

 demonstrating the strength of offerings Chicago possesses for the Wind Industry market.

December 06, 2013

**CWC** - 20th Meeting



### December 06, 2013 Meeting Agenda

- Introductions
- Wind Market overview
- Area Activities
- Featured Speaker Citizens' Greener Evanston
  - Jonathan Nieuwsma
- The Robert W. Galvin Center for electricity innovation
  - Mohammad Shahidehpour, PhD
- Q/A





#### Introduction

The objective of the **Chicagoland Wind Council (CWC)** is to help companies develop a strategic plan for finding new customers or develop products in the wind turbine market.

The first project for the **CWC** was to help each participating company develop a Strategic Plan that would guide the company's actions as it enters or expands its customers in the wind supply chain. The Plan would contribute to each company efforts to attend or exhibit in some form at the 2010 AWEA show in Dallas. The **CWC** is currently working on four work streams:

- Continue to develop and educate current supply chain within our area.
- > Develop small wind product line for manufacture and distribution.
- Promote and assist the colleges and universities in our area with their addition of wind technology to their curriculum.
- > Market the Wind capabilities of our area.



Who are we?

2010 Excellence in Economic Development – Honorable Mention International Economic Development Council

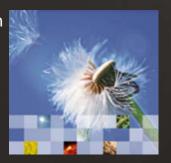


#### **Event Partner for:**

AWEA Regional Wind Energy Summit – Midwest 2012 March 6 - 7, 2012 > Chicago, IL

AWEA

2012 and 2013 German American Wind Energy Business Conference



AWEA WINDPOWER. CONFERENCE & EXHIBITION 2013 Chicago, IL May 5-8

Technical Partner and Panel Session for:





Join us and post your activities

LinkedIN group: Wind Energy Chicago

838th member this week.



Thank you

# galvincenter for electricity innovation

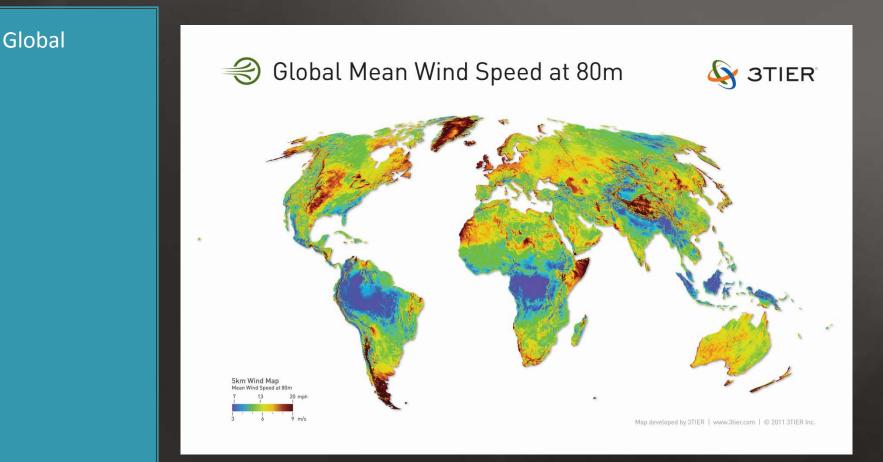
#### at ILLINOIS INSTITUTE OF TECHNOLOGY



Wind Energy -Market Overview

December 06, 2013







#### **100 countries using Wind Power!**

100 Countries are using Wind Energy today - Iceland as 100th Wind Power Country

The worldwide wind capacity reached 282,275 Megawatt, out of which 44,609 Megawatt were added in 2012, more than ever before.

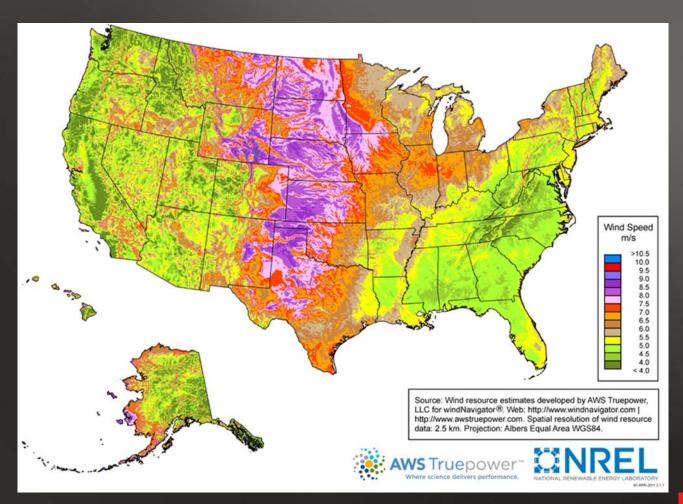
Wind power showed a growth rate of 19.2 %, the lowest rate in more than a decade.

All wind turbines installed by the end of 2012 worldwide can provide 580 Terawatthours per annum, more than 3 % of the global electricity demand.

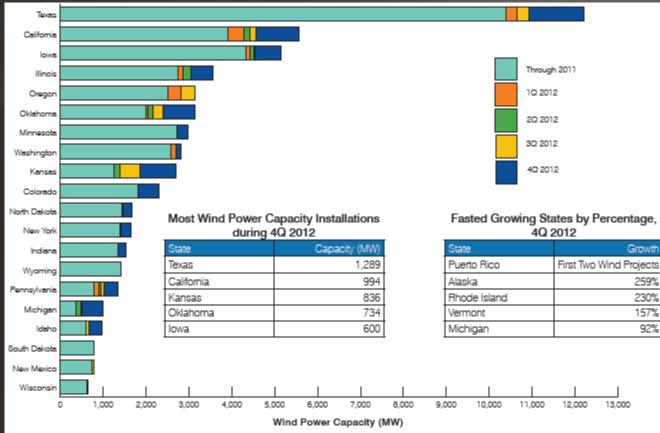
The wind sector in 2012 had a turnover of 60 billion Euro/75 billion USD.







### Wind Industry - Market Overview



#### U.S. Wind Power Capacity Installations, Top 20 States

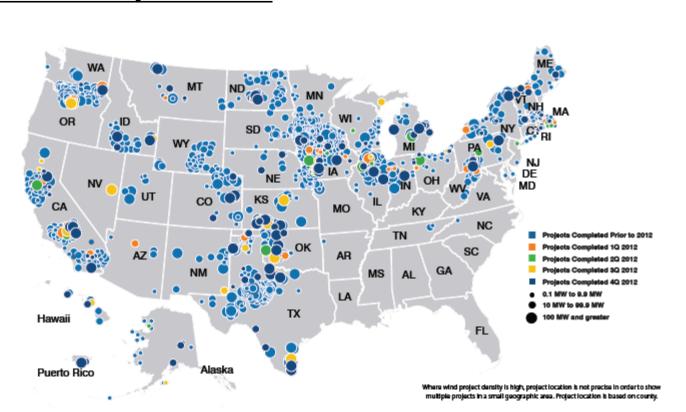
92%



American Wind Energy Association | U.S. Wind Industry Fourth Quarter Market Report 2012

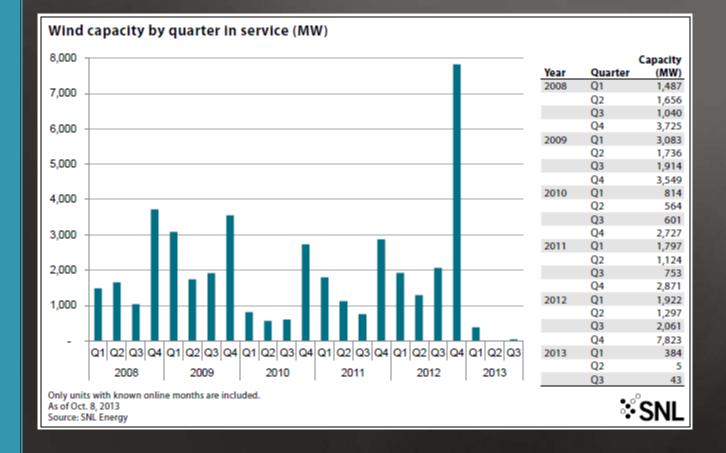
### Wind Industry - Market Overview

#### **U.S. Wind Project Locations**





Year 2013

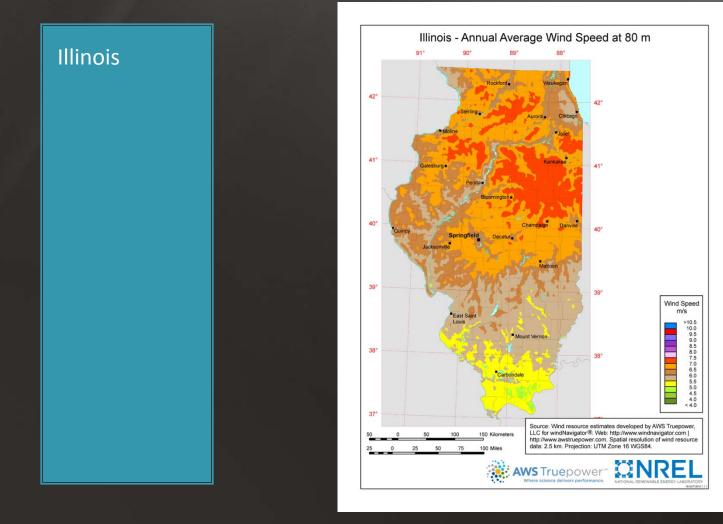




United States Wind Speed at 90 m m/s mph 11.5 - 12.0 25.7 - 26.8 24.6 - 25.7 11.0 - 11.5 10.5 - 11.0 23.5 - 24.6 10.0 - 10.5 22.4 - 23.5 10.0 21.3 - 22.4 9.5 20.1 - 21.3 9.0 19.0 - 20.1 17.9 - 19.0 8.5 8.0 16.8 - 17.9 7.5 -7.0 - 7.5 15.7 - 16.8 6.5 - 7.0 14.5 - 15.7 6.0 - 6.5 13.4 - 14.5 0.0 - 6.0 0.0 - 13.4

- Offshore







## Wind Industry - Market Overview

Future Outlook

- Forecast
- Bigger and Bigger
- Opportunity
- Final thoughts



#### **Bigger and Bigger**



Clemson center to test wind turbines and the grid the 82,000-square-foot facility that houses the world's largest wind turbine drivetrain testing rig as well as a 15 megawatt electric grid research facility.

The center, financed in part by \$45 million in federal stimulus money from the Department of Energy, is located at the old Charleston Naval Base on the site of a warehouse that was built during World War II.



### Wind Industry - Market Overview

#### Take away

- Offshore Wind Energy offers great potential to the U.S. and Great Lakes
- Market expected to recover 2014 -2015
- New opportunities



Wind Energy Greater Chicago Activities

December 06, 2013



# Wind Energy – Chicagoland activities

#### CWC

- Lynwood Wind Project
- Grant Park Wind Farm
- KCC Wind /Solar program



Our Featured Speaker

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December 6, 2013 Citizens' Greener Evanston



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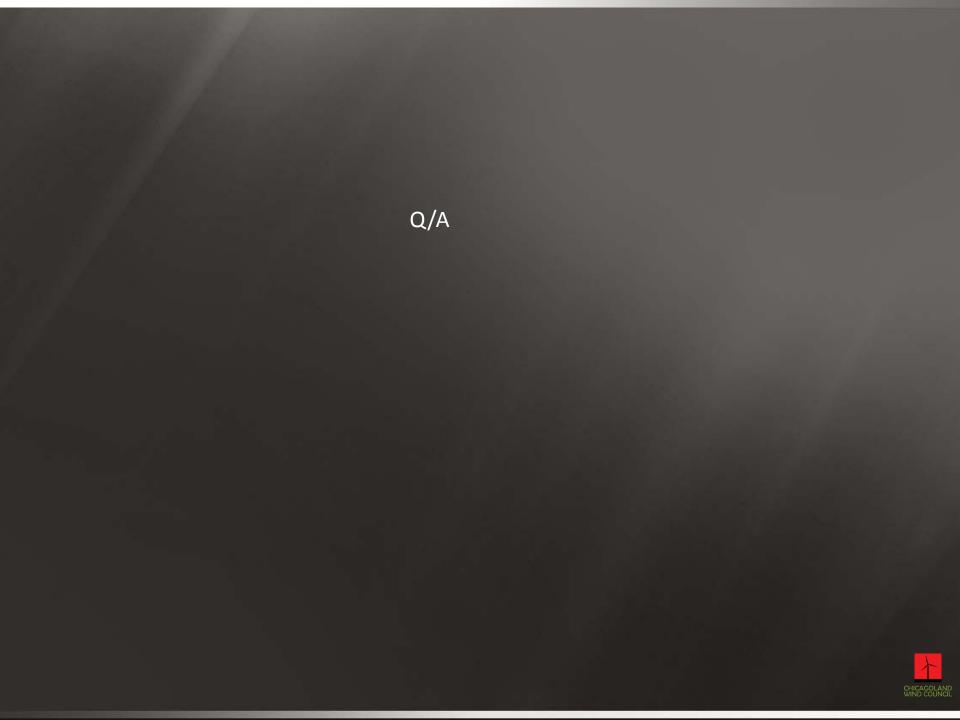
December 6, 2013 the Robert W. Galvin Center for electricity innovation



# **Our Featured Speaker**

Mohammad Shahidehpour, PhD





Thank you. CW



