



Distributed Wind 2016

Distributed Wind 2016

Thank you to our sponsors!

Gold Sponsors



Silver Sponsor



Valued Quality. Delivered.





Distributed Wind 2016

Distributed Wind 2016



Keynote Address

David Arfin

CEO of First Energy Finance &
Creator of SolarLease®

Game-changer

How Business Model Innovation Transformed
the US Residential Solar Market and What Can
Distributed Wind Do To Grow
Bigger/Better/Faster

DAVID ARFIN

Feb 23, 2016

Washington, DC



FirstEnergyFinance

1

The perfect Storm

Conditions that changed the game

An Unlikely Innovator

I never cared about a kilowatt or kwh rates, corporate tax credits, accelerated depreciation, utility meters

Nor had I heard about ITC, RECs or partnership flips

“Inconvenient Truth” got this entrepreneur thinking – driven to both do good and do well

Middle of home roof replacement. Received 3 Quotes for solar; best was a 33-year “simple payback”
(\$15k to help the environment?)

Researched: why anyone went solar?

Policy/ Investment/ Innovation

Nascent industry. Been around 30+ years.

Unknown consumer technology. Expensive. Un-aesthetic

Immature industry - lack of investment downstream.

Policy environment – generally positive*

Core economics were sound, but not a no-brainer.

Thinking inside industry was “stale”.

In addition to lower priced panels – we needed a “game changer”.

And – it’s only the beginning...

A New Generation

Rive Brothers + Elon Musk (SolarCity)

Hub of activity: SunRun, CPF, SolarCity and Sungevity and “friendly” competitors raised the game

New IT platforms –

Enhancing quoting, delivery, monitoring, financing and measuring of systems and people

Access to capital for downstream to expand

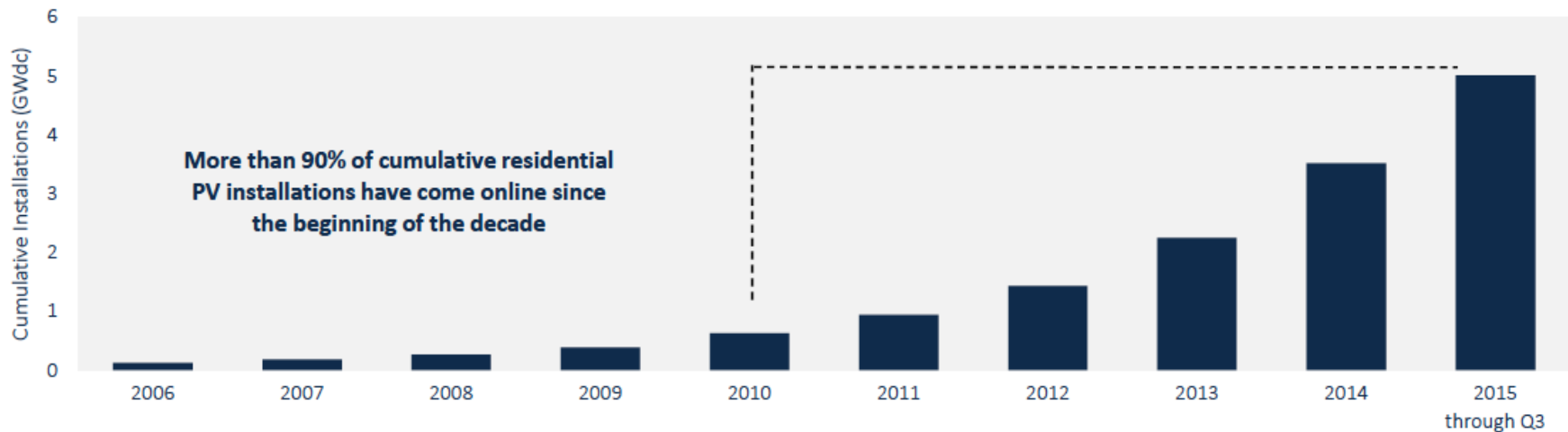
De-risking capital providers and overcoming “3rd mortgage but less secure” in 2008

Catalyst – Was not physics, chemistry or engineering

Business models changing solar power

Consequence : Staggering Growth Rates

Residential solar in the U.S. has grown by impressive strides over the past decade



Source: GTM Research/SEIA, Q3 2015 *U.S. Solar Market Insight*

Residential PV is the fastest-growing market segment in U.S. solar, expanding by at least 50% over the past three years.

- Between 2010 and Q3 2015, quarterly capacity additions have increased tenfold.
- By Q1 2016, the cumulative number of U.S. homeowners with rooftop solar will eclipse the 1-million mark.

2

Solar Lease

Why it works

Why Does Solar Leasing* work?

Morphs the “selling process” from overcoming barrier of **up-front capital** cost to offering a **low-cost substitute** for grid electricity

Shifts risk / responsibility from homeowner **to** responsible **third-party** service provider

Aligns solar electricity **with traditional utility payment** lease/PPA payments structures (i.e. heat, electricity, phone, cable)

Often a **Immediate**, visible **reduction** in bills

Lock-in rates and/or guaranteed production**

Allows homeowners to “**do the right thing**” **without** having to write a large (or any) **check upfront**

*Solar Leasing and PPA are two sides of same coin

Residential “Solar as a Service”



- 1. Qualified homeowner signs lease**

Residential “Solar as a Service”



2. Qualified installers design and complete project

Residential “Solar as a Service”



3. Lessor receives benefit streams

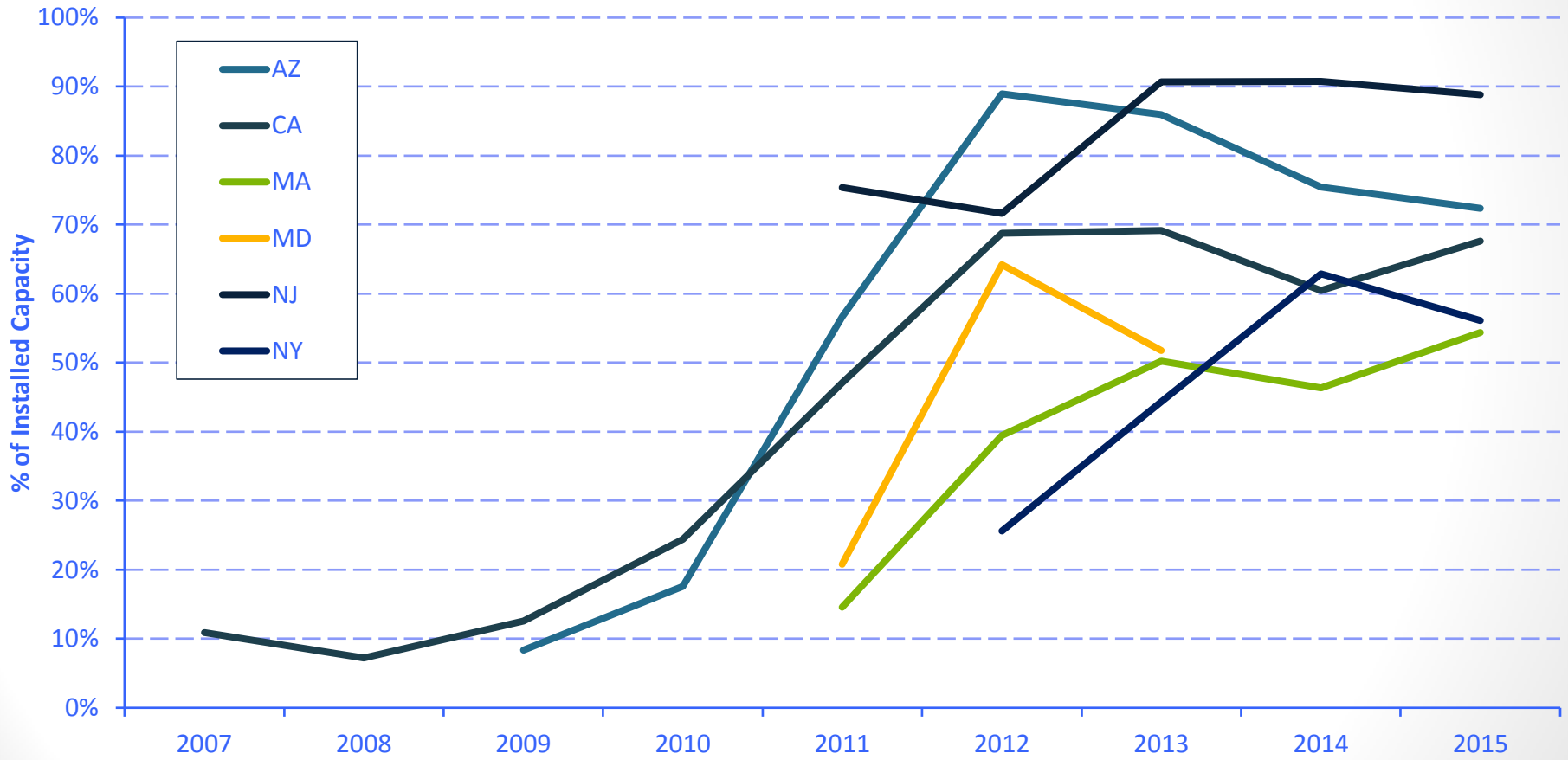
(ITC, rebates, SRECs, lease/ppa payments, depreciation, etc.) & allocates efficiently among financing partners

Residential “Solar as a Service”



**Residential Solar Lease –
A Game Changer**

3rd Party System Ownership by Region



Sources: CSI Database, accessed 03/13/13; MA SREC Program, accessed 03/13/13; Arizona Public Services, & Salt River Project accessed 12/12/12 (APS), 03/25/13 (SRP); Maryland Energy Administration (03/12/13)

3

It's not just Solar !
Energy Technology Diffusion

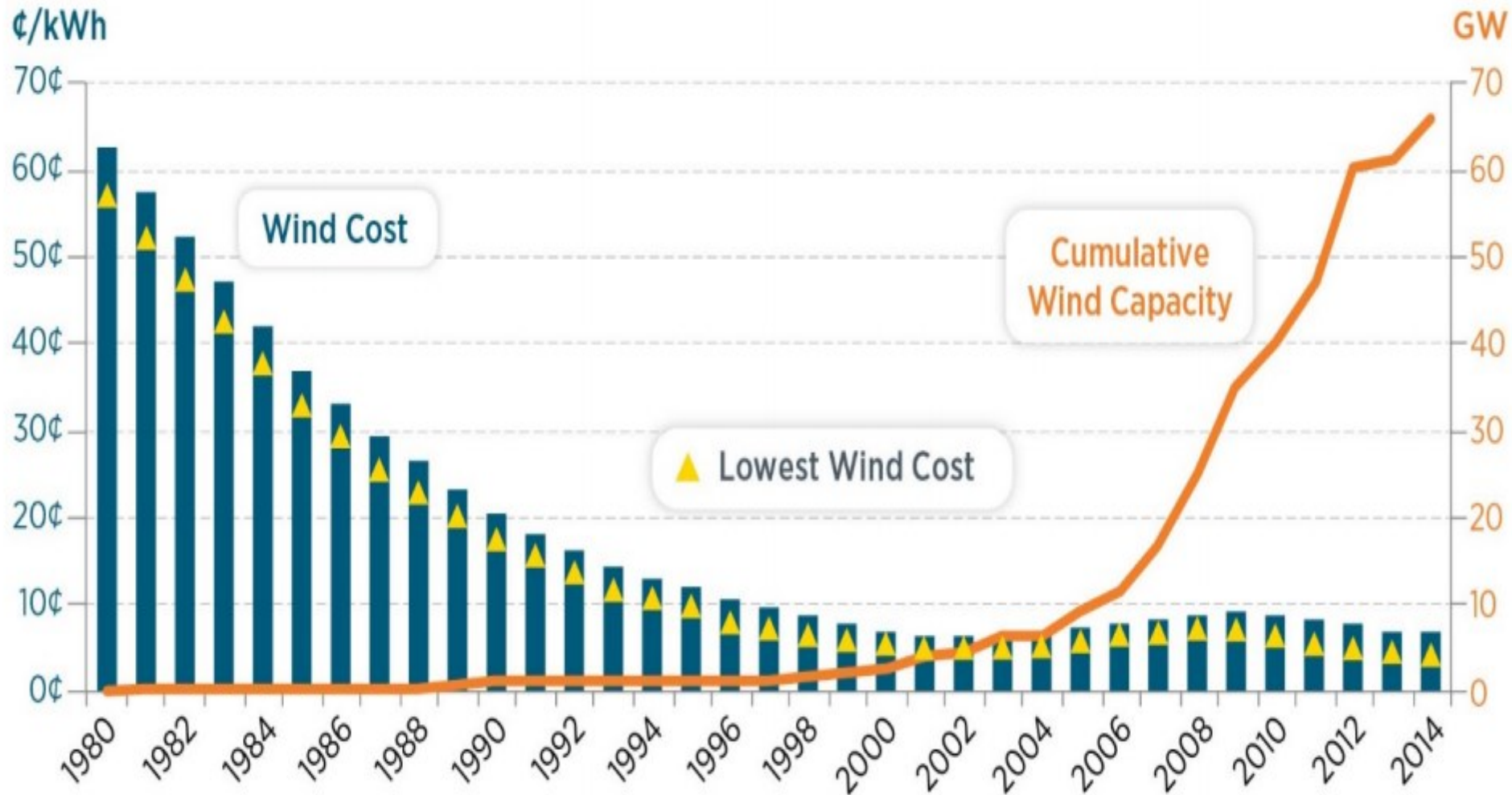
Two high-level concepts

Moore's Law for Cleantech: Prices drop at an exponential rate as we deploy renewable energy resources

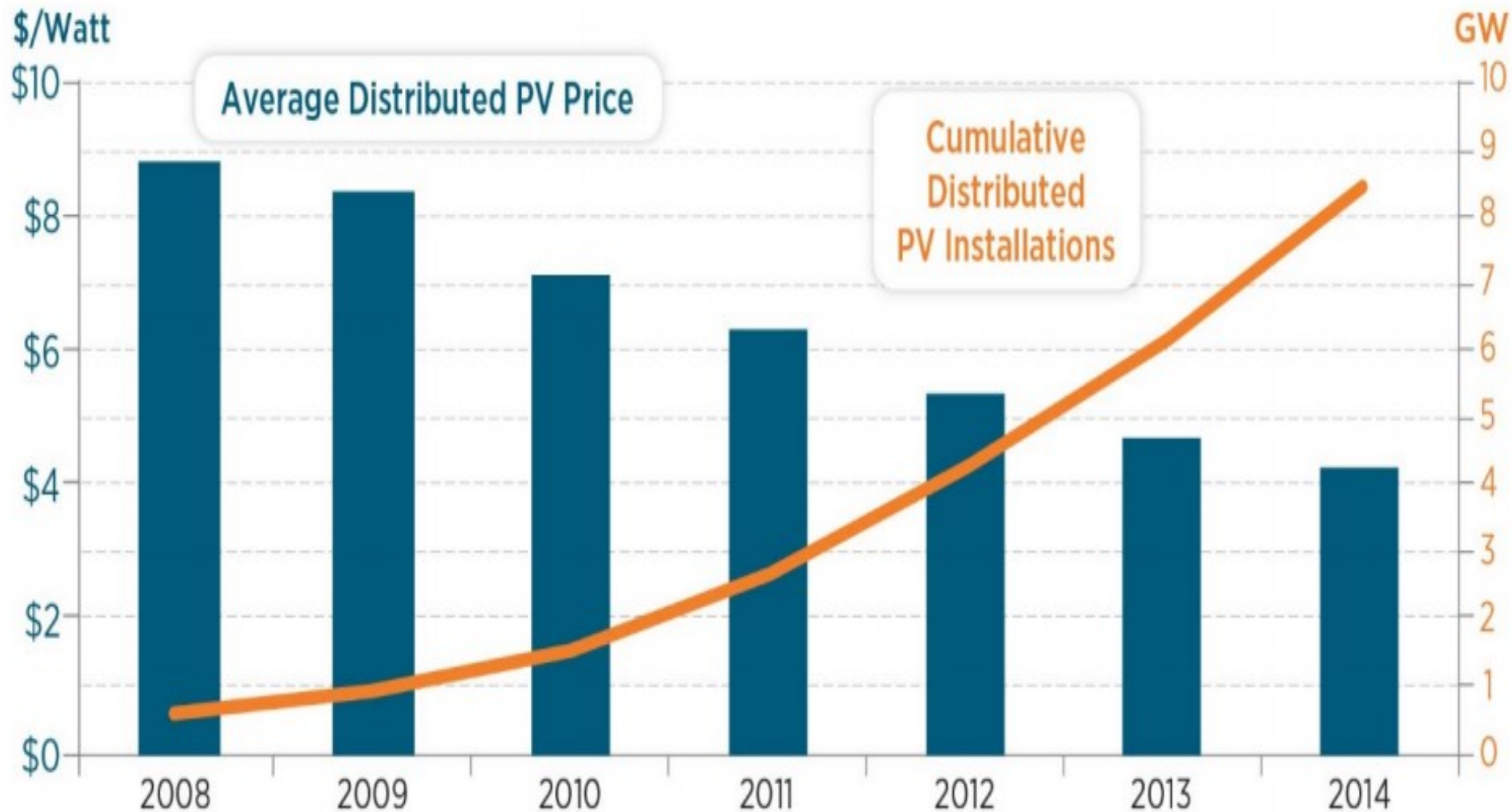
Diffusion of Cleantech Innovations: Adoption grows at an exponential rate as prices drop

Trend is seen for solar, wind, EVs, LEDs

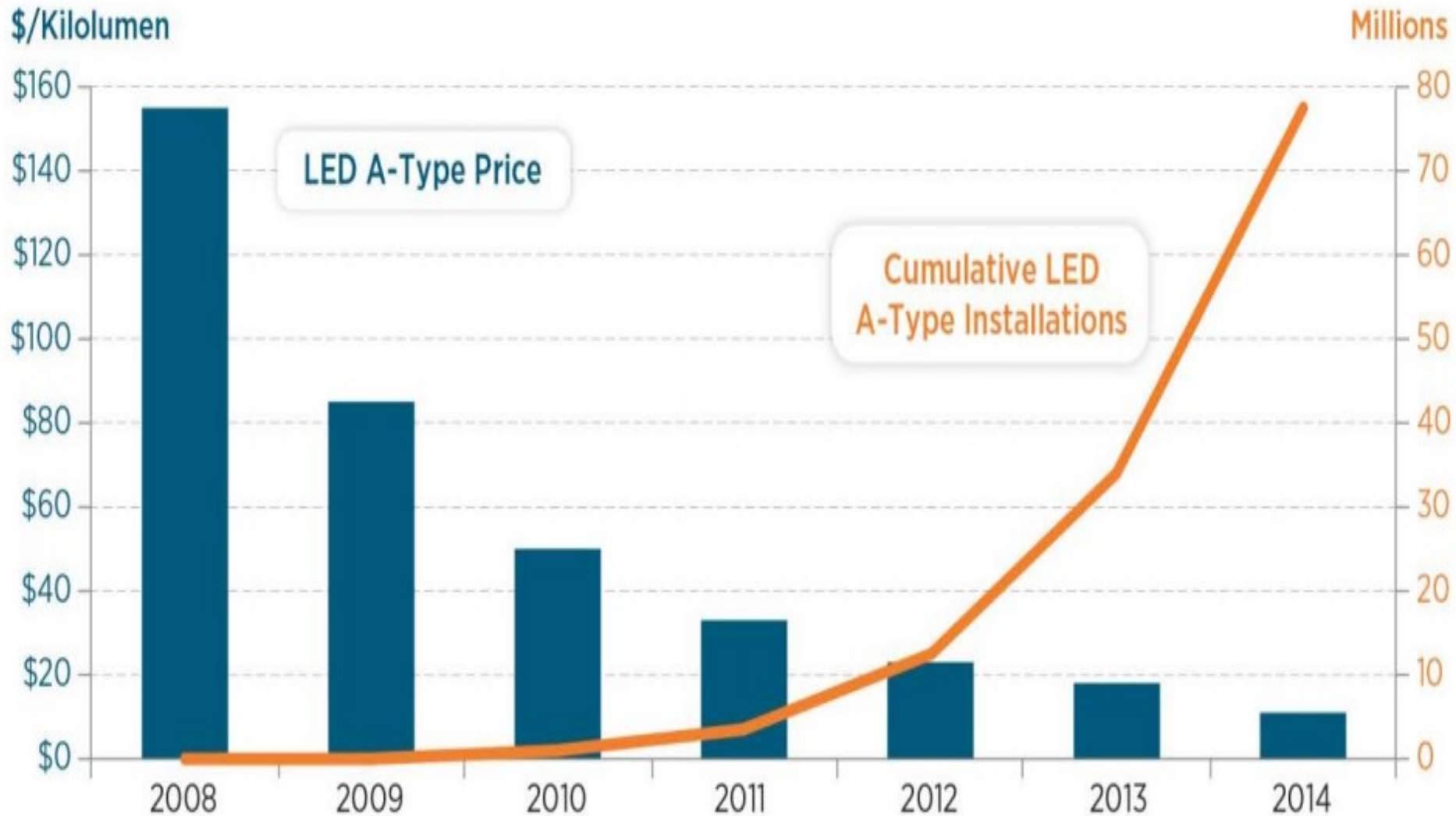
Land based Wind Power



Solar PV : Distributed Generation

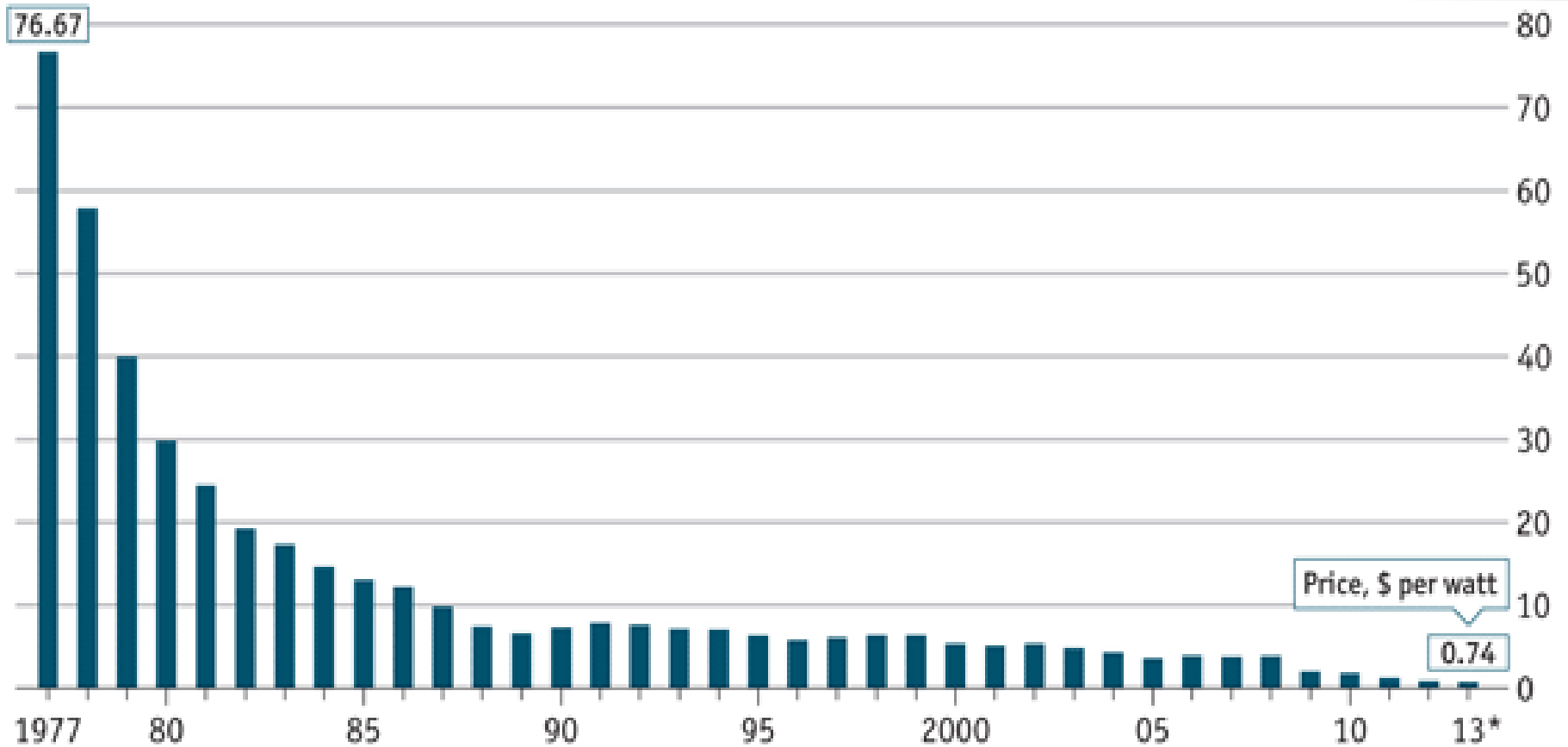


LED Lighting



The Swanson effect

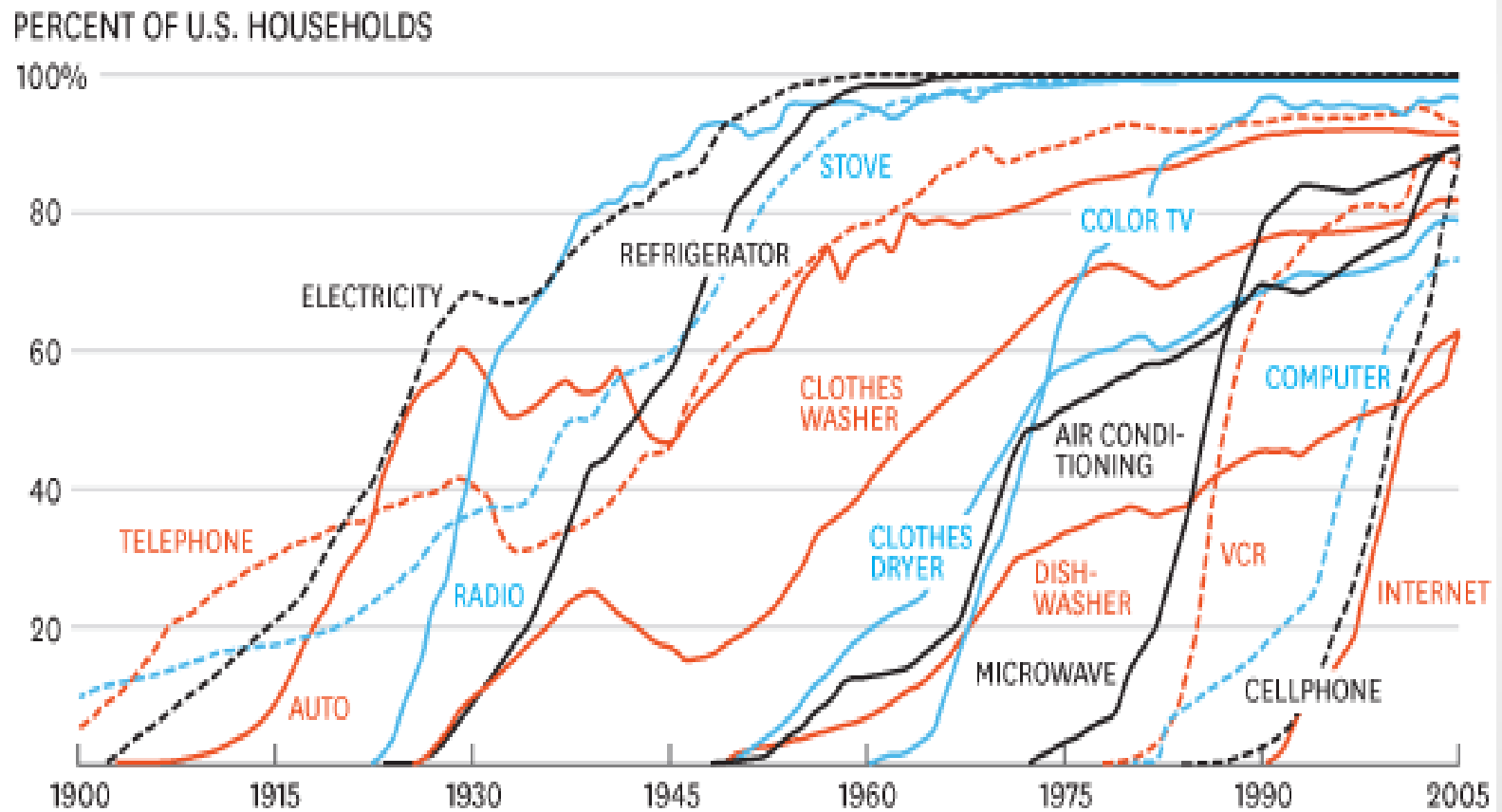
Price of crystalline silicon photovoltaic cells, \$ per Watt



Source: Bloomberg New Energy Finance

*Forecast

Consumption spreads faster today



SOURCE MICHAEL FELTON, THE NEW YORK TIMES

HBR.ORG

Diffusion of Innovations Theory

Tells us about the social and behavioral aspects behind the adoption of new technologies.

Some trends: adoption has been speeding up over the last century: it 10 years for cell phones to match the market size that took landline phones 100 years

Typically, infrastructure renewal (like energy generation or transportation infrastructure) about 55 years to move from one innovation to the next

But with distributed infrastructure, this process can happen much more quickly, because it builds on previous generations rather than starting from scratch (just as a cell phone system is distributed hardware connected to the telephone network)

Thoughts About Risk. It's not just the technology

- Will the SYSTEM actually produce? How do we build confidence for 20 years?
- What happens if it stops working? Who pays for repair and down time?
- Will it impact property values (customer and neighbors)?
- Will it impact customer's ability to borrow?
- What are tax implications?
- What happens if customer sells property?
- Will off-taker pay?
- Will utility play nicely? Timely?
- Who really influences customer (accountant? Banker? Trade Association? Spouse? Guys at the watering hole?)
- Is contract comprehensible? Can you explain it to your aunt?
- What about Servicing?
- And then are are utility rate projections. (Certain Solar)

Call to Action – Roadmap to Replicate Success of Financed Solar

Easy Value Proposition for customer

Full Product Integrated with Finance

Aggressive, professional sales.

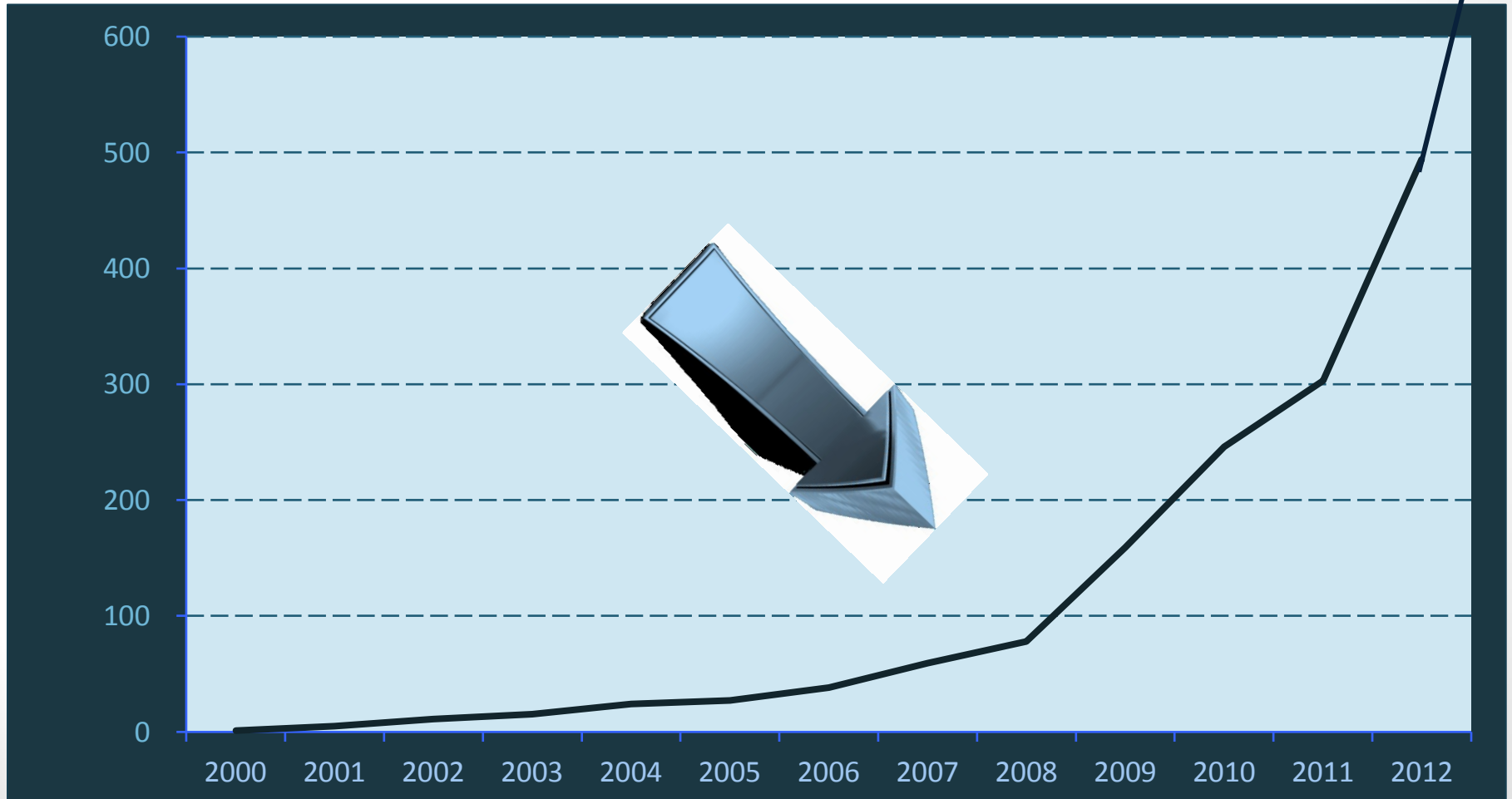
Creative back-end financing

Aggressive policy advocacy

Competition is not sitting in this room. It's
inertia.

And again -- Easy Value Proposition for customer

Can Distributed Wind Do This?



Sources: GTM/SEIA

THANK YOU!

David Arfin

david@firstenergyfinance.com



FirstEnergyFinance



Distributed Wind 2016



Leaders Panel: State of the Industry

Moderator

Larry Flowers, G4Wind

Speakers

Mike Bergey, Bergey Windpower

Mark Jones, EWT

Dan Juhl, Juhl Energy

John Pimentel, Foundation Windpower

Brett Pingree, Endurance Windpower

Russell Tencer, United Wind



Distributed Wind 2016



Federal Agency Opportunities & Updates

Moderator

Scott Sklar, Stella Group, Ltd.

Speakers

Kevin Kampschroer

Director, Federal High Performance Green Buildings, U.S. General Services Administration (GSA)

Venus Welch-White

Climate Change Program Office, U.S. Department of Agriculture

Robert Dixon

Senior Advisor, Office of Energy Efficiency & Renewable Energy, U.S. Department of Energy



The Stella Group, Ltd.

The Stella Group, Ltd.. is a strategic technology optimization and policy firm for clean distributed energy users and companies which include advanced batteries and controls, energy efficiency, fuel cells, geexchange, heat engines, microhydropower (including tidal and wave), modular biomass, photovoltaics, small wind, and solar thermal (including CSP, daylighting, water heating, industrial preheat, building air-conditioning, and electric power generation). The Stella Group, Ltd. blends distributed energy technologies, aggregates financing with a focus on system standardization. Scott Sklar serves as Steering Committee Chair of the Sustainable Energy Coalition, composed of the renewable and energy efficiency associations and analytical groups, and sits on the national Boards of Directors of the non-profit Business Council for Sustainable Energy and The Solar Foundation, teaches two unique interdisciplinary sustainable energy courses at George Washington University, and appointed onto the USDOC RE/EE Advisory Committee, where he serves as its Chair thru June 2016.

The Stella Group, Ltd. 706 North Ivy Street, Arlington, VA 22201
703-522-1195 www.TheStellaGroupLtd.com solarsklar@aol.com

THE US GOVERNMENT IS:

- the largest user of energy in the world**
- the largest owner of buildings in the world**

THE US GOVERNMENT HAS REQUIREMENTS TO:

- work with small businesses**
- meet Clean Air Act emissions requirements**
- meet energy efficiency & renewable energy goals**
- meet greenhouse gas emissions reductions**
- regional requirements on water reduction, noise, habitat protection and resiliency**

GSA Asset Portfolio



- 9700 Buildings; 1.1 million people
- 370 Million Square Feet; >1/2 Leased
- Replacement Value: \$70 Billion
- Revenue: \$9.8 Billion/Year
- Capital Budget 2012: \$0
- Infrastructure Needs: \$4 Billion

DoD Real Property (2008)

- 545,714 Facilities
 - 316,238 Buildings
 - 181,591 Structures
 - 47,885 Linear Structures
- 29.8 million acres of Land
- 536 Installations
 - 5,429 DoD Sites

Data source: Base Structure Report (BSR) FY 2008

PRIVATE SECTOR FINANCING TOOLS

- ESPC Contracting via ESCOs - shared savings
- Leasing (EULs)
- Power Purchase Agreements (PPA)

WHAT THEY HAVE IN COMMON, IN EACH CASE,
THE PRIVATE SECTOR PUTS UP THE INVESTMENT
FOR A LONG TERM MONTHLY PAYMENT

Project Funding Tools Comparison

	ESPC IDIQ	UESC	ESPC ENABLE	Appropriations
Federal Target Market	All Federally owned – ESCOs focus on large projects	Where Fed. Gov't. pays utility bill and within participating utility area	Federally owned smaller sites (<200k GSF)	All
ECMs (Scope)	Unlimited	Unlimited	Lighting, Water, HVAC controls	Unlimited
Contract Vehicle	DOE IDIQ, USACE-HNC IDIQ, Site-specific	GSA Area-wide contracts, Basic ordering agreements	GSA Schedule 84 – SIN 246-53	Standard procurement
Procurement Timeline	Award – 20 to 24 mos. Construction – 18 to 24 mos.	Award – 6 to 13 mos. Construction – ~12 mos.	Award – 8 weeks Installation – 12 to 16 weeks	Depends upon procurement complexity
M & V	Required (annual)	Required to qualify for annual (vs. up-front) scoring	Required (annual)	None through typical procurement
Avg. Investment Value	\$14M	\$2M to \$3M	\$500K+/- (anticipated)	N/A

ESPC and Small Business Concerns

A frequent question...

Are there provisions for small business concerns under the DOE ESPC IDIQ or ESPC ENABLE?

- Yes. To the maximum extent practicable, ESCOs will have goals for small business concerns controlled by socially and economically disadvantaged individuals or by women. For each TO, the ESCO must submit a small business subcontracting plan in the Final Proposal.

DOE's ESPC IDIQ defers to the small business requirements of the "using agency". The agencies insert their own small business requirements into the task order.

LEASING

Solar leases have largely been financed by banks such as U.S. Bancorp. Overall, 28 funds totaling over \$3.1 billion have been set up to finance commercial and residential solar leases, GTM said. Non-bank investors include Google and utilities that use their own money to finance leases. These investors are counting on a fairly steady return from the fees homeowners pay under their long-term contracts. They also can claim a 30% federal investment tax credit.

SOURCE:

<http://www.forbes.com/sites/uciliawang/2013/02/11/solar-leases-will-propel-solar-home-growth-to-5-7b/>

Small Business ESPC Opportunities

Subcontracting with DOE ESPC IDIQ contractors and/or ESPC Enable Schedule 84 (SIN 246-53) ESCOs

- DOE ESPC IDIQ ESCOs - 16 existing
 - http://www1.eere.energy.gov/femp/financing/espcs_doescos.html
- ENABLE GSA Schedule 84 ESCOs - 12 existing
 - <http://www.gsaelibrary.gsa.gov/ElibMain/sinDetails.do?executeQuery=YES&scheduleNumber=84&flag=&filter=&specialItemNumber=246+53>

Become a GSA Schedule 84, SIN 246-53 vendor (2 steps)

- Apply for the GSA Schedule 84, SIN 246-53:
 - Kellie Stoker, kellie.stoker@gsa.gov, 817-850-8203
- Apply for the DOE Qualified list (also required)
 - http://www1.eere.energy.gov/femp/financing/espcs_qualifiedescos.html

FEMP Web Site

- FEMP home
<http://www1.eere.energy.gov/femp/>
- ESPC home
<http://www1.eere.energy.gov/femp/financing/espcs.html>
- ESPC resources, guidance, contract documents
www1.eere.energy.gov/femp/financing/espcs_resources.html
- ESPC ENABLE
www.femp.energy.gov/financing/espc_enable.html
- Calendar of Events (all training dates)
<http://www1.eere.energy.gov/femp/news/events.html>



Distributed Wind 2016



Federal Agency Opportunities & Updates

Kevin Kampschroer

Director, Federal High Performance Green Buildings, U.S. General Services Administration (GSA)



Distributed Wind 2016



United States Department of Agriculture

Leveraging Environmental Benefits and USDA Programs for Distributed Wind Energy

Venus Welch-White

Climate Change Program Officer
USDA

Office of the Chief Economist

February 23, 2016

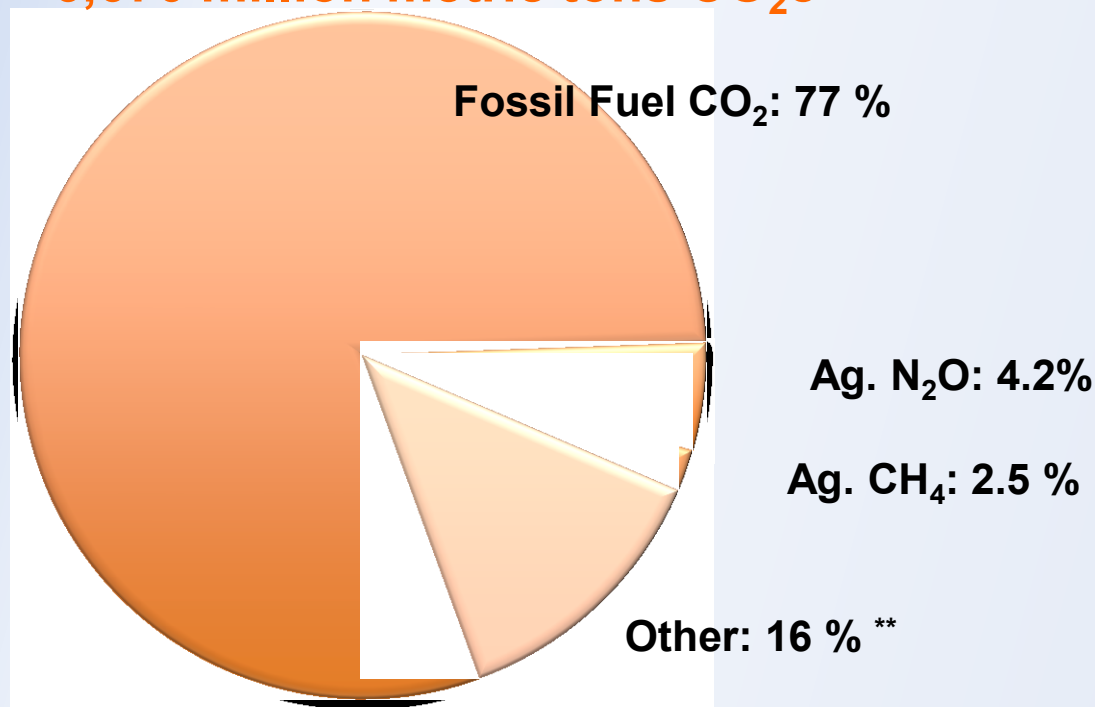


GHG and Carbon Sequestration within the US

Agriculture accounts for nearly 7 % of GHG emissions

Carbon sequestration offsets 13.2 % of U.S. emissions

U.S. GHG Emissions:
6,670 million metric tons CO₂e



Building Blocks for Climate Smart Agriculture & Forestry

- U.S. Commitment – 26-28% reduction in GHG emissions below 2005 levels by 2025
- USDA is well-positioned to contribute
 - One of the only departments that can both reduce GHG emissions and store carbon
 - Goal dovetails with much of the work that agencies are already doing (e.g., Soil Health Initiative, forest restoration, climate change adaptation)
- Secretary Vilsack announcement – April 23, 2015 at Michigan State
 - Outlined the building blocks
 - Established a goal of reducing emissions by 120 MMTCO₂e per year by 2025
 - Announced early actions by industry and nonprofit partners

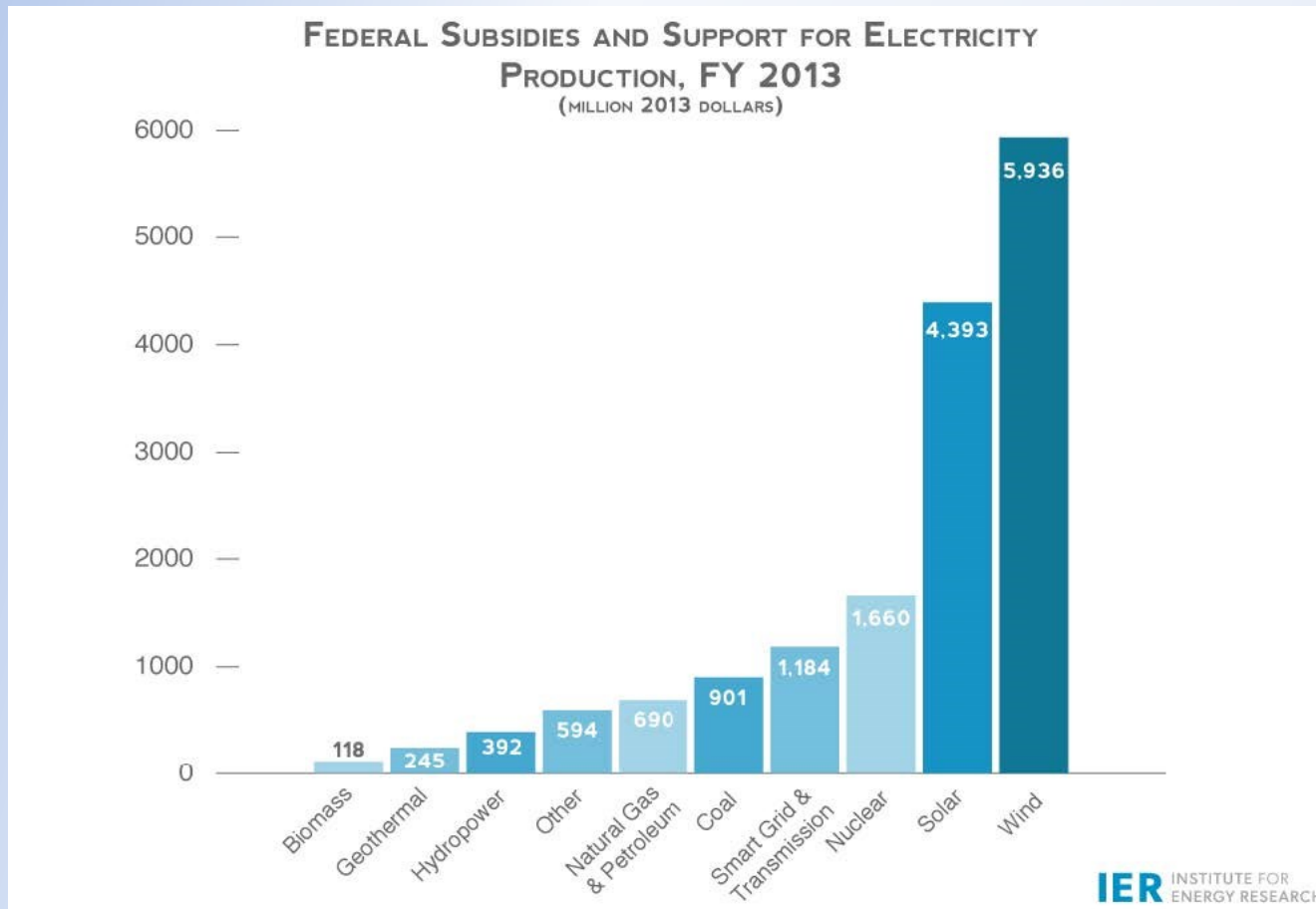
Principles of the USDA Building Blocks

- **Voluntary and incentive-based** – Building on existing legislation and our history of “cooperative conservation.”
- **Focused on multiple economic and environmental benefits** – Through efficiency improvements, improved yields, or reduced risks.
- **Meet the needs of producers** – By focusing on working farms, ranches, forests, and production systems.
- **Assess progress and measure success** – Through quantitative goals and objectives.
- **Cooperative and focused on building partnerships** – With industry, farm groups, and conservation organizations.



Building Block Goals

Building Block	Goals
Soil Health	Increase no-till from 67 M acres to 100 M acres
Nitrogen Stewardship	Through 4 “R’s” reduce nitrous oxide emissions and provide cost savings
Livestock Partnerships	Install 500 anaerobic digesters; install impermeable covers on 10% of dairy cattle and swine operations
Conservation of Sensitive Lands	Enroll 400,000 acres of CRP with high GHG benefits; protect 40,000 acres through easements; transfer expiring CRP acres to permanent easements
Grazing and Pasture Lands	Establish grazing management plans on an additional 4 M acres, for a total of 20 M acres
Private Forest Growth and Retention	Through FLP and CFP, protect almost 1 M acres of working landscapes. Through FSP, establish management plans on 2.1 M acres of forest annually.
Stewardship of Federal Forests	Reforest 5,000 additional acres (above baseline)
Promotion of Wood Products	Increase the number of building projects supported through technical assistance from 280 in 2014 to 2,000 in 2025
Urban Forests	Plant 100,000 additional trees in urban areas
Energy Generation and Efficiency	Promote renewable energy technologies and improve energy efficiency through EECLP, REAP, and NOFEI (EQIP)



Wind energy received the largest share of direct federal subsidies and support in FY 2013, accounting for 37 percent of total electricity-related subsidies. Almost three-fourths of FY 2013 wind energy subsidies were direct expenditures and largely resulted from the Section 1603 grant program (expired).

Types of Assistance and Funding for Wind Projects (Federal and State)

- **Grants**

Local, State or Federal

- **Loans**

Traditional or Guaranteed

- **Credits and exemptions**

Tax credits, credit for ecosystem services (Renewable Energy Credits)

- **Production incentives**

Can be on a cents-per-kilowatt-hour basis, for electricity generated by a qualifying renewable energy project.





USDA Funding Opportunities

Rural Development (RD)

- **Rural Energy for America (REAP)** – Provides grants (up to \$500K), and guaranteed loans (up to \$25M) for renewable energy systems and energy efficiency improvements.
- **Electric Program**– provides direct loans and loan guarantees (FFB), as well as grants and other energy project financing to electric utilities (wholesale and retail providers of electricity) that serve customers in rural areas.

Farm Service Agency (FSA)

- **Microloan Program** - financing needs of small, beginning farmer, niche and non-traditional farm operations
- **Direct Operating Loan Program** - loans which can be used to establish, maintain and strengthen farm or ranch operations

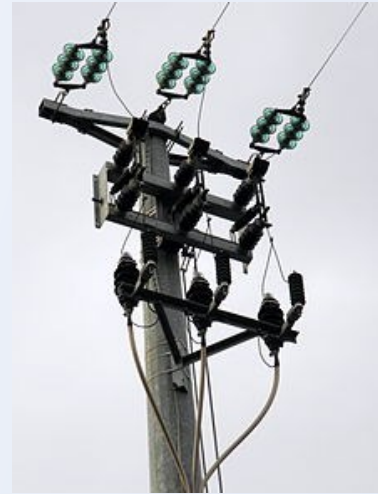
Natural Resource Conservation Service (NRCS)

- **Conservation Innovation Grants (CIG)** - supports the development and adoption of innovative conservation approaches and technologies while leveraging federal investment in environmental enhancement and protection, in conjunction with agricultural production.

National Institute of Food and Agriculture (NIFA)

- **Small Business Innovation Research (SBIR)** - program at the USDA offers competitively awarded grants to qualified small businesses to support high quality, advanced concepts research related to important scientific problems and opportunities in agriculture that could lead to significant public benefits.

Rural Utility Service (RUS) Electric Program





- RUS finances renewables
- Utility Scale
- System loan – security from total assets of the utility
- Project loan – at least 25% equity, strong PPA, sound business plan and reasonably adequate security needed
- Merchant projects (no PPA) – RUS generally will not finance
- Energy Efficiency – Renewables can be incorporated into EE projects
- Generation, transmission, distribution, EE, conservation, renewables, smart grid & smart home
- Open to Coops, IOUs, Municipalities, Tribal & EE Utilities
- \$6.25 billion authorized for FY 16



Rural Energy for America Program (REAP)

Grant and Loan Assistance for Ag Producers and Rural Small Businesses

Renewable Energy Systems		Energy Efficiency Improvements	
Minimum Grant Request	\$2,500 Total eligible project costs \geq \$10,000	Minimum Grant Request	\$1,500 Total eligible project costs \geq \$6,000
 Maximum Grant Request	\$500,000 Total eligible project costs \geq \$2 million	 Maximum Grant Request	\$250,000 Total eligible project costs \geq \$1 million

Minimum Loan Amount	\$5,000 Total eligible project costs \geq \$6,667
Maximum Loan Amount	\$25 million Total eligible project costs \geq \$33.4 million
Details	<ul style="list-style-type: none"> • USDA guarantees a commercial loan; applicant must have a willing lender. • Terms are negotiated between the lender and borrower. • Fees, appraisals, equity & collateral requirements apply.

Berkshire East Ski Area

Charlemont, Mass.

Ski Area Powered by Renewable Energy

- USDA Rural Development provided a **\$1,588,613 Renewable Energy for America Program Loan Guarantee** to assist the ski resort in the purchase and construction of a 900KW wind turbine.

Benefits to the ski resort business and the environment.

- Provides power for the entire business's needs -- snow making equipment, lodge, lifts, and canopy tour business.
- Reduces the use of fossil fuels to the ski area.
- Excess energy capacity -- resort completely sustainable and provides renewable energy credits to local non-profits.
- Reduced energy costs make the resort competitive.



Berkshire East Ski Area's 900KW Wind Turbine

NIFA SBIR: Altaeros Energies

Technology Developed

- Altaeros Buoyant Airborne Turbine (BAT) leverages proven aerospace technology to lift a wind turbine into the strong, consistent winds beyond the reach of traditional towers.

Commercialization Success

- First commercial products sold in 2015.
- Technology was featured in CNN's 2014 edition of THE CNN 10: Inventions and in the New York Times.
- Telecoms group SoftBank has invested \$7m in Altaeros Energies for future deployment of the BAT technology in Japan.

SBIR History

- Phase I – 2011 (\$150K)
- Phase II – 2012 (\$140K)
- 8.6 Rural Development





United States Department of Agriculture

For More Information

www.USDA.gov/energy

RUS Electric Programs

Chris McLean at Christopher.McLean@wdc.usda.gov

REAP

Kelley Oehler at kelley.oehler@wdc.usda.gov

NIFA SBIR

Scott Dockum at sdockum@nifa.usda.gov

Venus.WelchWhite@wdc.usda.gov



Distributed Wind 2016



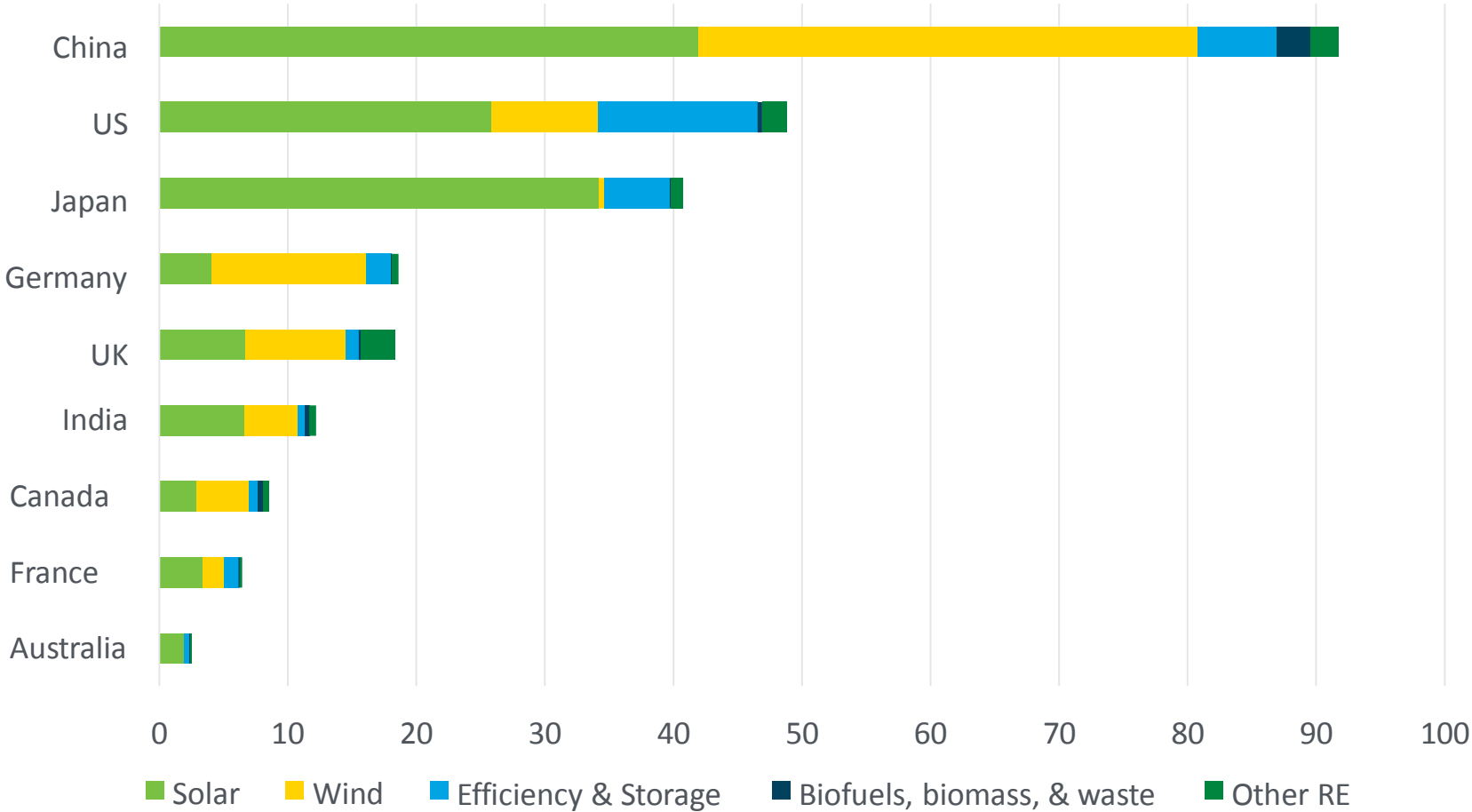
U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

Dr. Robert K. Dixon
February 2016

Huge Opportunity, Fierce Race for Clean Energy Leadership

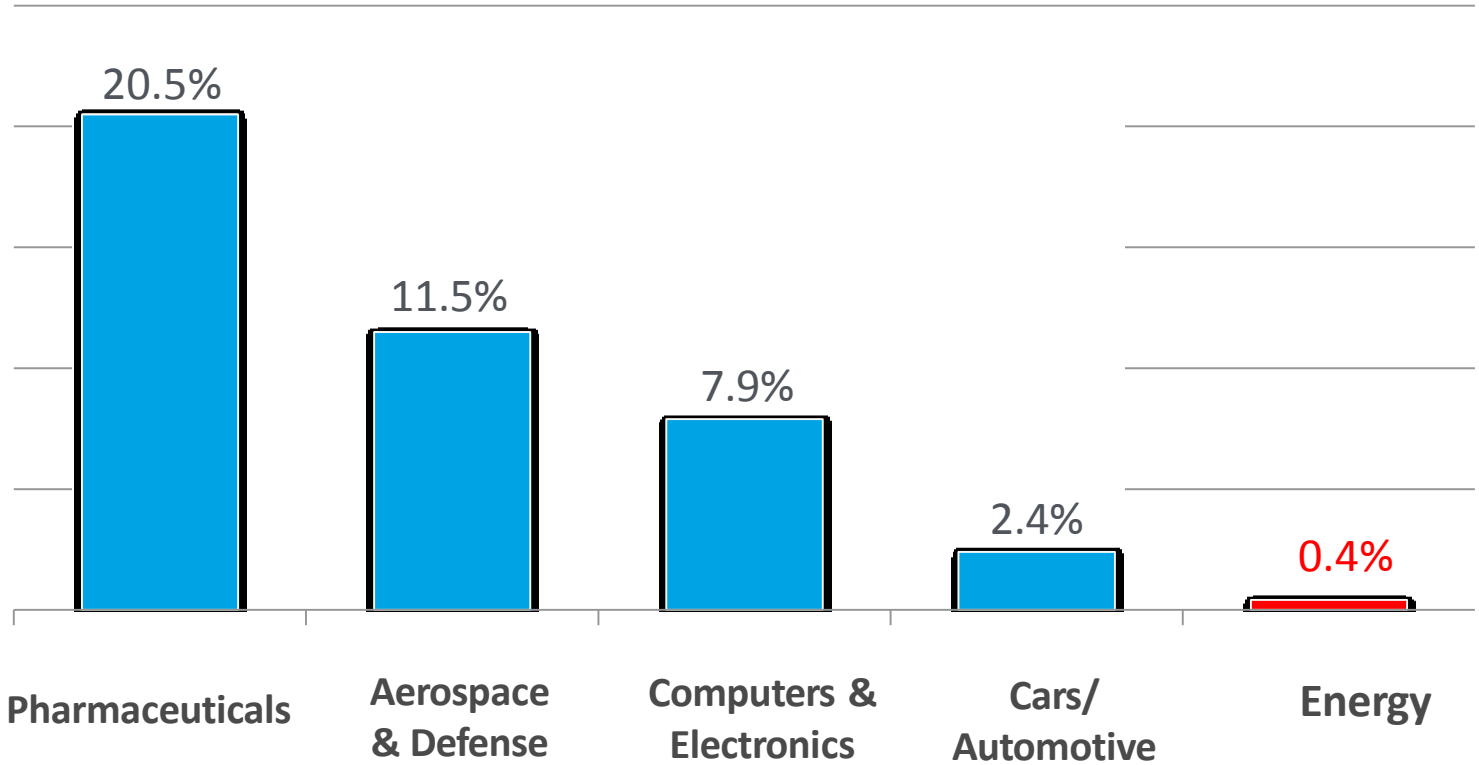
2014 Investment (\$ Billions USD)



Source: Bloomberg New Energy Finance

Private and Public Sector are Underinvesting in Energy Innovation

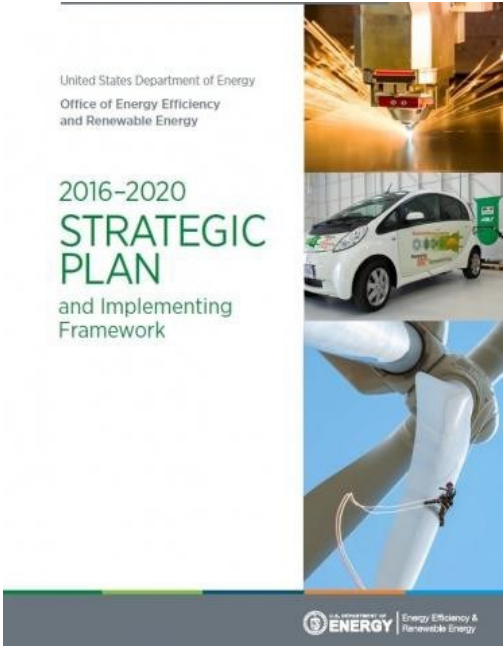
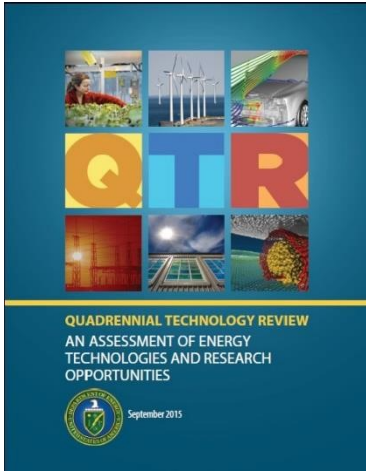
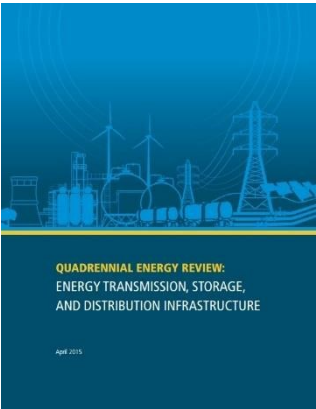
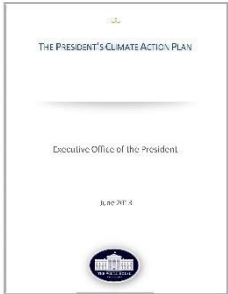
Private Investment in R&D (as % of sales)



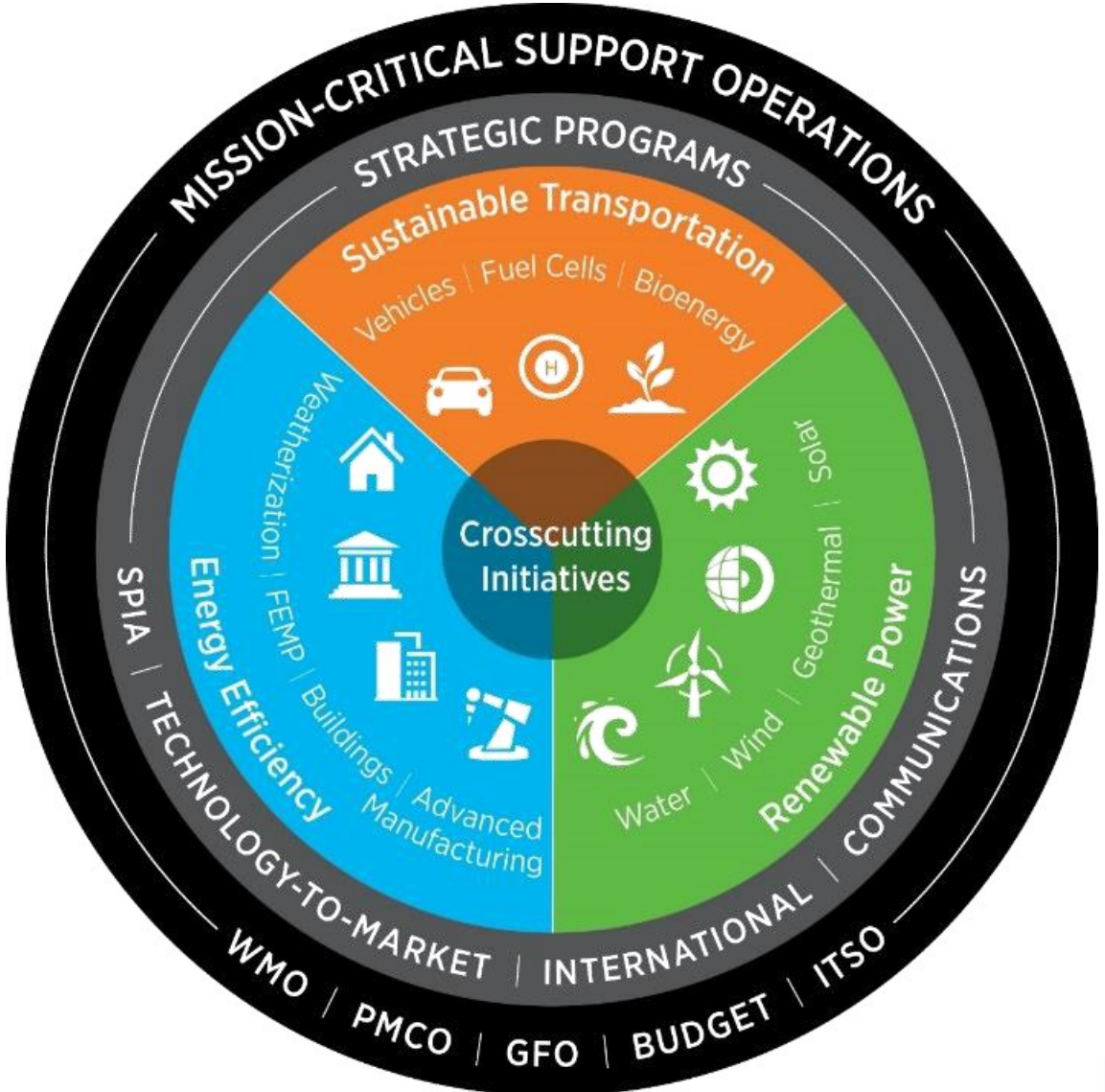
Source: American Energy Innovation Council, *Catalyzing American Ingenuity: The Role of Government in Energy Innovation*, 2011

EERE Strategic Planning Drivers

- President’s Climate Action Plan (CAP)
- DOE Strategic Plan (2014-2018)
- Quadrennial Energy Review (QER)
- Quadrennial Technology Review (QTR)
- EERE Strategic Plan (2016-2020)



EERE Organization



Federal Energy Management Program – Overview

Motivation/Focus

As America's largest energy consumer, the Federal Government has a tremendous opportunity to lead by example. FEMP assists and enables Federal agencies to meet energy-related and other sustainability goals and to provide Federal energy leadership.

Achievements

• Agency Performance Toward Goals (FY 2014)

- Federal agencies reported a 21% decrease in energy intensity (Btu per gross square foot relative to FY 2003).
- Federal targeted Scope 1&2 greenhouse gas emissions were reduced by 17% since 2008 (goal is 28% by 2020).
- 8.8% of the federal government electricity use is now from renewable sources (goal is 20% by 2020).
- Federal government potable water intensity was reduced by 21% below FY 2007 levels (goal is 26% by 2020).

• Performance Contracting Goal

- In February 2015, the Presidential Performance Contracting Challenge awarded project totals crossed the \$2 billion mark. The extension of the Challenge, in combination with the initial commitment of \$2 billion in 2011, will result in a total of \$4 billion in energy efficiency performance contracts in the federal sector through 2016. These investments will save Americans billions in energy costs, promote energy independence, and, according to independent estimates, create tens of thousands of jobs in the hard-hit construction sector.
- As of December 2015 over \$2.5 billion in projects have been awarded with over \$3 billion currently in the pipeline with the expectation of being awarded.

• Data Center Challenge

- The U.S. Department of Energy is partnering with public and private sector building owners/operators to improve the energy efficiency of their data centers.
- Currently has 26 private and public sector partners and numbers are growing.

• eProject Builder

- eProject Builder is now fully active in production mode. eProject builder (ePB) produces ESPC task order schedules and provides a secure online system for easily accessing, tracking and reporting ESPC project data through the life of the contract for a portfolio of projects.

• Energy Exchange 2015

- Held the Energy Exchange 2015 training event in Phoenix, AZ with over 1,600 attendees. The 2016 event is planned for Providence, RI August 9-11.

Federal Energy Management Program – FY 2017 Budget Request

Goals/Metrics

The Federal Government is currently striving to achieve the following mandated goals from Executive Order 13693:

- Improve energy efficiency of each agency through the reduction of energy intensity by 2.5% annually, or 25% by the end of FY 2025, relative to the baseline of the agency’s energy use in FY 2015.
- Reduce Government-wide scope 1 and 2 (direct) GHG emissions from targeted sources by 40% in FY 2025 compared to FY 2008.
- Ensure that at least 10% of Federal building electric energy and thermal energy is clean energy in FY 2017 and 25% in 2025.
- Ensure that at least 10% of Federal electricity consumption is generated from renewable sources in FY 2017 and 30% in 2025.
- Reduce water consumption intensity by 2% annually, or 36% by the end of FY 2025 as compared to the FY 2007 base year.
- Reduce the motor vehicle fleet’s per-mile greenhouse gas emissions by 4% in 2017 and 30% in 2025 compared to FY 2014.

(Dollars in Thousands)	FY 2015 Enacted	FY 2016 Enacted	FY 2017 Request	FY 2017 vs. FY 2016
Federal Energy Efficiency Fund	2,850	3,000	15,000	+12,000
Federal Energy Management	0	23,100	28,000	+4,900
Project Financing, Technical Guidance and Assistance, Planning, Reporting and Evaluation, and Federal Fleet	21,190	0	0	0
DOE Specific Investments	2,160	0	0	0
NREL Site-Wide Facility Support	800	900	0	-900
Total, Federal Energy Management Program	27,000	27,000	43,000	+16,000

Federal Energy Management Program – FY 2017 Budget Highlights

- **Federal Energy Management Core Activities (\$28M):** Making Performance Contracting Business as Usual and support agencies to successfully meet the President’s Performance Contracting Challenge of \$4 billion for investing in energy efficiency and renewable energy projects, support agencies with technical guidance and assistance, planning, reporting, and evaluation. Provide leadership and support to Federal Government efforts to meet its internal GHG reduction targets of 40% by 2025 through 2.5% annual energy reduction, electrification of fleet/per mile GHG.
- **Federal Energy Efficiency Fund (\$15M):** Continuing successful approach (FEEF 1.0) to implement commercially available technologies not currently deployed at Federal Facilities, and increase funding for new program (FEEF 2.0) to expand the use of deep energy efficiency retrofits in Federal facilities - ~40% energy reduction vs maximum of ~20% typically achieved.

QUESTIONS?

Dr. Robert Dixon
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy
Robert.Dixon@ee.doe.gov
202-586-0206 (office)



Distributed Wind 2016