

Clipper Windpower:

Insight for New Suppliers

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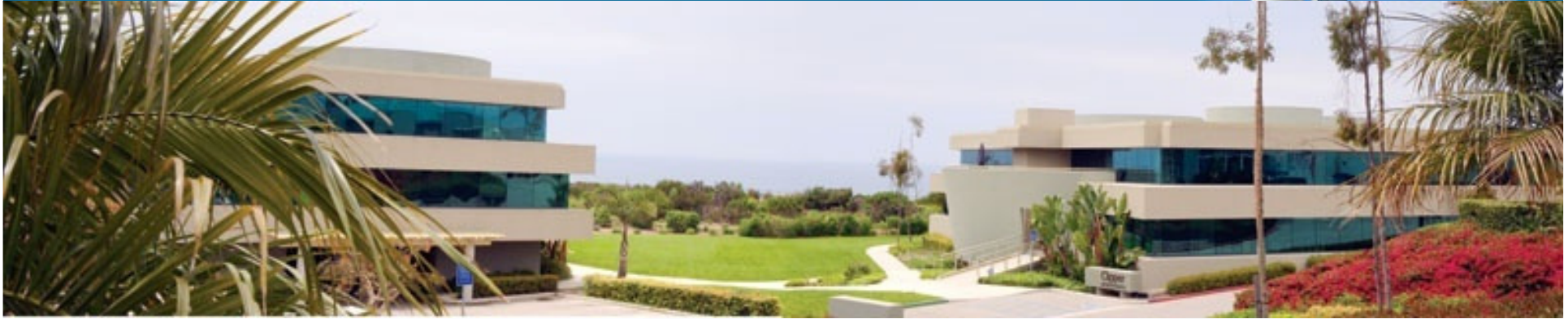


Presentation schedule

- 1** Clipper Windpower - Overview
- 2** Challenges – The Customer's Expectations
- 3** Summary

Clipper Windpower Overview

Clipper Windpower Overview



- Established in 2001
- 2010 Acquired by United Technologies Company
- US Wind Turbine Manufacturing: 2.5MW Liberty Turbine
 - 500+ units commissioned with 4million+ operating hours
- Established Project Developer
- 670+ Global Employees

Clipper Windpower Overview

Clipper Windpower, LLC



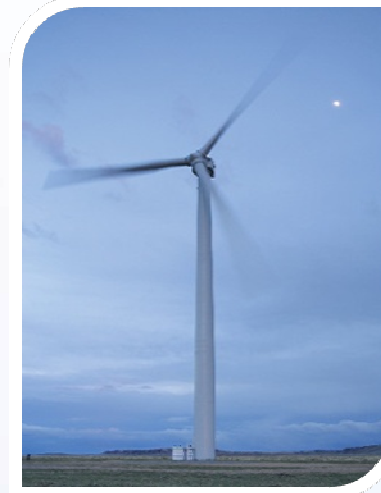
- Liberty 2.5MW manufacturing
- 500 turbine capacity
- Commissions Clipper turbines
- Provides operational & maintenance services for customers

Clipper Windpower Development Company



- Acquires development assets
- Sells development projects with or without turbines when ready to construct
- Current portfolio of 6GW

Clipper Windpower Technology



- New technology
- Drives product innovation and future product lines

Strong Business Model – Clipper Benefits From Full Wind Value Chain

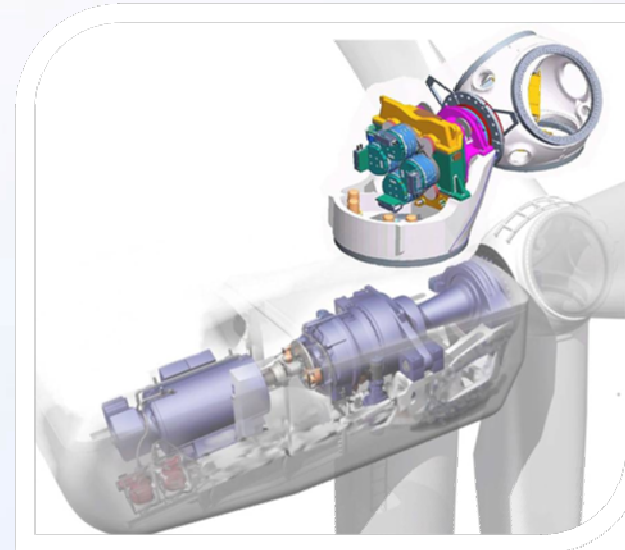
Liberty 2.5 MW Turbine

The Clipper Advantage

- Utility-scale 2.5 MW machine
- Distributed, multiple-shaft drivetrain and onboard hoist provide for:
 - Component change-out without the need for a large crane, e.g. reduced O&M & downtime
 - Less mass
- Rapid adoption by sophisticated buyers
- Proprietary IP



On Board
Crane

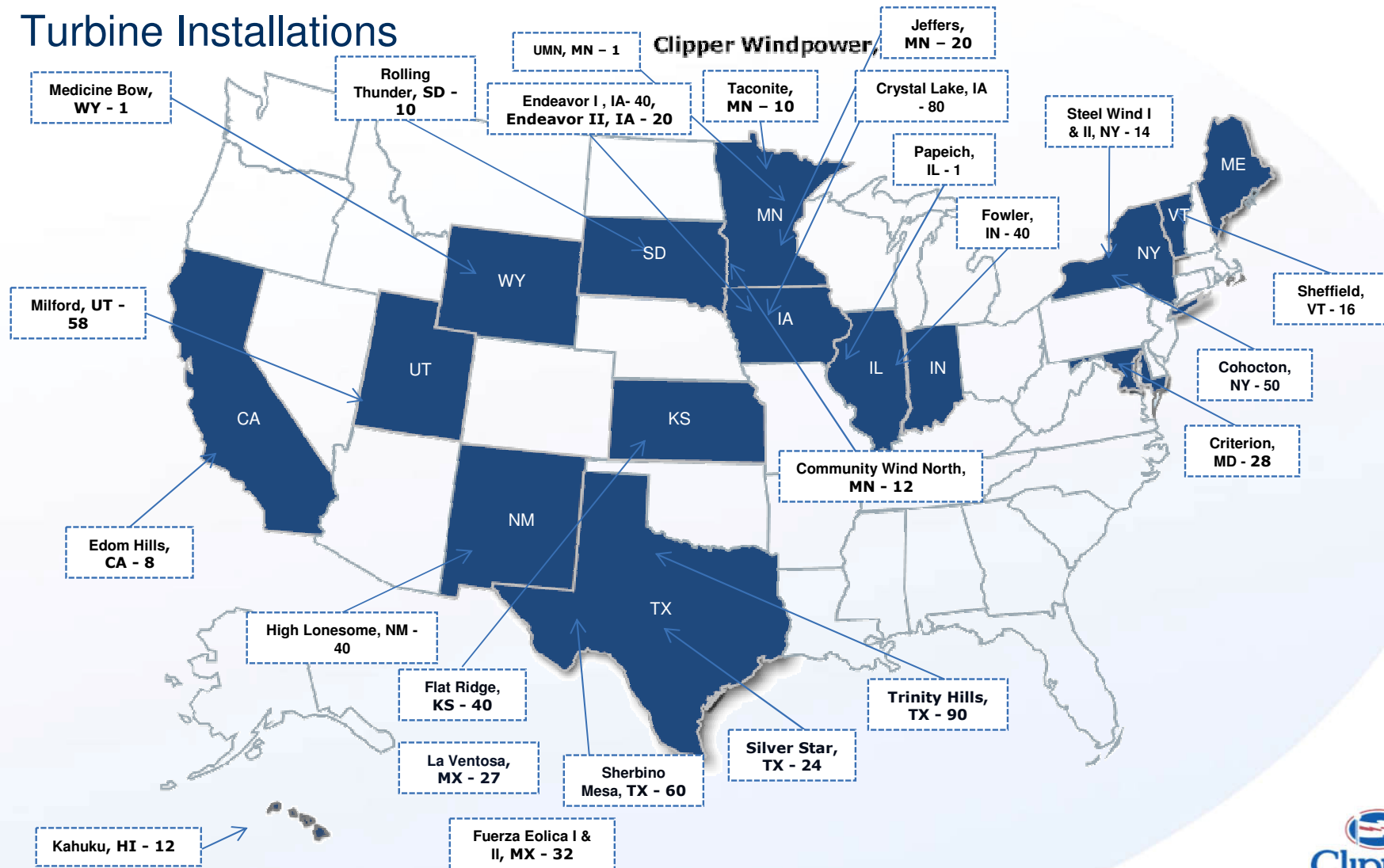


2.5 MW Clipper vs.
same capacity
competitor



Established Position in Fastest Growing Market

Turbine Installations



Challenges: The Customer's Expectation

*“A World Class Supply Chain
is a Prerequisite
to Achieving our Goals”*

What Does Clipper Look for in a Supplier?

Clipper's Focus: Suppliers with Six Key Attributes...

- » **S**afety – Culture & Metrics
- » **Q**uality- Product, Culture and Process
- » **C**ost - Focused on Cost Management
- » **D**elivery - On Time & Strong Capacity Planning
- » **R**esponsiveness - Flexible to Changing Demands
- » **T**echnology – Value Engineering for the Application

**Wind is Demanding on the Supply Chain
at All Levels**

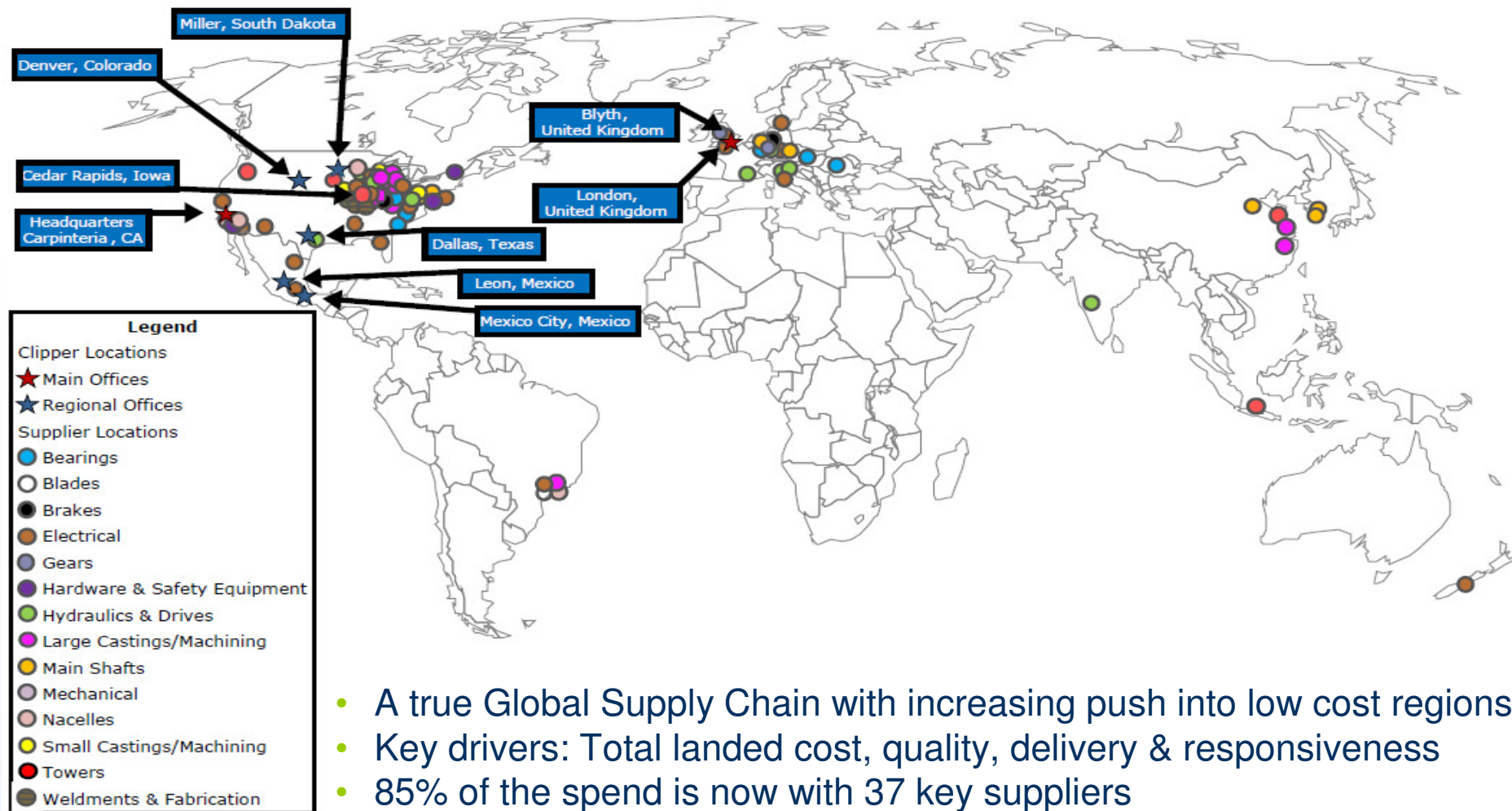


What Component Capability are We Looking for?



Global Sourcing

Critical Turbine Component Suppliers Global 2011



Delivery, Quality & Lead-time: Critical To Success

On-time Delivery of Quality Components:

- Late Delivery = Unhappy Customers

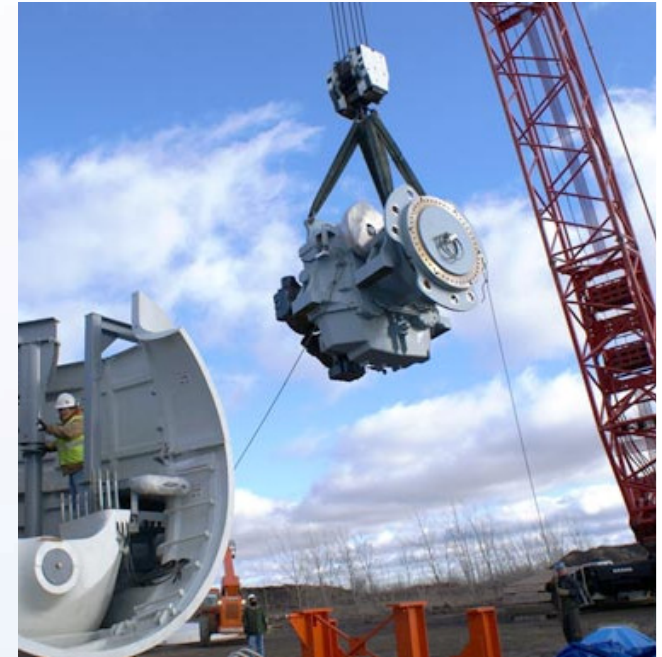
Ensure effective:

- Quality management with zero escapes
- Engineering change management
- Capacity planning
- Management of the sub-tier
- Right quantity, right time, right quality

Lead Time:

- Continuous reduction of 'supply time'
- Speed of delivery wins projects
- Accurate & Current Lead Times are Essential

**A Commitment Is A
Commitment...Stand By It!**



Building Long Term Partnerships



High
Performing
Suppliers

Partner

- Long-term Agreement
- Drives down Cost Aggressively/ Open book
- Exceeds Required SQCDRT Performance
- Provides Factory/Site Support as Required

Bid

- Competitive Quote, Limited Order Duration
- Achieves Required SQCDRT Performance
- Potential to Achieve “Partner “ Status

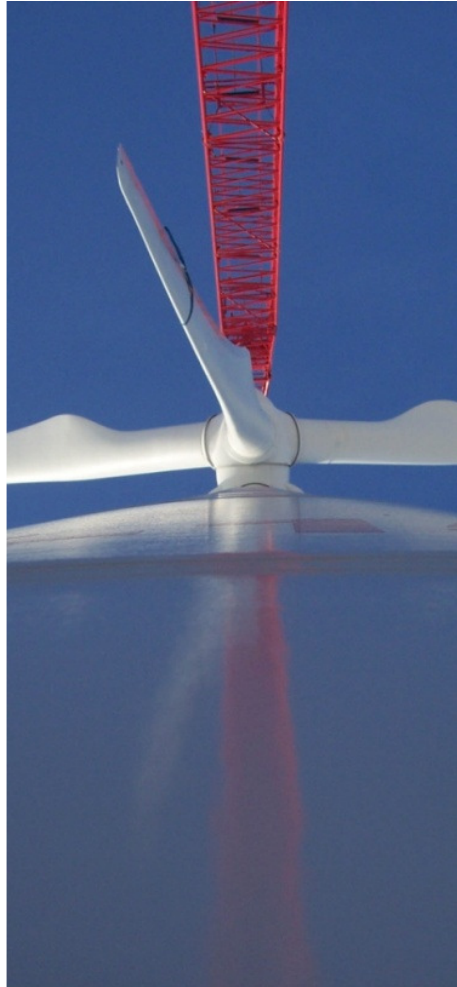
Poor
Performing
Suppliers

Exit - No New Business

- Fails to Achieve SQCDRT Requirements
- High Level of “Cost Creep” Post Contract
- Exit if No Performance Improvement

Summary

Summary



- Wind energy's growth requires strong, committed suppliers
- Clipper Windpower requires strong, committed suppliers
- Wind is a demanding Supply Chain environment
- Challenges are out there:
 - The Economic Situation
(short term constraint & long term growth)
 - Customer demands
 - Competition
- Delivery delays and undeclared quality defects unacceptable
- Cost focus, agility and pre-emptive actions are needed to support an increasingly demanding marketplace
- The rewards are there for the right suppliers with capability to address the challenges and be the supplier of choice based on their merits.

Thank you

