

**For Discussion
Purposes**



Energy Efficiency Financing
Through On Bill Financing and
Special Tax Districts –

Connecticut Clean Energy and
Energy Efficiency Sub-Committee of
the Energy & Technology
Committee
March 2009

Claire Broido Johnson
cjohnson@hannonarmstrong.com

CONFIDENTIAL

FOR DISCUSSION PURPOSES ONLY



Agenda

Introducing Hannon Armstrong

On Bill Financing Opportunities

Special Tax District Opportunities

CONFIDENTIAL

FOR DISCUSSION PURPOSES ONLY



Hannon Armstrong

Introducing
Hannon Armstrong

28 year old Investment and Merchant Bank active in

- Federal market
- Commercial & Institutional market
- Utility market



Solar PV and Gas Co-generation



1300km Fiber System in Arctic Circle

Asset Classes include

- Renewable energy, energy efficiency, carbon projects
- IT & Telecom assets
- Water assets

Financial Products include

- Vendor Finance Programs
- Project Finance
- Equity Investments



Drilling Rig on site at Hudson Ranch 1

CONFIDENTIAL

FOR DISCUSSION PURPOSES ONLY



Introducing
Hannon Armstrong

Hannon Armstrong Energy Efficiency Finance Credentials

- Portfolio of over \$2 billion in energy efficiency assets
- Closed EE transactions with over 20 major investor-owned utilities
- Leading investor in energy **paid-from-savings** and **performance** contracts;
 - 300 transactions
 - 15 energy contractors
- Lead bank for the *Clinton Climate Initiative Energy Efficiency Retrofit Program* for Commercial office buildings, private colleges and universities
- Founding partner of the *Virginia Tech Energy Efficiency Partnership of Greater Washington*

CONFIDENTIAL
FOR DISCUSSION PURPOSES ONLY

Agenda

Introducing Hannon Armstrong

On Bill Financing Opportunities

Special Tax District Opportunities

CONFIDENTIAL
FOR DISCUSSION PURPOSES ONLY

On Bill Financing

Energy Efficiency (EE) Financing Today

- Utility EE programs: Loans paid through system benefit charges, or otherwise rate-based
- Utility programs - **Less than 1%** of customer base signs up for any one of the 150 residential energy efficiency loan programs in U.S. C&I participation rates < 5%. Problems:
 - Securitizing against assets – financiers need way to recover some residual value in the event of default
 - Loan processes are cumbersome; Loan amounts are small
 - Uncertain Savings; Measuring and verifying savings is costly for entities without pre-existing M&V systems
 - **If programs are too difficult or complicated, and the financing is not distributed easily, especially for small energy efficiency projects, people will not use energy efficiency incentive programs**

CONFIDENTIAL
FOR DISCUSSION PURPOSES ONLY

Agenda

Introducing Hannon Armstrong

On Bill Financing Opportunities

Special Tax District Opportunities

CONFIDENTIAL
FOR DISCUSSION PURPOSES ONLY

Special Tax Districts

Special Tax Districts

- Electricity users “opt-in” to special tax district created by municipality
- Users pay no upfront payments for EE improvements but agree to ‘tax’ themselves (repay in future) for energy efficiency or renewable energy improvements to their property
- Low upfront costs to electricity user (administrative costs); user pays back upfront costs through bond repaid over 20 years semi-annually through line-item on tax bills
- City provides upfront money to pay for EE/RE improvement through issuance of municipal bond; bond is issued through municipality

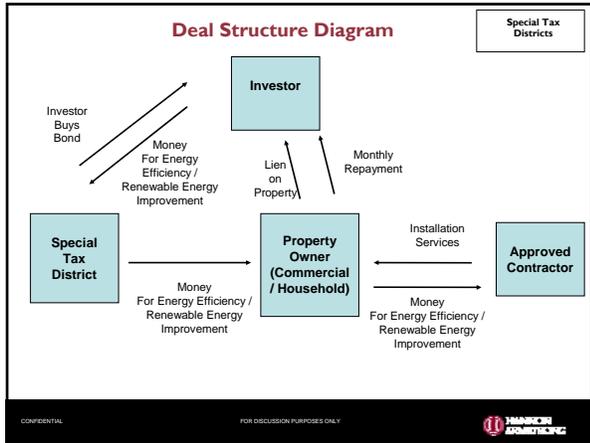
CONFIDENTIAL
FOR DISCUSSION PURPOSES ONLY

Special Tax Districts

Special Tax Districts

- Key: special tax district means bondholder gets lien on property
- Electricity users chooses installer based on approved list
- City of Berkeley is first to promote model: Berkeley FIRST (Financing Initiative for Renewable and Solar Technology)
- Other cities with model: Annapolis, MD, Babylon, NY, Montgomery County, MD

CONFIDENTIAL
FOR DISCUSSION PURPOSES ONLY





Contacts:

Claire Broido Johnson
Senior Advisor
Tel: (443) 226 - 0273
email: cjohnson@hannonarmstrong.com

Jeff Eckel
CEO
Tel: (410) 571 - 6162
Email: jeckel@hannonarmstrong.com

Hannon Armstrong Capital, L.L.C.
1997 Annapolis Exchange
Suite 520
Annapolis, MD 21401
www.hannonarmstrong.com

CONFIDENTIAL FOR DISCUSSION PURPOSES ONLY HANNON ARMSTRONG
