Utility-Scale Wind & Solar Power in the U.S.:

Where it stands in 2014 and its future going forward; and will Storage enter the picture soon?

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Objectives for today's presentation are multi-fold…

Goals for Today's Discussion

- **Inform and educate**
- **Be interesting and provide value to each of you professionally without getting into too much technical or engineering jargon**
- **Not be an infomercial for NextEra Energy**
- **Get to Q&A quickly as that is always more interesting than powerpoint**

NextEra Energy (NYSE: NEE) is comprised of two strong businesses supported by a common platform

- $42.4 B market capitalization (1)
- 43,798 MW in operation (2, 3)
- $72 B in total assets

- **One of the largest U.S. electric utilities**
- **4.7 MM customer accounts**
- **25,581 MW in** operation

- **U.S. leader in renewable generation**
- **Assets primarily in 25 states and Canada**
- **18,217 MW in operation** (2, 3)

Engineering & Construction

Supply Chain

Nuclear Generation

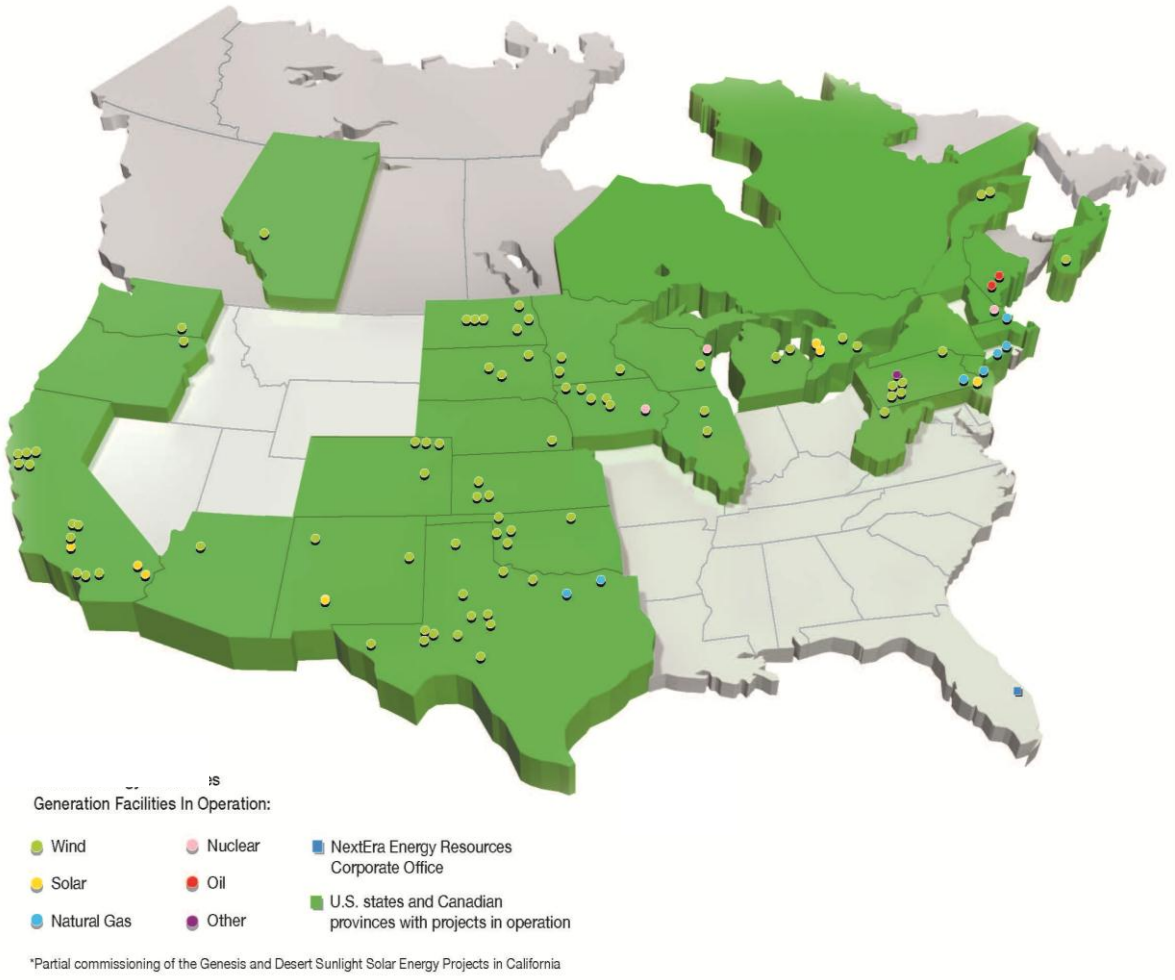
Non-Nuclear Generation

(1) As of September 2, 2014; Source: FactSet
(2) As of July 1, 2014
(3) Includes NEE's ownership share of NEP's portfolio
Note: All other data as of June 30, 2014

Energy Resources has 18,572 MW located across 25 states and 3 Canadian provinces

Energy Resources Portfolio[(1)]

- **Successful wholesale generator**
- **U.S. leader in renewable generation**
  - Over 10,000 MW of wind capacity
- **Nearly 20,000 MW in operation by year end**
  - Would be a Top 15 utility on a standalone basis
- **$4.3 billion in operating revenues**
- **$30 billion in total assets**

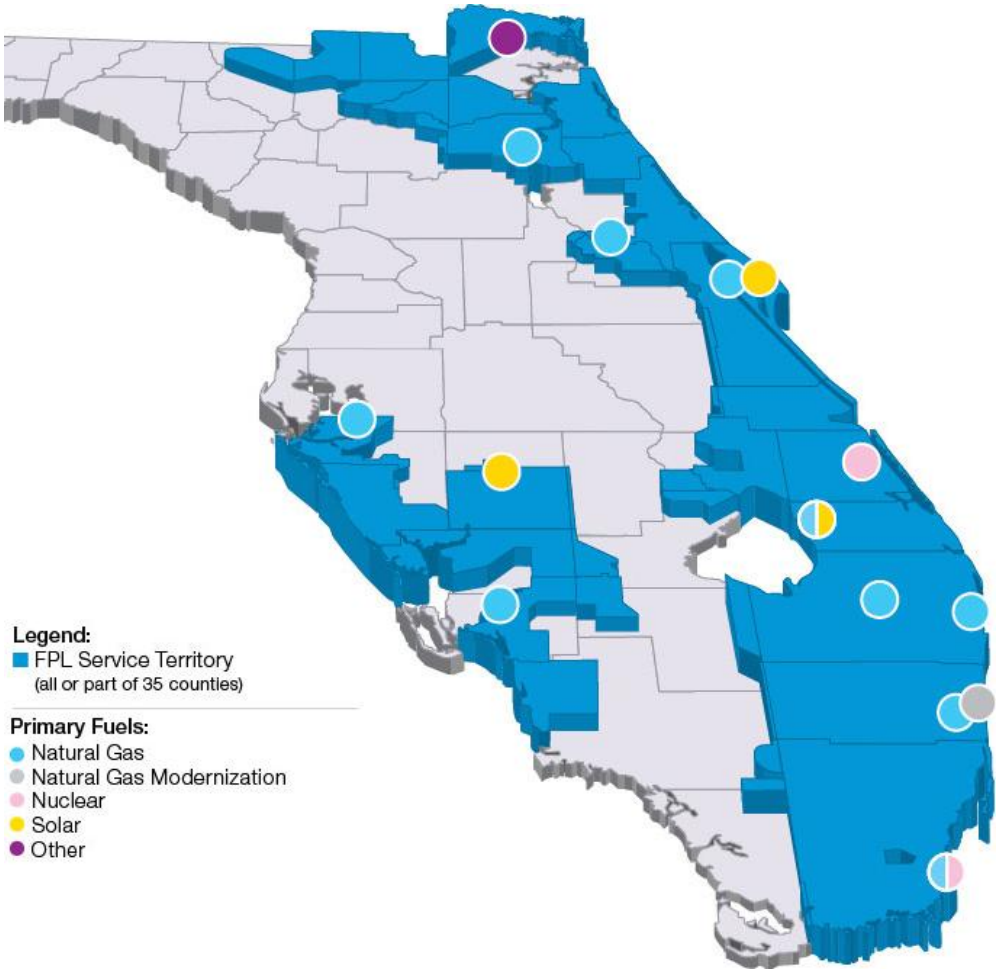


1) Data as of December 31, 2013; operating revenues for the 12 months ended December 31, 2013

Florida Power & Light is one of the best utility franchises in the U.S.

Florida Power & Light[(1)]

- One of the largest U.S. electric utilities
- Vertically integrated, retail rate-regulated
- 4.7 MM customer accounts
- 25,581 MW in operation
- $10.4 B in operating revenues[(1)]
- $38 B in total assets



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(1) All data as of June 30, 2014 except operating revenue which is for the year ended December 31, 2013

Wind is a global business exceeding $600 billion of investment, almost all of it in the last 10 years

U.S. and Global Markets Are Continuing to Expand in 2014

- **Market growth has been broad**
  - Global wind capacity increased by 13% in 2013
    - -- 318,000 MW cumulative installed(1)
    - -- 35,500 MW installed globally in 2013(1)
  - 2013 U.S. market
    - -- 61,000 MW installed in the U.S. at 12/31/13(2)
    - -- 2014-15 U.S. market expected to be 6-10 GW

1) Global Wind Energy Council (GWEC) as of February 2014
2) American Wind Energy Association (AWEA)

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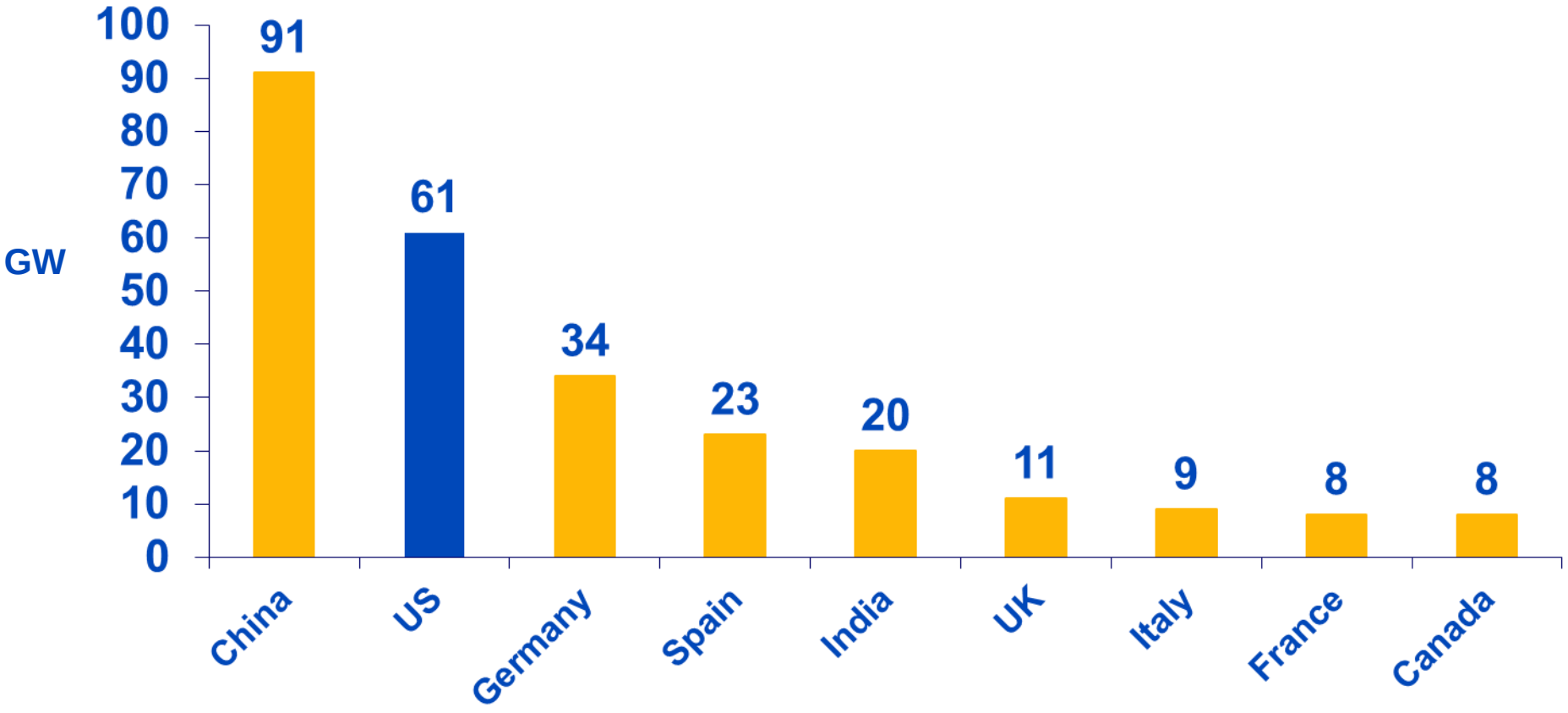
In 2013, China continued as the global leader in installed wind capacity

Cumulative Global Installed Wind Capacity (Year-End 2013)



Global wind capacity at year-end 2002 was 31,100 MW, vs. 318,100 MW today

Source: GWEC

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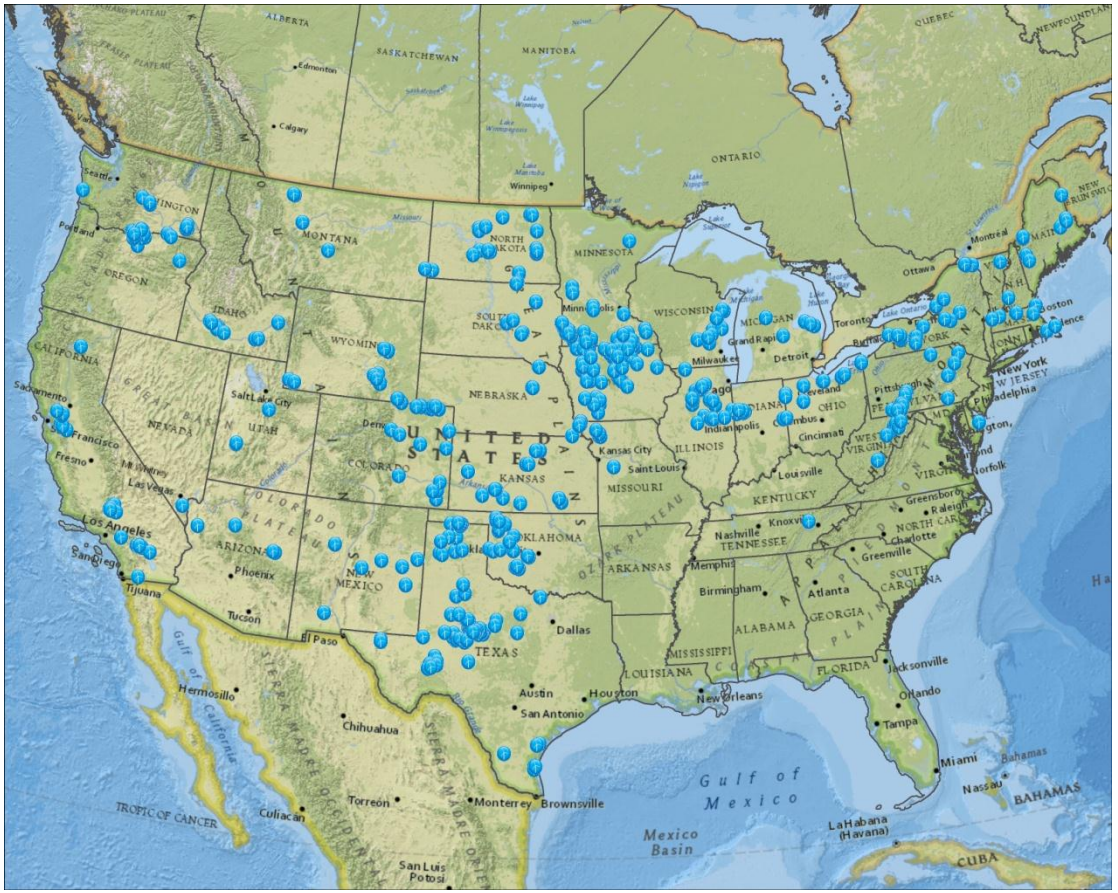
Wind energy is now an established energy source in the U.S., with a growing domestic and global supply chain and rapidly improving technology

Current State of U.S. Wind Energy

- At the end of 2013, U.S. wind capacity was 61,000 MW
- Over 75,000 U.S. wind-related jobs(2)
- U.S. wind production in 2014 will be ~4.5% of U.S. electricity supply(1)



1) Assumes fleet-wide NCF of 34% and national usage of 4,000 TWh
2) Source: AWEA U.S. Wind Industry Annual Market Report, year ending 2012

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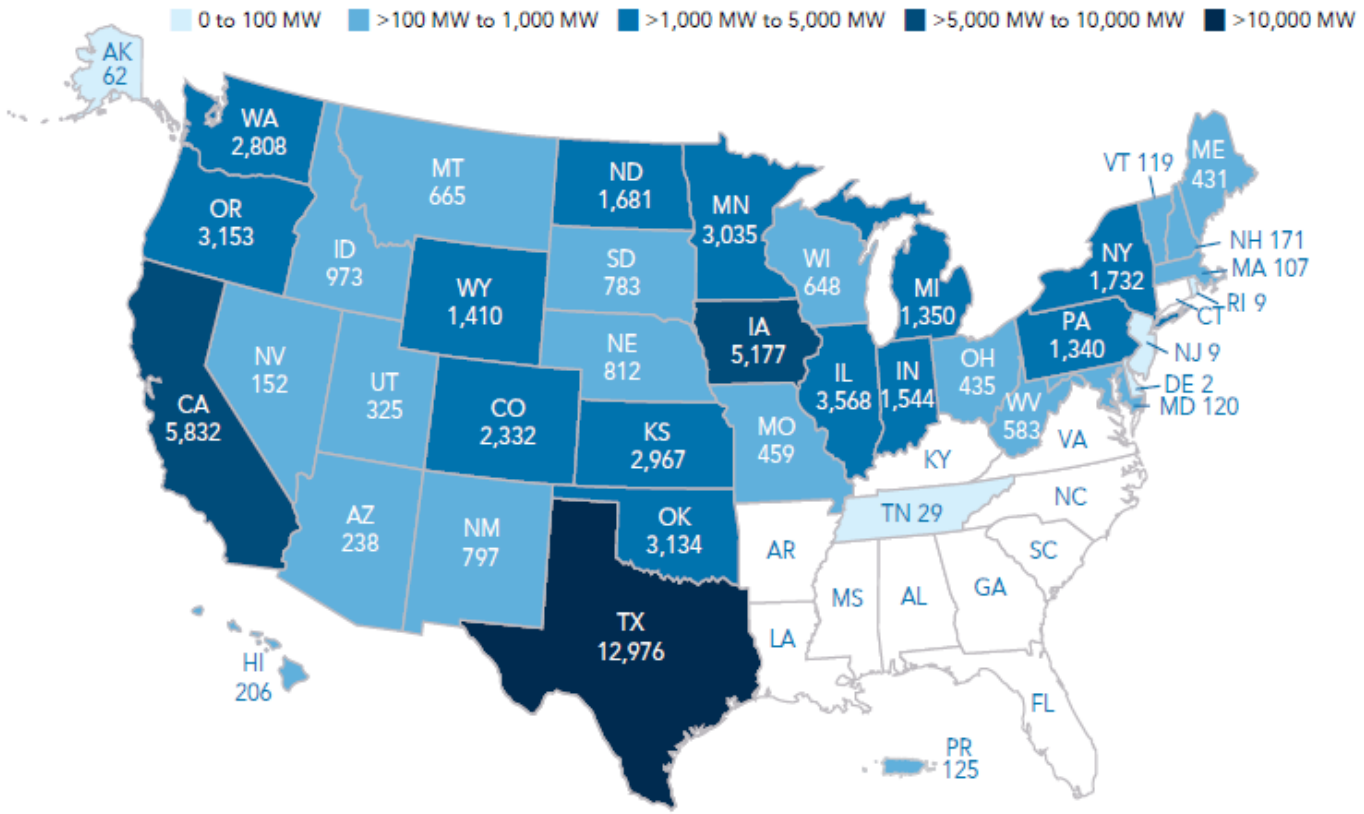
U.S. installed capacity was about 62,000+ MW through 3Q2014

U.S. Installed Wind Capacity



American Wind Energy Association | U.S. Wind Industry Third Quarter 2014 Market Report | AWEA Public Version 5

Total U.S. capacity is now about 19% of all global wind installed

Source: AWEA

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Key Issues or Trends In the U.S. Wind market:

- **Uncertainty about federal tax incentives**
  - Production Tax Credit (PTC) was extended in January 2013, but IRS rules of interpretation effectively state Dec 2015 is a key date
  - “Start of Construction” by Dec 31, 2013
- **Canibalization in 2015 from 2016 demand**
  - 13 GW built in 2012, only 1 GW built in 2013; will 2015 pull forward 2016/2017?
- **Transmission/interconnection costs**
  - Highly fragmented ownership of the grid and across many jurisdictions
- **“Economic Wind” has returned**
  - Below $0.03/kWhr delivered in central region
- **Technological improvements & advancements of wind turbine generators**
  - Longer blades and taller towers
- **Cheaper solar as more efficient panels have made PV Solar almost 50% cheaper than 3-4 years ago**
  - Solar is peak coincident and is now $60-90/MWhr in many regions (wholesale)

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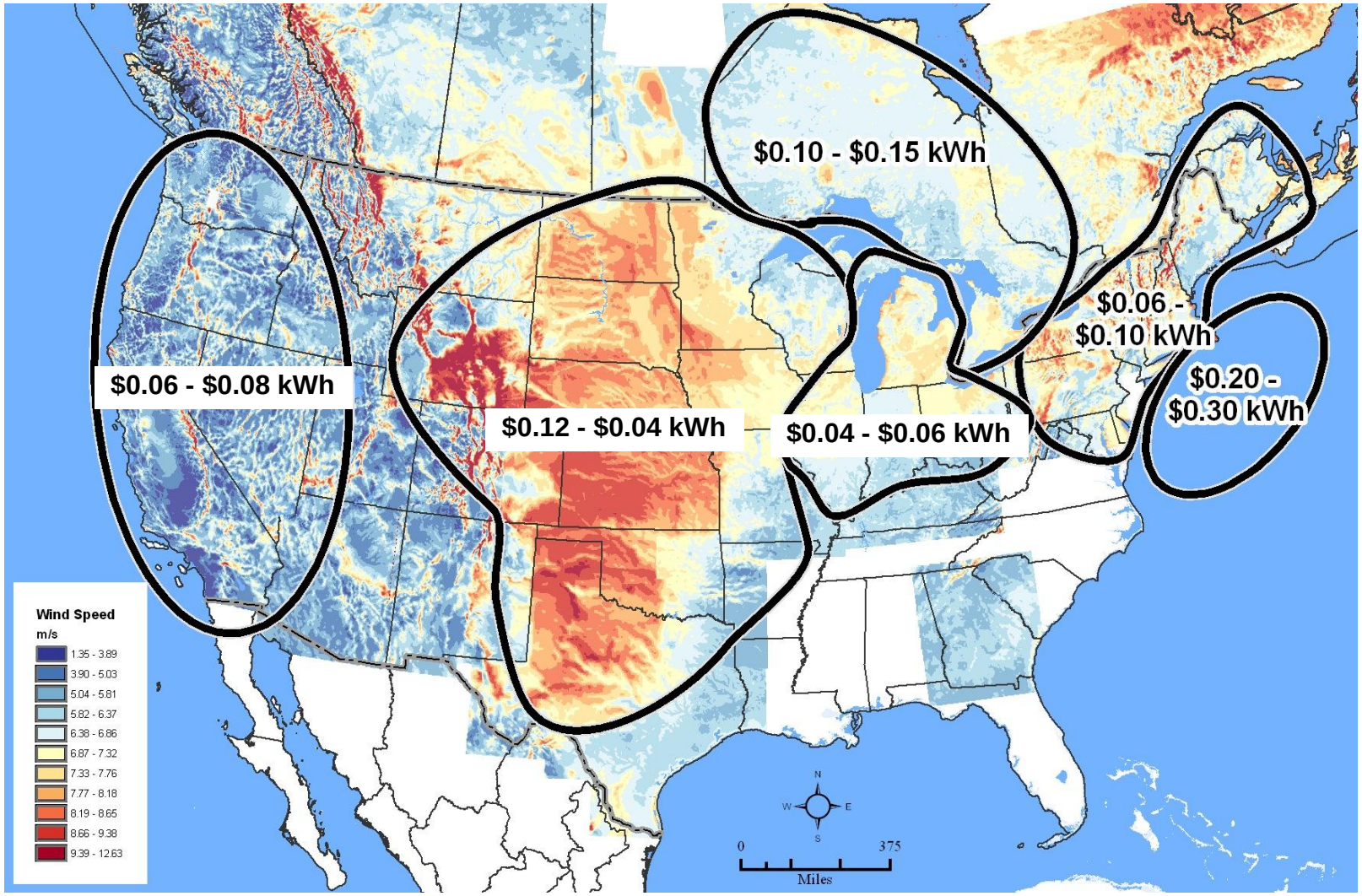
Even with recent government subsidies, offshore wind is not economically wise



Global offshore capacity added in 2013 was 1,600 MW; total now 6,800 MW (out of 318,000 MW)

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Offshore wind, on its economic merits alone, will never likely be built in the U.S.

Offshore "Headwinds"

- **5-10 year permitting; $25-50MM+ per project just to permit**
- **7 to 10 times the delivered cost of onshore wind ($0.20 - $0.30/kWhr vs. $0.03/kWhr)**
  - Even with transmission, 2 or 3x the cost
  - Significant rate impact to local customers
- **NCF efficiency is not an improvement from onshore/Midwest**
- **Insurance/Hurricanes (i.e. Financing)**
- **2 or 3 year construction window to thread PTC "needle"**
- **European motives entirely opposite of U.S. reasons**
  - Onshore resource is ½ of U.S.
  - Local retail rates are high, national Feed-in-Tariffs, public policy
  - Per capita electric usage is lower
- **Even if the equipment was "free," still $0.10-.15/kWhr+++**

Should we grow our orange groves (juice) in North Dakota instead of Florida, just to employ North Dakotans?

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Energy from the wind is unlimited, however constraints exist. Transmission of electricity can not be transported like the internet (wifi) or cell phone coverage

Simplistic Energy Supply Potential from Wind

- **North Dakota alone could support 571,400 GE 1.6 MW turbines or 914,285 MW nameplate**
  - Assuming 70 acres per turbine
  - Approx. 40 MM acres of farmland in ND
- **South Dakota alone could support 628,600 GE 1.6 MW turbines or 1 million MW**
  - Assuming 70 acres per turbine
  - Approx. 44 MM acres of farmland in SD
- **Not practical or possible, but just to illustrate the scale of the issue**

At a 50% NCF, either North Dakota or South Dakota could supply 100% of the electricity used in the U.S. over the course of the year (statistically speaking)

1) Assume NCF 50%, GE 1.6 MW turbines, 4,000 TWh U.S. consumption

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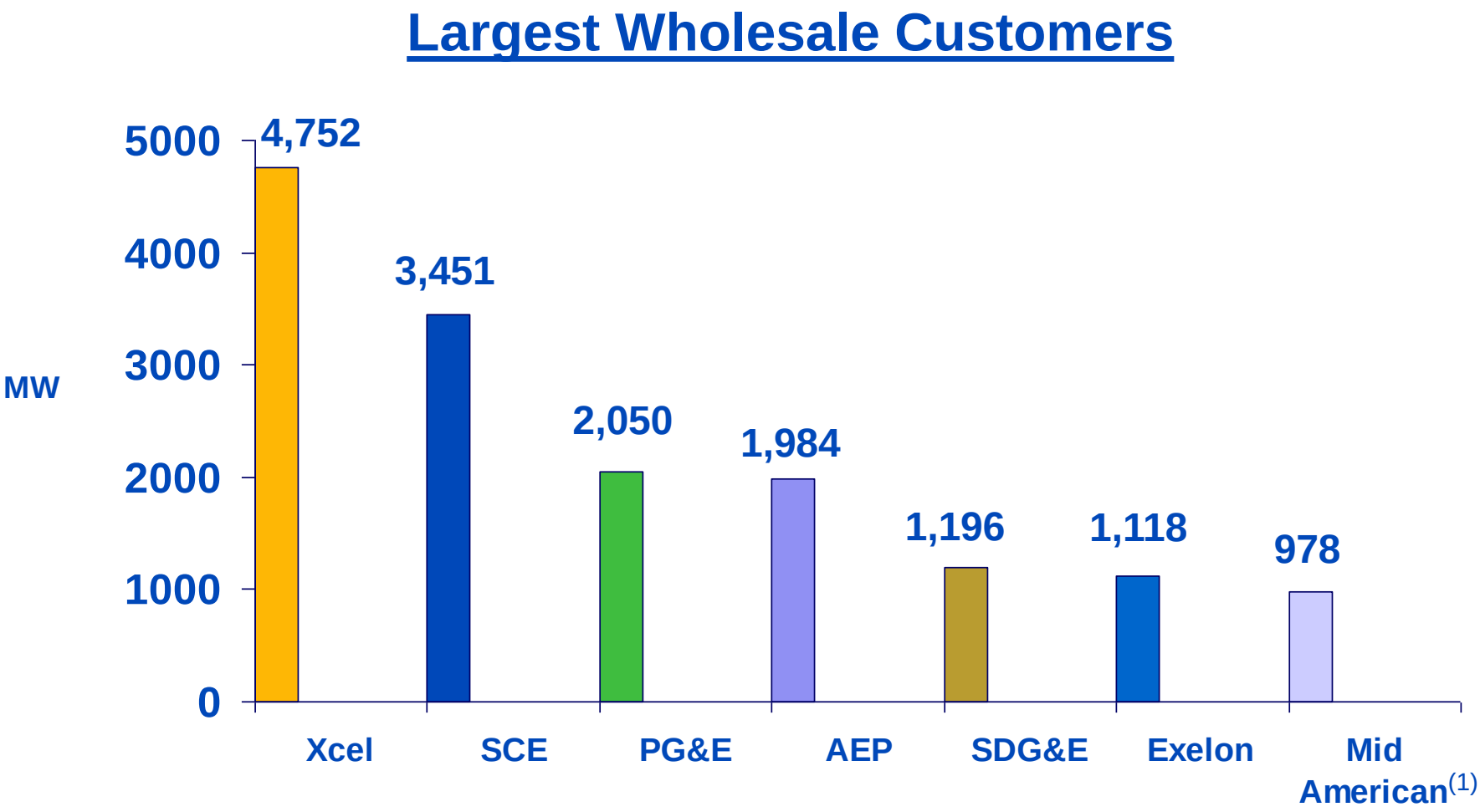
The U.S. Wind Industry's largest customers (PPAs) at year-end 2013

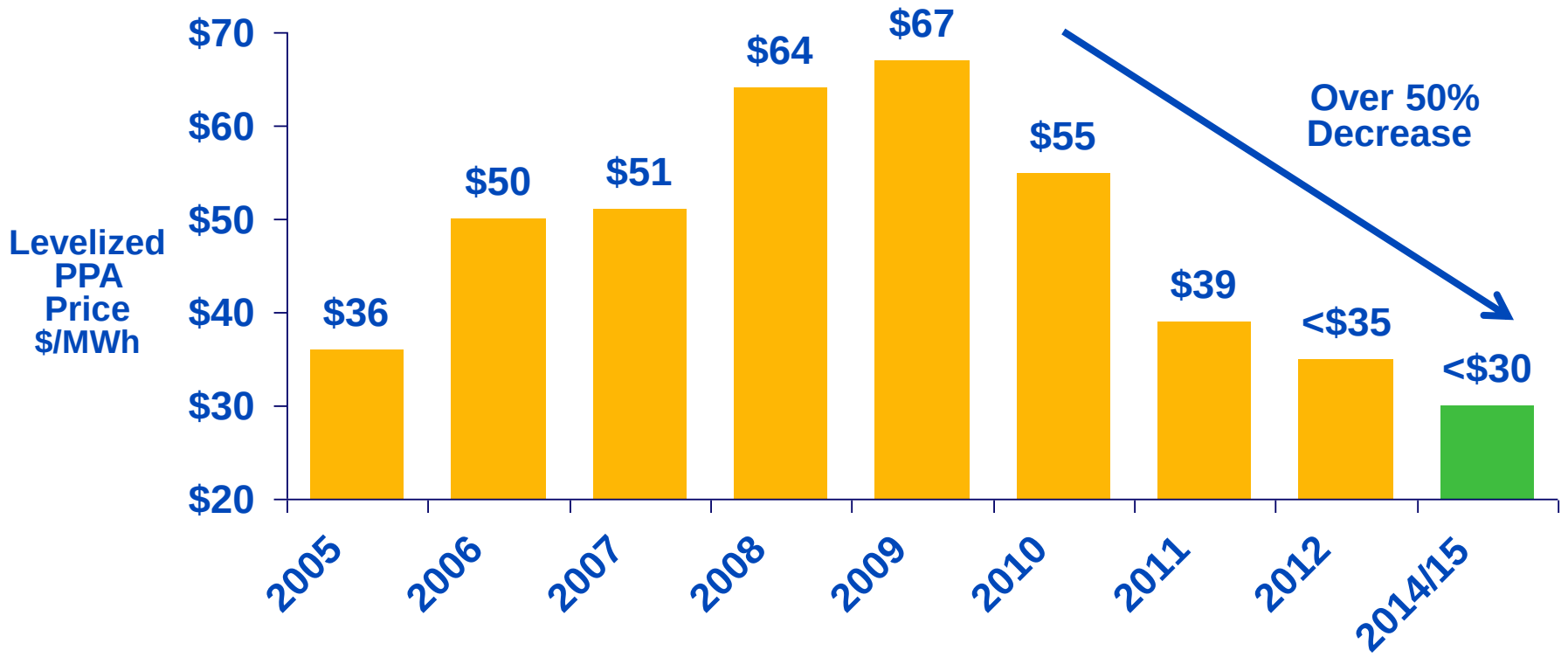


At least 63 Investment Owned Utilities (IOUs) own or contract for wind capacity in the U.S.

Source: AWEA
(1) PPA only

Turbine price reductions and efficiency improvements combined have reduced the average delivered cost of energy from new wind installations by over 50% from 2009 to 2012

Delivered Cost of Electricity from Wind(1)



Wind energy from the best wind regions continues to be competitively priced vs. energy from natural gas and coal

(1) Source: 2005-2011 Lawrence Berkeley National Laboratory - March 2013 Report; 2012 and 2014/15 are NEER estimates based on a typical 100 MW Midwest project

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Turbine price reductions, combined with technological advances in blades and towers, have significantly reduced the levelized cost of energy (LCOE)

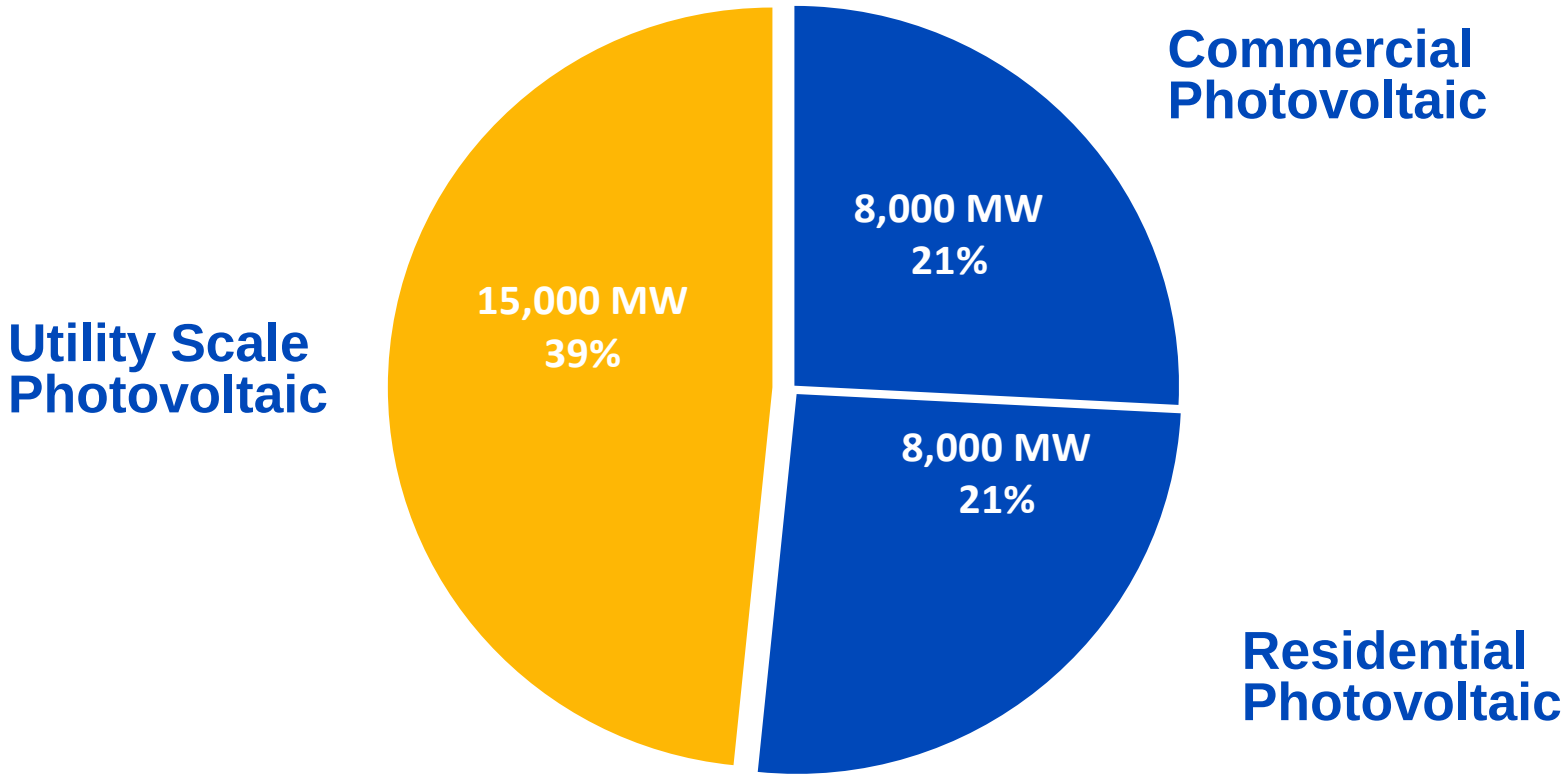
Typical Midwest Wind Economics for a 100 MW Project Over Time

	2001	2008	2014
Wind Turbine Technology	Vestas V47	GE 1.5 XLE	GE 1.7 XLE
Rotor Diameter (Blade Length)	47m	82m	100m+
Hub Height (Tower Height)	65m	80m	80-100m
All-in Capital Cost ($/kW)	<$1,000	>$2,000	~$1,800
Net Capacity Factor	35%	42%	50%
PTC Value ($/MWhr)	$17	$21	$23
PPA Price (levelized) ($/MWh)	~$30	$50+	<$30

Illustrative examples shown above

Some experts expect solar generation to represent over 30 GW cumulative installed capacity in the U.S. by 2016; more than half is expected to be utility scale solar photovoltaic installations

Projected U.S. Photovoltaic Solar Capacity 2016

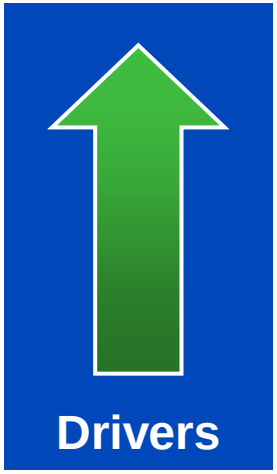


Data in MWdc

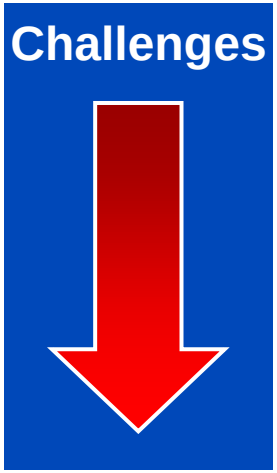
Source: GTM Research – U.S. Solar Market Insight Report Q2 2014

The solar market presents both opportunities and challenges for developers and sponsors

Solar Market Drivers and Challenges



- **Renewable Portfolio Standards (RPS)**
  - Solar carve outs in many states
- **Peak coincident resource (unlike wind)**
- **Improving technology and declining installed costs**
  - In particular, solar photovoltaic



- **Still high cost renewable resource in most regions**
- **Falling prices delaying decisions by off-takers, bur 2016 ITC "Cliff" accelerates some demand**
- **In the Midwest & East, still very expensive vs. other choices**
- **Canibalizing demand for 2017/18 forward?**

In 2013 & 2014, an additional 3,000 MW of utility-scale solar was installed in the U.S.; Global PV installations, are now approaching 100,000 MW cumulatively

Key issues or trends in the U.S. Solar Market

- **Significant price declines in technology (PV) in the last couple of years have allowed many projects to get "off the ground"**
- **May see smaller projects (10-50 MW) going forward due to size constraints of the customer and concern over size and pricing**
  - Pricing has dropped from over $0.15/kwh 3 years ago, to below $0.09/kwh (wholesale)
- **Federal legislation gives the solar industry significant support until 2016 (30% tax credit); tax credit is scheduled to drop to 10% in 2017**
- **Monetizing the tax shield from MACRS (accelerated depreciation) efficiently will be a key focus of project sponsors**
  - As will be efficient use of the 30% Investment Tax Credit (ITC)
- **Net metering and Rooftop/Distributed Generation**.

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The space for photovoltaic technologies is crowded, with most players focusing on the traditional silicon technologies

Photovoltaic Technologies

Technology	Leading Players	Examples
Traditional Silicon	MOTECH, evergreensolar, SUNPOWER, JA SOLAR, SUNTECH, SolarWorld, Trinasolar, Q.CELLS	
Thin Film	UNI-SOLAR United Solar Ovonic, First Solar	
Concentrators	AMONIX, sol3g, Concentrix solar	

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The global solar market has been dominated in recent years by Feed-in-Tariffs (FiT) in Western Europe

Solar PV in Europe

- **At year-end 2013, just over 70 GW of utility-scale and rooftop solar PV was installed in Europe(1)**
  - Very few would meet U.S. definition of "utility-scale"
  - Over 60 GW is likely less than 1 MW in size, with significant residential and distributed installations
  - No owner/portfolio of PV was greater than 300 MW at year-end 2011 - very fragmented
- **FiT tariff rates in Europe for PV have been in the $0.30-$0.60/kwh range historically, until recently dipping below the $0.15-$0.20/kwh range**
  - Retail rates in Europe tend to be $0.25-$0.30/kwh vs. U.S. average of ~$0.10/kwh
- **Germany alone added almost 5 GW of PV in 2013. Other EU countries cumulatively added another 7 GW in total**

Germany will approach 36 GW of PV this year, with recent law mandating lower limits (to go with their 34 GW of wind)

1) IHS/Emerging Energy Research

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Energy from the sun is unlimited, if constraints did not exist

Theoretical U.S. Capacity Potential from PV Solar

- U.S. summer peak non-coincident demand ~800,000 MW
- 80-100 MW of PV requires ~1 sq. mile in the southwestern U.S.
- ~8,000 sq. miles of PV solar would meet entire U.S. electric peak demand
- Roughly 50% of the energy the U.S. consumes in a year

Like wind, this is not practical or possible, but just to illustrate the scale of the issue

Cost decreases and efficiency gains in photovoltaic panels have caused large-scale solar pricing to drop significantly

Southwest U.S. Wholesale
Solar Photovoltaic Pricing Evolution

Construction Start	2011	2013	2015
Panel Efficiency	14.6%	15.6%	16.7%
Panel Pricing	$1.40-$1.60/Wdc	$0.65/$0.75/Wdc	$0.55-$0.60/Wdc
Balance of System	$1.60-$1.40/Wdc	$1.35-$1.25/Wdc	$1.25-$1.20/Wdc
Total Cost	**$3.00/Wdc**	**$2.00/Wdc**	**$1.80/Wdc**
Net Capacity Factor	27% (fixed-tilt)	34% (tracking)	34% (tracking)
Avg. PPA Pricing	**$150/MWh**	**$90/MWh**	**$75/MWh**

Illustrative Examples

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Regulatory changes, increased renewable energy penetration and battery cost reductions create short and long term storage opportunities

Why Energy Storage?

- **Recent regulatory changes allow batteries to provide services historically performed by fossil generation**
  - FERC Order 755 mandated ISO's to "pay for performance" regarding frequency regulation
  - California mandate of 1.3 GW of energy storage by 2020
- **Increased renewable penetration can create local system disruptions which batteries can alleviate**
  - Wind curtailment reduction, congestion relief, transmission deferral
- **Future battery price reductions create new opportunities**
  - Firming & shaping, demand charge reduction and local capacity
  - Competitors to purchase (CTs) at some point if prices improve enough
- **Minimum Technical Requirements**
  - Islands such as Puerto Rico and Hawaii require generators to use batteries to control ramp rate, frequency response, etc.

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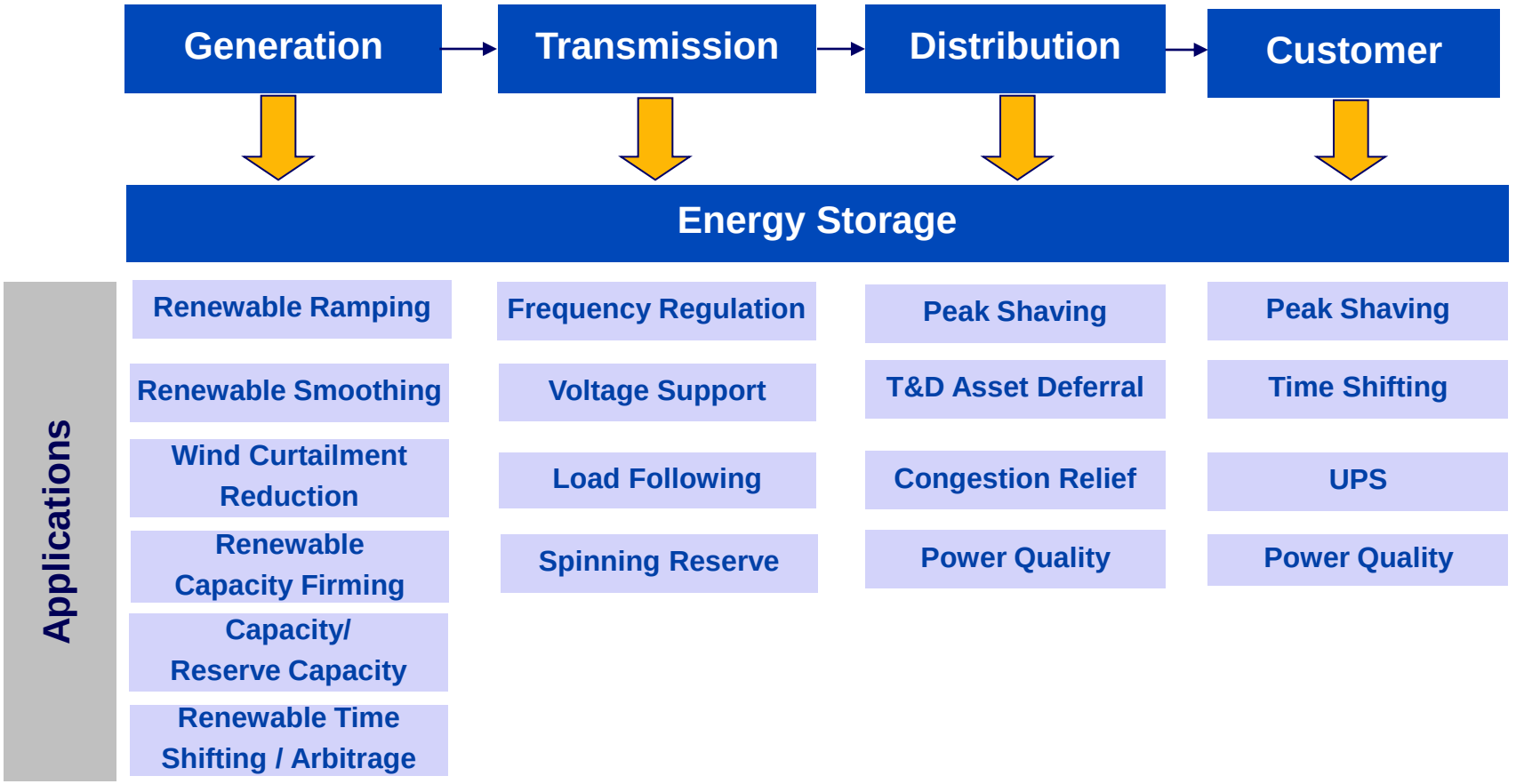
Energy storage applications span multiple disciplines within an integrated utility

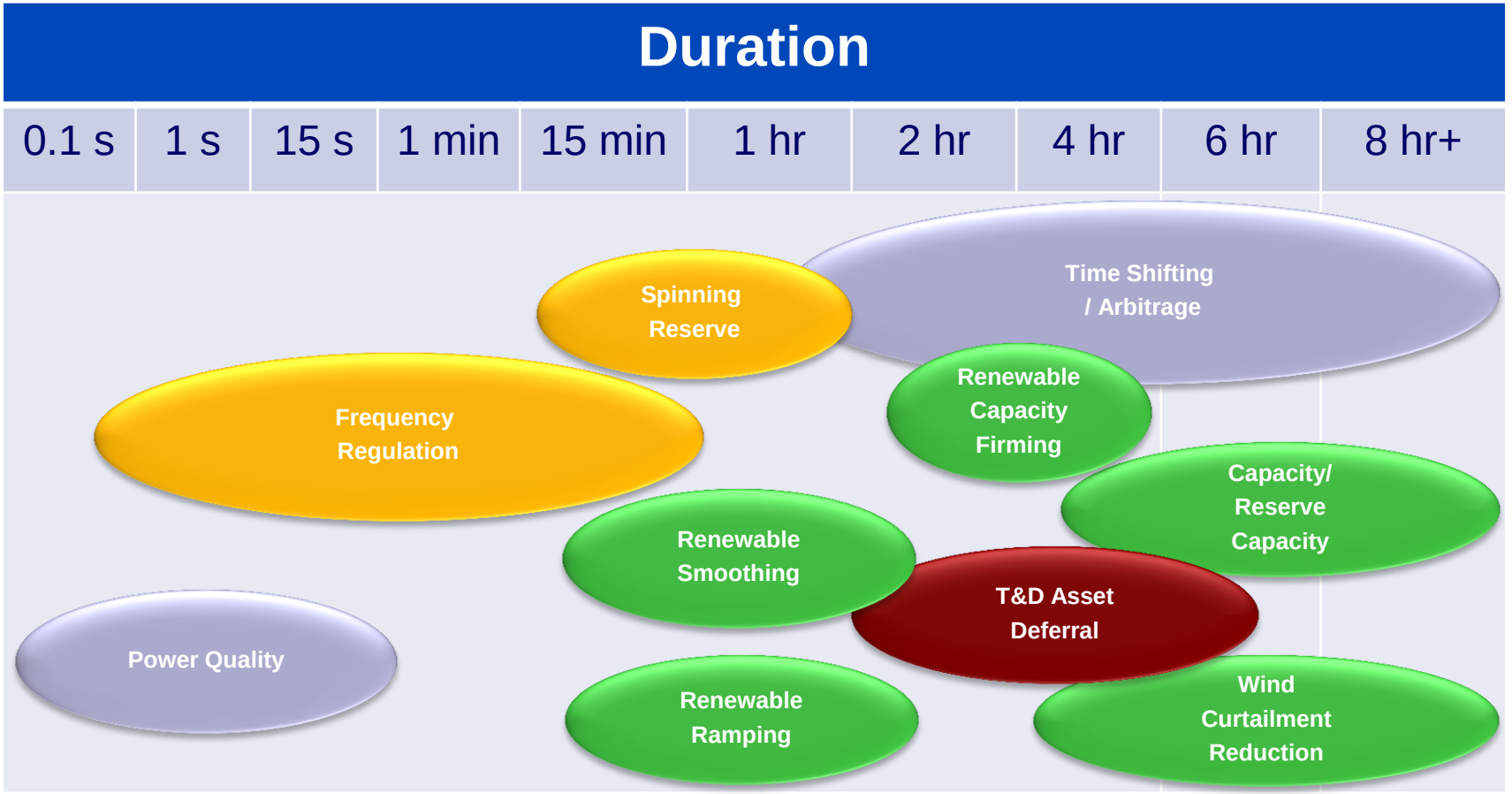
Energy Storage Applications



Each utility and balancing authority could use a different application based on unique system characteristics

Applications vary on the amount of energy duration they require in order to provide the associated service

Selected Storage Applications' Duration

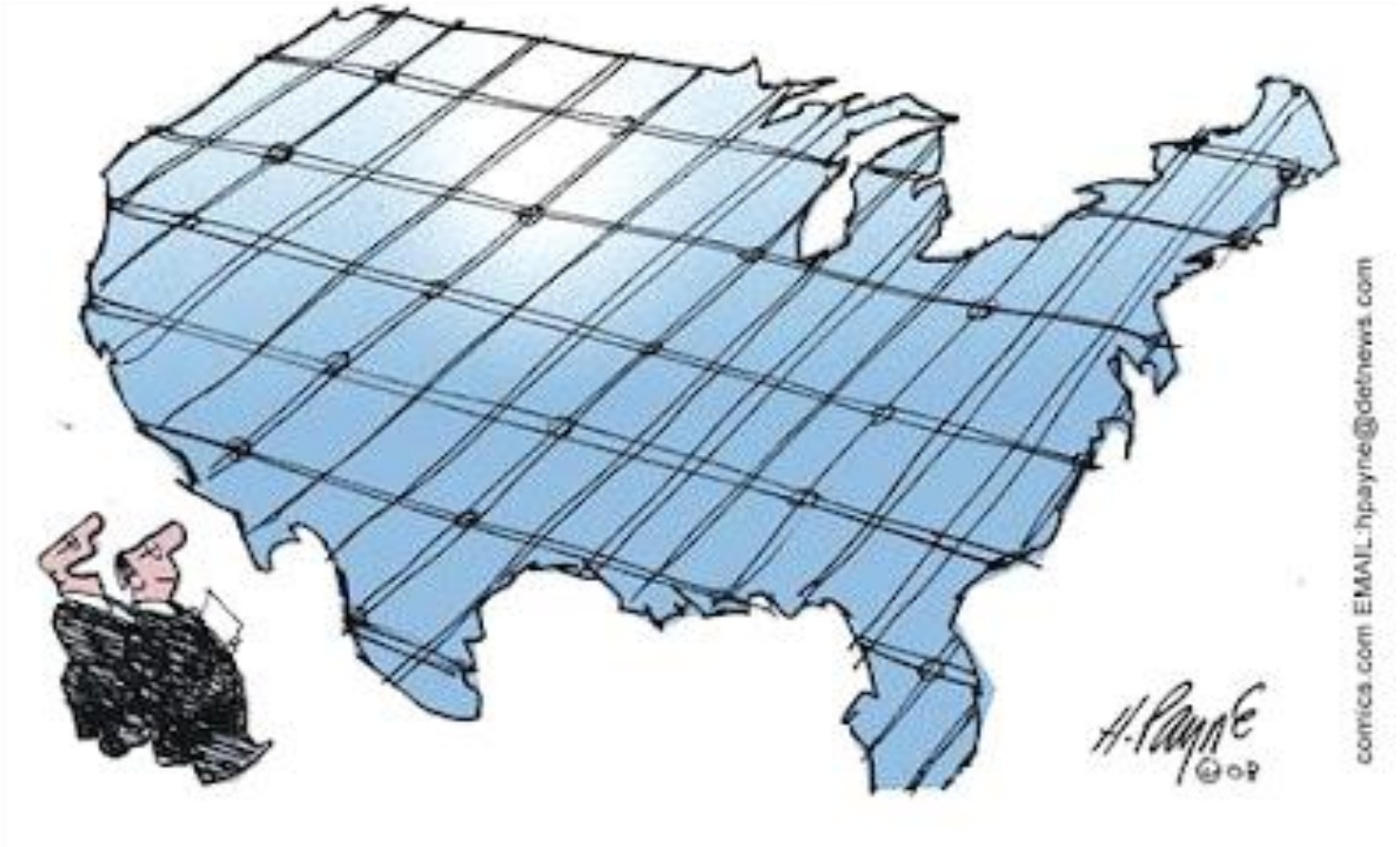


The energy storage technology landscape consists of integrators, power electronics suppliers, commercial-scale battery vendors and emerging technologies

Energy Storage Technology Companies

	Players
Integrators	GREENSMITH, Geli, DEMAND energy, stem, Silent Power INC., green charge networks, XP Xtreme Power, 1energy, Tangent energy solutions, SUNVERGE, SOLAR GRID storage, SPIDER
Power Electronics Suppliers	ABB, Parker, DYNAPOWER COMPANY, PRINCETON POWER SYSTEMS, S&C, Schneider Electric
Battery Vendors	SAMSUNG, GE, Altairnano, amprius, A123 SYSTEMS, BYD, CODA, K2 Energy, LG Chem, DOW KOKAM, EAST PENN manufacturing co., inc., electrovaya, LISHEN, Prieto Battery, UET, ZBB, saft, SAKTI3, EnerVault, PRIMUS POWER, Prudent Energy, 24M, Deeya Energy, Premium Power, redflow, Sumitomo, Sun Catalytix, WattJoule
Other Storage Vendors	eos, AMBRI, magpower, ENCELL technology, POWERGENIX, Advanced Battery Concepts, AQUION ENERGY, QuantumScape, Beacon POWER, StorWatts, SustainX, LightSail Energy, URBAN ELECTRIC POWER, Gridtential, FLUIDICENERGY

Questions



"WE FINALLY INSTALLED ENOUGH SOLAR CAPACITY TO REPLACE OUR COAL DEPENDENCY... HAD TO MOVE THE ENTIRE U.S. POPULATION TO CANADA, THOUGH."