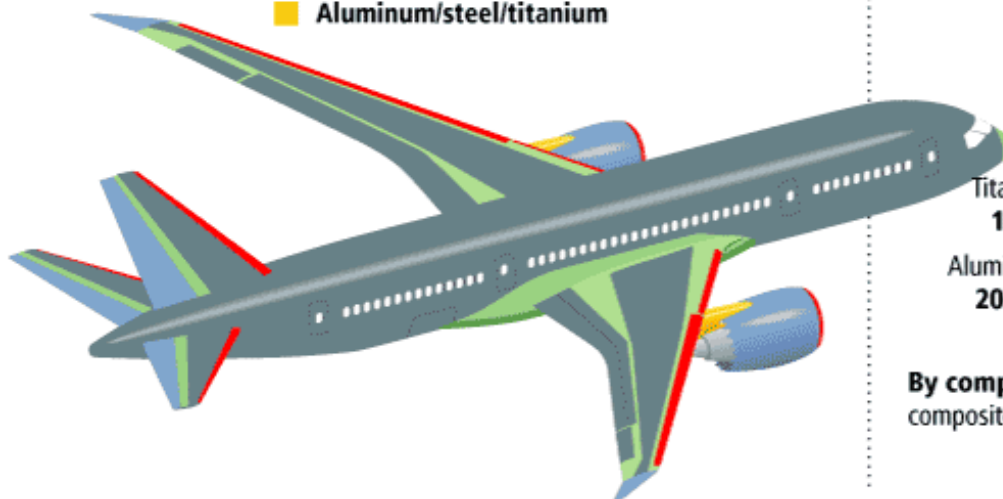
# Diversification Strategy

## AEROSPACE

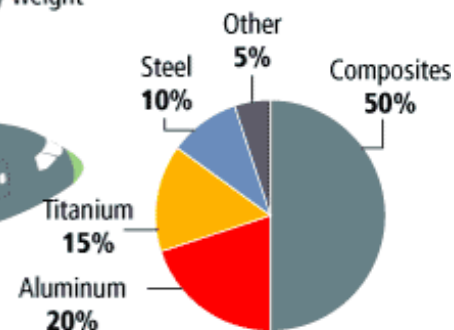
**\$24.5B per year composites market growing to \$43.0B by 2022 – CAGR of 9.85% <sup>(1)</sup>**

- Replacing aluminum and other more expensive composites (e.g., carbon) with TPI's solutions

**Materials used in 787 body**



**Total materials used  
By weight**



**By comparison, the 777 uses 12 percent composites and 50 percent aluminum.**

(1) MarketsandMarkets – November 2017

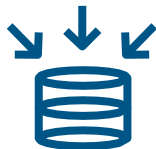
# OUR ESG ROADMAP

Embracing and operationalizing Environmental, Social and Governance (ESG) practices into everything we do will drive growth, improve productivity, reduce operational risks and reduce cost. TPI is committed to ESG and we've developed a roadmap for our long-term ESG strategy.



## Materiality Assessment

Through peer analysis and stakeholder engagement, we have identified which ESG topics are material, relevant and aligned to TPI's business strategy.



## Data Collection & Processes

We have established and documented procedures for data collection, identification of data owners and developed standard operating procedures for ESG reporting.



## Stakeholder Communications

We will create messaging and reporting for all stakeholders – investors, associates, customers and suppliers.

PHASE 1



PHASE 2



PHASE 3



*Expected reporting:  
2020*

TPI's ESG materiality matrix aligned to our business strategy:

## Environmental

- Environmental Compliance
- Materials and Materials Efficiency
- Waste

## Social

- Occupational Health and Safety
- Training and Education
- Local Communities
- Indirect Economic Impacts

## Governance

- Governance and Ethics
- Economic Performance



# High Quality Management Team, Board and Workforce

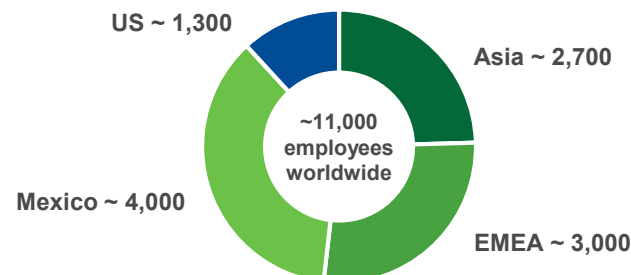
## Management Team

<b>Steve Lockard</b> <i>Chief Executive Officer</i>	<ul style="list-style-type: none"> <li>Joined TPI in 1999. Prior to TPI, served as the Vice President of Satloc and was a founding officer of ADFlex solutions, a NASDAQ listed company</li> <li>Chairman of the Board for the American Wind Energy Association (AWEA)</li> </ul>
<b>Bill Siwek</b> <i>President</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2013. Prior to TPI, was CFO for T.W. Lewis Company, EVP of Talisker Inc., President &amp; CFO of Lyle Anderson Company and was a Partner at Arthur Andersen in both Audit and Business Consulting</li> </ul>
<b>Ramesh Gopalakrishnan</b> <i>Chief Operating Officer, Wind</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2016. Prior to TPI, was EVP of Global Manufacturing for Servion Wind Energy. Prior to that he was COO of Suzlon Energy Composites, Inc. and has also spent time at Haliburton Corp. and GE</li> </ul>
<b>Joe Kishkill</b> <i>Chief Commercial Officer</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2017. Prior to TPI, was President, International and Chief Commercial Officer of First Solar, Inc., President, Eastern Hemisphere and Latin America for Exterran Holdings</li> </ul>
<b>Bryan Schumaker</b> <i>Chief Financial Officer</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2019. Prior to TPI, was Chief Accounting Officer of First Solar, Inc. and Chief Financial Officer for 8point3 Energy Partners and prior to that held multiple roles at Swift Transportation including VP Corporate Controller.</li> </ul>
<b>Steve Fishbach</b> <i>General Counsel</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2015. Prior to TPI, was SVP, Deputy General Counsel of Global Cash Access Holdings, Inc. (NYSE: GCA) and various senior roles in the legal department of Fidelity National Information Services, Inc./eFunds Corporation (NYSE: FIS)</li> </ul>
<b>T.J. Castle</b> <i>SVP – Operations, Strategic Markets</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2015. Prior to TPI, held a number of positions with Honeywell including most recently VP of Integrated Supply Chain and prior to that was Global VP of the Honeywell Operating System for Aerospace</li> </ul>
<b>Deane Ilukowicz</b> <i>SVP – Global Human Resources</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2016. Prior to TPI, was VP of Organizational Effectiveness at TransUnion, Chief Human Resources Officer for Hypertherm, and held senior level roles at other financial services and manufacturing companies</li> </ul>
<b>Joe Kerkhove</b> <i>SVP – Strategic Markets</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2017. Prior to TPI, was Commercial Vice-President with Arconic (ALCOA) and has over 20 years of sales and marketing experience, including leadership positions in Aerospace, Defense and Automotive markets</li> </ul>
<b>Paddy Weir</b> <i>SVP – China</i>	<ul style="list-style-type: none"> <li>Joined TPI in 2017. Prior to TPI, was the Director of Taylor Weir Limited. Prior to that, he was VP and Managing Director of UK Blade operations for Vestas.</li> </ul>

## Board of Directors

Name	Affiliation
Steve Lockard	<ul style="list-style-type: none"> <li>Chief Executive Officer and Director</li> <li>Chairman of the Board - AWEA</li> </ul>
Stephen B. Bransfield	<ul style="list-style-type: none"> <li>Director</li> <li>Previously VP, General Electric</li> </ul>
Michael L. DeRosa	<ul style="list-style-type: none"> <li>Director</li> <li>MD, Element Partners</li> </ul>
Jayshree S. Desai	<ul style="list-style-type: none"> <li>Director</li> <li>President, ConnectGen, LLC</li> </ul>
Philip J. Deutch	<ul style="list-style-type: none"> <li>Director</li> <li>MP, NGP Energy Technology Partners</li> </ul>
Paul G. Giovacchini	<ul style="list-style-type: none"> <li>Director and Chairman of the Board</li> <li>Independent consulting advisor to Landmark Partners</li> </ul>
Jack A. Henry	<ul style="list-style-type: none"> <li>Director</li> <li>MD, Sierra Blanca Ventures</li> </ul>
James A. Hughes	<ul style="list-style-type: none"> <li>Director</li> <li>Former CEO and board member of First Solar, Inc.</li> </ul>
Tyrone M. Jordan	<ul style="list-style-type: none"> <li>Director</li> <li>President and COO of Dura Automotive Systems, LLC</li> </ul>
Daniel G. Weiss	<ul style="list-style-type: none"> <li>Director</li> <li>MP, Angeleno Group</li> </ul>

## Employees at a Glance



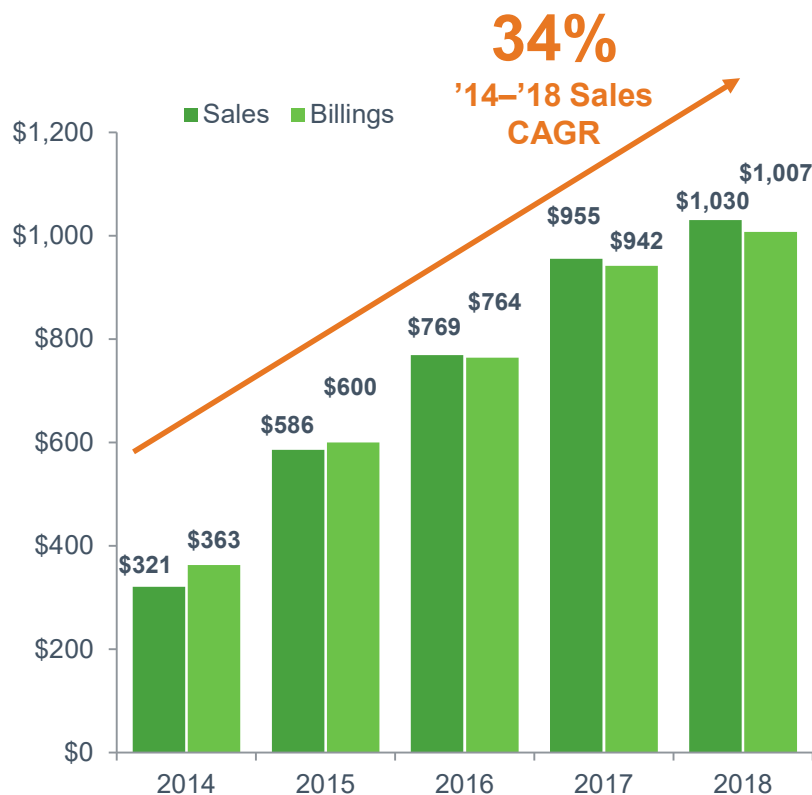
A photograph of several wind turbines in a field, overlaid with a dark blue semi-transparent filter. The turbines are arranged in a line, receding into the distance. The sky is a clear, deep blue.

# FINANCIAL SUMMARY

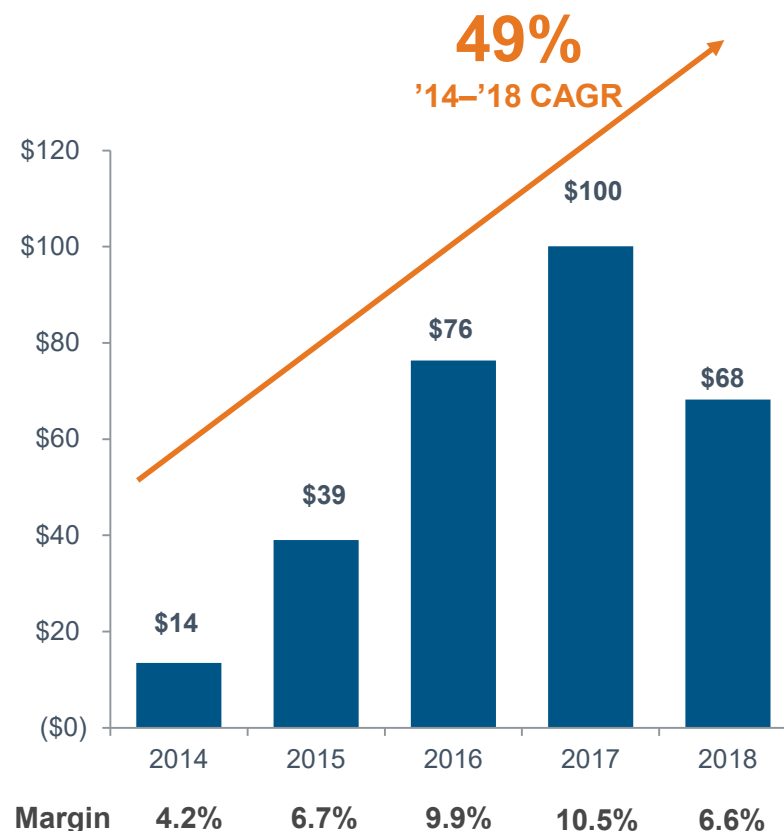
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# Financial Results

GAAP Net Sales and Total Billings (\$ in millions) <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup>



Adjusted EBITDA (\$ in millions) <sup>(2)</sup> <sup>(3)</sup>



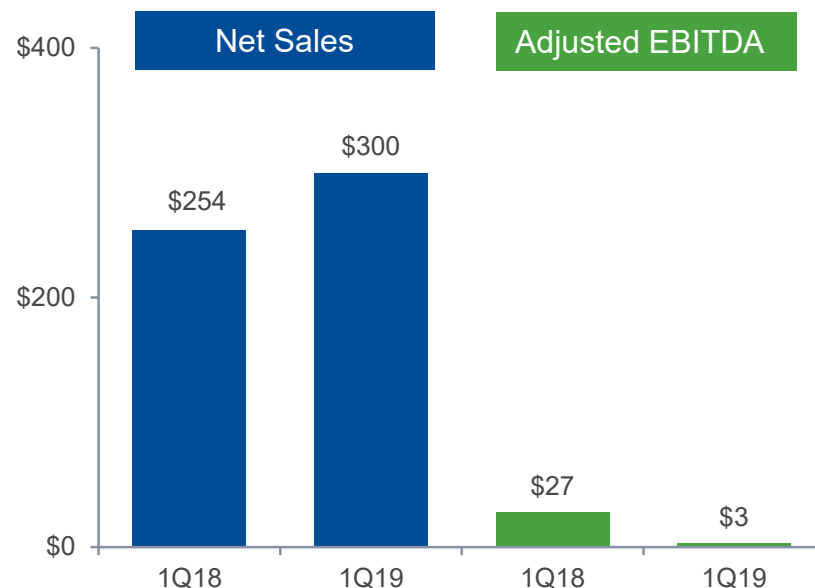
1. Total billings refers to the total amounts we have invoiced our customers for products and services for which we are entitled to payment under the terms of our long-term supply agreements or other contractual agreements
2. See appendix for reconciliations of non-GAAP financial data
3. 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606.

# Q1 2019 Highlights

## Q1 2019 Highlights

- Operating results and year-over-year compared to 2018:
  - Net sales were up 18.0% to \$299.8 million for the quarter
  - Total billings were up 24.9% to \$279.5 million for the quarter
  - Net loss for the quarter was \$12.1 million compared to net income of \$8.6 million in 2018.
  - Adjusted EBITDA for the quarter was \$2.9 million or 1.0% of sales
- GE executed a joint development agreement to cooperatively develop advanced blade technology for future wind turbines.
- Continued progress on diversification strategy with additional focus of senior talent to accelerate progress on this strategic initiative.
- Bill Siwek was promoted to President responsible for global operations, supply chain, finance, HR, legal and IT. Ramesh Gopalakrishnan was promoted to Chief Operating Officer for Wind responsible for our global wind blade operations. Bryan Schumaker was hired as Chief Financial Officer responsible for finance, accounting and investor relations.

### Net Sales and Adjusted EBITDA (\$ in millions)



Sets invoiced	569	662
Est. MW	1,464	1,861
Dedicated lines <sup>(1)</sup>	46	54
Lines installed <sup>(2)</sup>	38	49

(1) Number of wind blade manufacturing lines dedicated to our customers under long-term supply agreements at the end of the quarter.

(2) Number of wind blade manufacturing lines installed that are either in operation, startup or transition at the end of the quarter.

# Q1 2019 Financial Highlights <sup>(1)</sup>

*(unaudited)*

(\$ in millions, except per share data and KPIs)

## Select Financial Data

	Q1 '19	Q1 '18	Δ
Net Sales	\$ 299.8	\$ 254.0	18.0%
Total Billings	\$ 279.5	\$ 223.7	24.9%
Net Income (Loss)	\$ (12.1)	\$ 8.6	NM
Diluted Earnings (Loss) Per Share	\$ (0.35)	\$ 0.24	\$ (0.59)
Adjusted EBITDA	\$ 2.9	\$ 27.4	-89.3%
Adjusted EBITDA Margin	1.0%	10.8%	-980 bps
Net Cash (Debt)	\$ (81.9)	\$ 11.1	\$ (93.1)
Free Cash Flow	\$ (30.8)	\$ (14.7)	\$ (16.1)
Capital Expenditures	\$ 18.7	\$ 11.7	\$ 7.0

## Key Performance Indicators (KPIs)

Sets Invoiced	662	569	93
Estimated Megawatts	1,861	1,464	397
Utilization	64%	71%	-700 bps
Dedicated Wind Blade Manufacturing Lines	54	46	8 lines
Wind Blade Manufacturing Lines Installed	49	38	11 lines
Wind Blade Manufacturing Lines in Operation	31	24	7 lines
Wind Blade Manufacturing Lines in Startup	13	10	3 lines
Wind Blade Manufacturing Lines in Transition	5	4	1 line

(1) See Appendix for reconciliations of non-GAAP financial data

# Income Statement Summary <sup>(1)</sup>

(unaudited)

	Three Months Ended March 31,		Change	
	2019	2018	\$	%
<i>(\$ in thousands, except per share amounts)</i>				
Net sales	\$ 299,780	\$ 253,981	\$ 45,799	18.0%
Cost of sales	\$ 283,038	\$ 210,988	\$ 72,050	34.1%
Startup and transition costs	\$ 18,178	\$ 14,735	\$ 3,443	23.4%
Total cost of goods sold	\$ 301,216	\$ 225,723	\$ 75,493	33.4%
Cost of goods sold %	100.5%	88.9%		1160 bps
Gross profit (loss)	\$ (1,436)	\$ 28,258	\$ (29,694)	-105.1%
Gross profit (loss) %	-0.5%	11.1%		-1160 bps
General and administrative expenses	\$ 10,220	\$ 11,163	\$ (943)	-8.4%
General and administrative expenses %	3.4%	4.4%		-100 bps
Income (loss) from operations	\$ (11,656)	\$ 17,095	\$ (28,751)	-168.2%
Income (loss) before income taxes	\$ (16,704)	\$ 10,605	\$ (27,309)	-257.5%
Net income (loss)	\$ (12,104)	\$ 8,648	\$ (20,752)	NM
Weighted-average common shares outstanding:				
Basic	34,906	34,049		
Diluted	34,906	35,479		
Net income (loss) per common share:				
Basic	\$ (0.35)	\$ 0.25	\$ (0.60)	
Diluted	\$ (0.35)	\$ 0.24	\$ (0.59)	
<b>Non-GAAP Metrics</b>				
Total billings	\$ 279,471	\$ 223,701	\$ 55,770	24.9%
EBITDA	\$ (4,097)	\$ 20,974	\$ (25,071)	-119.5%
EBITDA margin	-1.4%	8.3%		-970 bps
Adjusted EBITDA	\$ 2,925	\$ 27,373	\$ (24,448)	-89.3%
Adjusted EBITDA margin	1.0%	10.8%		-980 bps

(1) See Appendix for reconciliations of non-GAAP financial data



# Key Balance Sheet and Cash Flow Data <sup>(1)</sup>

*(unaudited)*

<u>(\$ in thousands)</u>	<b>March 31, 2019</b>	<b>December 31, 2018</b>
<b>Balance Sheet Data:</b>		
Cash and cash equivalents	\$ 78,319	\$ 85,346
Restricted cash	\$ 1,850	\$ 3,555
Accounts receivable	\$ 167,209	\$ 176,815
Contract assets	\$ 133,110	\$ 116,708
Total debt-current and noncurrent, net	\$ 159,438	\$ 137,623
Net debt	\$ (81,946)	\$ (53,155)

<u>(\$ in thousands)</u>	<b>Three Months Ended March 31, 2019</b>	<b>2018</b>
<b>Cash Flow Data:</b>		
Net cash used in operating activities	\$ (12,091)	\$ (3,032)
Capital expenditures	\$ 18,709	\$ 11,714
Free cash flow	\$ (30,800)	\$ (14,746)

(1) See Appendix for the reconciliations of net cash (debt) and free cash flow

A blue-tinted photograph of a wind farm. In the foreground, there is a field of tall corn plants. In the background, several large three-bladed wind turbines are visible against a clear sky. The image is used as a background for a presentation slide.

# GUIDANCE FOR 2019 & 2020 KEY TARGETS

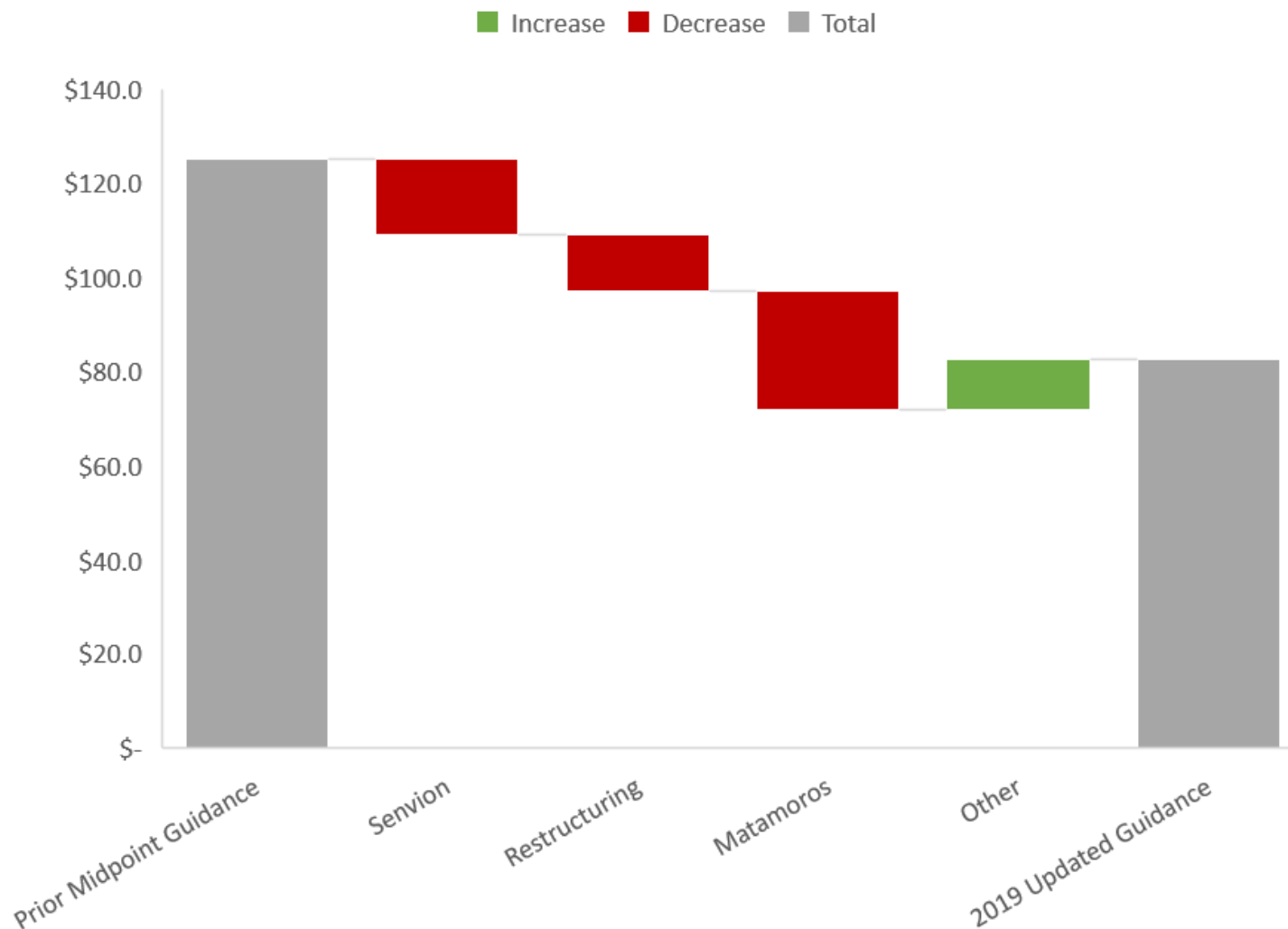
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# Key Drivers for 2019 Performance

- Continued focus on day-to-day execution and delivery to continue driving down cycle times and direct labor hours and collaborating with our supplier base for raw material pricing, certainty of supply and further innovation
- Increase in dedicated manufacturing lines to between 60 and 63 through conversion of prioritized pipeline
- 43% growth in net sales and 21% increase in Adjusted EBITDA based on the mid-point of the guidance ranges
- As we execute on the 10 lines in transition and 14 lines in start-up, we end the year with strong overall utilization (of the lines under contract as of January 1, 2019) and prepared to execute on 2020 targets
- At or near break even free cash flow due to significant startup and transition activity. Will continue our rigorous working capital management and selective use of credit facilities when needed.
- Continue investments in 2019 to drive growth in 2020 and beyond – 10 lines in transition and 14 lines in startup
- Continued conversion of our pipeline will necessitate additional facility and/or campus expansion during 2019
- Open a new tooling facility in Juarez, Mexico and expand our tooling resources on a global scale
- Continued use of productivity and throughput improvements
- Leveraging of our investment in the automated pilot manufacturing line to advance our diversification strategy and expand the number of transportation-related production contracts over time

# 2019 EBITDA Guidance Bridge

(\$ in millions)



# 2019 Key Guidance Metrics and 2020 Targets

	2019 Guidance Updated	2019 Guidance Previous	2020 Target
Total Billings	\$1.45B – \$1.5B	\$1.5B – \$1.6B	\$1.7B – \$1.9B
Net Sales	\$1.45B – \$1.5B	\$1.5B – \$1.6B	\$1.7B – \$1.9B
Adjusted EBITDA	\$80M – \$85M	\$120M – \$130M	\$170M – \$190M
Earnings per Share - FD	(\$0.03) – (\$0.09)	\$1.34 – \$1.45	
Sets	3,200 – 3,300	3,300 – 3,500	
Average Selling Price per Blade	\$135K – \$140K	\$135K – \$140K	
Non-Blade Billings	\$100M – \$105M	\$115M – \$120M	
G&A Costs as a % of Billings (incl. SBC and loss on sale of receivables)	4.0% – 4.25%	4.0% – 4.25%	
Estimated MW	9,400 – 9,700	9,800 – 10,400	
Dedicated Lines - EOY	60 – 63	62 – 65	
Share-Based Compensation	\$7M – \$8M	\$9M – \$9.5M	
Depreciation & Amortization	\$41M – \$42M	\$40M – \$45M	
Net Interest Expense	\$8.5M – \$9.5M	\$8M – \$9M	
Capital Expenditures	\$95M – \$100M	\$95M – \$100M	
Effective Tax Rate	NM	20% – 25%	

Note: References to lines relate to wind blade manufacturing lines

# 2019 Startup and Transition Guidance Metrics

	Q1A	Q2F	Q3F	Q4F	2019 Guidance Updated	2019 Guidance Previous
Lines Installed – end of period <sup>(1)</sup>	49	50	48	48	48 - 50	50 – 52
Lines in Startup – during period	13	13	10	4	14	14
Lines in Transition – during period	5	7	8	4	10	10
Startup Costs	\$16.1M	\$14.4M – \$15.0M	\$7.5M – \$8.0M	\$5.0M – \$5.9M	\$43.0M – \$45.0M	\$30.0M – \$33.0M
Transition Costs	\$2.1M	\$9.0M – \$9.5M	\$8.0M – \$8.5M	\$3.0M – \$3.9M	\$22.1M – \$24.0M	\$22.0M – \$25.0M
Line Utilization % (based on 50 lines in Q1/Q2 and 48 lines in Q3/Q4)	64%	73% - 75%	90% - 92%	95% - 97%	80% - 82%	84% – 86%
Sets	662	733 - 768	875 - 903	930 - 967	3,200 – 3,300	3,300 – 3,500

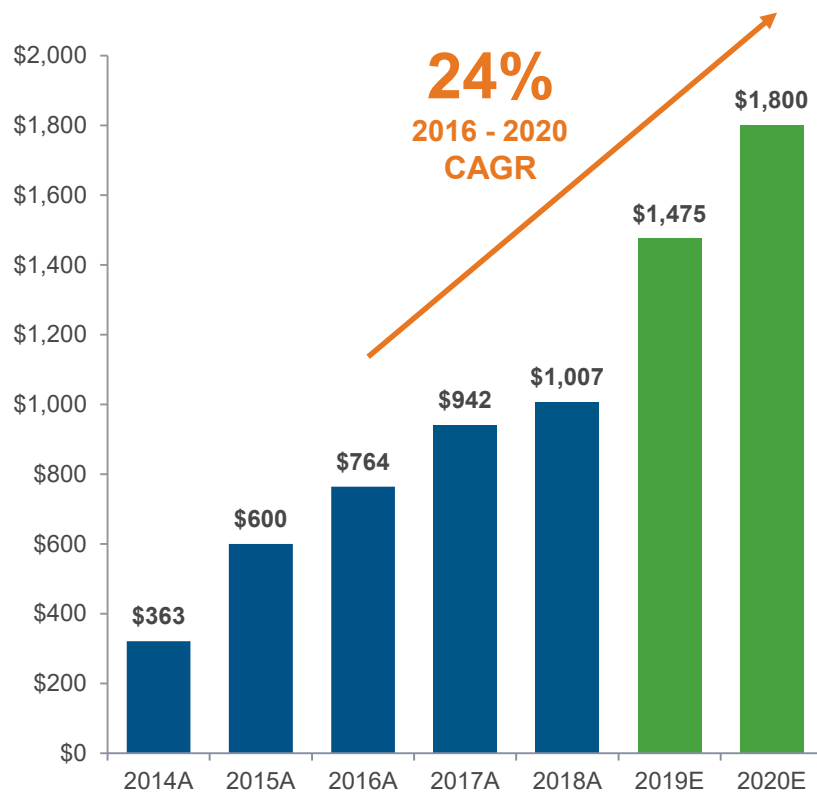
Note: References to lines relate to wind blade manufacturing lines

(1) Assumes Servion lines get deinstalled at the end of Q2

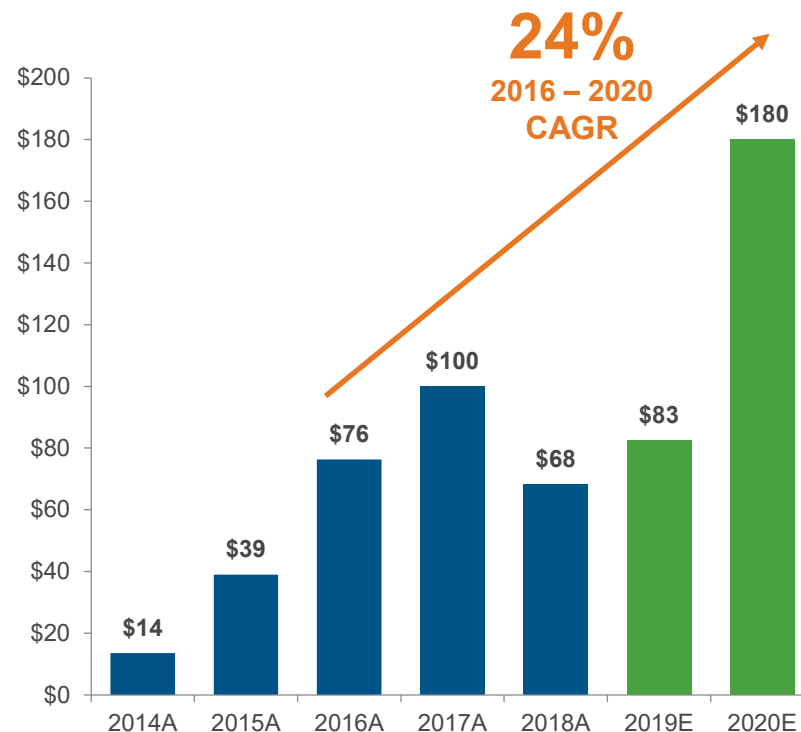


# Strong Financial Performance and Outlook

**Total Billings (\$ in millions) (1) (2) (3)**



**Adjusted EBITDA (\$ in millions) (1) (2) (3)**



**Margin % 3.7% 6.5% 10% 10.6% 6.8% 5.6% 10.0%**

- (1) Estimates for 2019 and 2020 are shown at the midpoint of ranges provided. See appendix for reconciliation of non-GAAP financial data.  
 (2) We have not reconciled our total expected billings for 2019 or 2020 to expected net sales under GAAP or 2020 expected Adjusted EBITDA to expected Net Income because we have not yet finalized calculations necessary to provide the reconciliations and as such the reconciliations are not possible without unreasonable efforts.  
 (3) 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606.

# Compelling Return on Invested Capital on New Plants

## Illustrative Manufacturing Facility Expansion Assumptions

- 6 lines per plant
- Total invested capital of \$60 million (CapEx and Startup Losses)
- Gross margin of 15%
- Illustrative effective tax rate of 25%
- Full run-rate achieved by end of year 2
- 500,000 sq. ft. per facility – leased by TPI
- Assumes 5 production year supply agreement(s)
- Assumes 25% - 30% of annual set volume from a line in startup during the startup year
- Average sets per line per year of 75

## Financial Highlights

- Steady state revenue of \$210M per year
- \$36M million of annual run-rate EBITDA
- Target hurdle ROIC of 25% over the first five years of production

## Illustrative Plant Financial Results

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Average
Net Sales	\$1	\$132	\$210	\$210	\$210	\$210	\$162
COGS (excluding depreciation)	(8)	(108)	(174)	(174)	(174)	(174)	(\$135)
EBITDA	(\$7)	\$24	\$36	\$36	\$36	\$36	\$27
Taxes	0	(6)	(9)	(9)	(9)	(9)	(7)
Tax-Effectd EBITDA	(\$7)	\$18	\$27	\$27	\$27	\$27	\$20
Depreciation	(3)	(5)	(5)	(5)	(5)	(5)	(4)
Net Income	(\$10)	\$14	\$23	\$23	\$23	\$23	\$16
Return on Invested Capital	-17%	23%	38%	38%	38%	38%	26%
Invested Capital	\$60	\$60	\$60	\$60	\$60	\$60	\$60

Note: Return on Invested Capital (ROIC) is calculated as Net Income divided by Invested Capital

The background of the entire page is a dark blue gradient. Silhouettes of wind turbines are visible against this background. A large turbine is on the left, and another is in the center. In the distance, a row of smaller turbines is visible on the horizon.

# APPENDIX

***tpi***  COMPOSITES<sup>®</sup>

# Balance Sheets

(\$ in thousands)	December 31,					March 31,
	2014	2015	2016	2017	2018	2019
<b>Assets</b>						
<b>Current assets:</b>						
Cash and cash equivalents	\$ 43,592	\$ 45,917	\$ 119,066	\$ 148,113	\$ 85,346	\$ 78,319
Restricted cash	771	1,760	2,259	3,849	3,555	1,850
Accounts receivable	44,432	72,913	67,349	121,576	176,815	167,209
Inventories	44,017	50,841	5,076	4,112	5,735	6,159
Inventories held for customer orders	55,794	49,594	—	—	—	—
Contract assets	—	—	99,120	105,619	116,708	133,110
Prepaid expenses and other current assets	20,360	31,337	30,657	27,507	26,038	43,297
<b>Total current assets</b>	<b>208,966</b>	<b>252,362</b>	<b>323,527</b>	<b>410,776</b>	<b>414,197</b>	<b>429,944</b>
<b>Noncurrent assets:</b>						
Property, plant, and equipment, net	51,799	67,732	91,166	123,480	159,423	171,886
Operating lease right of use assets	—	—	—	—	—	135,903
Goodwill and other intangibles, net	3,994	3,226	3,624	3,915	7,265	7,208
Other noncurrent assets	8,945	6,600	18,516	7,566	23,970	36,903
<b>Total assets</b>	<b>\$ 273,704</b>	<b>\$ 329,920</b>	<b>\$ 436,833</b>	<b>\$ 545,737</b>	<b>\$ 604,855</b>	<b>\$ 781,844</b>
<b>Liabilities and Stockholders' Equity</b>						
<b>Current liabilities:</b>						
Accounts payable and accrued expenses	\$ 66,805	\$ 101,108	\$ 112,490	\$ 167,175	\$ 199,078	\$ 218,290
Accrued warranty	5,916	13,596	21,089	30,419	34,236	39,533
Current maturities of long-term debt	64,260	52,065	33,403	35,506	27,058	41,567
Deferred revenue	59,476	65,520	—	—	—	—
Contract liabilities	—	—	687	2,763	9,672	7,537
Current operating lease liabilities	—	—	—	—	—	17,008
Customer deposits and customer advances	13,267	8,905	—	—	—	—
<b>Total current liabilities</b>	<b>209,724</b>	<b>241,194</b>	<b>167,669</b>	<b>235,863</b>	<b>270,044</b>	<b>323,935</b>
<b>Noncurrent liabilities:</b>						
Long-term debt	58,464	77,281	89,752	85,879	110,565	117,871
Noncurrent operating lease liabilities	—	—	—	—	—	123,064
Other noncurrent liabilities	3,260	3,812	8,012	3,441	3,289	3,697
<b>Total liabilities</b>	<b>271,448</b>	<b>322,287</b>	<b>265,433</b>	<b>325,183</b>	<b>383,898</b>	<b>568,567</b>
<b>Convertible and senior redeemable preferred shares and warrants</b>						
	189,349	198,830	—	—	—	—
<b>Total stockholders' equity (deficit)</b>	<b>(187,093)</b>	<b>(191,197)</b>	<b>171,400</b>	<b>220,554</b>	<b>220,957</b>	<b>213,277</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 273,704</b>	<b>\$ 329,920</b>	<b>\$ 436,833</b>	<b>\$ 545,737</b>	<b>\$ 604,855</b>	<b>\$ 781,844</b>
<b>Non-GAAP Metric (unaudited):</b>						
Net cash (debt)	\$ (87,547)	\$ (90,667)	\$ (6,379)	\$ 24,557	\$ (53,155)	\$ (81,946)

Source: Year end 2014 through 2018 audited financial statements. 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606. 2019 interim period is unaudited. 7

# Income Statements

(\$ in thousands)	Year Ended December 31,					Three Months Ended March 31,	
	2014	2015	2016	2017	2018	2018	2019
<b>Net sales</b>	\$ 320,747	\$ 585,852	\$ 769,019	\$ 955,198	\$ 1,029,624	\$ 253,981	\$ 299,780
Cost of sales	289,528	528,247	664,026	804,099	882,075	210,988	283,038
Startup and transition costs	16,567	15,860	18,127	40,628	74,708	14,735	18,178
Total cost of goods sold	306,095	544,107	682,153	844,727	956,783	225,723	301,216
<b>Gross profit (loss)</b>	14,652	41,745	86,866	110,471	72,841	28,258	(1,436)
General and administrative expenses	9,175	14,126	33,892	40,373	48,123	11,163	10,220
<b>Income (loss) from operations</b>	5,477	27,619	52,974	70,098	24,718	17,095	(11,656)
Other income (expense)							
Interest income	186	161	344	95	181	41	51
Interest expense	(7,236)	(14,565)	(17,614)	(12,381)	(10,417)	(3,338)	(1,999)
Loss on extinguishment of debt	(2,946)	—	(4,487)	—	(3,397)	—	—
Realized loss on foreign currency remeasurement	(1,743)	(1,802)	(757)	(4,471)	(13,489)	(4,011)	(3,802)
Miscellaneous income	539	246	238	1,191	4,650	818	702
<b>Total other expense</b>	(11,200)	(15,960)	(22,276)	(15,566)	(22,472)	(6,490)	(5,048)
<b>Income (loss) before income taxes</b>	(5,723)	11,659	30,698	54,532	2,246	10,605	(16,704)
Income tax benefit (provision)	(925)	(3,977)	(3,654)	(15,798)	3,033	(1,957)	4,600
<b>Net income (loss)</b>	(6,648)	7,682	27,044	38,734	5,279	8,648	(12,104)
Net income attributable to preferred stockholders	13,930	9,423	5,471	—	—	—	—
<b>Net income (loss) attributable to common stockholders</b>	<b>\$ (20,578)</b>	<b>\$ (1,741)</b>	<b>\$ 21,573</b>	<b>\$ 38,734</b>	<b>\$ 5,279</b>	<b>\$ 8,648</b>	<b>\$ (12,104)</b>
<b>Non-GAAP Metrics (unaudited):</b>							
Total billings	\$ 362,749	\$ 600,107	\$ 764,424	\$ 941,565	\$ 1,006,541	\$ 223,701	\$ 279,471
EBITDA	\$ 11,714	\$ 37,479	\$ 65,641	\$ 88,516	\$ 42,308	\$ 20,974	\$ (4,097)
Adjusted EBITDA	\$ 13,457	\$ 39,281	\$ 76,300	\$ 100,111	\$ 68,173	\$ 27,373	\$ 2,925

Source: Year end 2014 through 2018 audited financial statements. 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606. 2018 and 2019 interim periods are unaudited.

# Cash Flow Statements

(\$ in thousands)	Year Ended December 31,					Three Months Ended March 31,	
	2014	2015	2016	2017	2018	2018	2019
<b>Cash flows from operating activities</b>							
Net income (loss)	\$ (6,648)	\$ 7,682	\$ 27,044	\$ 38,734	\$ 5,279	\$ 8,648	\$ (12,104)
Depreciation and amortization	7,441	11,416	13,186	21,698	26,429	7,072	10,659
Share-based compensation expense	—	—	9,902	7,124	7,795	2,388	985
Amortization of debt issuance costs and debt discount	715	4,319	4,681	573	336	181	51
Loss on extinguishment of debt	2,946	—	4,487	—	3,397	—	—
Loss on sale of assets	128	187	2	334	4,581	—	2,235
Amortization of discount on customer advances	224	—	—	—	—	—	—
Deferred income taxes	(1,018)	(765)	(6,123)	1,650	(14,912)	—	—
Changes in assets and liabilities	(35,151)	5,561	6,663	4,487	(36,163)	(21,321)	(13,917)
<b>Net cash provided by (used in) operating activities</b>	<b>(31,363)</b>	<b>28,400</b>	<b>59,842</b>	<b>74,600</b>	<b>(3,258)</b>	<b>(3,032)</b>	<b>(12,091)</b>
<b>Cash flows from investing activities</b>							
Purchase of property and equipment	(18,924)	(26,361)	(30,507)	(44,828)	(52,688)	(11,714)	(18,709)
Proceeds from sale of assets	—	146	—	850	—	—	—
<b>Net cash used in investing activities</b>	<b>(18,924)</b>	<b>(26,215)</b>	<b>(30,507)</b>	<b>(43,978)</b>	<b>(52,688)</b>	<b>(11,714)</b>	<b>(18,709)</b>
<b>Cash flows from financing activities</b>							
Proceeds from issuance of common stock sold in initial public offering, net of underwriters discount and offering costs	—	—	67,199	—	—	—	—
Proceeds from issuance of preferred stock	6,846	—	—	—	—	—	—
Net proceeds from (repayment of) debt	77,220	1,554	(15,370)	(8,095)	(8,876)	4,177	17,062
Debt issuance costs	(4,818)	(1,113)	—	(454)	(281)	—	—
Payment on acquisition of noncontrolling interest	(1,625)	(1,875)	—	—	—	—	—
Proceeds from customer advances	4,500	—	—	—	—	—	—
Proceeds from exercise of stock options	—	—	—	1,430	4,284	585	4,572
Repurchase of common stock including shares withheld in lieu of income taxes	—	—	—	(1,264)	(2,859)	(272)	(559)
<b>Net cash provided by (used in) financing activities</b>	<b>82,123</b>	<b>(1,434)</b>	<b>51,829</b>	<b>(8,383)</b>	<b>(7,732)</b>	<b>4,490</b>	<b>21,075</b>
Impact of foreign exchange rates on cash, cash equivalents and restricted cash	(43)	(330)	(1,515)	335	617	386	993
<b>Net change in cash, cash equivalents and restricted cash</b>	<b>31,793</b>	<b>421</b>	<b>79,649</b>	<b>22,574</b>	<b>(63,061)</b>	<b>(9,870)</b>	<b>(8,732)</b>
Cash, cash equivalents and restricted cash, beginning of year	18,000	49,793	50,214	129,863	152,437	152,437	89,376
<b>Cash, cash equivalents and restricted cash, end of year</b>	<b>\$ 49,793</b>	<b>\$ 50,214</b>	<b>\$ 129,863</b>	<b>\$ 152,437</b>	<b>\$ 89,376</b>	<b>\$ 142,567</b>	<b>\$ 80,644</b>
<b>Non-GAAP Metric (unaudited):</b>							
<b>Free cash flow</b>	<b>\$ (50,287)</b>	<b>\$ 2,039</b>	<b>\$ 29,335</b>	<b>\$ 29,772</b>	<b>\$ (55,946)</b>	<b>\$ (14,746)</b>	<b>\$ (30,800)</b>

Source: Year end 2014 through 2018 audited financial statements. 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606. 2018 and 2019 interim periods are unaudited.



# Non-GAAP Reconciliations

Net sales is reconciled to total billings as follows:

(\$ in thousands)	Year Ended December 31,					Three Months Ended March 31,	
	2014	2015	2016	2017	2018	2018	2019
<b>Net sales</b>	\$ 320,747	\$ 585,852	\$ 769,019	\$ 955,198	\$ 1,029,624	\$ 253,981	\$ 299,780
Blade-related deferred revenue at beginning of year <sup>(1)</sup>	(20,646)	(59,476)	—	—	—	—	—
Blade-related deferred revenue at end of year <sup>(1)</sup>	59,476	65,520	—	—	—	—	—
Change in gross contract assets	—	—	(10,094)	(13,437)	(15,011)	(24,396)	(17,056)
Foreign exchange impact <sup>(2)</sup>	3,172	8,211	5,499	(196)	(8,072)	(5,884)	(3,253)
<b>Total billings</b>	<u>\$ 362,749</u>	<u>\$ 600,107</u>	<u>\$ 764,424</u>	<u>\$ 941,565</u>	<u>\$ 1,006,541</u>	<u>\$ 223,701</u>	<u>\$ 279,471</u>

Net income (loss) is reconciled to adjusted EBITDA as follows:

(\$ in thousands)	Year Ended December 31,					Three Months Ended March 31,	
	2014	2015	2016	2017	2018	2018	2019
<b>Net income (loss)</b>	\$ (6,648)	\$ 7,682	\$ 27,044	\$ 38,734	\$ 5,279	\$ 8,648	\$ (12,104)
Adjustments:							
Depreciation and amortization	7,441	11,416	13,186	21,698	26,429	7,072	10,659
Interest expense (net of interest income)	7,050	14,404	17,270	12,286	10,236	3,297	1,948
Loss on extinguishment of debt	2,946	—	4,487	—	3,397	—	—
Income tax provision (benefit)	925	3,977	3,654	15,798	(3,033)	1,957	(4,600)
<b>EBITDA</b>	<u>11,714</u>	<u>37,479</u>	<u>65,641</u>	<u>88,516</u>	<u>42,308</u>	<u>20,974</u>	<u>(4,097)</u>
Share-based compensation expense	—	—	9,902	7,124	7,795	2,388	985
Realized loss on foreign currency remeasurement	1,743	1,802	757	4,471	13,489	4,011	3,802
Loss on sale of assets	—	—	—	—	4,581	-	2,235
<b>Adjusted EBITDA</b>	<u>\$ 13,457</u>	<u>\$ 39,281</u>	<u>\$ 76,300</u>	<u>\$ 100,111</u>	<u>\$ 68,173</u>	<u>\$ 27,373</u>	<u>\$ 2,925</u>

Note: Footnote references are on the following page.

Source: Year end 2014 through 2018 audited financial statements. 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606. 2018 and 2019 interim periods are unaudited.

# Non-GAAP Reconciliations

(Continued)

(1) Total billings is reconciled using the blade-related deferred revenue amounts at the beginning and the end of the year as follows:

(\$ in thousands)	Year Ended December 31,	
	2014	2015
Blade-related deferred revenue at beginning of year	\$ 20,646	\$ 59,476
Non-blade related deferred revenue at beginning of year	757	—
Total current and noncurrent deferred revenue at beginning of year	<u>\$ 21,403</u>	<u>\$ 59,476</u>
Blade-related deferred revenue at end of year	\$ 59,476	\$ 65,520
Non-blade related deferred revenue at end of year	—	—
Total current and noncurrent deferred revenue at end of year	<u>\$ 59,476</u>	<u>\$ 65,520</u>

(2) Represents the effect of the difference in the exchange rates used by our various foreign subsidiaries when converted to U.S. dollars on the net sales and deferred revenue (for 2014 and 2015) and on contract assets (for 2016 – 2018) as of period end.

Net cash (debt) is reconciled as follows:

(\$ in thousands)	December 31,					March 31,	
	2014	2015	2016	2017	2018	2018	2019
<b>Cash and cash equivalents</b>	\$ 43,592	\$ 45,917	\$ 119,066	\$ 148,113	\$ 85,346	\$ 138,841	\$ 78,319
Less total debt, net of debt issuance costs and discount	(120,849)	(129,346)	(123,155)	(121,385)	(137,623)	(125,743)	(159,438)
Less debt issuance costs and discount	(10,290)	(7,238)	(2,290)	(2,171)	(878)	(1,990)	(827)
<b>Net cash (debt)</b>	<u>\$ (87,547)</u>	<u>\$ (90,667)</u>	<u>\$ (6,379)</u>	<u>\$ 24,557</u>	<u>\$ (53,155)</u>	<u>\$ 11,108</u>	<u>\$ (81,946)</u>

Source: Year end 2014 through 2018 audited financial statements. 2018 and 2019 interim periods are unaudited.

# Non-GAAP Reconciliations

(Continued)

Free cash flow is reconciled as follows <sup>(1)</sup>:

(\$ in thousands)	Year Ended December 31,					Three Months Ended March 31,	
	2014	2015	2016	2017	2018	2018	2019
Net cash provided by (used in) operating activities	\$ (31,363)	\$ 28,400	\$ 59,842	\$ 74,600	\$ (3,258)	\$ (3,032)	\$ (12,091)
Less capital expenditures	(18,924)	(26,361)	(30,507)	(44,828)	(52,688)	(11,714)	(18,709)
Free cash flow	\$ (50,287)	\$ 2,039	\$ 29,335	\$ 29,772	\$ (55,946)	\$ (14,746)	\$ (30,800)

A reconciliation of the low end and high end ranges of projected 2019 net loss under ASC 606 to projected adjusted EBITDA is as follows <sup>(2)</sup>:

(\$ in thousands)	2019 Adjusted EBITDA Guidance Range	
	Low End	High End
Projected net loss	\$ (3,000)	\$ (1,000)
Adjustments:		
Projected depreciation and amortization	41,000	42,000
Projected interest expense (net of interest income)	9,000	9,000
Projected income tax provision	15,000	16,500
Projected EBITDA	62,000	66,500
Projected share-based compensation expense	7,500	7,500
Projected realized loss on foreign currency remeasurement	3,500	4,000
Projected realized loss on sale of assets	7,000	7,000
Projected Adjusted EBITDA	\$ 80,000	\$ 85,000

(1) Source: Year end 2014 through 2018 audited financial statements. 2016 and 2017 as restated per the Company's retroactive adoption of ASC 606. 2018 and 2019 interim periods are unaudited.

(2) Figures presented are projected estimates for the full years ending December 31, 2019.

