



## **Workforce Development Institute**

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September 28, 2007

SENT VIA EMAIL

The Honorable Eleanor Stein  
New York Department of Public Service  
Three Empire State Plaza  
Albany, New York 12223

Re: Case 07-M-0548 - Energy Efficiency Portfolio Proceeding

Dear Judge Stein:

Attached is the Workforce Development Institute's (WDI) response to the New York Department of Public Service Staff paper "Preliminary Proposal for Energy Program Design and Delivery", August 28, 2007.

We look forward to continuing our participation in the proceeding.

Sincerely,

Lava Thimmayya  
Director for Economic Development

Attachments

CC: Parties on EPS listserver

Workforce Development Institute's Response to Staff Preliminary Proposal for Energy Efficiency Program Design and Delivery

The Workforce Development Institute's (WDI) view of the proceeding is conditioned by its concern for sustaining and creating quality jobs for New York State workers. Although the Governor's "15/15" energy conservation goal is ambitious, it is in the long term economic and environmental interest of the State. WDI strongly supports the notion of reducing energy consumption and is in accord with New York Department of Public Service Staff's overall approach to achieving the objective.

From an economic development perspective, the initiative has potential long term benefits including reduced business costs and the creation of new jobs related to energy conservation. However, WDI believes that several factors be reviewed before the Energy Efficiency Portfolio Standard (EPS) is finalized.

The economy in many regions of the State is characterized by low rates of job creation and income growth, and pockets of poverty. Given these economic conditions, it is important that conservation measures not increase prices to the extent that they dramatically raise business costs (which would result in job losses) and monthly energy bills for working New Yorkers.

The consequences of the EPS should be fair and equitable. For example, multi-unit dwellings are most impacted by conservation measures. However, most multi-unit dwellings are concentrated in downstate population centers where the cost of living is high, and additional charges to the energy bill would further increase the cost. Similar equity issues relate to consuming industries and locales that may be affected differentially. A more general concern is

whether or not the rate payer should be burdened with most of the responsibility for the conservation initiative.

Mechanisms must be found to use New York State's financial entities more creatively to enhance access to capital for energy conservation projects; this in turn, would help create new jobs in the State's economy (see attachment). The recent announcement by the New York State Dormitory Authority to set aside \$1 billion for "green construction" is an example of a State financing mechanism being used for such a purpose.

Finally, the State should rationalize the distribution of public owned electricity. NYPA power is inexpensive and can be an important element in an economic development incentive package; however, power allocation criteria should include elements linked to energy efficiency.

Although not related directly to the proceeding, it is important that the State recognize the need for new generation since New York has a very energy intensive economy. For reasons of both price and reliability, the State must continue its efforts to expedite new investment, though emphasizing environmentally friendly technology.

**Attachment**

**New York State Apollo Alliance**

**Community Jobs in the Green Economy: A  
Preliminary Review**



New York State Apollo Alliance

## **Community Jobs in the Green Economy: A Preliminary Review**

3 major areas:

- 1. Energy Efficiency & Green Buildings**
- 2. Renewable Energy**
- 3. Renewable Fuels**

### **1. Energy Efficiency & Green Buildings**

2 Primary ways to bring jobs in this arena:

- A. Green Building or High Performance Building**
- B. Energy Efficiency on Retrofits on Existing Buildings**

#### **A. Green Building or High Performance Building**

- Manufacturing of efficiency components (green products)
  - Compact fluorescent lights
  - Waterless urinals
  - Water filtration systems
  - Permeable concretes
  - Insulation
  - Flooring
  - Low-chemical paints & carpets
- Manufacturing small-scale renewable products
  - Solar PV panels
  - Solar hot water heaters
  - Small wind turbines
  - Geothermal heat pumps
- Construction
  - Carpenters
  - Laborers
  - Plumbers
  - Electricians
  - Roofers

#### **B. Energy Efficiency on Retrofits on Existing Buildings**

- Manufacturing efficient devices & materials
  - compact fluorescent light bulbs
  - motion sensors



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- thermostats
- efficient windows
- window treatments
- efficient appliances
- Construction
  - Heating, ventilation, and air conditioning (HVAC) system installation
    - Pipe fitters
    - Sheet metal workers
    - HVAC technicians
    - Commissioning engineers
    - Electricians
- Installation
  - Lighting projects
  - Efficient windows
  - Plumbing fixtures
  - Appliances
  - Insulation
- Energy Auditors – provide technical & financial information to consumers about how to reduce their energy bills & at what cost
- Weatherization jobs
  - Installing insulation
  - Improving furnace systems
  - Reducing air flow through buildings
  - Repairing chimneys
  - Installing control devices on water heaters & other appliances
  - Reducing hot water flows in showers
  - Improving lighting systems

## 2. Renewable Energy

### Solar

- Roofers
- Electricians
- Sheet metal workers
- Manufacturing component parts
  - Metals
  - Glass
  - Raw silicon
  - Batteries
  - Inverters



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- Wiring
- Roof mounting structures
- Assembling – connect cells with one another & add glass & plastics to produce the finished solar panel
- Systems integrators – put the solar panel together with wires & prepare it for installation
- Installers – set the solar panel on the roof by connecting it to the inverter, and connecting the inverter to the power grid
- Maintenance workers – provide routine maintenance & repairs to this entire system of solar panels
- Sales
- Transportation of component parts & completed solar panels

## Wind Energy

- Manufacturing
  - Blade
  - Turbine gearbox
  - Towers
  - Electronic systems
  - Brakes
  - Generators
  - Anemometers for wind measurement
  - Cables
  - Mechanical wind-driven pumps
- Construction
  - Build access roads necessary for wind farms
  - Erect towers
  - Install turbines
  - Connect the electricity to the grid
- Operators & Maintenance workers – responsible for the upkeep of the huge turbines
  - Blade cleaning
  - Repair
  - Utility workers – maintain the lines connecting wind turbines to the power grid
- Wind assessment & mapping consultants – locate sites with good wind resources
- Environmental service consultants - conduct environmental impact assessments for planned wind developments
- Re-powering firms – replace outdated wind turbines with new models



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### Solar Water Heater

- Manufacturing component parts
- Assembling the finished heating systems
- Installing the system in a building
- Maintenance
- Sales
- Transportation

### Geothermal Heat Pumps

- Manufacturing mechanical equipment & primary metal supplies
  - Shaft casings
  - Drilling equipment
  - Power plant equipment
  - Polyurethane pipes
  - Heat pumps
- Installation (HVAC contractors)
  - Trench digging
  - Backhoe operation
  - Pipe fusing
  - Backfilling
  - Electrical & duct work
- Maintenance

## 3. Renewable Fuels

2 most common renewable fuels:

### A. Ethanol

### B. Biodiesel

#### A. Ethanol

- Plant growing & production
- Manufacturing
  - production facilities
  - components
    - metal fabricators – make the steel tanks used to refine & store ethanol & biodiesel
- Constructing biofuel facilities
- Facility workers
  - General manager
  - Plant manager
  - Maintenance supervisor
  - Plant operators



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- Purchasing manager
- Lab manager
- Technicians
- Craftsmen
- Laborers
- Instrument technicians
- Distribution

### **B. Biodiesel**

- Waste oil collection
- Growing & collecting feedstock
- Manufacturing
  - production facilities
  - components
    - metal fabricators – make the steel tanks used to refine & store ethanol & biodiesel
- Constructing biofuel facilities
- Facility workers
  - General manager
  - Plant manager
  - Maintenance supervisor
  - Plant operators
  - Purchasing manager
  - Lab manager
  - Technicians
  - Craftsmen
  - Laborers
  - Instrument technicians
- Distribution