

BUSINESS COUNCIL FOR SUSTAINABLE ENERGY
THE SOLAR FOUNDATION
MARCH 24, 2016

CivicPACE an Opportunity for Sustainable Energy



Agenda

Welcome

- Lisa Jacobson, President, Business Council for Sustainable Energy
- Alex Winn, Program Director, The Solar Foundation

Speakers

- Kenley Farmer, Program Manager, Department of Energy & the Environment, Washington, DC
- Ian Fischer, Chief Operating Officer, Urban Ingenuity, CivicPACE Team
- Cliff Staton, Executive Vice President, Renew Financial

Q&A + Discussion

Speaker Bios

Lisa Jacobson, President, Business Council for Sustainable Energy

Lisa has advised states and federal policymakers on energy, tax, air quality and climate change issues. She serves as a private sector observer to the World Bank's Climate Investment Funds and is a member of the Department of Energy's State Energy Efficiency steering committee. Lisa has testified before Congress and has represented clean energy industries before the United Nations Framework Convention on Climate Change. Prior to her position with the BCSE, Lisa was a legislative aide to the U.S. Congress.

Speaker Bios

Alex Winn, Program Director, The Solar Foundation

Alex directs many of The Solar Foundation's key programs, including two Department of Energy funded programs – CivicPAC and the SunShot Solar Outreach Partnership – the State Solar Jobs Map, and the Solar Faith Initiative. Before joining TSF, Alex was an member of The George Washington University Solar Institute since its formation in 2008. There, he managed the Institute's public outreach, including the Annual Solar Symposium, online communications, and various research efforts. He has worked also on the government affairs team of the Solar Energy Industries Association (SEIA), providing analysis and public comment support on regulatory issues related to electricity transmission and public land use. Alex earned a Master in Public Administration and a Bachelor's degree in Political Science from George Washington University.

Speaker Bios

Kenley Farmer, Program Manager, Department of Energy & the Environment, Washington, DC

Kenley Farmer is the Program Manager for DC PACE with DC's Dept. of Energy and Environment (DOEE). She is also an Analyst for the District's Weatherization and LIHEAP programs. Prior to joining DOEE, Kenley was the project manager for a \$1.5 million HUD grant to Stewards of Affordable Housing for the Future to develop innovative ways to achieve energy efficiency in affordable housing. Kenley also served as a fellow at the White House Council for Environmental Quality and worked for over five years as an attorney on various litigation cases including natural gas disputes. Kenley holds an MS in Environmental Science and Policy from Johns Hopkins University, a JD from the University of South Carolina and a Bachelor of Arts in History from Furman University.

Speaker Bios

Ian Fischer, Chief Operating Officer, Urban Ingenuity, CivicPACE Team

Ian manages Urban Ingenuity's operations, including management of the DC Commercial PACE Program. He oversees project origination and development, financial and technical energy underwriting for every project financed by the company, and he leads the design and development of custom energy and financial models for renewable energy, microgrid, and energy efficiency projects.

Prior to UI, Ian was VP at Clean Energy Solutions, Inc. (CESI), an energy efficiency consulting firm serving municipalities with the design and early implementation of comprehensive energy efficiency, renewables and water conservation initiatives. Ian holds an MBA from the Yale School of Management and a BA in Biology from Brown University.

Speaker Bios

Cliff Staton, Executive Vice President, Renew Financial

Prior to joining Renew Financial, Cliff spent 20 years as founding partner with the political strategy and media relations consulting firm of Staton & Hughes, where he crafted winning campaigns and messages for hundreds of candidates, corporations, non-profit organizations, government agencies, and labor unions. He devised and executed successful strategies for numerous elected officials from President to city council. Cliff earned his MPA from the LBJ School of Public Affairs at the University of Texas and graduated Phi Beta Kappa from Indiana University. Staton lives in San Francisco with his wife and three children.

2016 BCSE Members



Clean Energy Coast to Coast



U.S. Clean Energy Jobs from Coast to Coast

The Council's members are strengthening America's energy future and creating American jobs in every state of the country.



Visit www.bcse.org to  explore the interactive map.



2016 Sustainable Energy in America Factbook

2016

SUSTAINABLE ENERGY IN AMERICA

Factbook

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It is a new era for American energy. In 2015, increased use of sustainable energy set the stage for a U.S. triple play of carbon reductions, cost savings and economic growth.

The 2016 edition of the Sustainable Energy in America Factbook – produced for the Business Council for Sustainable Energy by Bloomberg New Energy Finance, provides up-to-date, accurate market information about the broad range of industries — energy efficiency, renewable energy and natural gas — that are contributing to the country's move towards cleaner energy production and more efficient energy usage.

THE SUSTAINABLE ENERGY TRANSFORMATION

The energy productivity of the U.S. economy has **INCREASED BY 13%** from 2007 to 2015, and **2.3%** since 2014.



Get the **2016** Factbook



See State Spotlight

Browse the Brochure →



Watch the Video →



View the Slideshow →



Infographic



Get the Facts

- American energy productivity has increased by 13% from 2007 to 2015.
- 2015 was a record year for natural gas production, consumption, flows to power generation and volumes into storage.
- Renewable energy is a prominent part (20%) of the U.S. 2015 capacity mix, with 221GW installed across the country, a 57% increase over 2008 levels.
- Total U.S. investment in clean energy topped \$56 billion in 2015, the second highest level in the world.
- 2015 U.S. power sector carbon emissions fell to their lowest annual level since 1995.



Executive Summary



Industry Focus:

Energy Efficiency
Natural Gas
Renewable Energy

Quick Facts On:

Alternative Fuel Vehicles
Biomass/ Waste-to-Energy
Carbon Capture & Storage

Combined Heat & Power
Fuel Cells
Hydropower

State Spotlight

Learn about clean energy in the following states:

- Minnesota
- Nevada
- Pennsylvania
- Virginia
- See 2016 Factbook State & Regional Slides

Previous Factbook Editions

Download previous editions of the Factbook here.

2013



2014



2015



About the Factbook Partners

Bloomberg
NEW ENERGY FINANCE



The Business Council for
Sustainable Energy

Bloomberg New Energy Finance (BNEF) provides unique analysis, tools and data for decision makers driving change in the energy system. With unrivalled depth and breadth, BNEF helps clients stay on top of developments across the energy spectrum from our comprehensive web-based platform. BNEF has 200 staff based in London, New York, Beijing, Cape Town, Hong Kong, Munich, New Delhi, San Francisco, São Paulo, Singapore, Sydney, Tokyo, Washington D.C., and Zurich.

The Business Council for Sustainable Energy (BCSE) is a coalition of companies and trade associations from the energy efficiency, natural gas and renewable energy sectors. The Council membership also includes independent electric power producers, investor-owned utilities, public power, commercial end-users and project developers and service providers for energy and environmental markets.

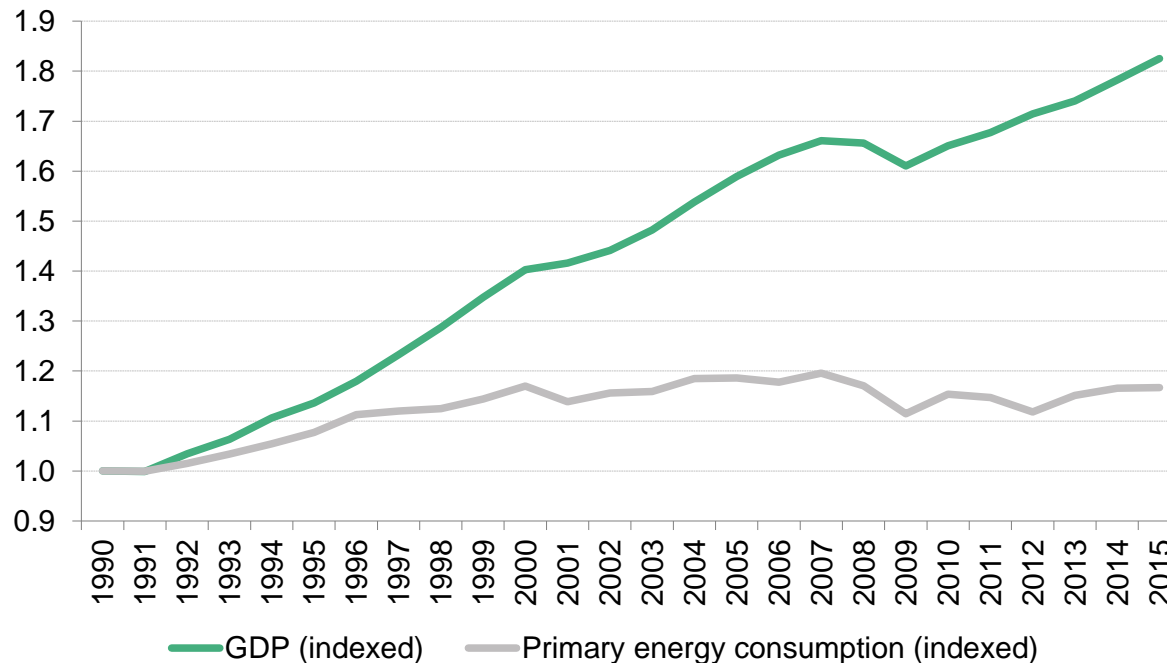


2015: A YEAR OF MILESTONES

Bloomberg
NEW ENERGY FINANCE

US energy overview:

Economy's energy productivity: GDP and primary energy consumption (indexed to 1990 levels)

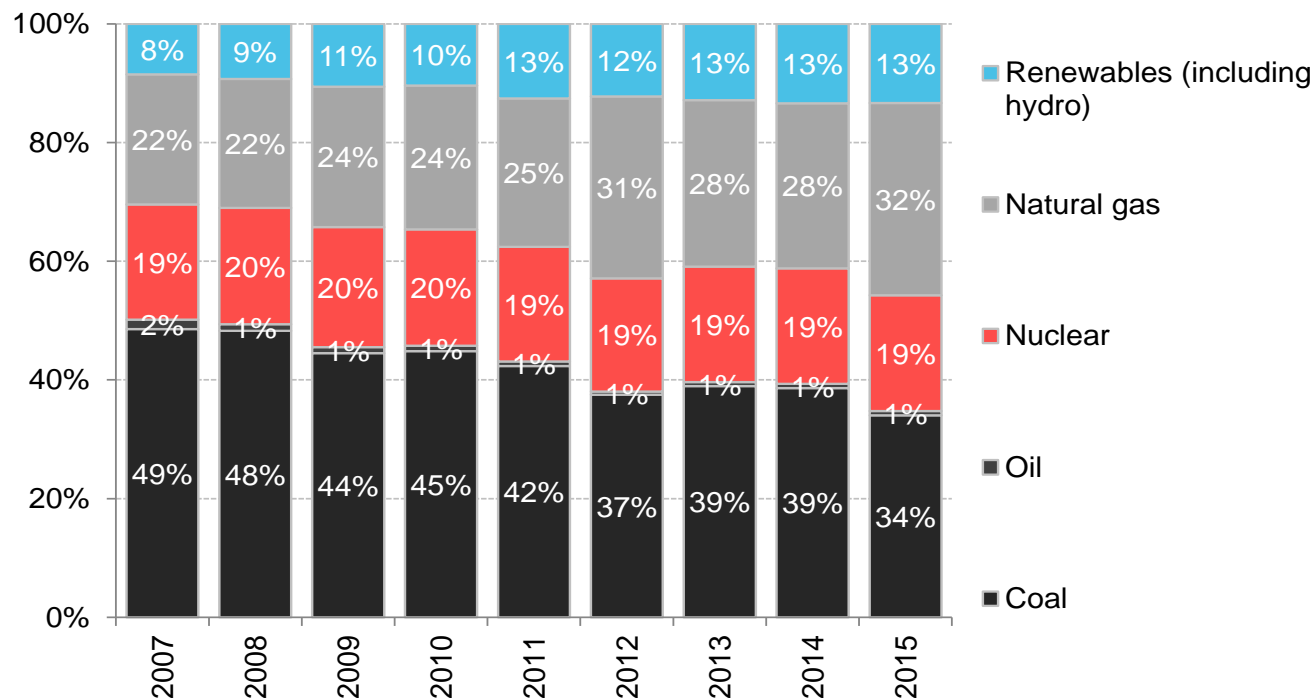


- The US economy is increasingly energy productive, resulting in a decoupling between growth in GDP and growth in energy consumption. As US GDP expanded 83% over the last 25 years, energy consumption only ticked up 17%.
- By one measure (US GDP per unit of energy consumed), productivity has improved 56% since 1990, 13% since 2007, and 2.3% between 2014 and 2015.

Source: US Energy Information Administration (EIA), Bureau of Economic Analysis, Bloomberg Terminal

Notes: Values for 2015 energy consumption are projected, accounting for seasonality, based on latest monthly values from EIA (data available through September 2015). GDP is real and chained (2009 dollars); annual growth rate for GDP for 2015 is based on consensus of economic forecasts gathered on the Bloomberg Terminal as of January 2016.

US energy overview: US electricity generation by fuel type (%)

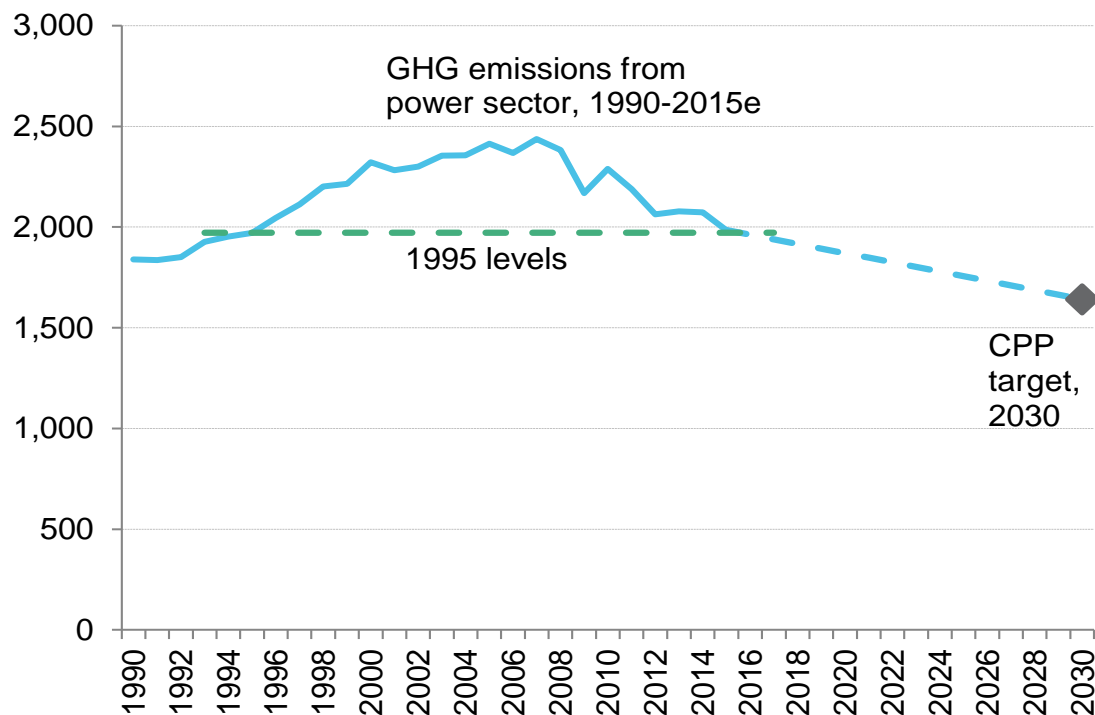


- Generation from natural gas plants increased by 17% from 2014 to 2015, while coal generation fell by 11%.
- The US power sector is gradually decarbonizing. From 2007 to 2015, natural gas increased from 22% to 32% of electricity generation, and renewables climbed from 8% to 13%. Coal's share slipped from 49% in 2007 to only 34% in 2015.

Source: EIA

Notes: Values for 2015 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through October 2015). In chart at left, contribution from 'Other' is not shown; the amount is minimal and consists of miscellaneous technologies including hydrogen and non-renewable waste. The hydropower portion of 'Renewables' includes negative generation from pumped storage.

US energy overview: Greenhouse gas emissions from the power sector (MtCO₂e)



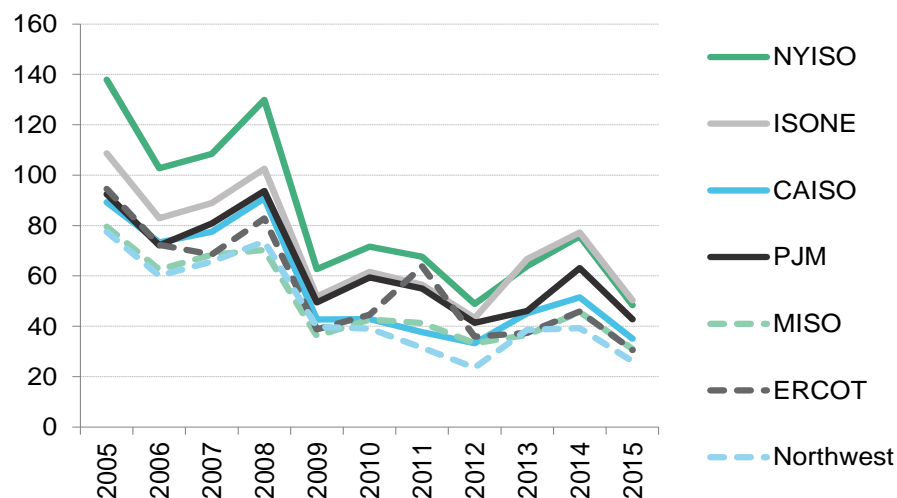
- In 2015, power-sector emissions sunk to their lowest levels (1,985Mt) since 1995 as cleaner-burning natural gas has displaced generation from coal-fired power plants.
- Emissions are 18% below 2005 levels.
- The Clean Power Plan targets a 32% cut from 2005 levels by 2030.

Source: Bloomberg New Energy Finance, EIA, EPA

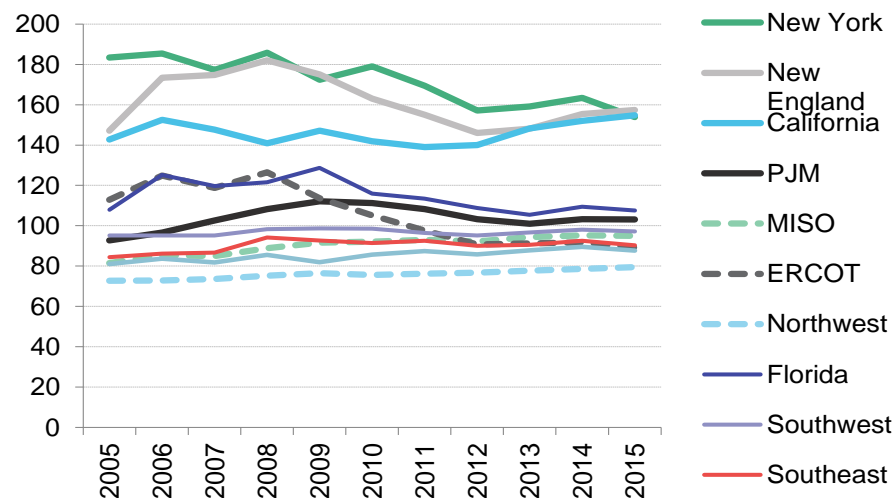
Notes: Values for 2015 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through September 2015).

US energy overview: Retail and wholesale power prices

Wholesale power prices (\$/MWh)



Average retail power prices (\$/MWh)

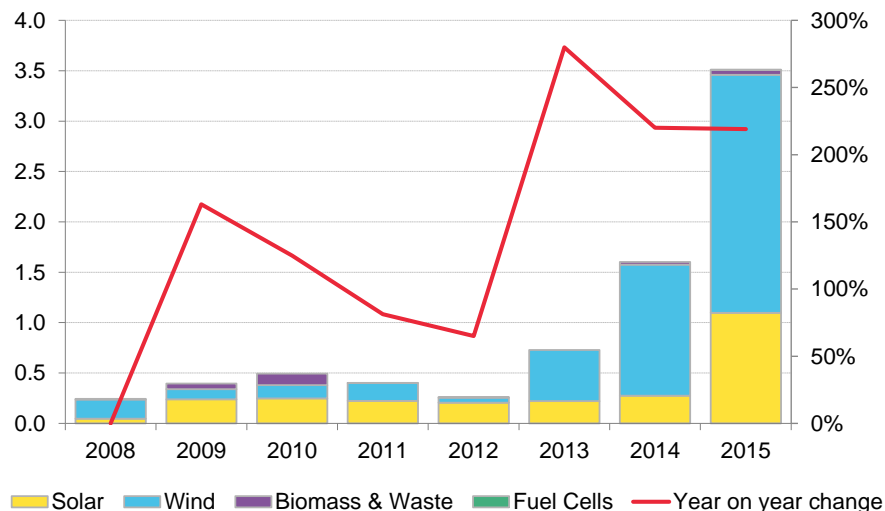


- Wholesale prices fell by about a third in 2015, as natural gas prices fell and more renewables connected to the grid.
- Retail power prices in most regions remain well below the peak prices seen in 2008-09.
- In 2015, retail electricity rates fell by 1.3% on average nationwide. New York (-5.8%) and Texas (-2.7%) saw the biggest year-on-year declines.
- Exceptions included California and New England where retail prices rose marginally (1.8% and 1.3%, respectively).

Source: Bloomberg New Energy Finance, EIA, Bloomberg Terminal Notes: Data through end-November 2015. Wholesale prices taken from proxy power hubs in each ISO. Prices are in real 2014 dollars.

Finance: Corporate procurement of clean energy

Renewable capacity contracted by corporations, by technology, 2008-15 (MW)



Key players in corporate procurement

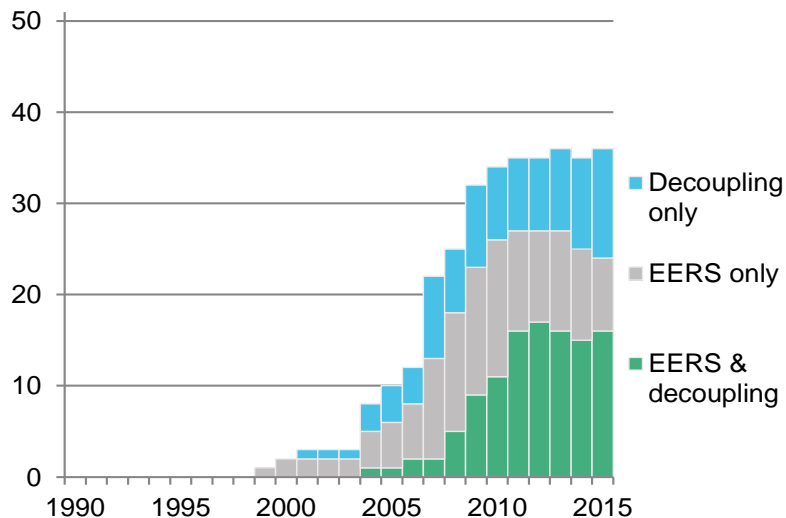


- Corporate procurement of clean energy doubled in 2014 and again in 2015, breaching 3.5GW.
- Wind and solar are the energy technologies of choice. When procurement levels were low between 2008 and 2012, solar generally made up the majority of MW. After corporate procurement took off in 2013, however, wind has made up the dominant portion of procurement.
- Google has been the largest player to date, procuring 71MW of solar and 1.6GW of wind. Amazon is second, with 80MW of solar and 458MW of wind contracted in 2015 alone. Large individual projects include Facebook's 202MW purchasing power agreement (PPA) with Shannon Wind Farm in Texas, and Apple's 153MW PPA with First Solar.

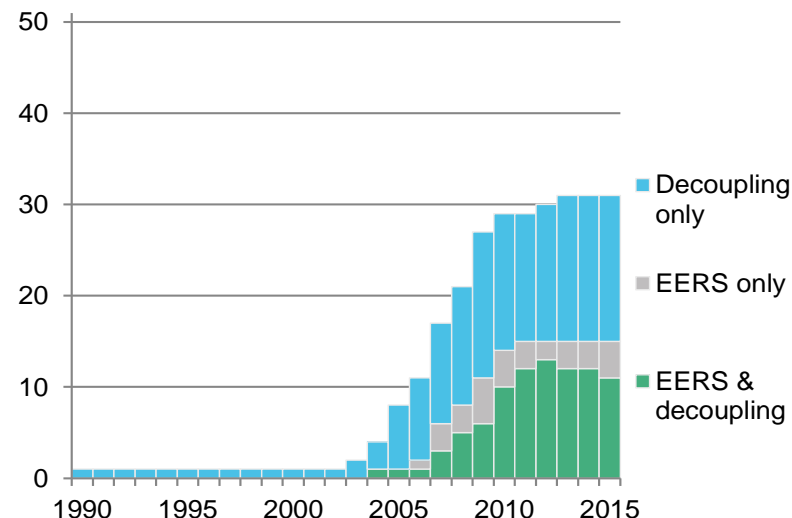
Source: Bloomberg New Energy Finance, company announcements Note: this slide has been updated to reflect two late-reporting commitments from Google for 0.4GW of wind contracts.

Policy: US states with EERS and decoupling legislation for electricity and natural gas, 2015 (number of states)

Electricity



Natural Gas

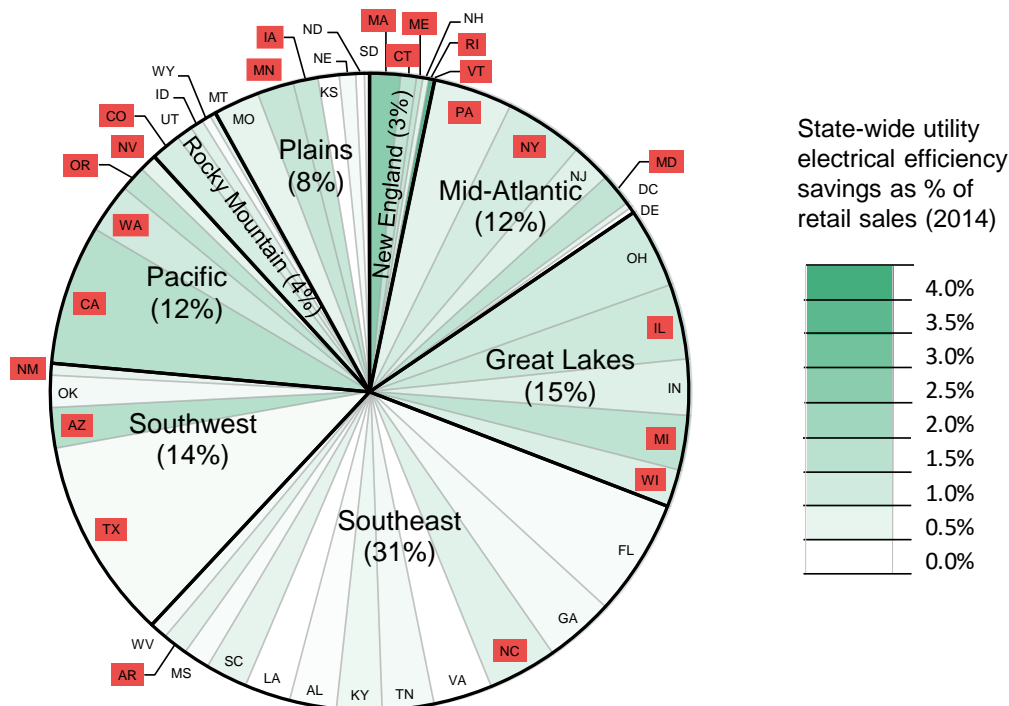


- The key policy story of the past decade has been the uptake of EERS targets and decoupling legislation among US states. However, momentum has slowed since 2010.
- Florida and Indiana removed their EERS schemes in 2014. In 2015, the “freeze” on the Ohio electricity EERS came into effect – this allows utilities that have achieved certain levels of savings to remove their efficiency programs.
- Louisiana, Washington and Minnesota added decoupling policies for electricity in 2015 (the latter two states already had gas decoupling legislation). Meanwhile, similar policies in Wisconsin drew to a close.
- Delaware, Utah and New Hampshire are working towards adopting EERS policies and electricity decoupling is planned for Colorado, Mississippi, Missouri, Nevada and New Mexico.

Source: ACEEE, Bloomberg New Energy Finance

Notes: Decoupling includes all lost revenue adjustment mechanisms, but no longer includes pending policies as per a methodology change in ACEEE reporting.

Policy: Share of total electricity consumption by US state and region, and electrical efficiency savings by state, 2014 (%)

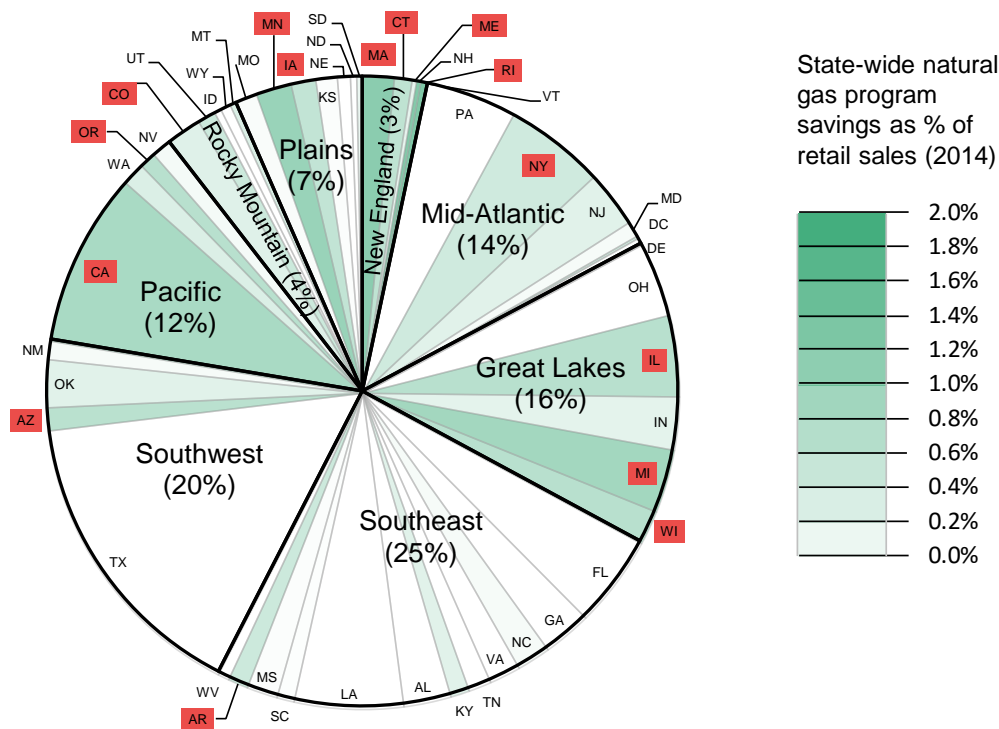


- As in previous years, the states with the greatest energy savings as a share of retail sales are in New England, Pacific, Mid-Atlantic and Great Lakes regions, due to their adoption of EERS legislation.
- Rhode Island extended its tenure as the state with the highest proportion of electrical efficiency savings as a percentage of retail sales, followed again by Massachusetts.
- The Southeast remains an untapped market for energy efficiency with great potential for further development. No new policy changes were reported there for 2015.

Source: ACEEE, EIA, Bloomberg New Energy Finance

Notes: The shading for individual states indicates savings from utility electrical efficiency programs as a fraction of retail sales. State codes highlighted in red indicate EERS requirements for electric utilities. Hawaii and Alaska are not depicted.

Policy: Share of total natural gas consumption by US state and region, and natural gas program savings by state, 2014 (%)



- The Southeast, Southwest and Texas are important areas for potential natural gas as well as electricity savings.
- Generally, energy savings measured as a share of consumption is lower for natural gas than for electricity, as utilities budget less for natural gas savings initiatives than for electricity ones.

Source: ACEEE, EIA, Bloomberg New Energy Finance

Notes: The shading for individual states indicates savings from utility natural gas programs as a fraction of retail sales. State codes highlighted in red indicate states with EERS requirements for natural gas utilities. Hawaii and Alaska are not depicted.

The Solar Foundation:

Independent 501(c)(3) nonprofit organization whose mission is to increase understanding of solar energy through strategic research and education that transforms markets



Programs include:

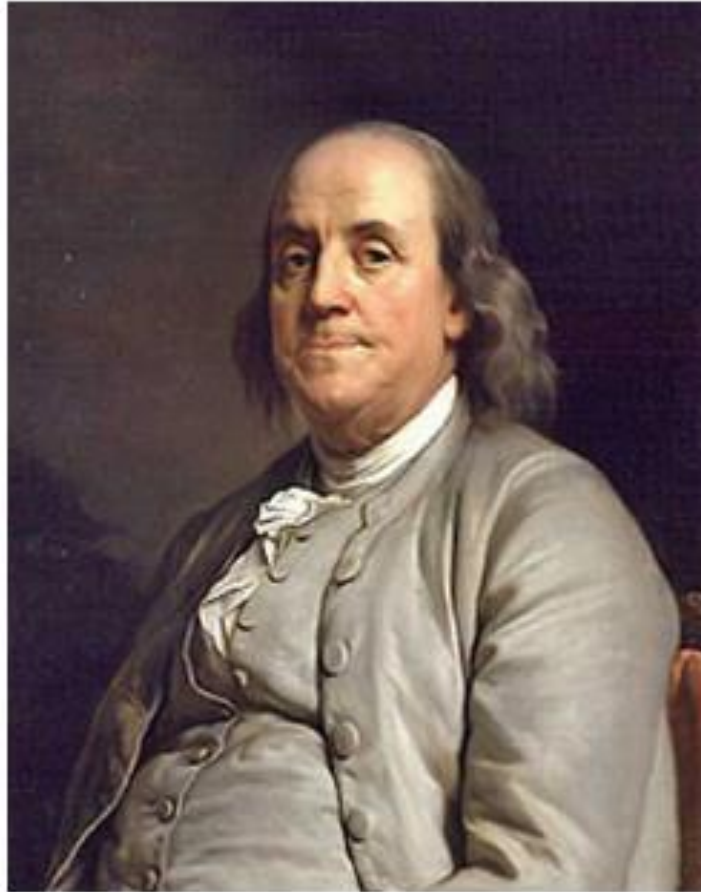
- ❖ **Solar Jobs Census**
- ❖ **Solar workforce research**
- ❖ **Local government technical assistance**
- ❖ **Solar schools tracking & support**
- ❖ **CivicPACE market development**

TheSolarFoundation.org

PACE 101:

***Overview & Market
Development***

PACE 101: Old Concept



*Philadelphia Opt-in
Fire District 1736*

PACE 101: New Application

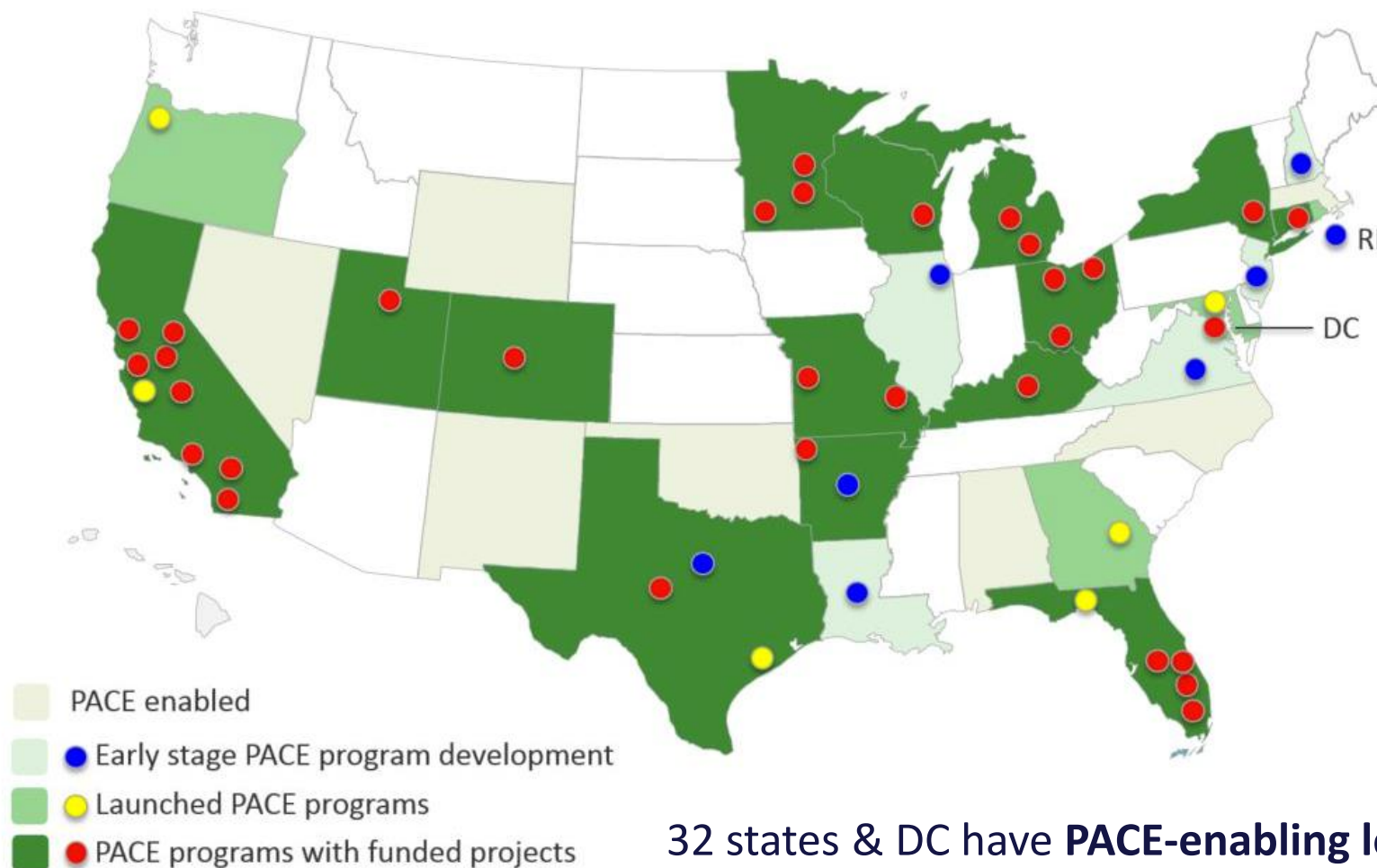
Property Assessed Clean Energy

1. Local government creates PACE benefit district
2. Building owners choose cost saving project
3. Local government arranges financing – adds PACE assessment to property
4. Building owner pays PACE assessment with other property taxes

PACE 101: Market in 2010



PACE 101: Market in 2016



32 states & DC have **PACE-enabling legislation**
16 states have an **active PACE program**
35 states have **PACE programs in operation**

PACE 101: Commercial Market (2009-2015)

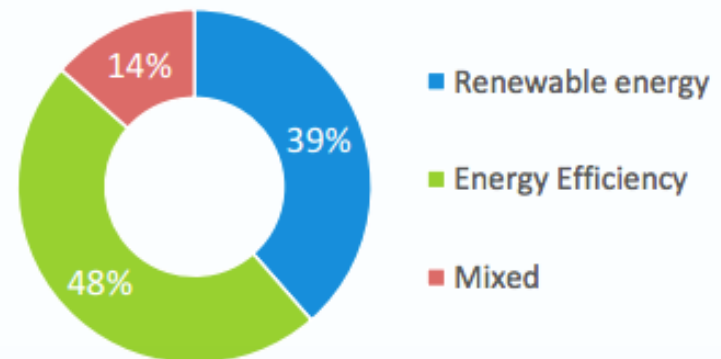
From 2009-2015, PACE provided **\$220 million** in financing for energy upgrades for over **560 commercial buildings**. In 2015 alone, PACE financed **\$93 million** for **140 buildings**.

Figure 1: Cumulative C-PACE funding



(Based on projects with known closing dates - approx. \$217 million)

Figure 2: Funding by improvement type



CivicPACE:

The Market Opportunity

CivicPACE: Serving Communities

CivicPACE



The US Department of Energy SunShot Initiative is supporting work to help PACE serve non-profit solar customers...



- Affordable housing
- Houses of Worship
- Charter Schools
- Health Care Facilities
- Higher Ed Campuses
- Non-profit Office

PACE solves key financing challenges for anchor civic institutions

CivicPACE: About the Team



CivicPACE.org

The **CivicPACE Team** is a U.S. Department of Energy (DOE) effort under the Solar Market Pathways program designed to make commercial Property Assessed Clean Energy (PACE) financing a reality for tax-exempt organizations and non-profits.

CivicPACE: Challenges & Opportunities

Challenges:

- Poor Credit / Access to capital
- Aversion to debt / Other Priorities
- Low or no tax appetite
- Complex decision-making
- Incentive for ad hoc projects
- “Headline risk” for underwriters

Opportunities:

- Deferred maintenance = Savings
- Interest in new capital structures
- Mission driven
- Focus on OpEx + Cash flow



CivicPACE: Market Potential

50 Gigawatts

Potential capacity of US nonprofits
that could go solar.

(Assumes 60% of 800,000 nonprofit property owners
can support 100 kW PV system)

DC PACE:

Program History & Design

District Department of Energy & Environment:

2032 Goals

Energy & Building Goals

- ❖ Cut energy use 50%
- ❖ Cut GHG emissions 50%
- ❖ Increase renewables to 50%
- ❖ Cut water use by 40%
- ❖ Net-zero energy new buildings
- ❖ Retrofit 100% to meet NZE
- ❖ Improve EE for Existing Buildings



2015 Progress

District Department of Energy & Environment:

Timeline:

2009

- 👉 Initial PACE proposal developed
- 👉 Meetings with key stakeholders to educate and obtain buy-in
- 👉 Initial DC PACE enabling legislation drafted
- 👉 White House issues PACE policy framework

2010

- 👉 DC PACE Enabling Legislation enacted
- 👉 DOEE allocates ARRA SEP money for design of PACE program
- 👉 Contractor selected to design DC PACE program

2011

- 👉 Program design

2012

- 👉 Complete program design delivered
- 👉 DC PACE enabling legislation amended
- 👉 Commence Pilot phase of program

2013

- 👉 DC PACE closes pilot project

DC PACE: Program History

Statutory Authority: Established by the DC Council as part of the Energy Efficiency Financing Act of 2010, and Sustainable DC Act of 2012. DC PACE is backed by \$250 million in bonding authority, available to all commercial, institutional and multi-family real estate within the District of Columbia.

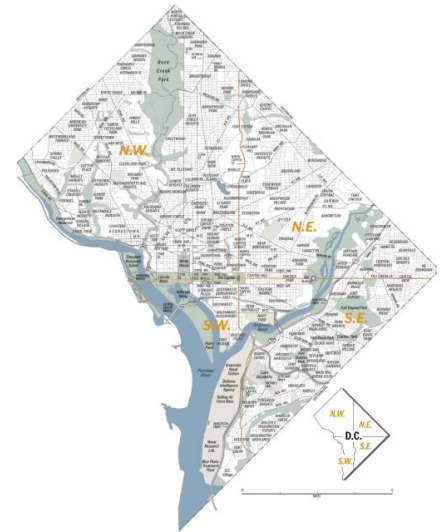


Program Design

- Market-based, privately administered
- Can accommodate multiple building types
- For-profit & properties that don't pay real estate tax

Sustainability Goals

- Increase energy reliability
- Drive economic development and job creation
- Reduce GHG emissions and environmental damage



DC PACE: Program Administration



URBAN INGENUITY

- Oversees DC PACE program
- Approves final underwriting
- Initiates PACE note
- Responsible for bill collection and disbursement of proceeds

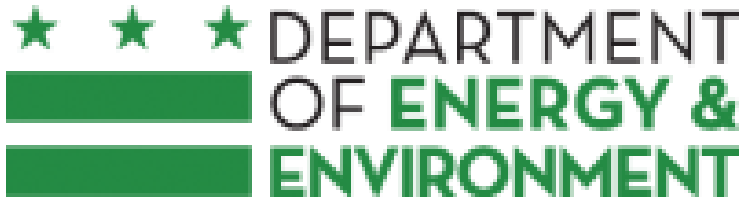
- Private sector program administrator, on behalf of DC Government
- Responsible for marketing and outreach
- Provides technical & financial underwriting, arranges capital, and confirms M&V



DC PACE Case Study:

HUD Assisted Public Housing

Urban Ingenuity: *Catalyzing PACE Pipeline*



URBAN INGENUITY

- DC Program Administration
- Enterprise National Green Platform
- First PACE in Affordable Housing
- Creative Structuring
 - PACE Secured PPAs
 - HUD Approved Public Housing
 - Tax Exempt PACE Financing
- Engage Many Sources of Capital
- Portfolio Screening & Analytics
- Large District Energy Microgrids

HUD Assisted Case Study: *Phyllis Wheatley YWCA*



Project: Deep rehab of historic property offering transitional housing to homeless women

Challenges:

- Install solar and highly efficient equipment
- Pays back, without impacting capital budget
- Approval from many public & private partners

Solution: PACE filled a gap in a complex multi-million \$ project

Financed 30 kW rooftop solar
Efficient HVAC systems, heat
recovery system, LED lighting, and
low-flow water fixtures



HUD Assisted Case Study: *YWCA Project Benefits*

- PACE Financing: \$635,000 (15 Year Term)
- Tax Equity: \$65,000

| Property Owner: Annual Benefit | |
|--------------------------------|----------------|
| Utility savings | \$73,000 |
| PACE Payments | \$(66,000) |
| Net Cash Flow | \$7,000 |

| Equity Investor Benefits | |
|--------------------------|-----------------|
| SREC Revenue (pre-tax) | \$72,000 |
| ITC | \$36,000 |
| Depreciation | \$35,500 |
| Total Benefit | \$143,500 |
| Tax Equity | -\$65,000 |
| Net Benefit | \$78,500 |

- PACE finances solar PV and efficiency in one package
- Net benefit \$7,000 per year in cash flow
- Made infrastructure improvements without raising rents
- First use of PACE financing in a HUD-assisted mixed finance property
- Integrated PACE with LIHTC, DHCD, DCHA & other structures

HUD Assisted Case Study: *The Economic Case*

| | Self-Funded | PACE |
|---|--------------------|-------------------|
| Investment by Property Owner | \$700,000 | \$0.00 |
| Annual Utility Savings | \$77,000* | \$73,000 |
| Annual PACE Payment | \$0.00 | \$(66,000) |
| *Includes SREC income | | |
| Net Benefit Year 1 | \$(623,000) | \$7,000 |
| Annual Net Benefit Years 2-15 | \$77,000 | \$7,000 |
| 5-year NPV of Cash Flows (@ 6% discount rate) | \$(305,000) | \$27,000 |
| 10-year NPV of Cash Flows (@ 6% discount rate) | \$(56,000) | \$58,000 |
| 5-year IRR | -15% | Infinite |
| 10-year IRR | 3% | Infinite |

**PACE increases NOI & property value with
Zero dollars out-of- pocket for the owner**



HUD Assisted Case Study: *Mixed Finance Precedent*

UI has demonstrated a PACE structure that conforms with HUD-PIH mixed finance requirements for public housing

1. **Inter-Creditor Agreement:**

- i. **PACE Subordination:** to Declaration of Trust (DOT/DORC)*
- ii. **Right to Cure:** DCHA may cure any delinquency in payment*
- iii. **First Refusal:** In foreclosure DCHA can buy Tax Cert for \$1*

2. **Declaration of Trust:** Includes language that ownership transfer under PACE is conditioned on observing the DOT/DORC.

3. **Mixed Finance ACC Amendment:** Language references PACE subordination to the DOT/DORC through inter-creditor agreement

4. **Rental Term Sheet:** HUD is approving terms that include PACE financing along with ACC payments within the capital stack



DC PACE Case Study:

PACE Secured PPA

PACE-Secured PPA: *Large House of Worship*

Project: Energy and infrastructure upgrades on four large properties for a prominent church



Challenges:

- Monetize tax benefits from solar PV
- Use savings to finance structural work
- Retire traditional mortgage debt

Solution:

- \$3 million in building upgrades, including solar PACE-secured PPA for 300 kW system, partial roof replacements, HVAC upgrades, smart thermostats & controls, LED lighting, low-flow water fixtures

PACE-Secured PPA: *Large House of Worship*

20-Year Project Benefits

| | |
|------------------------|--------------------|
| Utility Savings | \$3,000,000 |
| O&M Savings | \$600,000 |
| Avoided Capital Costs | \$1,300,000 |
| Total Savings | \$4,900,000 |
| PPA Cash Back (Year 1) | \$500,000 |
| Total Benefits | \$5,400,000 |

Cumulative Project Cash Flows

| | |
|---------------------|------------------|
| Total Benefits | \$5,400,000 |
| Total PACE Payments | \$(4,700,000) |
| Net Benefit | \$700,000 |

Benefits:

- PACE-PPA streamlines underwriting
 - Monetize tax benefits from renewables
 - Finance infrastructure without a mortgage
-
- \$700,000 total net benefit = approximate average annual net savings of appx. \$35,000

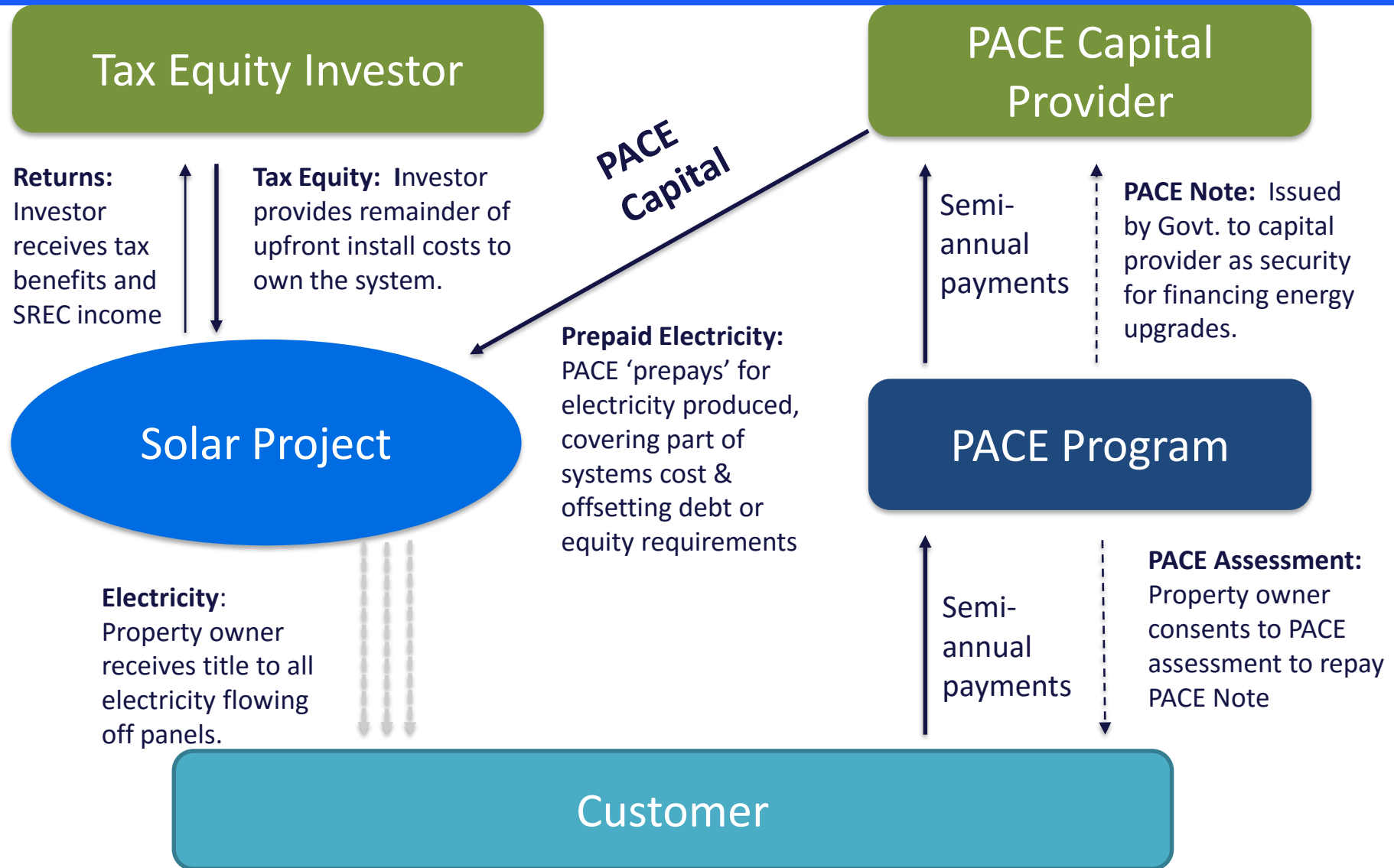
PACE-Secured PPA: *More security, better pricing*

PACE improves Solar PPA contracting...

- A. PACE is a credit enhancement:** Adds security for investors, reduces default risk, brings more economics into transaction.
- B. PACE simplifies underwriting:** PACE is tied to the asset not the credit of the borrower, simplifying underwriting.
- C. PACE eliminates personal guarantees:** PACE security removes the need for contractor or owner guarantees on debt.
- D. Increases owner benefits:** PACE can structure tax equity investment to maximize cash flows.



PACE-Secured PPA: *Transaction Structure*



DC PACE Case Study:

Tax-Exempt PACE

Tax Exempt PACE: *Nonprofit HQ & For-profit Retail*



Project: PACE as a layer in capital stack for gut rehab of an abandoned building to serve as new HQ of a non-profit with retail tenants.

Challenge:

- Structure tax-exempt PACE to sit alongside tax-exempt IRB financing
- Construct an energy baseline for property without utility usage history

Solution:

- Constructed baseline that qualifies property for **\$2 M in PACE financing** for energy efficient HVAC equipment, LED lighting, envelope improvements, efficient kitchen equipment for restaurant

Tax Exempt PACE: *Nonprofit HQ & For-profit Retail*

| Sources & Uses | |
|----------------------|---------------------|
| IRB (tax-exempt) | \$6,000,000 |
| Taxable Mortgage | \$2,000,000 |
| Local Govt. Grant | \$3,000,000 |
| Financing Gap | \$2,000,000 |
| Project Cost | \$14,000,000 |

\$2.9 M savings above code over 20 years
qualifies the property for \$2 M+ in PACE

| PACE Financing | |
|-------------------|--------------------|
| Tax-Exempt PACE | \$1,500,000 |
| Taxable PACE | \$500,000 |
| Total PACE | \$2,000,000 |

- No first-cost barrier allows energy upgrade
- HVAC, LED Envelope, Restaurant Equipt.
- Bond counsel approved tax-exempt use of PACE
- PACE Provides \$2M of Equity into \$14M rehab
- Tax-exempt / taxable PACE split mirrors IRB

CivicPACE: *Empowering Public Benefits*

- PACE is a Public Benefit codified under statute
- Designed to improve sustainability of building stock
- Benefits should flow to all members of community
- Civic organizations are the fabric of communities
- CivicPACE realizes the promise of PACE

PACE:

Market Applications

Renew Financial

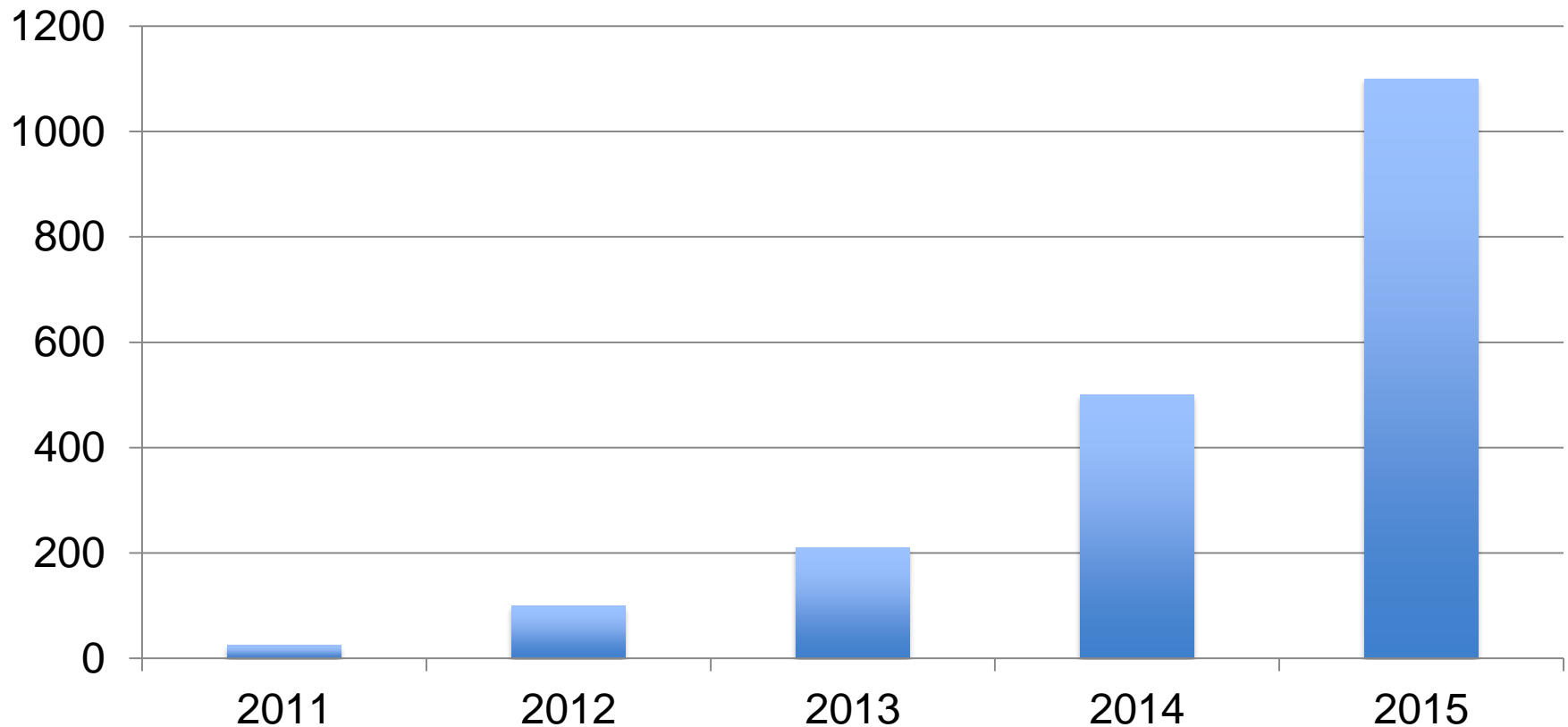
- Innovated PACE Business Model 2007-08
- Launched CaliforniaFIRST Residential Program August 2014
- First Securitization September 2015
- Completed \$24 MM in Commercial PACE in 2015
- Originated \$120 MM in Residential PACE in 2015
- Launching RenewPACE in Florida June 2016



RENEW
FINANCIAL

Residential PACE is Working in CA

PACE Projects in \$ Millions



Residential PACE Achieves Important Policy Goals

Residential PACE improvements in California to-date will save:

9.1 billion

kWh of energy

3.4 billion

gallons of water

\$2.5 billion

in utility bills

California Residential PACE improvements also account for:

13,124

local jobs created

2.5 million

tons reduced emissions



CivicPACE



Contacts

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Q&A + Discussion



Thank you!

A recording of the webinar will be sent to all registrants.

Please contact Zoe Berkery (zberkery@bcse.org) with any questions.

