

New Jersey Energy Master Plan  
Strategy Template  
2005-2020  
**Bio-fuels**

SUBMITTED BY

Name of Organization: PSEG

Mailing Address: 80 Park Plaza, T-10, Newark NJ 07102

Contact Name: Eric B. Svenson

Telephone: (973) 430-5857

E-mail address: eric.svenson@pseg.com

**Objective**

To make available renewable energy from existing fossil fired generating units with the added benefit of reducing the green house gas emissions.

**Strategy**

For New Jersey based generating units, allow Class I RECs to be earned for bio-fuels consumed on a pro-rata basis with fossil fuel.

**Responsible Party**

New Jersey Board of Public Utilities (BPU) to revise RPS.

New Jersey Department of Environmental Protection (NJDEP) and United States Environmental Protection Agency (USEPA) as applicable, to review and approve an amendment to the air emission permits of respective generating units.

Owners of New Jersey located solid and liquid fired generating power plants to consider and act on the co-firing of bio-fuel opportunity.

**Timeline of action**

BPU on its own initiative can propose to modify regulations to recognize co-burning bio-fuel for the Class I REC program. Proposed revised regulations would be published in the New Jersey Register for public comments. After the expiration of the comment period and due consideration of comments received, BPU can implement the proposed modification to the regulation.

Owners of New Jersey located generation to consider, and if appropriate, act to realize the business opportunity. Suppliers of bio-fuel will need to make their fuel available to meet additional demand.

NJDEP and USEPA, as applicable, will review submitted applications to amend air emission permits of respective generating units. Preferred if the amendment for co-firing bio-fuel is treated as an administrative amendment requiring limited public hearings.

Strategy outcome

To the extent there is sufficient economic incentive from pricing of Class I RECs, a portion of existing New Jersey fossil power plants may replace a portion of their respective fossil fuel generation with bio-fuels. Time required to permit and convert to co-firing should be less than that required for a new facility. Risk of realizing a new Class I RECs provider is reduced.

Additional benefits include:

- ◆ co-firing generating unit's air emission profile should generally be improved by substituting bio-fuel for a portion of the fossil fuel,
- ◆ availability of Class I RECs should improve as compared to not having co-burn Class I REC program, and
- ◆ solid bio-fuel industry in New Jersey should perceive the co-fire regulation positively as solid bio-fuel supply is geographically a local business due the large percentage of transportation cost included in delivered fuel.

Implementation cost

Cost to New Jersey to modify RPS – minimal.

Cost to owners of New Jersey based solid and liquid fired generating units include engineering, permitting, modification to fuel handlings systems, and higher operating and maintenance cost.

Bio-fuel suppliers will likely be required to invest in their business infrastructure to meet the increased demand for bio-fuels.

Source of Funding

Funds to modify existing New Jersey units to co-fire bio-fuels will be from the private sector funds attracted to invest based on economic market signals.

Funding sources	Yes	No
Private sector funds	X	
Public sector funds		X
Consumer/ratepayer Funds		X

Indicators

The number of New Jersey electric generating units or other facilities that earn New Jersey recognized Class 1 RECs through Co-firing bio-fuels.

Source

A. Current state of indicator

There are no New Jersey electric generating units or other facilities that currently earn New Jersey recognized Class 1 RECs through Co-firing bio-fuels.

B. Indicator Projection to 2020.

With sufficient economic incentive primarily through the market price of the Class I RECs in New Jersey, New Jersey based solid fuel and liquid fuel units may make the investment to co-fire. These co-fire units could be providing Class I RECs prior to new generating resources being realized to help meet the demand for Class I RECs. All in cost to produce Class I RECs may be lower because the existing New Jersey fossil generating units will likely need less new investment to generate a Class I REC. The new investment will be primarily permitting and modifying fuel handling system for burning 5 to 10% bio-fuels by input energy content. Lower capital cost is likely partially off set by lower efficiency and higher O&M cost than a new unit designed to consume bio-fuels.