



**US-Asia Technology Management Center** 



**United Wind Overview** 





# United Wind Overview

## History & About Us

- Formed in 2013 through the merger of Talco, a turbine installer & distributer and Wind Analytics, a distributed wind analysis consultancy
- United Wind is a developer & asset manager of *small wind* systems
  - 10kW 900kW machines operating behind the meter
- Responsible for development, installation, finance, operations & maintenance, and asset management
- WindLease™ program allows customers to lease a wind turbine for as little as zero money down
- UW guarantees production & insures turbines for the full lease term

## **Strategic Corporate Investors**







## **Project Investors**













# Customer Value Proposition

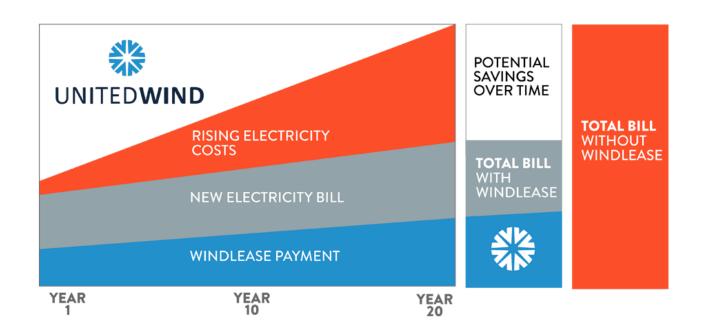
## WindLease TM – First to Market Distributed Wind Energy Lease Offering

### An Easy Switch to Wind

- Zero upfront costs
- Installation & maintenance included
- Monthly payments less than current utility bill
- 20 year warranty + performance guarantee

### **Meaningful Customer Savings**

- 10% immediate discount on electricity
- Payments locked in below historical utility escalation rates
- 25% savings typical over life of lease
- Typically powers 75% 100% of property energy needs





# Long Term Customer Relationship

## The One-Stop-Shop for Affordable Distributed Wing Energy

## United Wind involved through entire project lifecycle















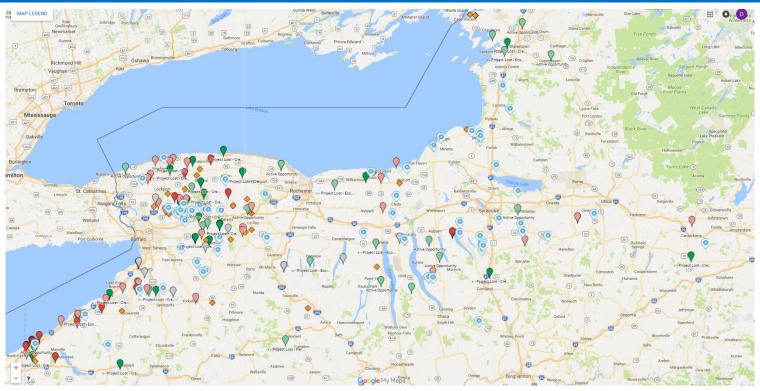






# **Current Projects**

## New York Assets Under Management



Stage	Projects	kW
Placed in Service	46	700
Construction	31	310
Development	50	500
Credit Pending	0	0
Pipeline	20	200
Third Party O&M	36	710
SUM	183	2,420



# Best-in-Class Wind Turbines

## Leasing Leading Distributed Wind Turbines Ranging from 10kW to 900kW

### **EWT 900kW**



### **Turbine Specifications**

- 900kW rated capacity
- UL, IEEE certified
- Tower: Monopole
- Rotor diameter: 54.0m

### **Ghrepower FD21-100**



### **Turbine Specifications**

- 100kW rated capacity
- UL, CEI, IEEE certified
- Tower: Monopole
- Rotor diameter: 21.5m

Eocycle – EO 25



### **Turbine Specifications**

- 25kW rated capacity
- UL, CEI, IEEE certified
- Tower: Monopole
- Rotor diameter: 12.6m

### Bergey Excel 10



#### **Turbine Specifications**

- 8.9kW rated capacity
- UL, SWCC certified
- Tower: Self-supporting lattice
- Rotor diameter: 7.0m



# Proprietary Wind Analysis Software

## WindAnalytics<sup>™</sup> Wind Analysis Algorithms and Software, Key Barrier to Entry

## United Wind's proprietary software provides accurate results in minutes

- Cost effective desktop production analysis suite capable of producing financeable production analysis
- Software suite accounts for variations in local obstructions, land cover, and topographical features to determine the wind profile at a given study site
- Funded by a grant from NYSERDA, Wind Analytics has had 5 years and \$3MM of R&D to refine its process and increase accuracy
- System uses global network of Automated Surface Observing System (ASOS) station data, encompassing 6,000 stations across the US
  - The data is provided as an hourly average of wind speed and direction, with typical station record history of 30+ years



WindAnalytics land cover classification analysis



WindAnalytics obstruction analysis



# United Wind Lease Terms

## Industry Standard 20 Year Lease

Provision	Summary
Term	20 year lease of the small wind turbine installed by UW on the customer's property
End of Lease	<ul> <li>Executed lease agreements shall include the following end of lease term options:</li> <li>Customer may renew the lease agreement for 10 years;</li> <li>Customer may purchase turbine at the greater of (i) FMV of the turbine or (ii) 20% of turbine fully installed cost;</li> <li>Customer may request removal of the turbine at the greater of (i) actual cost of removal or (ii) 20% of turbine fully installed cost; or</li> <li>Customer may allow for the continued operation of the turbine for 10 years and be paid a ground lease rate.</li> </ul>
Lessee Obligations	<ul> <li>Not to repair or alter the equipment without UW's consent</li> <li>Not to build structures or obstruct wind energy potential in any way</li> <li>Maintain property insurance (for negligence that damages the turbine)</li> </ul>
Lessor Obligations	<ul> <li>Insure the system</li> <li>Repair promise (20 years), Warranty (installation, equipment)</li> <li>Production guarantee (reimburse production below "threshold" at contractual price)</li> </ul>
Contingencies	United Wind may terminate the lease agreement if:  United Wind cannot find a financing partner for the Lease  Customer credit is unacceptable  Building permits cannot be obtained  Equipment and/or contractors cannot be procured
Ownership Transfer	If the Customer sells his property, the Customer can execute a Transfer Agreement where the new property owner assumes all of Lessee's rights and obligations, and where the Customer either:  • Prepays the remaining monthly payments, and UW will continue to honor the terms of the (I&M); or  • Submits the credit of the new owner, which if approved the new owner will assume the lessee's position



# United Wind Project Capital Partners

### **Selected Closed Transactions**



**Sponsor Equity** Investor

\$200 million





**Tax Equity Investor** 

\$5.5 million





**Construction Debt** Revolver

\$4.0 million





**Single Owner Fund** 

\$4.6 million





**Single Owner Fund** 

\$1.6 million

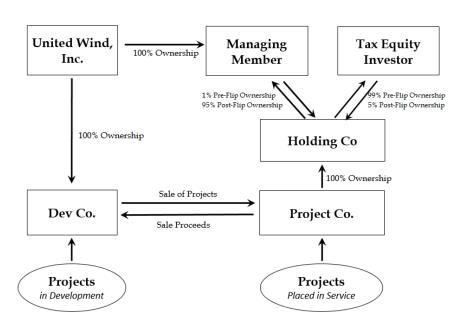


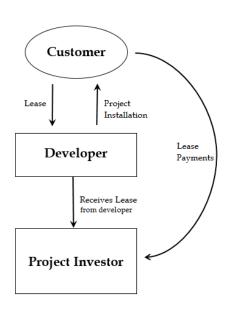


# Project Finance Structures

## Partnership Flip

## Single Investor Lease

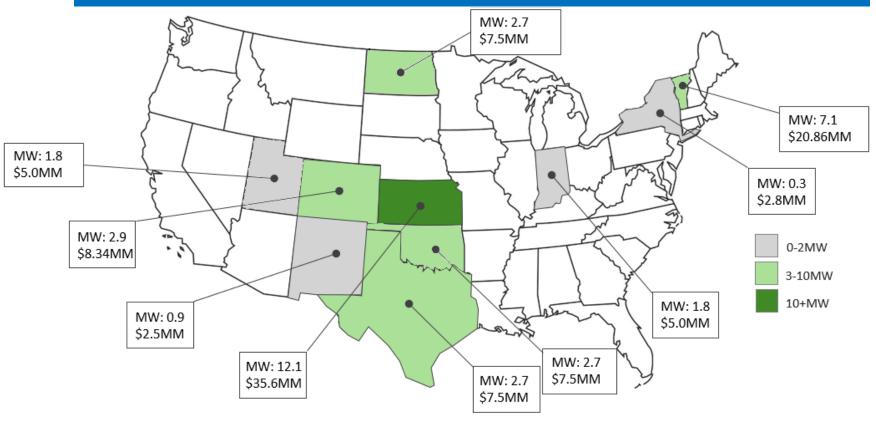






# Current Pipeline

## \$9 million Signed Projects and in Development, \$84 million Projects in Pipeline

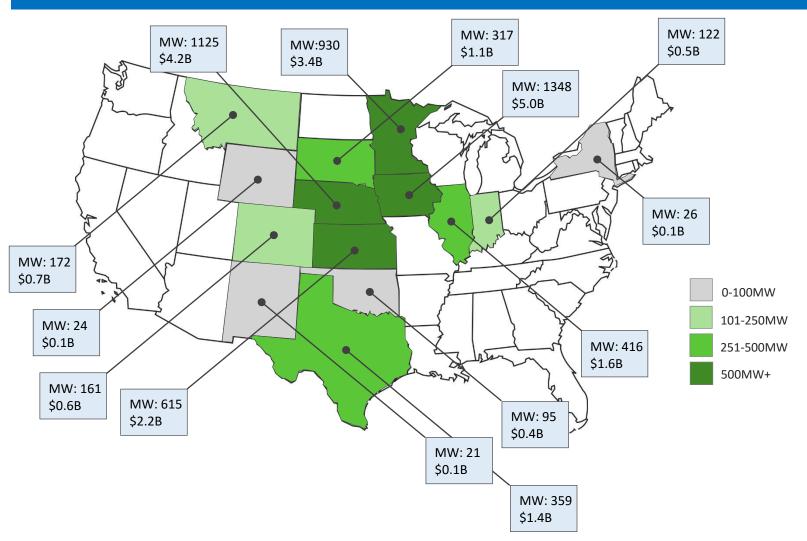


Stage	Projects	Value of Projects	
Development	10	\$	4,200,000
Lease Signed	18	\$	5,100,000
Proposal	20	\$	50,000,000
Leads	24	\$	43,400,000
SUM	72	\$	102,700,000



# \$21 Billion Market Opportunity

## 5.7GW Total Addressable US market for Leased Distributed Wind Turbines





# Experienced Leadership Team

## Award Winning Renewable Energy and Project Finance Experts with Venture Stage Experience



**Russell Tencer** Founder & CEO

- Founder & CEO Wind Analytics
- Founder & CEO Parker Boston
- Manager, Family Office Fund



Dan Svejnar COO

- Central Plant Partners
- HSH Nordbank
- Fortis Capital
- GE Capital



Philip Futernik CTO

- Software Engineer, Vidyo
- Lead Software Engineer, Creston Electronics



Jason Kaplan General Counsel

- Associate, Sahn, Ward & Baker
- Law Clerk, General Electric



Joseph Yurcisin VP, Sales

- Senior VP Sales. NRG Home Solar
- National Sales Director, Roof Diagnostics



**Ryan Storke** VP, Projects

- Division Manager, CEC Energy



Jodi Tarr VP, Asset Management

- Accounting, OwnEnergy
- Financial Controller, Pulsepoint
- Group Controller, Castor



Kyle Andrucyk VP, Project Finance

- Head Analyst, United Wind
- Head Analyst, Wind Analytics





# United Wind in the News

## **National Press Coverage**

#### Wind Power Spreads Through Turbines for Lease

### The New Hork Times

December 18, 2015: "Although rooftop solar systems have spread rapidly throughout the country over the last eight years [...] wind energy has generally remained the province of industrial-scale operations providing power to utilities and big businesses. But now, a start-up called United Wind is applying the rooftop solar model to wind, installing and maintaining systems at little to upfront cost to the customer."

## **REUTERS**

#### Wind Power Startup Nabs \$200 Million for Projects on Homes, Farms

January 5, 2016: "To have a leasing model like what United Wind is coming up with is huge," said Jennifer Jenkins, executive director of DWEA [Distributed Wind Energy Association]. "You see where solar is now and they are there because of this model "

## CAPITAL-JOURNAL

#### United Wind Introduces Third-Party Leasing to Wind Energy Market

March 12, 2016: "United Wind's WindLease program, which as just been launched in Kansas by a company consultant located in Topeka, eliminates the substantial initial investment farmers and property owners would have to make to purchase a wind turbine," said CEO and co-founder Russell Tencer.

## **Bloomberg Business**

#### Total Buys Stake in Brooklyn's United Wind Leasing Business

July 12, 2016: "Total SA's venture capital arm acquired a stake in United Wind Inc., a Brooklyn-based company that leases small wind turbines in rural areas. Total Energy Ventures will finance the startup's expansion into new states including Colorado, Kansas and Minnesota, it said in a statement."



#### United Wind Brings Distributed Wind Development To New Market

October 5, 2016: "United Wind, a distributed wind project developer based in Brooklyn, N.Y., has partnered with Tokyo Electric Power Co. Holdings Inc. (TEPCO) to bring its wind leasing model to the rapidly growing distributed wind energy market in Japan. The partnership, which includes a recently completed growth equity investment by TEPCO into United Wind, includes plans to jointly develop distributed wind projects in Japan (starting in 2017)."

