emerging energy research

www.emerging-energy.com
Cambridge Tel: +1 617 551 8580
Barcelona Tel: +34 93 467 6750
Singapore Tel: +65 6576 5392

US Wind Power Markets and Strategies: 2010–2025

May 2010

Market Study Excerpt

The attached excerpt represents sample pages from IHS EER's market study released in May 2010. The complete 234-page study is available for purchase and immediate download at www.emerging-energy.com or by filling out the order form on the last page of this excerpt.

Excerpt – *US Wind Power Markets and Strategies: 2010-2025*

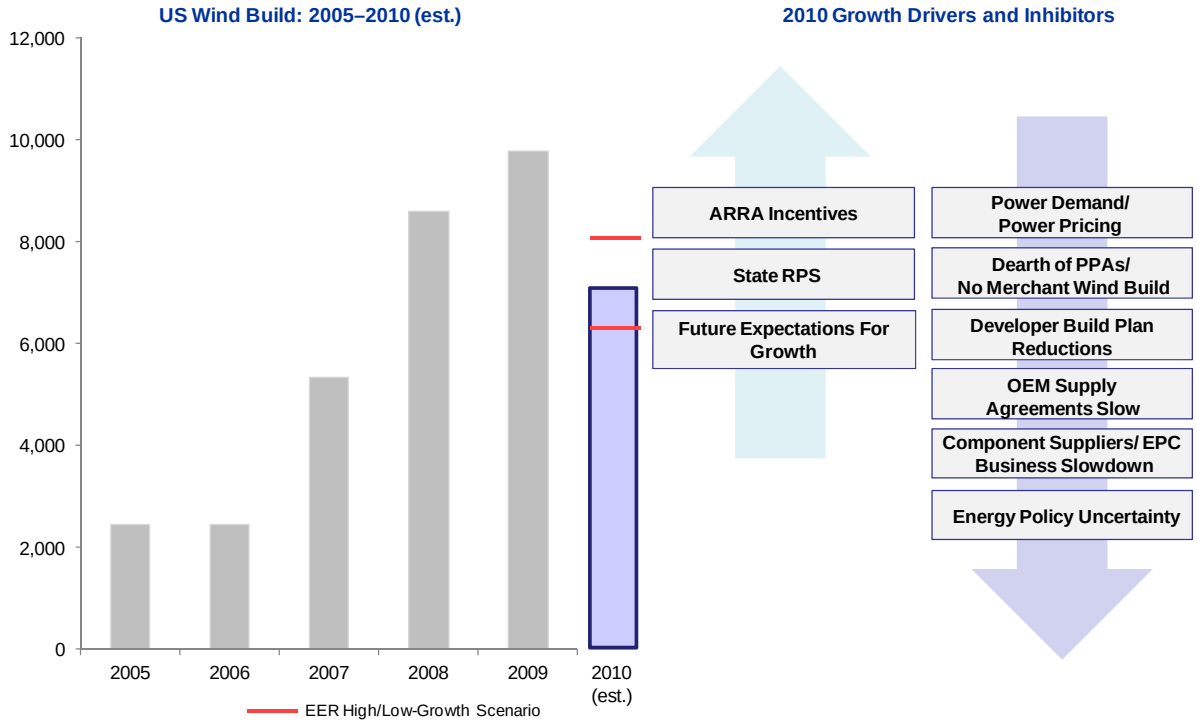
Moving beyond record-breaking installations in 2009—a record-breaking year for capacity additions, with 9.8 GW of projects installed—the US wind market finds itself confronting a growth-constrained 2010 and a new market landscape wrought with increased competition. While American Recovery and Reinvestment Act (ARRA) stimulus incentives have acted as a crutch for industry growth, repercussions from the financial crisis continue to haunt wind project developers who find themselves in a market with limited power offtake opportunities and an uncertain policy future.

On the supply front, the sudden drop in turbine demand and a heightened level of competition has created a buyer's market for the foreseeable future. Turbine manufacturers (OEMs) and their suppliers will increasingly look to differentiate themselves based on cost, product, services, and track record. While order flow remains far from 2008 highs, the wind market is poised to emerge from near-term uncertainty with a clearer path toward strong future growth.

1.1 Following 2009 Boom, 2010 Projections Wane

The total installed base of the US wind market expanded by more than 39% in 2009 as top wind project developers executed massive build plans. A combination of state renewable portfolio standards (RPSs) and federal incentives fueled much of the record-breaking growth over this period. However, emerging from the recession, the trajectory of industry growth has been thrown off course (**Exhibit 1-1**).

Exhibit 1-1: Overview: 2010 Wind Market Landscape

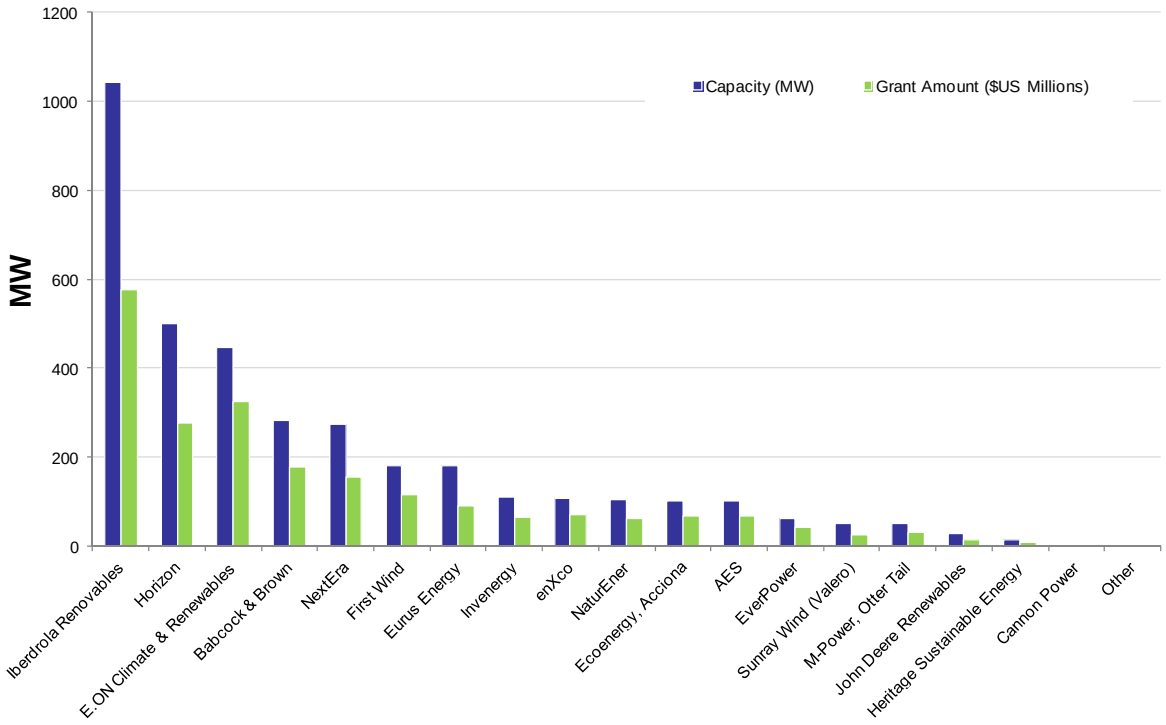


Source: IHS Emerging Energy Research

1.2 Renewable Incentives Bolster Near Term, But Leave Future Uncertainty

The production tax credit's (PTC's) limitations were acutely exposed by the financial crisis, as many tax equity firms disappeared, leaving a tremendous hole in the tax equity market. The ARRA was implemented to address the financing gap, pushing the industry to another year of record additions in 2009.

Exhibit 1-3: Wind Treasury Grant Recipients



Source: US Department of the Treasury, IHS Emerging Energy Research

Continued Proliferation and Strengthening of RPSs

As of the first quarter of 2010, 30 US states plus the District of Columbia have adopted binding renewable energy mandates. Five additional states have adopted non-binding renewable energy goals. Eligible technologies, incremental targets, enforcement mechanisms, and ultimate production levels vary widely by state and are often a product of each state's own power generation mix, political leanings, economic base, and resource potential. The major hole in the adoption of RPS policy remains the Southeast, where renewable resources, such as wind, are not as available compared to several other regions of the country (**Exhibit 1-4**).

1.3 Offtake Strategies Tighten as Developers Confront Changing Market Landscape

As a consequence of the economic recession beginning in 2008, the US has seen a precipitous drop in overall power demand and power prices. The effects of this drop have increased difficulty and competition for wind developers in signing power purchase agreements (PPAs) with utilities.

- Power prices were cut by more than half across all regions, eliminating many merchant wind opportunities. Prices have begun to rise across most markets, but still remain well below 2008 levels (**Exhibit 1-7**).

- The drop in demand has resulted in huge increases in the reserve margins in several balancing authorities, reducing overall need to procure future capacity to meet targets. RPS demands will still drive wind procurement, but lower demand means some utilities may not need as much near-term renewable generation as anticipated to meet mandates.

Slowing Power Demand Weighing on Developer Build Expectations

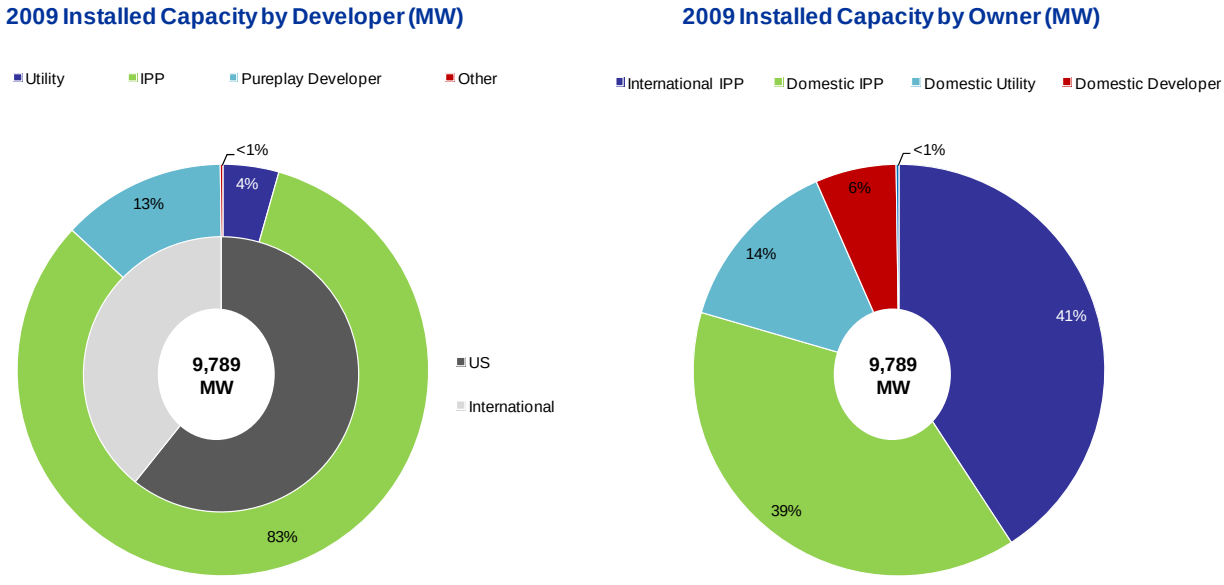
The unprecedented decline in power demand has had a profound effect on utility electricity procurement and has forced many to redraw their long-term plans. Although few RFPs targeting renewables have been canceled due to lack of demand, some RFPs are stalled while new RFPs have been slow to materialize in 2010. RFPs, which are moving forward, have been driven by near-term RPS compliance or by utilities aiming to take advantage of lower wind turbine pricing for medium-term needs.

Project developers, IPPs, and utilities have responded by trimming build expectations despite favorable federal incentives citing deteriorating project economics stemming from weak demand.

Competitive Development Landscape Intensifies

As the US wind market matures, shifts in competitive positioning among industry leaders will evolve at an increasingly rapid pace. Utility ownership, consolidation, and development competition will change the dynamics of the development environment over the next decade (**Exhibit 1-9**).

Exhibit 1-9: 2009 Cumulative US Wind Installations by Developer and Owner Type



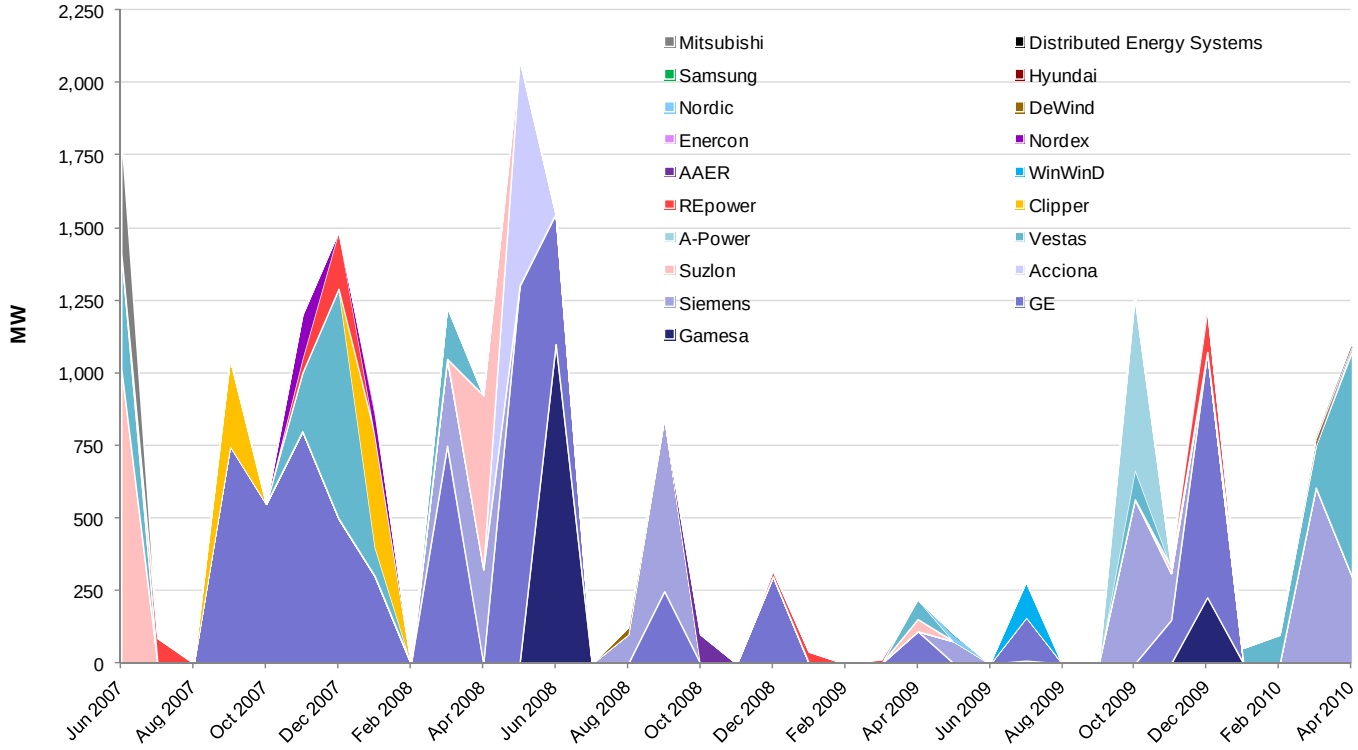
Source: Developers, IHS Emerging Energy Research

1.4 OEMs Seek Differentiation as Orders Slow, Competition Increases

Beginning in October 2008 through September 2009, new publicly announced orders averaged just 91 MW per month, down 90% from the period between October 2007 and September 2008, when monthly orders averaged more than 900 MW. Throughout the worst of the financial crisis, with many OEM customers unable to meet contractual obligations due to uncertain project financing conditions, many 2009 orders were pushed back into 2010 and 2011.

Since October 2009, order intake in the US has begun to climb, averaging nearly 700 MW per month (**Exhibit 1-10**). While orders are beginning to return, EER expects that order intake will continue to increase slowly, especially in late 2010.

Exhibit 1-10: North America Wind Turbine Order Flow: 2008–April 2010*



Note: *Includes only publically announced contracts. Assumes Vestas' April 2010 1.5 GW TSA with EDP includes 750 MW of NA wind installations
Source: OEMs, developers, IHS Emerging Energy Research

Days of a Seller's Market Have Ended, Leading to Differentiation

From late 2004 to mid-2008, vendors dictated terms and conditions of wind turbine supply agreements as buyers had little choice of product. The financial crisis has brought an end to the seller's market, as the supply of turbines currently exceeds demand. With competition in the turbine market only increasing, EER does not anticipate the return to a seller's market during the forecast period as order competition increases. As a result, OEMs will need to differentiate themselves through product innovation, services, pricing, and quality track record. Several trends are apparent:

New Turbine Supply Entrants Ratchet Up Competitive Landscape

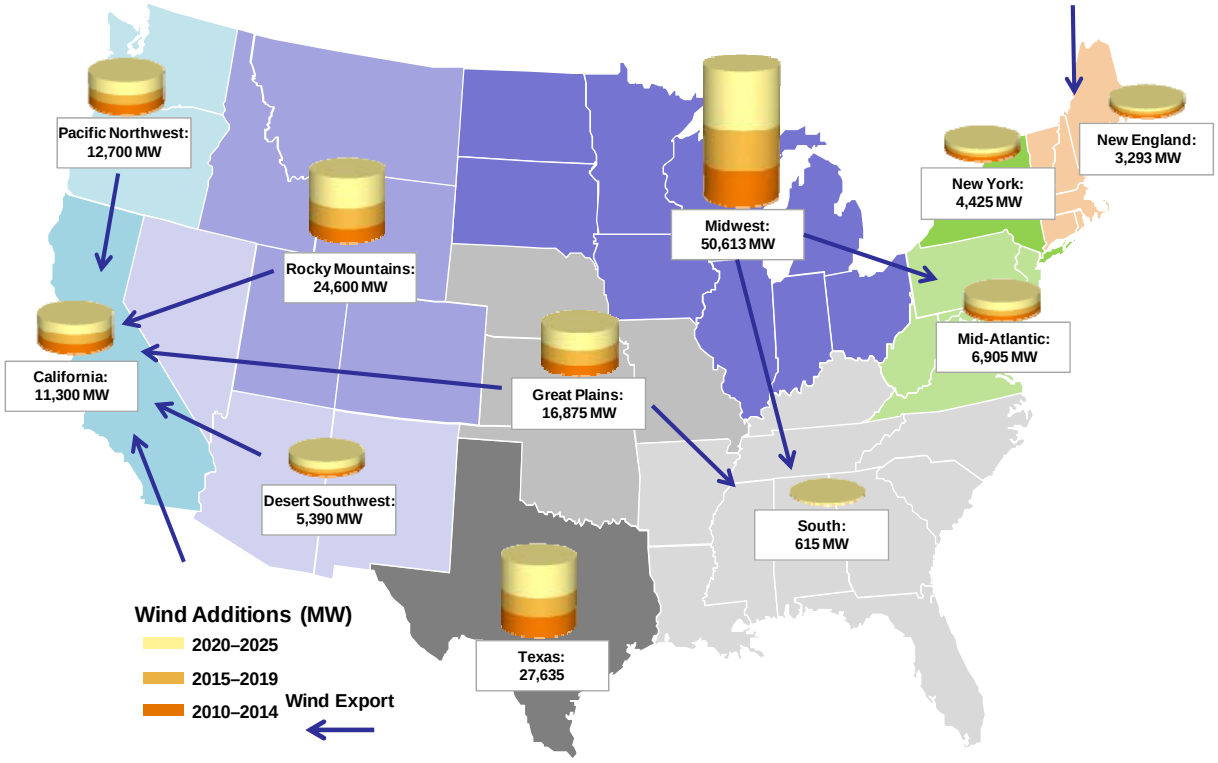
The surge in US wind installations over the past three years, offset by stagnant growth in Europe and a challenging Asian supply environment, has encouraged several players to seek market entry. A steady stream of established European players have targeted flagship contracts and moved ahead with production facilities, followed by a new wave of vendors seeking a position. These manufacturers are accompanied by Asian players, who offer lower-cost products with high ambitions

1.5 Wind Growth Poised to Scale Over the Long Term

EER forecasts the US to add over 165 GW of new capacity through 2025, resulting in a total installed base of approximately 200 GW. At this level of build-out, wind would provide approximately 49% of the US' renewables-based electricity supply by 2025 and 57% of its nameplate renewable capacity. This will result in wind growing from under 2% of the US market's total generation mix in 2009 to account for 11% by 2025.

- In monetary terms, EER expects the US wind industry to represent some US$330 billion in investments between 2010 and 2025, with more than 90% stemming from onshore wind.
- EER forecasts the Midwest, Great Plains, and Rocky Mountain states to act as major wind export hubs to areas with large appetites for renewable, including California, the Mid-Atlantic, and the South (**Exhibit 1-13**)

Exhibit 1-13: US Wind Power Base-Case Scenario, Regional Breakdown: 2010–2025



Source: IHS Emerging Energy Research

US WIND POWER MARKETS AND STRATEGIES: 2010-2025
May 2010

STUDY HIGHLIGHTS:

Growth Projections of US Wind Market
- US Wind Market Growth by State
- US Wind Market Growth by Region
- US Onshore Wind Power Market Forecasts through 2025
- US Offshore Wind Market Forecasts through 2025
- Analysis of the economic, political and power dynamics impacting growth

Strategy Profiles of US Wind Players
- Top 20 US Wind Owners
- Developers
- Independent Power Producers
- Component Suppliers
- Wind Turbine OEMs

Analysis of US Wind Market Drivers and Inhibitors
- Renewable Portfolio Standards
- Greenhouse Gas Policy Developments
- Federal and State Wind Energy Incentive Mechanisms
- Wind Energy in the Broader Generation Mix

US Wind Project Development and Ownership Competition Trend Analysis
- Overview of US Wind Market Competition and Market Share
- Impact of State Permitting
- Power Procurement Strategies
- Ownership Strategies of Utilities and IPPs

Competitive Analysis of US Wind Turbine Markets
- Value Chain Strategies and Shifts
- Market Share Evolution
- Trends in wind turbine market and technology
- Product evolution by wind turbine OEM

Complete 234-page study is now available for downloading. See last page for order information or contact eersales@ihs.com

After making a remarkable comeback in 2009—the largest year of capacity additions with 9.8 GW of projects—the US wind market finds itself confronting a growth-constrained 2010 and a new market landscape wrought with increased competition and complexity. The US wind market expected to install over 200 GW of new wind capacity by 2025—including 8.2 GW of offshore—but growth is contingent on transmission availability, power prices, and power demand, as well as public policies, which will shape US regional growth policies through 2025.

A new market study from IHS Emerging Energy Research, ***US Wind Power Markets and Strategies: 2010–2025***, provides strategic market intelligence on US wind energy markets analyzing development strategies, supply chain positioning, regulatory changes and growth in this new market landscape. Following are a few of the key trends addressed in EER's 2010 US wind study:

-Offtake strategies tighten as developers struggle to manage near-term uncertainty. Securing power purchase agreements under economically feasible terms has become a major barrier to wind development in 2010. Utility wind ownership further challenges the IPP development model.

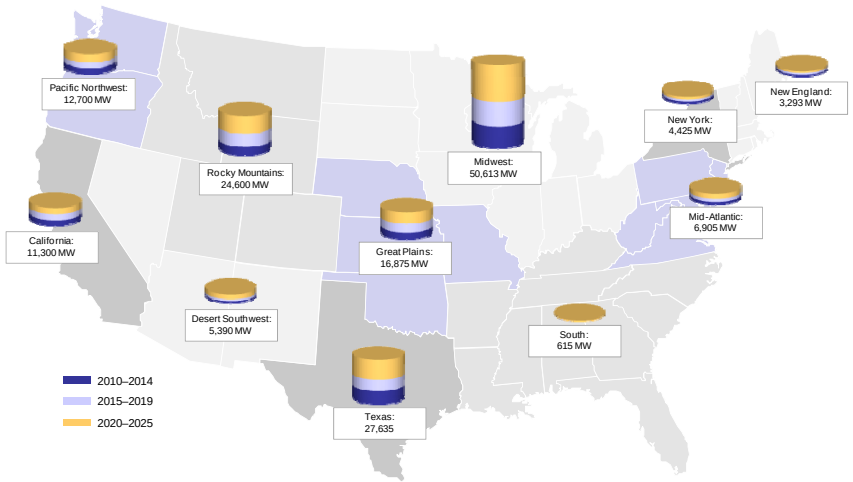
-**New entrants ratchet up competitive landscape:** Major wind portfolios up for sale by Infigen and John Deere could add significant new IPP rivals to the market. On the manufacturing front, OEMS from the Asia Pacific region including Samsung, Hyundai, Daewoo, and Goldwind threaten market share of long standing turbine manufacturers as investments in domestic component production continue to proliferate.

-Facing a glut in capacity, wind turbine OEMs must differentiate themselves based on cost, product, services or track record: The US market has rapidly shifted from a seller's to a buyer's market, changing the dynamics of the component supply market for the foreseeable future.

-Federal renewable incentives have shelf-life: The implementation of the US treasury grant and stimulus package incentives, set to expire in 2012, have been highly sought after by companies including Iberdrola and NextEra. Several proposals to extend federal renewable energy incentives for wind are on the table, as are considerations for a national RES or carbon legislation.

-Regional growth hampered by transmission: Transmission constraints remain the primary inhibitor to US wind market growth in traditionally high-growth markets, including Texas, California, Minnesota, and the Dakotas.

Exhibit: EER Regional Breakdown: US Wind Energy Market Forecast 2010-2025



Source: IHS Emerging Energy Research

TABLE OF CONTENTS

I. **EXECUTIVE SUMMARY**

II. **US WIND POWER DEMAND DRIVERS**

1. **Federal and State Policy Drivers**
   - RPSs
     - *Continued Proliferation and Strengthening of RPS*
     - *Initial Compliance Deadlines to Test Regulatory Strength of RPS Mandates*
     - *Regional Queues Reveal Future Export Opportunities*
     - *Potential Impact of a National RPS*
     - *Economy Forces Change of Tone in Federal Debate*
   - GHG Policy Development
     - *Regional Policies Developing with Varying Success*
     - *Anxious Industry Awaits EPA Regulations*
2. **Wind Energy Incentive Mechanisms**
   - Federal Tax Credit and the Treasury Grant Option
     - *Historic Development Mirrors Incentive Lifecycle*
     - *ARRA Adds to Array of Incentives to Wind Development*
     - *Treasury Grant Program Propels Market to Record Levels*
     - *Industry Awaits Clarity on Grant Program's Future*
   - Other Federal Incentives for Wind Power
     - *Manufacturing Tax Credits Aim to Accelerate Supply Chain Build-Out*
     - *Stimulus Looks to Build for Future*
     - *Loan Guarantees Advance Wind Storage*
   - State Incentives
     - *States Vying for First-Mover Position to Attract Offshore Industry*
3. **Wind Energy In the Broader Power Generation Mix**
   - Wind Power Growth Inhibitors
     - *Recession's Impact on Electricity Reduce Demand for New Generation*
     - *Wind Navigating an Increasingly Congested Transmission Grid*
     - *Calls for Change in US Transmission Policy*
     - *Studies on Wind Integration Levels Good News for Industry*
   - Cost of Energy
     - *Supply Glut Forces Previous Year's Build to Compete Against New Wind*
     - *Depressed Natural Gas Prices Hurt Wind's Near-Term Competitiveness*
     - *Wind's Unique Relationship with Natural Gas*
     - *Wind Increasingly Cost-Competitive with Conventional Power Under Carbon Regime*
     - *Wind Outpaces Other Renewables on Cost Front*
4. **Wind Resource**
     - *New Studies Show Increased Onshore Potential*
     - *Offshore Wind Potential Waiting to Be Tapped*
   - Regional Transmission Organizations (RTO) Snapshots
     - *MISO Market Overview*
     - *PJM Market Overview*
     - *SPP Market Overview*
     - *ISO-NE Market Overview*
     - *New York-ISO Market Overview*
     - *California-ISO Market Overview*
     - *Texas-ERCOT Market Overview*
     - *State Review*

III. **US WIND POWER MARKET FORECASTS**

1. **Methodology**
2. **US Wind Power Capacity Forecasts: Base-Case Scenario**
   - Economic, Political, and Power Dynamics Impacting Growth
     - *US Easing out of Recession in 2010, Market Poised to Improve*
     - *Transmission Bottlenecks Cause Drop in Mid-Term Build Levels*
     - *Additional Market Factors Influencing Base-Case Forecasts*
     - *Regional Breakdown of Future Wind Build*
     - *Initial Offshore Wind Boom Begins with Cape Wind*
3. **US Wind Power Capacity Forecasts: High-Growth vs. Low-Growth**
   - EER US Wind Forecast Assumptions: High-Growth Scenario
   - EER US Wind Forecast Assumptions: Low-Growth Scenario

IV. **US WIND PROJECT DEVELOPMENT AND OWNERSHIP COMPETITION**

1. **Overview of US Wind Project Ownership and Market Share**
   - 2009 Provokes Major Shifts in Market Share
   - Regional Diversification Increasingly Key to Positioning
2. **Evolution of US Wind Markets and Competition**
   - Vertically-Integrated Strategies Characterize Leading Players
3. **Utility Wind Ownership Trends**
   - Historically Low Prices and Access to Incentives Drive Migration to Wind Ownership
   - Utilities' Rise in US Wind Market Challenges IPP Business Model
4. **Permitting Hurdles for Wind Project Development**
   - BLM Makes Strides to Boost Wind Build on Federal Lands
   - Wildlife Impact Mitigation Key Concern to Expedite Development
   - Development Focus Shifting to Untapped Resource Areas
   - Projects Carried Over From 2009 Unlikely to Have Major 2010 Impact
   - US Offshore Permitting Enters New Era with Cape Wind Ruling
5. **Trends in Wind Power Project Offtake**
   - Developers Target Markets with RPS Demand to Mitigate Offtake Risk
   - Slowing Power Demand Weighing on 2010 Build Expectations
   - Utilities Trim RFPs as Near-Term Requirements are Revised
   - Regional Offtake Trends Shift Amid Turbulent Market Conditions
6. **Transmission Outlook for Wind Power Development**
   - New Transmission Capacity Slow to Emerge and Relieve Congested Grid
   - Midwest Transmission Expansion Contingent on Major Interstate Proposals
   - Texas CREZ Hits First Roadblocks to Reignite Wind Market
   - Near-Term Transmission Activity Focused on Moving Power West
   - Northeast Looks to Grid Upgrades to Meet RPS
   - Developers Revise Near-Term Development Strategy, Adapt to Transmission Availability
   - Transmission Cost-Allocation Policies Pose Threat and Opportunity to Future Development
   - Queue Reforms Aim to Streamline Process
7. **US Wind Financing Strategies**
   - Government Support Buoys Industry in 2009
   - M&A Activity Slows as Financial Crisis, Falling Prices Weigh on Industry
8. **Wind Plant O&M Strategies**
   - Leading IPPs Take O&M In-House
   - OEMs and Third-Parties Position for O&M Upswing
9. **US Offshore Wind Project Development Activity**
   - Regions Beyond the Northeast Drawing Development Activity
10. **US Wind Company Profiles**
    - Top 20 US Wind Power Owners
      - *Acciona Energy*
      - *AES Wind Generation*
      - *BP Wind Energy*
      - *Duke Energy Generation Services*
      - *E.ON Climate & Renewables*
      - *Edison Mission Group*
      - *EDF-EN enXco*
      - *EDP Horizon Wind Energy*
      - *Enel SpA*
      - *Eurus Energy*
      - *First Wind*
      - *Iberdrola Renewables*
      - *Infigen Energy*
      - *Invenergy*
      - *John Deere Wind Energy*
      - *MidAmerican Energy Holdings*
      - *NextEra Energy Resources*
      - *Noble Environmental Power*
      - *Puget Sound Energy*
      - *Shell WindEnergy*
      - *Other Developers of US Wind Capacity*

V. **COMPETITIVE TRENDS IN US WIND TURBINE SUPPLY**

1. **Trends in Wind Turbine Market and Technology**
   - Trends and Forecasts in Wind Turbine Size and Technology
     - *Turbines Over 2 MW in Size Will Become Standard Product Offering*

IEC Class II Wind Turbines Remain Prominent
Future Outlook: Permanent Magnet and Direct-Drive Technology Begins to Emerge
- Trends in Wind Turbine Pricing
Turbine Prices Nearing Bottom

2. **Wind Turbine OEM Competitive Analysis**
- Product Analysis
Mitsubishi and GE Spar with Similar-Sized Machines
Downturn in Demand Places Emphasis on Turbine Track Record, Product Fit, Bankability
- Market Share Evolution
Competition Tight in <2 MW Segment, Set to Intensify for 2 MW and Larger Turbines
EPC, Development Market Shapes Delivery Spillover: 2008–2009
Depth, Diversity of Customer Base Crucial to Face Surging Competition
Procurement Moving Toward Core Suppliers, Flexible Agreements
- Order Book
Recession Demand Destruction Slowing Days of a Seller's Market Have Ended
Services and Warranties Increasingly Form Competitive Edge; Provide Additional Revenues
- New Entrants
European Vendors Eye US Entry

3. **Asian Wind Turbine Manufacturers Eyeing US Market**
4. **Production Strategies of US Wind Turbine OEMs**
- In-House Production Remains Limited
- Outsourcing From Domestic and International Suppliers Remains Widespread

5. **Supply Chain Development**
- Tower Supply Strategies in US Wind Turbine Market
- Blade Supply Strategies in US Wind Turbine Market
- Gearbox in US Wind Turbine Market

6. **Tower Supply Chain Development**
- Tower Supply Strategies
- Blade Supply Strategies
- Bearings Supply Strategies
- Gearbox Supply Strategies
- OEM Strategies
Acciona Windpower
Clipper Windpower
DeWind
Fuhrländer AG
Gamesa Eólica
GE Energy
Mitsubishi Power Systems
Nordex AG
REpower Systems AG
Siemens Wind Power
Suzlon
Vestas Wind Systems
Componenet Suppliers/Smaller OEMs

LIST OF EXHIBITS

I. EXECUTIVE SUMMARY
1. Overview: 2010 Wind Market Landscape
2. Major American Recovery and Reinvestment Act Provisions
3. Wind Treasury Grant Recipients
4. US States with RPS Policies and Year-End 2009 Installations***
5. Impact of a National RPS on Renewables Demand: 2009–2025
6. US Congressional GHG Mitigation Proposals: 2012–2050
7. US Power Pricing by RTO: 2008–April 2010
8. Key Regional Offtake Strategies in Top 10 Wind States (MW)
9. 2009 Cumulative US Wind Installations by Developer and Owner Type
10. North America Wind Turbine Order Flow: 2008–April 2010*
11. Turbine Installation Track Record by Turbine OEM: 2000–2009*
12. Key Asia Turbine Export References, Aspiring US Entrants
13. US Wind Power Base-Case Scenario, Regional Breakdown: 2010–2025
14. US Wind Power Growth Scenarios: 2010–2025

II. US WIND POWER DEMAND DRIVERS
1. US States with RPS Policies and Year-End 2009 Installations***
2. US Regional RPS Wind Supply and Demand with Queue*: 2009 and 2020 (TWh)
3. Impact of a National RPS on Demand: 2009–2025
4. US Congressional GHG Mitigation Proposals: 2012–2050
5. US State and Regional GHG Policies
6. US Federal Production Tax Credit Details
7. PTC's Impact on Historic Wind Development Levels (MW): 1992–2010
8. Major American Recovery and Reinvestment Act Provisions
9. US Production Tax Credit and Investment Tax Credit Grant Evaluation
10. Other American Recovery and Reinvestment Act Provisions
11. Manufacturing Tax Credit Awards by Company and Component
12. US Offshore Wind Activity by State
13. US Power Generation Capacity Additions by Type: 1986–2009
14. US Power Demand's Drop Impact on Reserve Margins by Region: 2008–2013
15. Key Findings in Wind Integration Studies
16. Economic Recession Effects on Power Prices: January 2008–February2010
17. US Wind and Natural Gas Annual Additions: 2000–2009 (MW)
18. US Wind Comparative Cost Against New Conventional Generation
19. US Renewable Energy Comparative Costs by Source
20. US Wind Resource Map at 80 Meters
21. US Wind Resource Curve by State
22. US Offshore Potential by Region and Depth

III. US WIND POWER MARKET FORECASTS
1. US Wind Forecast Methodology
2. US Wind Power Base-Case Scenario Forecast Assumptions: 2010–2025
3. US Wind Power Build Levels: 2008–2010 (GW)
4. US Wind Power Base-Case Scenario, Gigawatts Added by Region: 2009–2025
5. US Wind Power Base-Case Scenario, Cumulative Capacity by Region (GW): 2009–2025
6. US Wind Power Base-Case Scenario, Regional Breakdown: 2010–2025
7. US Wind Power Base-Case Scenario, Offshore and Onshore Additions: 2009–2025
8. US Wind Power High-Growth and Low-Growth Forecasts (GW): 2000–2025
9. US Wind Power High-Growth Scenario Forecast Assumptions: 2010–2025
10. US Wind Power High-Growth Forecast: 2009–2025
11. US Wind Power Low-Growth Forecast Assumptions: 2010–2025
12. US Wind Power Low-Growth Forecast: 2009–2025

IV. US WIND PROJECT DEVELOPMENT AND OWNERSHIP COMPETITION
1. Top 25 North America Wind Plant Owners by Company: Year-End 2009
2. Change in US Wind Year-Over-Year Market Share by Project Owner
3. Top 25 US Wind Plant Owner Portfolios by Region
4. 2009 Cumulative US Wind Installations by Developer and Owner Type
5. In-House Capabilities of Key US Wind Owners
6. 2009 Utility Wind Ownership Rankings
7. Evolution of IPP vs. Utility Wind Ownership (MW)
8. Timeline of Key Wind Permitting Developments: 2009–2010
9. BLM Wind Activity Summary
10. Timeline of Key Wind Permitting Developments: 2009–2010
11. Geographic Trends and Strategic Shifts in Project Development
12. Status of US Development Activity as of 1 May 2010
13. Utility RFP Strategies for Wind Procurement in 2010
14. Key Regional Offtake Strategies in Top 10 Wind States (MW)
15. Key Transmission Bottlenecks In the US Wind Market
16. Major Transmission Initiatives Impacting Wind Development
17. Key Transmission Initiative Timeline
18. Summary of Select 2009–2010 Wind Project Tax Equity Deals and Players
19. Wind Treasury Grant Recipients
20. Summary of Select 2009 US Wind M&A Deals
21. Summary of Select 2009 US Wind Project Asset Acquisitions

22. Overview of US Wind Turbine Fleet in Operation
23. Cape Wind Development Timeline
24. Offshore Wind Development Summary

V. COMPETITIVE TRENDS IN US WIND TURBINE SUPPLY

1. Average Rated Capacity of Annual Wind Turbine Installations: 2000–2009
2. US Wind Turbine Forecast by Turbine Size: 2009–2020
3. GE Wind Turbine Class Breakdown 2009
4. Direct-Drive and Permanent Magnet Generator Wind Turbines for Possible US Deployment
5. 2005–2010 Steel Costs
6. Trends in Average Off-the-Shelf Wind Turbine Pricing
7. OEM Product Portfolio Overview
8. Turbine Installation Track Record by Turbine OEM: 2000–2009*
9. US Wind Turbine Market Share Evolution, MW Deliveries: 2001–2009
10. US Vendor Market Share, <2 MW and >2 MW Turbine Supply: 2001–2009
11. US Wind Turbine Megawatts Delivered vs. Installed: 2008 and 2009
12. OEM Customer Diversity vs. Depth of Supply Relationship, Top 25 US Wind Owners
13. OEM Market Share By Customer, Total MW Installed: 2009
14. North America Wind Turbine Order Flow: 2008–2009*
15. Publicly Announced Wind Turbine Orders: Q4 2009 Through April 2010*
16. Europe OEM Core Product, Track Record, Plans for the US/Strategy
17. Key Asia Turbine Export References, Aspiring US Entrants
18. In-house vs. Outsource Criteria by Component
19. Wind Turbine OEM Component Supply Relationships Overview
20. Overview: Operational and Planned Major Component Investments
21. Overview of Major North American Tower Manufacturing Facilities
22. Overview of Major North American Blade Manufacturing Facilities
23. Overview of Major North American Gearbox Manufacturing Facilities

ORDER FORM: ***US Wind Power Markets and Strategies: 2010-2025***

Fill in the order form below and e-mail to eersales@ihs.com

Name			
Title			
Company			
Address			
City		**State/Prov**	
Postal Code		**Country**	
Phone		**Fax**	
E-mail			
VAT#			

	US$	**Euro€**
☐ **Single Copy PDF:**	$4,250.–	€3.050.–
☐ **Corporate License PDF:**	$6,250.–	€4.450.–

Payment Options:

Please Bill Me: Purchase Order # _____

Please Charge My Credit Card: ☐ VISA ☐ MasterCard ☐ AMEX

Account Number: _____

Expiration Date: _____ / _____ Security Code: _____

Cardholder Name		**Date**
Signature		

Study Now Available: Order today and receive immediate online access

HOW TO ORDER

1. Fill in the order form at left and e-mail this page to eersales@ihs.com

2. Purchase online at www.emerging-energy.com

For questions please contact eersales@ihs.com

IHS Emerging Energy Research is a leading research and advisory firm analyzing clean and renewable energy markets on a global basis.

In addition to market studies, IHS Emerging Energy Research offers research advisory services, which provide a continuous stream of business intelligence, competitive analysis, and strategic advice. Clients receive detailed Market Forecasts, Strategy Papers, On Point Briefings and Analyst Access to help them meet a variety of needs within their organization.

If you are interested in learning more about how our Advisory Services can benefit your organization, please contact eersales@ihs.com.

For more information on IHS EER, please visit our website at www.emerging-energy.com.