

**Paul Pizzo Testimony for S.B. 203
Energy and Technology Committee, March 7,2013**

Good Morning.

My name is Paul Pizzo. I am an Architect and owner of Landmark Architects located in East Haven, CT. I have been practicing Architecture in CT for over 30 years and have recently been commissioned to work on several Multifamily housing projects, both public and private around the state and region. We are an EPA sponsored Energy Star Partner encouraging better more efficient building design and construction. We believe that conservation is the first means to ultimately reduce the cost of energy used to heat and cool our buildings.

I am here today in my capacity as the Project Manager for an Energy Modernization Project being initiated by the Meriden Housing Authority that exemplifies the comprehensive approach that the Energy & Technology Committee seeks to encourage and support.

Accordingly, I testify here today in support of Proposed SB 203 AN ACT CONCERNING PROPERTY TAX EXEMPTION FOR RENEWABLE ENERGY SOURCES, as this Bill will further Private/Public Partnerships with State and Utility officials to provide a new funding mechanism to help develop and finance comprehensive, Energy Efficiency Projects.

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I thank the Committee, Co-Chairs Representative Reed and Senator Duff, for this opportunity to inform you about a Project that incorporates the efficiency, conservation and renewable energy initiatives highlighted in the Governor's Comprehensive Energy Strategy and applies them to a previously underserved sector of the housing market: multifamily, affordable public housing complexes.

Project Overview

It is the goal of the Housing Authority of the City of Meriden to redevelop its Yale Acres housing complex into a modern, energy-efficient, safe, comfortable and attractive multi-family residential facility. Yale Acres is a State owned, MHA operated affordable housing complex constructed over 27 acres of land located on the east side of Meriden adjacent to Route I-691.

Built in 1952, the Yale Acres complex consists of 47 apartment buildings housing 163 two and three bedroom living units.

Yale Acres was originally designed to house moderate income families but is now classified as obsolete and severely distressed. This family-oriented neighborhood is in serious need of comprehensive energy efficiency and conservation measures, as well as non-energy related

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modernization improvements such as new kitchens and bathrooms, in order to continue to provide Meriden-area families with a safe, clean and affordable housing option.

It is the plan of the MHA to first implement a 3-Phase Model Building Demonstration to showcase and confirm the reliable performance of the combined use of geothermal/solar thermal and solar photovoltaics renewable power systems being designed.

This is the first Green power generating system of its kind applied to the Connecticut multi-family public housing sector.

The 1st Phase will be the completion of an Energy Star Model Building of 4 living units that showcases the entire suite of renewable energy, and conservation measures to be proposed for all of the Yale Acres.

This first building is scheduled to be complete by Mid May. The energy system's equipment and ongoing performance will be monitored and evaluated for a full year, with initial reports starting in 3 months.

The 2nd Phase demonstrates the shared efficiencies of an integrated energy system to provide electricity, HVAC and Domestic Hot Water system capability. We will connect 10 living units including the Energy Star Building, providing a linked

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geothermal/solar thermal system similar in design to the Downtown Hartford Steam & Chilled Water system. However, instead of one main power plant, the targeted buildings will share 10 geothermal wells providing a constant 55 degree water utility linked and distributed among the clustered buildings. These will feed individual unit heat pumps that will replace oil fired boilers currently being used, thus negating the need for heating oil.

in addition there will be heat input from solar thermal tubes located on each building's roofline, primarily used to provide hot water to tenant's individual apartments.

In Phase 3 of our Demonstration Project, in direct response to the State's most recent Energy Project Initiative, the linked system of buildings will create a mini-micro-grid, distributing geothermal and solar thermal btu's and solar PV electricity to the 10 apartment units. Through a new venture, Community Power-Meriden, a public-private partnership proposed between the Housing Authority and the Project's Energy Company AEG (Advanced Energy Group) water service for HVAC needs can be provided to each unit.. In the future, this application could provide heat (or cooling)

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and power to a contemplated Community Warming Center during storm related outages.

We plan on financing the estimated \$30M Yale Acres' Modernization Project using both private and public funds, in direct response to the State's desire to see funding for such Projects arranged through shared Private/Public Partnerships and new financing options such as that presented in S.B 203.

In summary, while this Project utilizes existing energy equipment and proven energy efficiency and conservation measures, the Meriden Housing Authority's Yale Acres' Project will showcase 3 innovations of note in its Phase 1 Demonstration Initiative:

- 1) First, we are implementing EPA Energy Star standards, in accordance with the State's Comprehensive Energy Strategy. We recognize the need to make each building as energy efficient as possible before installing any energy producing systems;
- 2) Second, we are providing a combined geothermal/solar thermal/solar pv system to maximize the use and cost effectiveness of renewable, Green technologies, in an effort to get as close to a "net-zero building" as technically and economically viable;
- 3) And Third, we are applying all these innovations and conservation initiatives at a State owned, multi-family, affordable public housing complex; a market sector that has to date been woefully underserved.

And we plan on accomplishing this Project with the support of State and Utility officials through a Private/Public Partnership that leverages

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the energy expertise, project experience and financing capacity of all the partners to successfully implement the Yale Acres Initiative and provide a thoroughly vetted new approach to develop and manage similar public and private multi-family housing projects in the future.

Over the past 4 months, we have provided Briefing Documents and more detailed and technical Project Descriptions to various State Energy and Utility officials for their review and consideration. With the release of the Governor's CES, the Meriden Housing Authority wanted to be sure to inform the appropriate State agencies of their Yale Acres Project's comprehensive energy efficiency and conservation initiatives, it's ground-breaking, combined geothermal/solar thermal/solar pv renewable system design and its targeted application for State-owned, public, multi-family affordable housing properties.

We believe that we have created a Model for Energy Efficiency and Sustainability that is Green, reliable and cost effective.

What we respectfully ask of the Energy & Technology Committee, our State Legislature,

our Governor and the program administrators at DEEP, CEFIA,

CEEF, PURA and NU/CL&P and UI is to work with us to refine and

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**finalize this new, Project Development and
Funding Mechanism not only for our Yale Acres Project, but for similar
Modernization Projects going forward, as part of the Private/Public
Partnership highlighted in the Comprehensive Energy Strategy.**

**Once again, I thank the Committee for the opportunity to speak to you
today. I would be happy to answer any questions that you might have.**