

Distributed Generation

<u>SUBMITTED BY</u>	
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Objective

Demonstrate that existing distributed generators can be cost-effectively aggregated and dispatched to provide capacity, spinning reserve capacity and peaking energy to a constrained electric grid.

Strategy

Distributed Generation (DG) results in reduced peak demand by enabling generators to offload all or a percentage of a Facility's electric capacity. This component of the program supports both the installation of new generators and modifications to existing generators. Generators funded through this program are operated in response to a spinning reserves or emergency event or test called by the PJM. Further, these units will also be on call to the utility and should be eligible for additional capacity payments from the utility in areas where the utility's distribution system is constrained or in need of upgrade.

- DG to provide spinning reserve and critical peaking power.
- DG to provide capacity resource to replace need for distribution system upgrades.
- Responsible party to add controls to dispatch the aggregated DG.
- Demonstrate how DG could provide positive impacts for the facility and the utility's distribution system.
- Eligible DG can be either the installation of new generators or modifications to existing generators (base-loaded generators are ineligible).
- The facility must be registered in the ISO's spinning reserves and energy program, and each facility must be willing and technically capable of receiving, and responding to an event declaration from the ISO.

Eligible Project Costs include engineering services, procurement and installation of generators, metering, testing and tuning of emergency generators, improvements to reduce environmental impacts, incremental cost of Ultra Low-Sulfur Fuel or Biodiesel (a blend no less than B20), rewiring circuits, installation of transfer switchgear, environmental permitting, and implementation of dual-fuel options. Other related costs will be considered on a case-by-case basis.

<p><u>Responsible Party</u> Private Parties, Electric Utilities, and BPU.</p>													
<p><u>Timeline of action</u> Immediate implementation by the OCE for rebate processing.</p>													
<p><u>Strategy outcome</u></p> <ul style="list-style-type: none"> Improved system reliability, lower electricity costs, and reduced CO2 from displacement of conventional spinning reserve capacity which is traditionally provided by operating large fossil plants below their rated capacity. 													
<p><u>Implementation cost</u></p> <ul style="list-style-type: none"> Total funding TBD 													
<p><u>Source of Funding</u> Public sector funds Consumer/ratepayer Funds</p>	<table border="1"> <thead> <tr> <th>Funding sources</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Private sector funds</td> <td></td> <td></td> </tr> <tr> <td>Public sector funds</td> <td>y</td> <td></td> </tr> <tr> <td>Consumer/ratepayer Funds</td> <td>y</td> <td></td> </tr> </tbody> </table>	Funding sources	Yes	No	Private sector funds			Public sector funds	y		Consumer/ratepayer Funds	y	
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<p><u>Indicators</u></p> <ul style="list-style-type: none"> Private parties will need to guarantee and track participation in the ISO spinning reserves calls. <p><u>Source</u></p>													

A. Current state of indicators

Currently, the lack of NJ demand response participation is due to consumer uncertainty of environmental constraints on operation of units and lack of comfort and knowledge of the benefits and requirements for participation in the ISO programs.

B. Indicator Projection to 2020.

The program will result in demand reduction and a corresponding increase in grid reliability through the proliferation of participation in the ISO's Demand Response, resulting in the reduction of electric demand during peak demand and emergency events.