



Financing and Policy Solutions for Resilience

September 15, 2016



MassDevelopment

- Works with businesses, nonprofits, financial institutions, and communities to stimulate economic growth throughout Massachusetts
- Promotes capital investment and economic development by providing financing and development solutions
- In FY16, MassDevelopment financed or managed 352 projects generating investment of more than \$4 billion in the Massachusetts economy
- These projects are projected to create more than 8,200 jobs and build or rehabilitate more than 4,200 residential housing units





Infrastructure Bond Financing Programs

- Infrastructure Investment Incentives Act ("I-Cubed")
- District Improvement Financing ("DIF")
- Local Infrastructure Development Program ("23-L")
 - All programs create a district and pay for public infrastructure through taxes. Value Capture. Public Private Partnership.
 - All programs can be used independently or in combination to meet a project's financing needs
 - Infrastructure must benefit the district and must be owned or conveyed to a public entity to be eligible for tax exemption.





Typical projects

- Transit Oriented Development
- High density, urban infill
- Waterfront development
- Old mill redevelopment
- Downtown revitalization
- Business parks
- Stalled projects, repurposing old assets



What Types of Infrastructure Can Be Funded for Resiliency

- New roadways
 - Green roads and alleys, permeable and reflective pavement, rain gardens reduces storm-runoff, protects ecosystems, walkability
- Transportation facilities such as train stations, bus depots, etc.
 - Reduces congestion, improves air quality, improves road safety, reduces reliance on fossil fuels, improves walkability
- Seawalls, docks, wharves, bridges, culverts, tunnels
 - Defends against sea rise, flood prevention, storm-surge protection
- Parks, playgrounds, walkways and recreational facilities
 - Greenery, trees, improves air quality, slows runoff, lowers cooling/heating costs, wind-breaks to protect buildings, improves water quality, biodiversity, better physical health
- Brownfields cleanup and mitigation
 - Public health, improves soils, reduces storm run-off, jump starts dirty project, place making



What Types of Infrastructure Can Be Funded for Resiliency

- Water & waste water facilities
 - Septic to sewer, waste water treatment, clean water, environmental mandates
- Drainage systems
 - Better management of storm-water runoff, lowers incidents of combined storm and sewer overflows, water capture
- Alternate energy sources such as co-generation (Microgrids)
 - Climate adaptation, lowers energy demand, power in case of storm
- Solar installations
 - Lowers energy demand, sustainable energy production
- Soft and financing costs (engineering, architectural, etc.)



Qualified Energy Conservation Bonds ("QECB")

- May be used by state, local and tribal governments to finance energy projects
- Interest rate is either subsidized by the US Treasury or issued as a tax credit
- Bondholder receives federal tax credits in lieu of traditional bond interest
- "Qualified energy conservation projects" energy efficiency capital
 expenditures in public buildings that reduce energy consumption by at least
 20%; green community programs (including loans and grants to implement
 such programs); renewable energy production; research and development
 applications; mass commuting facilities that reduce energy consumption;
 several types of energy related demonstration projects; and public energy
 efficiency education campaigns
- \$5+ million available. DOER will be finalizing the amount available and issuing an PON shortly for this allocation
- Scituate Wind and Fairhaven Wind are privately owned wind turbines with a PPA with the each town



Commercial Property Assisted Clean Energy ("PACE")

- Legislation just passed in Massachusetts. Exists in more than 30 states.
- Property owner agrees to betterment assessment on qualified commercial/industrial property
- Commercial, industrial, mixed-use, retail NFPs and housing with 5 or more dwellings
- Commercial energy improvements include any renovation or retrofit to reduce energy consumption or installation of renewable energy systems. Improvements privately owned and permanently fixed to property. Also includes extension of natural gas distribution company line.
- Bond amortized for lesser of 20 years or useful life of asset
- Energy savings must exceed cost of improvements including any financing costs and associated fees
- Private capital can provide long-term, non-recourse financing secured through senior tax lien repaid through property bill. No acceleration, no cross-collateralization. Runs with property if building sold.



Challenges

- Capturing the value
- Learning curve
- Public procurement / prevailing wage
- Real estate economics
- Cost versus available capital / Competition for funds

Opportunities

- Green infrastructure, climate change, resiliency popular topics
- Demographics, population growth, sprawl, non-renewable resources
- P3 market growing
- Historically low interest rates
- Programs like I-Cubed define participation
- Necessity is the mother of invention



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