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# Bonds for Energy Efficiency Retrofits

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Metropolitan Washington Council of Governments  
*Innovative Financing Tools for Energy Efficient Buildings*

July 30, 2012

Together we'll go far



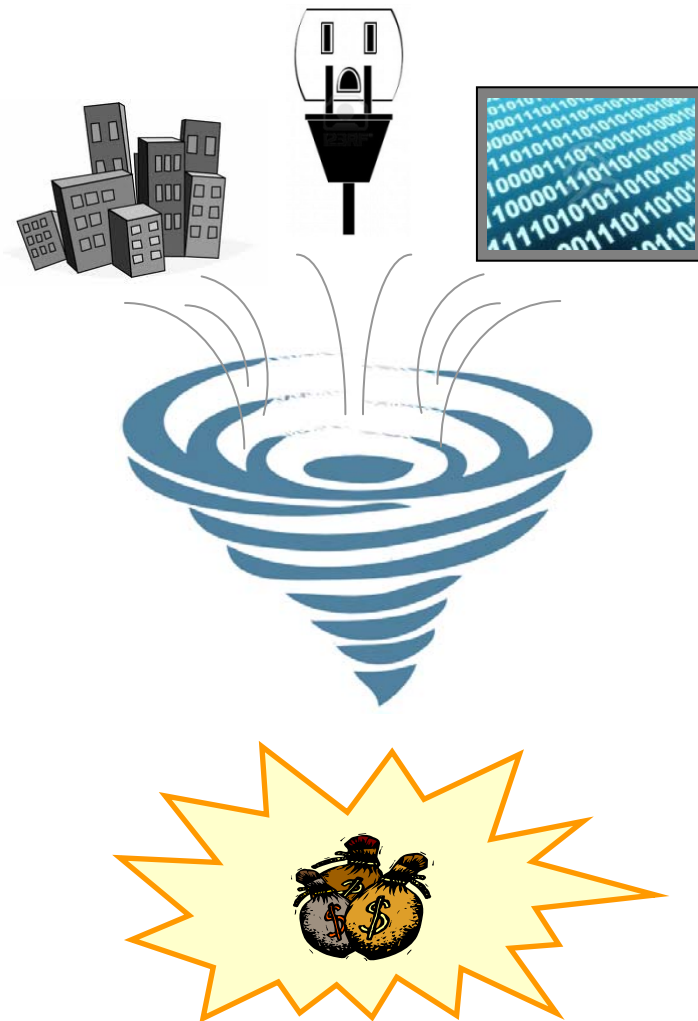
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# The Energy Efficiency Retrofit Financing Opportunity

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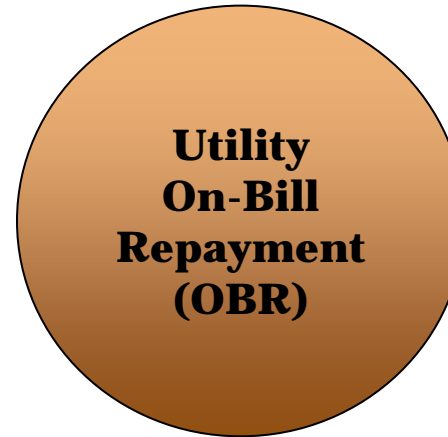


- What is this opportunity?
  - Energy related property retrofits that save more than they cost
- What's the size of the opportunity?
  - \$279 billion could be invested to yield \$1 trillion over 10 years<sup>1</sup>
- What factors are driving it?
  - Aging building stock ripe for retrofit
  - Renewed energy awareness
  - Information technology
- Why will the financing of this be new?
  - Traditional financing does not align well with the energy savings

<sup>1</sup> DB Climate Change Advisors, *United States Building Energy Efficiency Retrofits: Market Sizing and Financing Models* (2012), 7.

## New Bond Financing Mechanisms for Energy Efficiency Retrofits

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- The energy efficiency retrofit opportunity is too large for bank balance sheets and will require capital market bonding
- The opportunity may also be too large for a single mechanism, and we should expect to see more than one ultimately come to bond market fruition
- State and local governments will play a role in each of these mechanisms

# Property Assessed Clean Energy (PACE)

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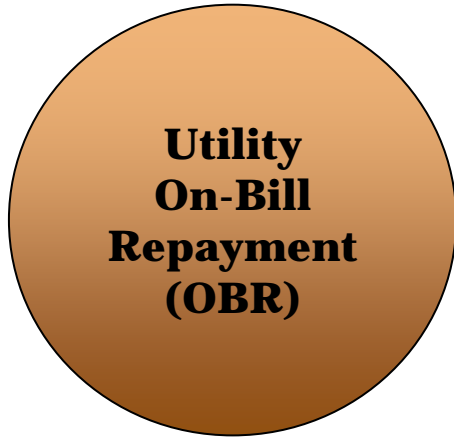


Characteristics	
State Law Enabled:	Yes
Repayment Mechanism:	Property Tax Bill
Security:	Tax Lien on Property
Primary Remedy:	Foreclosure (senior status)
100% Financing:	Yes
Split Incentive Friendly:	Yes
Financing Term:	Up to 20 years
Tied to Property:	Yes
Municipal Role:	Assessment district taxing mechanism

## Challenges:

- Federal Housing Finance Agency (FHFA) objection to Residential PACE
- Right of consent on Commercial PACE likely renders the “Owner-Arranged” model as the most viable program structure
- “Owner-Arranged” Commercial PACE may have a slower evolution towards capital market access than what was expected for Residential PACE
- Demand for Commercial PACE financing amongst property owners is not fully proven

# Utility On-Bill Repayment (OBR)



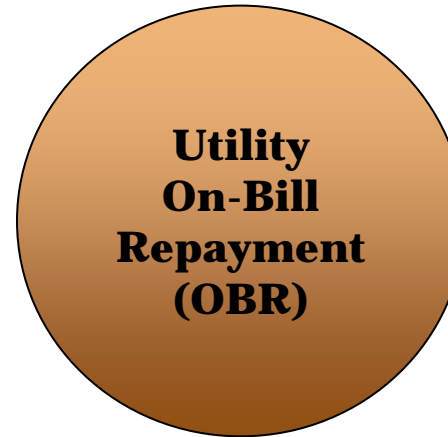
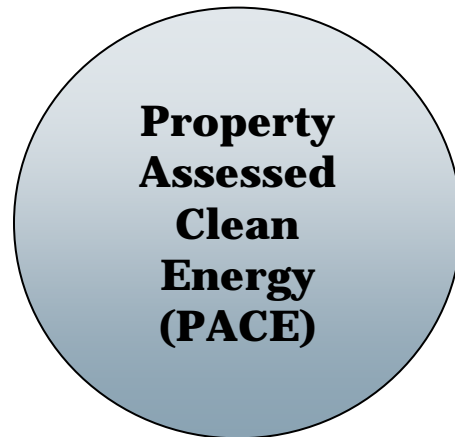
Characteristics	
State Law Enabled:	Yes (in many cases)
Repayment Mechanism:	Utility Bill
Security:	Unsecured
Primary Remedy:	Utility shutoff
100% Financing:	Yes
Split Incentive Friendly:	Yes
Financing Term:	10+ years
Tied to Property:	Yes (via utility meter)
Municipal Role:	Contributed resources

## Challenges:

- Because of its unsecured nature, the capital markets may initially characterize OBR as being akin to credit card receivables
  - Challenge #1: Financing Rate Gap
  - Challenge #2: Financing Term
- Creating a capital market financing vehicle that overcomes these challenges may require a meaningful degree of contributed resources (i.e., capital that is not looking for a market return)
- OBR with respect to commercial properties has its own unique challenges

## New Bond Financing Mechanisms for Energy Efficiency Retrofits

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- Perhaps each of these two mechanisms finds a sweet spot along the retrofit spectrum
  - PACE: Commercial properties
  - OBR: Both single-family & multi-family residential
- Over the near term, we expect to see more innovation and advancement with the OBR mechanism
  - Residential will scale more quickly
  - Incorporating municipal contributed resources is innovative

## New Municipal Entities for New Financing Mechanisms

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- The municipal role in establishing these new financing mechanisms is being affirmed by the creation of new government entities dedicated to participating in the energy efficiency retrofit financing opportunity

- Chicago Infrastructure Trust
- Connecticut Clean Energy Finance & Investment Authority (CEFIA)
- Delaware Sustainable Energy Utility
- Florida PACE Funding Agency
- New York State Energy Research & Development Authority (NYSERDA)
- New York City Energy Efficiency Corporation (NYCEEC)
- Marin Energy Authority (MEA)

- Municipalities view this effort as being as much about job creation and fostering energy independence than climate change