



# **Commerzbank AG:**

## **Favorable Trade Winds – Renewable Energy in North America**

**Fifth Annual Transatlantic Business Conference**

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# Topics

|           |   |
|-----------|---|
| <b>1.</b> | <b>Commerzbank and Renewable Energy</b>           |
| 2.        | Growth Forecast for Renewable Energy              |
| 3.        | North American Market Fundamentals and Challenges |

## Local service – with the expertise of a major international bank

### National



#### Commerzbank Group in figures

- › Germany's second largest bank
- › Approximately 59,000 employees
- › More than 15 million customers
- › Total assets: EUR 754 billion (2010)

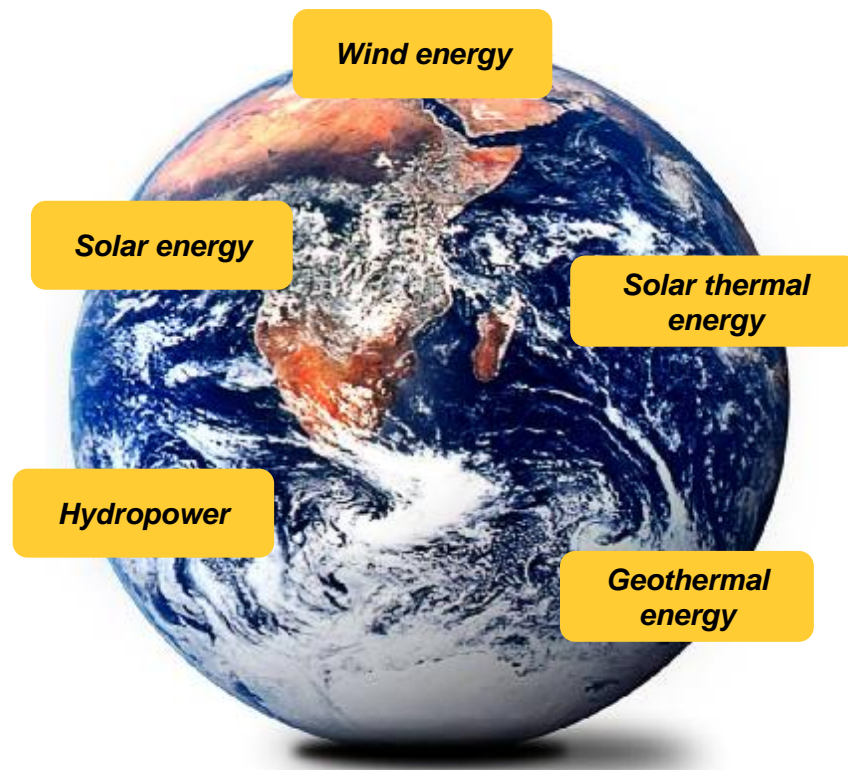
### International



#### International presence in figures

- › Branches, representative offices, subsidiaries and associates in 50 countries
- › Approximately 14,000 employees abroad
- › Over 7,000 correspondent banks

## Center of Competence Renewable Energies – Our Value Proposition



- › Integrated services across the **entire value chain** ranging from corporate and investment banking for RE producers to project finance for RE sponsors and developers
- › **Dedicated** to diverse RE-technologies **worldwide**
- › **Long-lasting expertise and track record** in RE project finance
  - In renewable energy project finance since 1986
  - Portfolio of approx. EUR 4,4 bn, of which approx. EUR 3.1 bn are dedicated to financing projects
- › Deep **sector and technology know-how**, state of the art advisory expertise and **relationship to the key players** in the industry
- › Global access to the **full range of capital markets products** through integrated approach with corporate and investment banking unit
- › **Fast decision making process** through integrated origination, structuring, execution and credit teams in Hamburg and New York

## Commerzbank offers both corporates and investment banking products as well as project finance from one single business unit

### Corporate and investment banking

› Whole range of corporate and investment banking, e.g.

- Cash management
- (Syndicated) lending (DCM)
- Investment banking products, (ECM, M&A)
- Financial investments

› Clients: all types of corporate players in the industry, e.g.

- Manufacturers
- Developers
- Strategic and financial investors

### Project finance

› Products:

- Non-recourse project finance in “stable” target countries
- ECA-covered export finance in “weaker” countries (backed by guarantee)

› Clients: all types of corporate players in the industry, e.g.

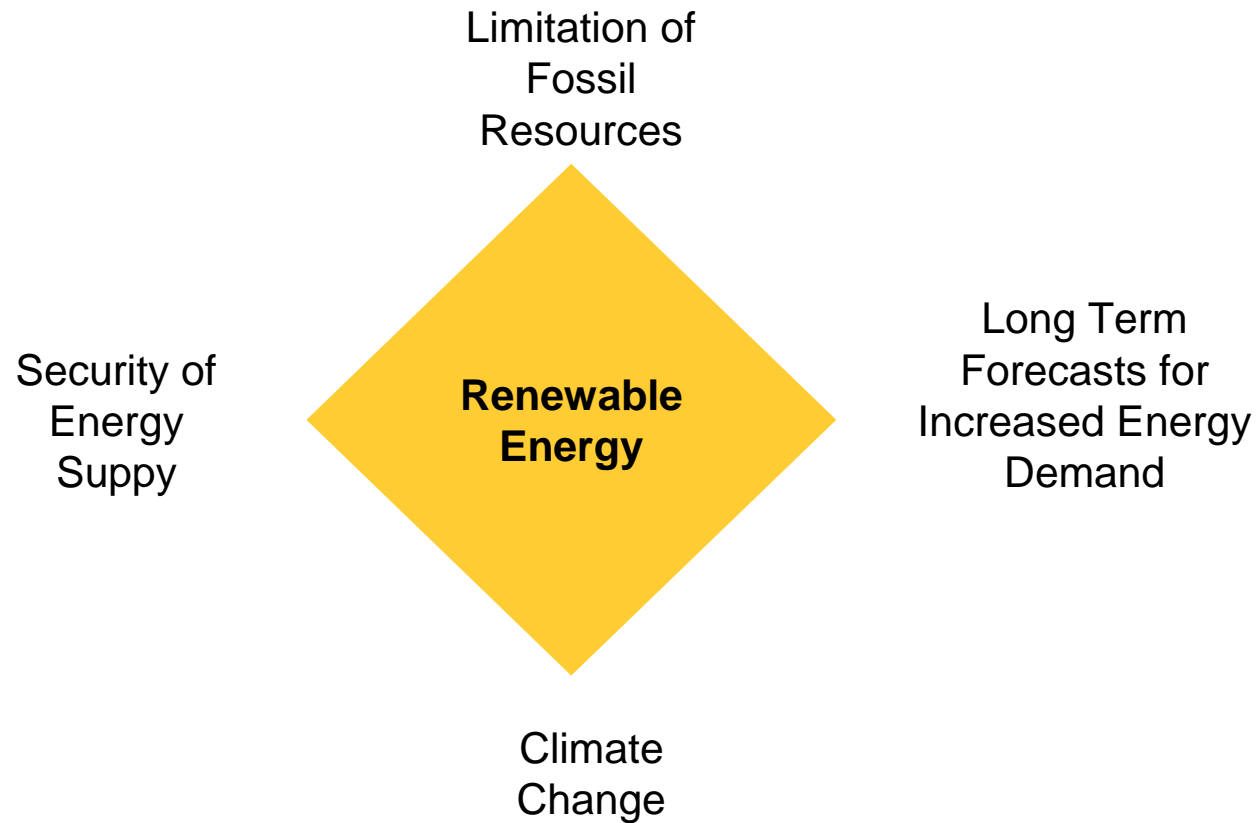
- Manufacturers
- Developers
- Strategic and financial investors

- Track Record > 20 years
- ~ 50 professionals plus risk management
- Location in Hamburg (for Europe) and New York (for North America)

# Agenda

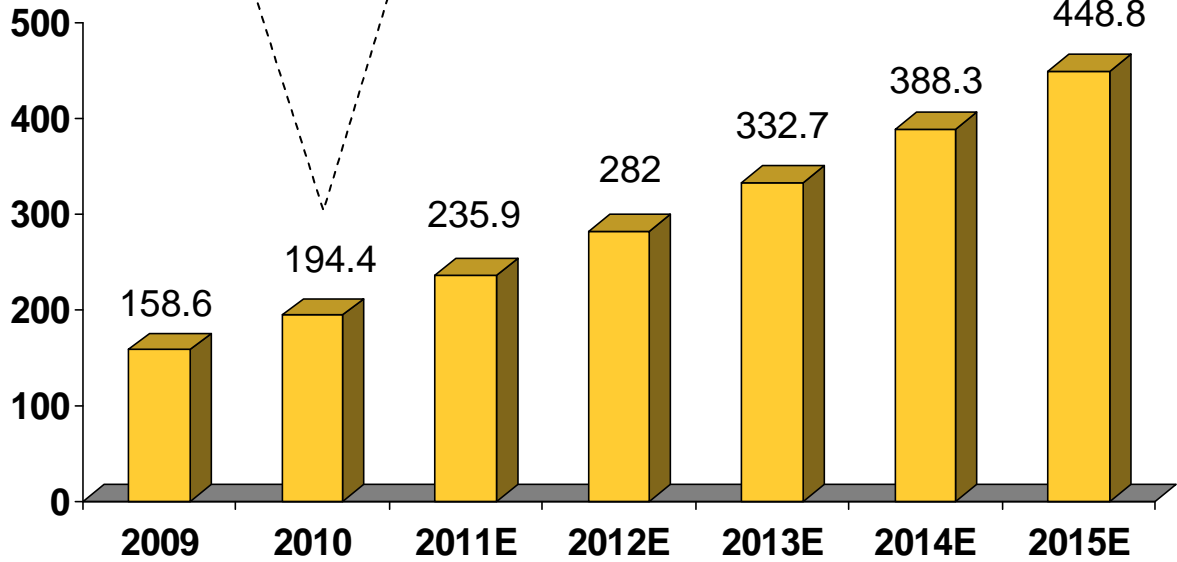
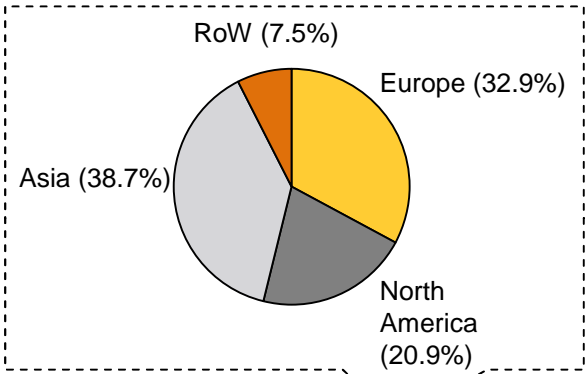
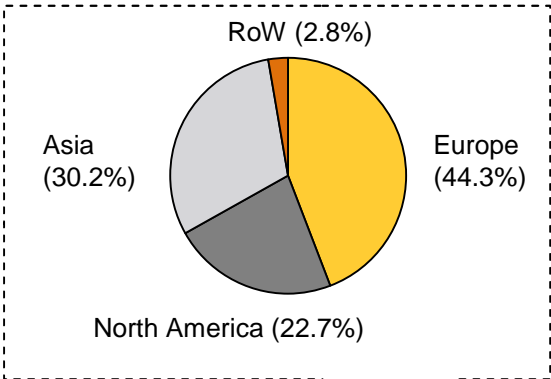
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| <b>2.</b> | <b>Growth Forecast for Renewable Energy</b>       |
| 3.        | North American Market Fundamentals and Challenges |

## Why Renewable Energy?



# In wind, significant mid- to long-term growth is expected globally with Europe, Asia, and North America as the major players

New installations in GW

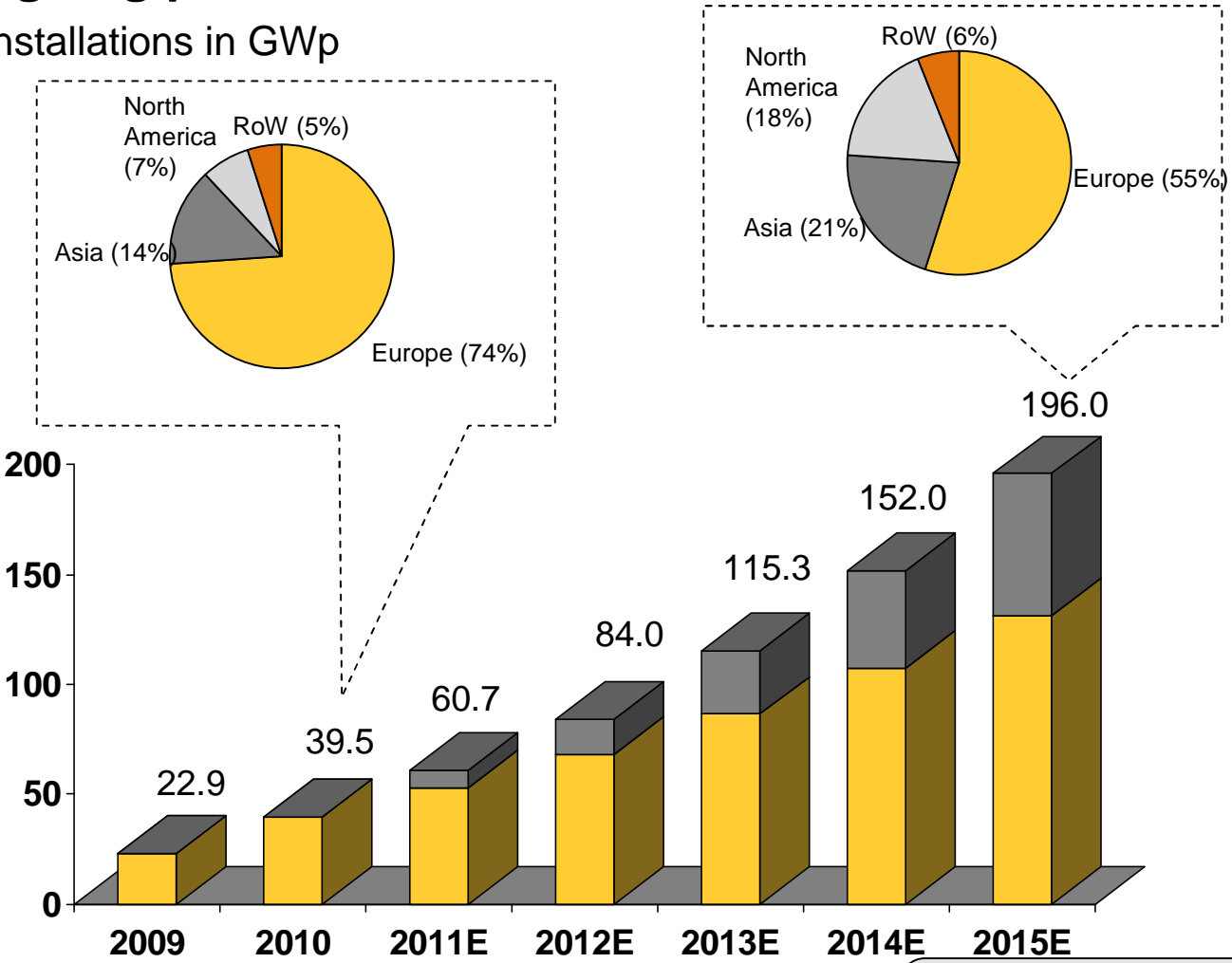


| CAGR    |     |
|---------|-----|
| World:  | 19% |
| Asia:   | 24% |
| NA:     | 16% |
| Europe: | 11% |
| RoW:    | 45% |

Source: GWEC

# In PV, even higher global growth rates are expected, though outcome of ongoing political debates remains to be seen

New installations in GWp



| CAGR – Policy Driven |     |
|----------------------|-----|
| World:               | 43% |
| Asia:                | 55% |
| NA:                  | 66% |
| Europe:              | 38% |
| RoW:                 | 32% |

| CAGR - Moderate |     |
|-----------------|-----|
| World:          | 34% |
| Asia:           | 46% |
| NA:             | 56% |
| Europe:         | 28% |
| RoW:            | 28% |

Source: EPIA, May 2011

Hajo Neugärtner and Jim Boyle, CoC Renewable Energies, Fifth Annual Transatlantic Business Conference, 11/

**At the same time, massive growth in production capacity and pressure to reduce costs**

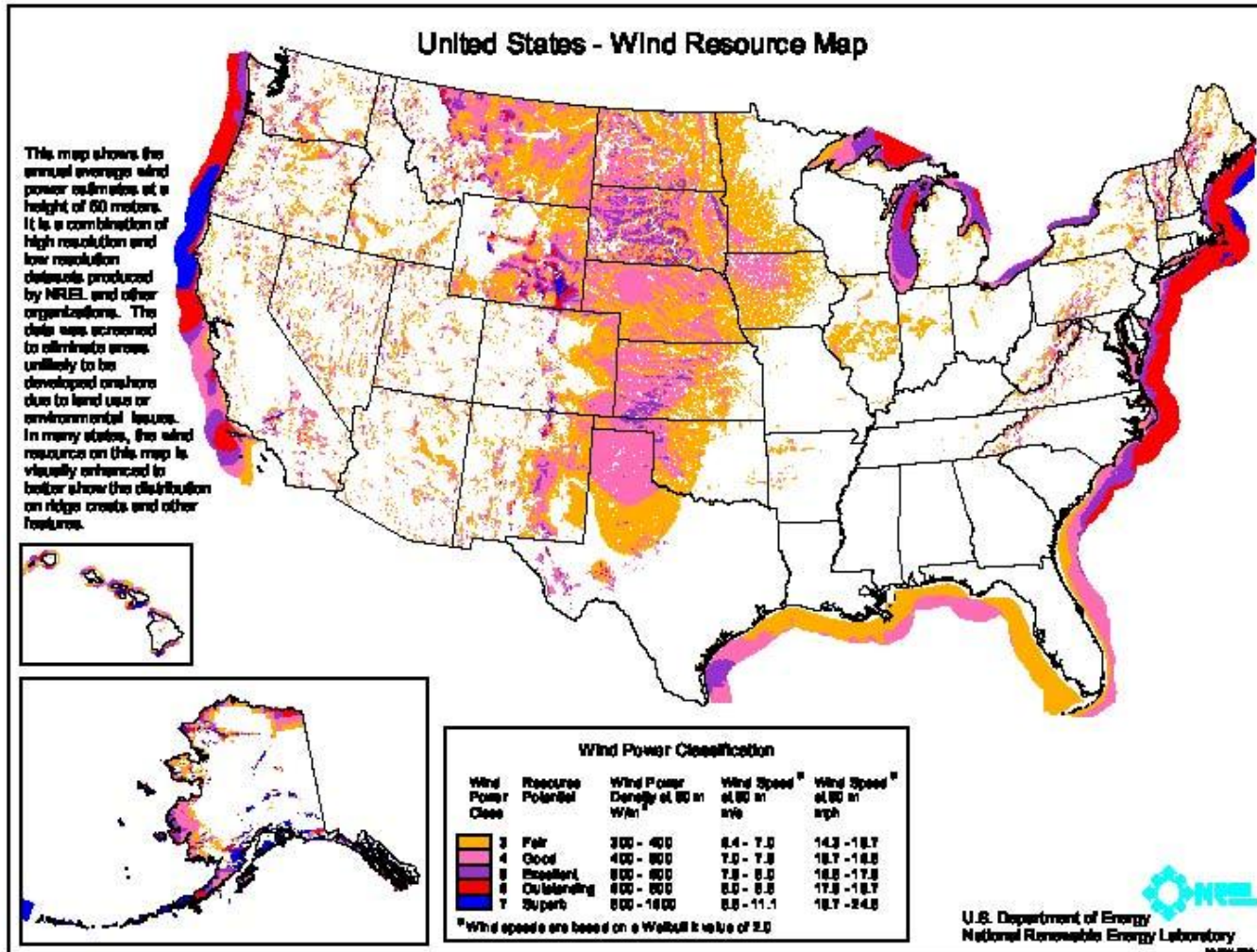
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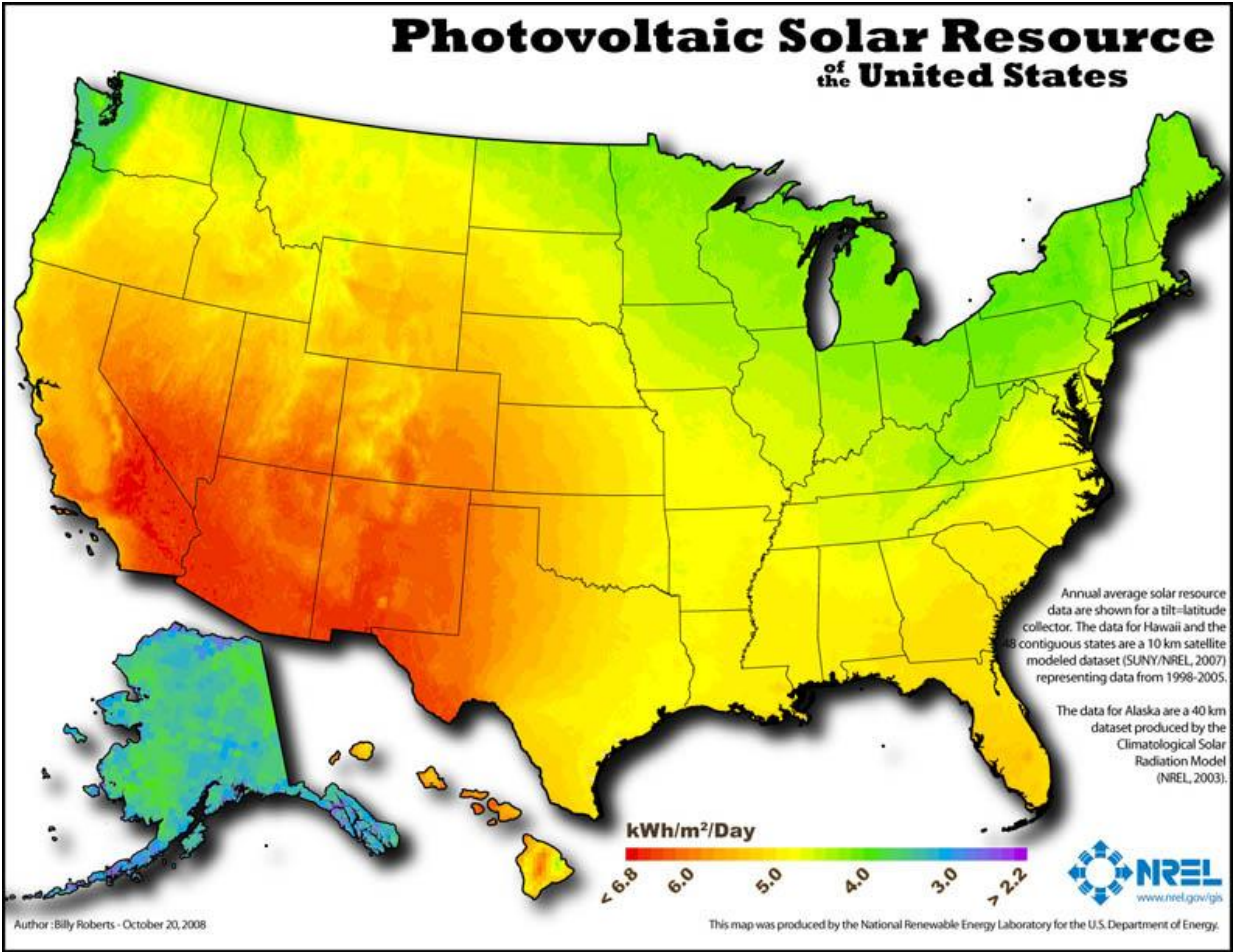
## Major Topics - North American Renewable Energy Market

- › No long term energy policy on Federal Level in either the USA or Canada. Long term energy policy, such as nationwide RPS standard or carbon tax, continues to be discussed by no clear timeline on implementation.
- › Lack of long term regulatory policy has negatively impacted the industry as manufacturers and developers need to make long-term capital decisions on the basis of short term energy policy.
- › Development constrained by difficulty in obtaining PPA priced at a level required to support higher development cost of renewables compared to conventional power.
- › While tax equity transactions are being completed, volumes are significantly reduced from historical high. Currently mitigated by ITC cash grants but that is expiring and unlikely to be extended.
- › Renewables benefit from designation as core business for many European and Japanese institutions but it remains to be seen how the European Debt Crisis will impact the lending volumes.
- › Environmental concerns are taking an increasingly larger role in the evaluation of a project.
- › Interconnection into grid is a key issue given typical location of utility scale projects.

# Wind Resource Map – United States



# Solar Resource Map – United States



## US Federal Incentives

### Investment Tax Credit (ITC)

- › ITC is available for most renewable energy technologies in the U.S.
- › Tax credits are equal to 30% of eligible expenditures and there is no maximum credit.
- › Tax credits are available until 2016 with the exception of wind (12/31/2012) and biomass, geothermal and hydro (12/31/2013).
- › To take advantage of any tax credit, the taxpayer must be a partial owner of the project and subject to specific IRS guidelines.

### Production Tax Credit (PTC)

- › Most renewable projects, other than Solar, can elect to receive the PTC.
- › To be eligible for the PTC, a project must be placed in service by 12/31/2012.
- › PTC is in the amount of 2.2-cent per kWh (adjusted for inflation) over the first 10 years of operations.
- › Unused credits may be carried forward for up to 20 years from when they were generated for 1 year back from when they were generated.

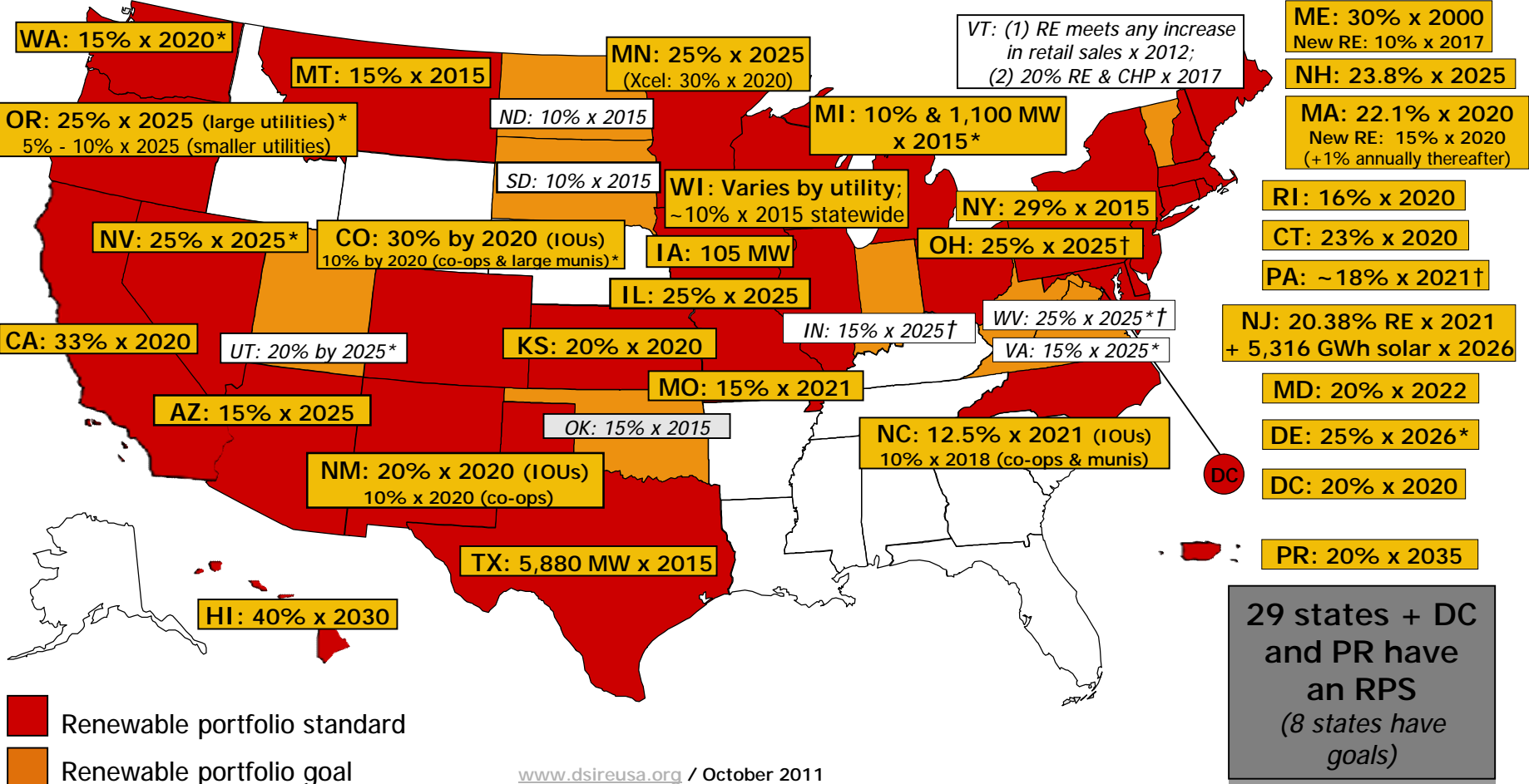
### ITC Cash Grant

- › The American Recovery and Reinvestment Act of 2009 allows taxpayers eligible for the ITC to receive a cash grant from the U.S. Treasury Department in lieu of the ITC or PTC for new installations.
- › Cash grant is available to both Wind and Solar projects.
- › Grant is in an amount of ~30% of total project costs and is payable within 60 days of the in service date of the project.
- › To be eligible for the cash grant a project must begin construction before 12/31/2011, and must be completed by 12/31/2012 for wind / 12/31/2016 for solar.

### Other Incentives

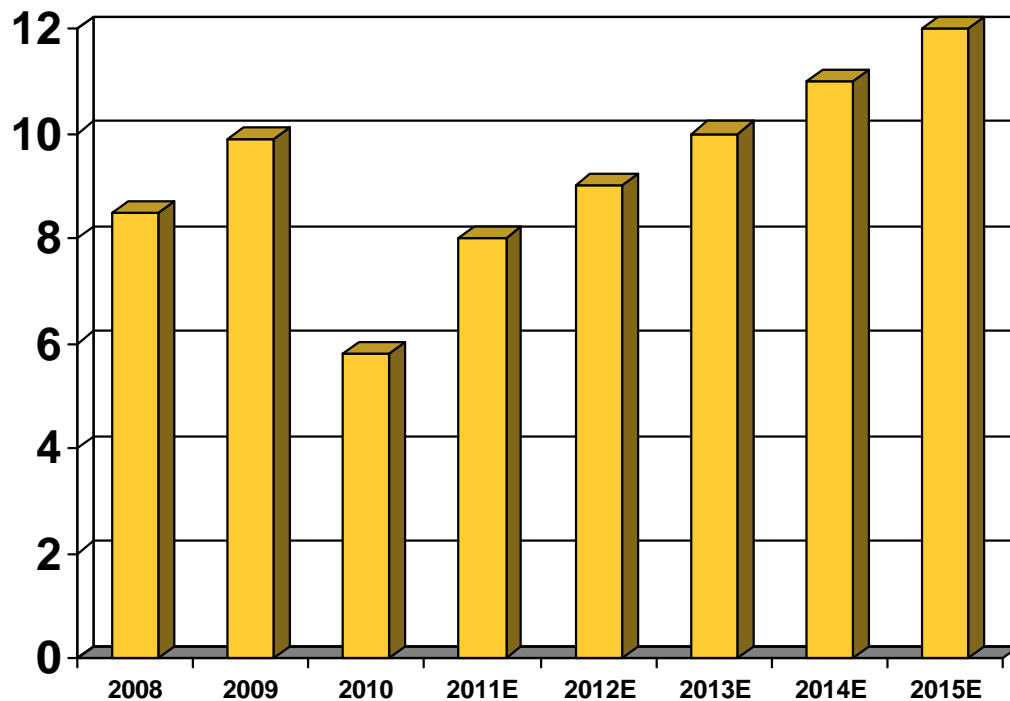
- › Modified Accelerated Cost Recovery System
- › DoE Loan Guarantee Programs

# State by State RPS Policies



## Long-term growth is solid but there could be bumps in the road.

New installations- in GW



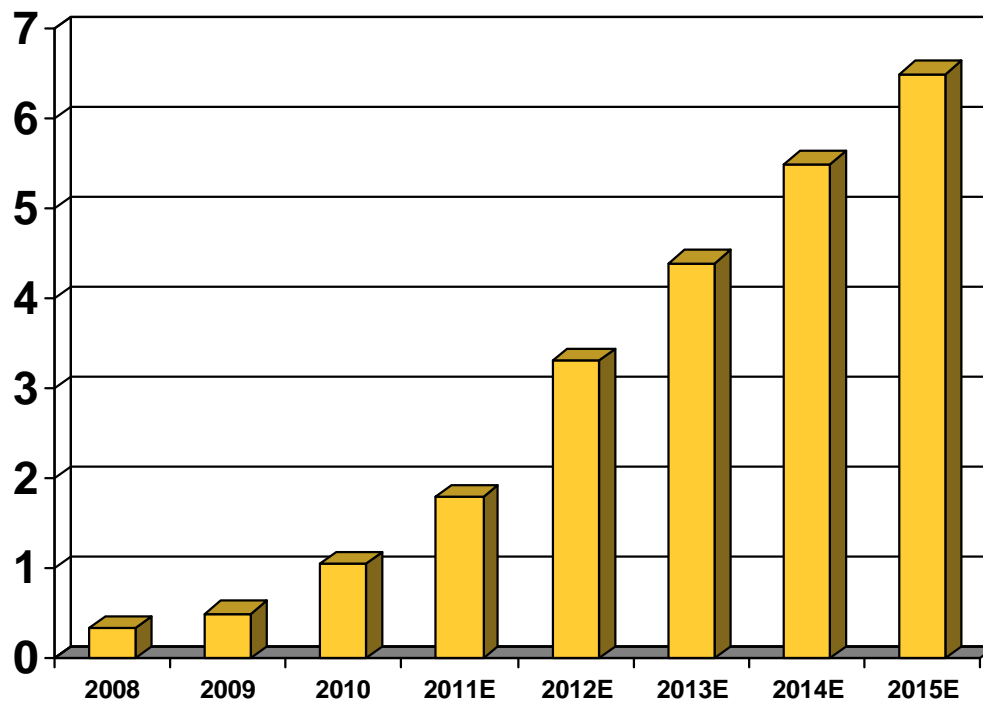
### Wind in North America

- › By 2013, per annum installed capacity is project to return to 2009 levels.
- › Federal incentives for wind will expire at end of 2012 unless extended, which may result in a dip in production in 2013.
- › Lack of feed-in tariff in most areas requires PPAs (at rather high prices) that are difficult to sign while gas prices are low.
- › Technology costs have declined and turbine manufactures are providing longer term service contracts.

Source: GWEC

## Solar in North America is projected to ramp up over the coming years.

New installations- in GW



### Solar in North America

- › Given strong solar resources in the US, penetration of solar energy expected to gain momentum starting in 2010.
- › Benefits from a tax credit with a longer expiry than other renewables but still subject to tighter tax equity markets.
- › To date, solar projects have been able to sign PPAs at attractive prices offsetting higher install costs.
- › Technology costs are declining making projects more economical even at lower PPA prices.
- › Some state RPS have specific solar requirements.

Source: EPIA



# Q&A