



## **GLOBAL NETWORK PARTNERS (GNP)**

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### ***Executive Summary*** ***Smart Technologies Energy***

**Mr. Joseph W. Higginbottom, Jr.** Principal Owner/proprietor, Sole Owner of ***Smart Technologies Energy, Inc.*** and ***Projects IA and IIB*** based at 22 Christiansen Drive, North Smithfield, Rhode Island, since April, 1988, and 140 Thornton Street, Boston since 1977. Both the Rhode Island and Boston properties are free and clear of any mortgages, liens or encumbrances. ***Joseph W. Higginbottom, Jr.*** of Boston is a graduate of Boston University and has had a successful career in business focusing on alternative, renewable energy solutions since 1988, 27 years of experience. **Mr. Higginbottom's** recent years has been devoted to and developing the professional management team to develop and advance energy conservation, efficiency and systems and solutions. His motivation and focus is to continue to work in partnership with public, governmental, civic organizations, business, community, universities and special interest groups and associates to promote and create more practical energy-efficient systems and solutions to benefit the communities in Rhode Island as well as in the Boston community where the energy efficient homes are proposed. The intent is to create jobs as well as to meet the needs in low- and moderate-income communities.

**Purpose:** The purpose is to request 50M plus (US dollars) financing over a 15 year period for ***Smart Technologies Energy's*** overall Projects IA (Phases I-VII), developing in North Smith, Rhode Island, and Project IIB (Phases I-IV.), Boston, MA. Currently, both projects and phases are ongoing in research and development.

Initial funding request is in the amount of 3.2 million plus (US dollars) for Project IA, Phase IA. the Solar Energy Farm now in contract with Narragansett/National Grid for 15 years, renewable up to 25 years. Smart Technologies Energy's timeline milestone on the solar energy farm is (6) six months from construction early this summer (June or July, 2015) to completion in late fall of 2015 with full energy generation within (2) two months of completion. **Full stabilization and positive cash flow is expected when energy is being produced and generated within (2) two months of completion.** (*NGrid contract, Milestones and Interconnection Feasibility study are available*).

**Smart Technologies Energy's** seed development costs and investment thus far is in the excess of 250K with over 600K equity value in the NSTAR grid interconnection and feasibility study in the Solar Energy Farm project currently in process. Presently, Smart Technologies Energy is providing ongoing development funding for the Solar Farm development. (*NGrid contract, PPC and COD information are available*).

**Use of Funds:** The 3.2 million financing will be used to fund the initial Solar Energy Farm development and projects costs including NGrid interconnection, equipment (panels, racking, etc.), construction costs, consulting, contracting, legal fees, agency, permitting, insurance and etc. (*Financial pro-forma are available*).

## ***Project Summaries IA & IIB***

### **Project IA.**

***Project IA's*** overall goal and thrust is to build a high-tech recycling and green energy renewable/alternative energy research facility plant located in North Smithfield, Rhode Island.

- ***Alternative Energy High Tech Research Plant & Facility:***  
***22 Christiansen Drive, N. Smithfield, Rhode Island, 02176***  
***Branch River***

<u><b>Development Phases:</b></u>	<u><b>Projected</b></u>	
	<u><b>Costs</b></u>	<u><b>Timeline</b></u>
• <b>PHASE I.</b> – Solar Energy.....	3.1M	2015
• <b>PHASE II.</b> – Energy Turbines .....	3.1M	2015
• <b>PHASE III.</b> - HyDro- Turbine Energy (Water) .....	3.1M	2016
• <b>PHASE IV.</b> – Bi-omas (Fossil/Waste).....	3.1M	2016
• <b>PHASE V.</b> - Land Development .....	500K	2015-2016
• <b>PHASE VI.</b> – Research Facility (Plant & Equipment) .....	12.5M	2016-2017
• <b>PHASE VII.</b> – Land/Facility's (Warehouses) Property Acquisitions. ....	<u><b>2.5M</b></u>	2016-2017
Sub Total .....	25.4M	
• <b>PHASE VIII.</b> – Smart Technologies Energy Industrial Park .....	<u><b>20.M</b></u>	<b>2017-2020</b>
<b>Total Phases I. –VIII.</b> .....	<b>45M</b>	

### **Project IIB.**

***Project IIB.*** is to build in Boston energy efficient model residential single family (homes) that can be replicated and serve as example model homes for future development all over the country.

- ***Model Energy Efficient Homes***  
***140 Thornton Street, Boston, MA 02119***  
***Plus Parcel: (3) 136, 142, 146***

<u><b>Development Phases:</b></u>	<u><b>Projected</b></u>	
	<u><b>Costs</b></u>	<u><b>Timeline</b></u>
• <b>PHASE I.</b> Restore Primary Energy Efficient Model Home ..... (Thornton St.)	950k	2015-2016
• <b>PHASE II.</b> Land/Parcel Acquisitions .....	200K	2015
• <b>PHASE III.</b> Land Development .....	150K	2015-2016
• <b>PHASE VI.</b> Build (3) New Additional Energy Efficient Model Homes on the existing parcels .....	<u><b>1.5M</b></u>	<b>2015-2017</b>
<b>Total Phases I – IV.</b> .....	<u><b>2.8M</b></u>	

<u><b>Totals: Projects IA &amp; IIB.</b></u>	<u><b>Development</b></u>	<u><b>Costs</b></u>	<u><b>Timeline</b></u>
Project IA. –VIII. ....		45M	2015-2020
Project IIB – IV. ....		<u><b>2.8M</b></u>	<b>2015-2017</b>
<b>Total Projects IA. &amp; IIB. Development Costs</b> .....		<b>47.8M</b>	<b>2015-2020</b>

**NOTE:** ***Total overall costs for Projects IA & IIB are estimated to be approximately 48 - 53M not including fees and interest.***

### Annual Income & Expense Projection for Projects IA and IIB.

#### Revenue Projection per year:

• Project IA .....	27.5M	
• Project IIB .....	<u>7K</u>	
Total Revenue IA, IIB.....		28.2M

#### Expense Projection per year:

• Project IA.....	12M	
• Project IIB .....	<u>2K</u>	
Total Expense IA, IIB.....		<14M>

Net Total Revenue and Expense Projections (Profit).....	14.2M
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#### **Mission – Project IA.**

*The mission is to establish in Rhode Island a dynamic renewable energy facility with the objective of generating cost-effective renewable energy, economic growth and Rhode Island-based job creation. The intention is to achieve this objective through the development of its 15.89 acre site located in the Slatersville Industrial Park. The proposal is to acquire, develop and convert the existing industrial park into the Smart Technologies Energy Industrial Park and to build a green-designed/green-constructed facility in North Smithfield, Rhode Island dedicated to the creation of renewable energy for present as well as future benefit. The Slatersville Industrial Park is easily accessible to state highways, including I-95, 295, 146 and route 102, and abuts the Providence-Worcester Railroad system.*

#### **Expected Opportunities & Deliverables:**

*Opportunities: Smart Technologies Energy Proposal will impement imaginative and strategic project phasing to incorporate and convert the North Smithfield blank canvass into its renewable energy design, restoring and developing it into an inovative and disireable family oriented, retail, wholesale and merchandise industrial and recreational park near the Branch River.*

#### **Project Description:**

The first phase consist of the design and installation of a 1,043 KW solar PV system on approved commercial land, for the purpose to generate electricity for business use, for both off-grid and on-grid usage as fuel "eligible renewable energy resources" as pursuant to Rhode Island general law.

#### **Technical Feasibility:**

Support documents (data) can be provided as part of Rhode Island Solar Energy (RISD) project application that substantiates the Technical and financial Feasibility of the 1,045 KW solar PV System design and installation. A contract has already been secured with Narragansett/National Grid Energy.

## **Impact on the State of Rhode Island:**

The green economy is a sound financial investment and it creates a new opportunity of creating electricity in a cleaner, more sustainable manner using renewable energies from natural resources. Our commitment to invest in green based innovation, research and development technology will stimulate economic growth in the state of Rhode Island in particular in the North Smithfield community. Our program will provide employment opportunities that will create new products, promote diversity on all levels, job growth with viable wages, and decrease dependence on foreign oils. In addition, it will address energy and environmental challenges that impact our citizens' lives and hurt the general welfare, with conditions that include; high energy costs, reliance on imported fuels, aging energy infrastructure and a high unemployment rate.

**Technology:** Solar Panels

**Facility Size:** 1,043 KW

**Estimated Energy Production:** .2200 per KW

**Estimated KW Cost:** 2.8 – 3.1 M

## **Economic Development Benefits and Opportunities:**

### ➤ **Job Creation:**

- **Types of Jobs:** Directors, Managers, Supervisors, Field Technicians, Operations, Office, Administration, Site Management, Financial, Marketing, Research, Human Resource, Facility, Development, Procurement, Legal, Accounting, Bookkeeping
- **Number of Jobs/Career Opportunities:** Multiple
- **Estimated Salary Ranges:** 25-175K

## **The suitability of the proposed Site:**

Phase one of the 1,043 KW PV Solar panel design and installation is presently cleared and ready for installation this spring. A contract has already been secured with National Grid/Narragansett Energy (Contract letter can be provided). The site is suited for the proposed renewable energy systems due to its geographical location in a commercially zoned industrial Park. Its physical characteristic is 15.89 acres . It begins at the end of a culisac that abutts the Providence and Worchester Railroad on one side and the Branch River on the other. It is environmentally friendly for it is seclusive to the general public.

*Ongoing assessment and study for wind turbine, and the suitability for hydropower are being performed to determine the exact locations and suitability for developing a high tech Tri-energy systems.*

**Utilization of Funds:**

Smart Technologies Energy, Joseph W. Higginbottom, Jr. Principal, has already committed the upfront capital for the pre-development and technical feasibility for the first 1,043 KW Solar Pv System installation. All financing received from our major investment partners and/or any other source will be spent directly in the design and installation of a 1,043 KW Solar Pv System to generate electricity. Smart Technologies Energy will continue to re-invest in surveying and assessing as well as developing the site for other renewable/alternative energy power sources such as hydropower from the abutting Branch River and other proposed systems as outlined in Phases I through VIII.

**Success Metrics:**

Guidelines, policies and procedures have already been created and will be implemented including weekly/monthly reports that will be conducted to monitor the progress and success of the project. Performance reports will be available upon request.

**The Measure of the success of this project:**

The first phase of the project involves creating Electricity from the 1,043 KW PV Solar Panel System that will be sold back to Narragansett/National Grid Energy. All data is recorded and calculated. The effectiveness is being measured based on financial consideration of the total kilowattage produced on a cumulative monthly basis less the monthly operating cost and expenses to produce a net balance for each month to sufficiently support expected expenses, debt and liabilities. The effectiveness is based and facilitated on a year (15) year contract that will sufficiently cover the debt to be paid off taking into consideration positive returns necessary on investment in net gain in free energy production.

**Criteria for success:**

Smart Technologies Energy has created a plan with criteria for success by implementing effective economic standards of marketing and development from a business and qualified technical team with years of background experience. The plan is to continue to reinvest a percentage of the revenue generated back into the Renewable Energy business, and will strive to stay on the cutting edge in innovation, research and development, in the green Technology industry that can be replicated in other areas.

**The success that is expected during the first phase funding/financing period:**

Smart Technologies Energy expects to complete the first phase Solar Panel implementation by the fall of 2015 that will produce green energy supply back to the communities of Rhode Island in particular the North Smithfield community.

## ***Project II. B.***

**Project IIB.** is to design, development and build 4/E+ prototype research houses of energy efficient structures that encompass the design and build of 4 non-joining 2 family structures prototypes, each on separate abutting parcels (136, 140-142, 144 and 146). The owner Mr. Joseph W. Higginbottom, Jr and family, presently occupies 140-142, a 2 story family structure. The plans for these homes are to be reconfigured and restructured and upgraded to meet all requirements of the three proposed E+ prototypical buildings.

The purpose and function of these prototype structures will serve two main basic functions: (1) they will be occupied and livable as any other homes. (2) Continuous participation in ongoing research and development, hence, all four homes will be designed and upgradable as the newest and latest technology developed as energy efficient homes. The result will be that these 4 prototypes will be the key residences important for ongoing research and upgradable providing an instrument that will positively impact the development in existing, present and future homes for several reasons:

- (1) They will be examples as to how to make on-going technologies and research improvements affordable to all home owners.
- (2) They will reduce consumption and dependency of fossil fuel by the energy provider.
- (3) The consumer will be able to produce alternative renewable/alternative energy from present solar technology, including selling the excess back to power company (Net Metering).

In conclusion, these 4/E+ prototype homes will be associated with the future Recycling, Renewable/Alternative Energy Systems facility located in North Smithfield, Rhode Island where our research will be ongoing in several areas of development including advanced Recycling, Renewable/Alternative energy Systems by creating the most cost effective and energy efficient products that will better serve the local community for present and futures generations to come.

**Overview of the Model Energy-Efficient Homes Project** - Smart Technologies Energy will oversee the development of both projects located in North Smithfield, Rhode Island as well as the energy efficient homes proposed in Boston, MA. The energy efficient homes are four adjacent parcels in the Roxbury neighborhood of Boston, at 136, 140-142, 144 and 146 Thornton Street. Three of the parcels have no current buildings; one (140-142 Thornton) has a two-story, single-family structure. Four phases are proposed for the development of the energy efficient homes at a projected cost in the amount of 2.8M.

Our plan is to design, develop, and build three new two-family dwellings and to design and rehabilitate the one existing dwelling. All four houses will incorporate state-of-the-art, cost-effective technologies in all aspects of the structures and their systems to create model homes that are on the cutting edge of energy efficiency, that are affordable for low- and moderate-income families, and that are designed to easily accommodate future upgrades in housing technology, particularly green technology. These prototype structures will achieve two objectives: (1) They will become owner-occupied and provide as comfortable a living space as any homes in the area.

This will add to the housing stock of an economically distressed community. (2) All four homes will provide a model for affordable, energy-efficient living that can be emulated elsewhere in Roxbury, in Boston, and across the US. The houses and homeowners will continue to participate in research and development efforts and all four homes will be designed to be upgradable as new technologies are developed and/or improved. Therefore, these four prototypes and the related research and development work will lead directly to improvements in existing, present, and future home-building and renovation in several ways, e.g.:

- They will serve as examples for incorporating state-of-the-art green technologies and improvements into affordable housing.
- They will reduce consumption and dependency of fossil fuel by the energy provider.
- Homeowners will be able to produce alternative, renewable energy from present solar technology, both for their own use and for selling surplus energy back to a power company (Net Metering).

**Model Energy-Efficient Homes Project Initiative** - We believe that the Model Energy-Efficient Homes Project is an outstanding project for any gateway initiative, both because it will significantly advance planning and implementation of the projects and because it will offer excellent learning opportunities for students, faculty and research.

The proposed work plan for the Model Homes Project, the following are objectives and related deliverables that we propose:

- To identify and assess (including cost-benefit analysis) specific energy conservation, energy generation, and other state-of-the-art green technologies that can be incorporated into new and/or rehabbed housing.
- To assess each green technology identified in the first objective in terms of how likely, significant, and easy to implement it is likely to be.
- To develop site-specific plans and sketches of optimum combinations (in terms of affordability, convenience, and upgradability) of these green housing elements for both new and rehabbed housing. Each plan will identify costs, energy consumption, design and construction factors, and comparisons with alternative plans.
- To identify and provide details on potential project partnerships and project implementation options.
- To develop recommendations for use of the project, dissemination of its most successful elements, and related publicity in maximizing the adoption of project elements by other public and private builders, both in Boston and in other cities.