



**State of New York Public Service Commission  
January 25, 2006 Order Approving Issuance of  
Draft Conditioned Negative Declaration of  
Significance for Public Comment**

**(Case 04-E-0572) Con Edison Electric Rate  
Case Action Plan**

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**February 21<sup>st</sup> NECHPI Meeting**





# Background

- In August 05 NYSERDA filed the Con Edison Electric Rate Case Action Plan that addressed fundamental issues associated with the expansion of existing DM programs in the Con Edison service territory.

Clean DG – 1.6 lb of NO<sub>x</sub>/MWh

DR DG – 13 lbs of NO<sub>x</sub>/MWh (>560KW)

18 lbs of NO<sub>x</sub>/MWh (<560KW)

- Con Edison and the NYSERDA will each issue solicitations to procure 150 MW of load reductions via a combination of EE, LM and DG.
- Under the State Environmental Quality Review Act (SEQRA) regulations PSC's consideration of the Action Plan constitutes an "Unlisted Action" and therefore they must conduct an environmental assessment of the Action Plan.



# Conditioned Negative Declaration

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The assessment revealed that DG facilities could produce potential, but limited, noise and air quality impacts. These impacts can be adequately mitigated and are not considered to be significant adverse impacts. Therefore, the Commission has preliminarily determined that a conditioned negative declaration of significance may be issued and an environmental impact statement need not be prepared.



# Noise Impacts

Noise impacts can be mitigated by compliance with local noise codes.

- **Municipalities *with* a Noise Code** – comply with the code
- **Municipalities *without* a Noise Code** – comply with the New York City noise code



# Regional Air Quality Impacts

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DG projects will not have any region-wide significant adverse impacts based on a maximum NO<sub>x</sub> emissions rate of 1.6 lbs/MWh.



# Local Air Quality Impacts

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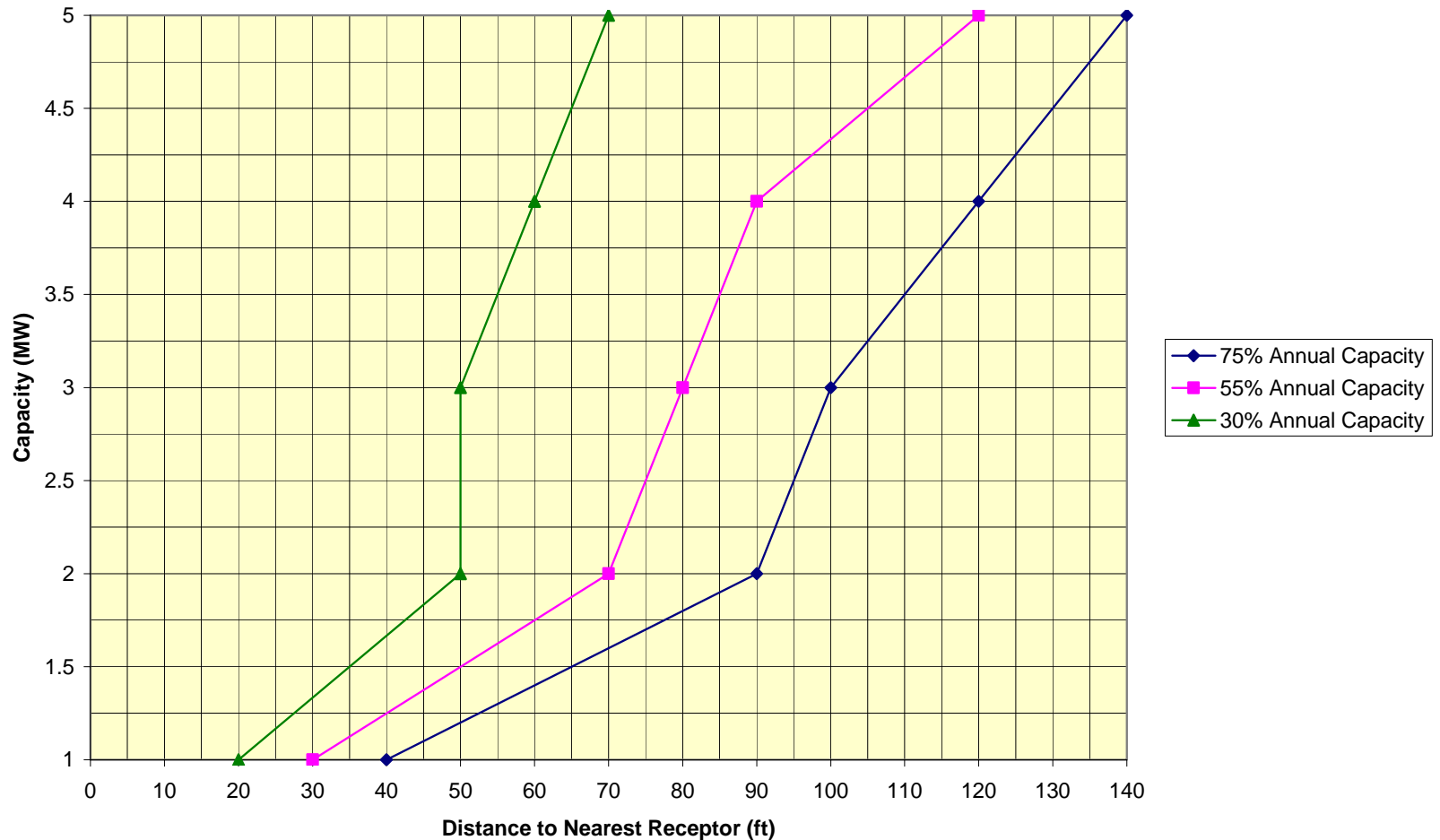
Environmental analysis indicated that the PSC should:

1. establish minimum distances between the DG projects' stacks and sensitive receptors (windows, balconies and air intakes), with the distances based on the size and annual capacity of the DG projects.



# Distance to Sensitive Receptors

## Capacity vs. Distance to Avoid Significant Adverse Air Quality Impacts





# Local Air Quality Impacts

Environmental analysis indicated that the PSC should:

1. establish minimum distances between the DG projects' stacks and sensitive receptors (windows, balconies and air intakes), with the distances based on the size and annual capacity of the DG projects.
2. require that DG exhaust stacks be installed on the highest structures on the sites.



# DG Stack Location

## Environmental Assessment Form

- The DG exhaust stacks must be placed on the top of the tallest structure on the property and be taller than any surrounding buildings proximate to the DG location.
- The environmental analyses did not include the effects of building downwash or cavity effects, which would likely have an effect on the overall conclusions. To minimize potential air quality impacts from building downwash, the DG stack should be placed on the top of the highest structure on the site.



# Modeling Analysis

EPA–approved Industrial Source Complex model (ISCT3) in the short-term simple terrain mode without the effect of building downwash.

- DG generation scenarios totaling 14, 28, and 56 MW, respectively;
- Generation capacity factors of 75%, 55 % and 30 % of annual operating hours;
- A NO<sub>x</sub> emission factor 1.6 lbs/MWh;
- Emission factors for PM<sub>10</sub> and PM<sub>2.5</sub> derived from EPA AP-42 emission factor documentation; and
- The use of NYC Environmental Quality Review guidance default stack parameters that assume no plume rise.



# Stack Parameters

**Table 1: Stack Parameters and Emission Factors**

<b>Parameter</b>	<b>Preliminary Analysis</b>	<b>Refined Analysis</b>
Stack Height	15 feet	15 feet
Inside Diameter	0 feet	Varies
Exhaust Temperature	68 F	Varies
Exhaust Velocity	0.001 meters/second	Varies
<b>Compound</b>	<b>Emission Factor</b>	
NO <sub>x</sub>	1.2 - 1.6 lb/MW-hr	
PM <sub>10</sub> /PM <sub>2.5</sub>	0.21 lbs/MW-hr <sup>(1)</sup>	
CO	6.33 lbs/MW-hr <sup>(2)</sup>	
VOC	2.26 lbs/MW-hr <sup>(2)</sup>	

Notes:

1. The PM<sub>10</sub>/PM<sub>2.5</sub> emission factor is from AP-42, Section 3.2, Natural Gas-Fired Reciprocating Engines, and represents the maximum emission factor from 4-stroke lean burn and rich burn engines.
2. Emission factor is from a representative 2 MW gas-fired engine.
3. The stack parameters used in the preliminary analysis are based on the default parameters referenced in the CEQR Technical Manual.



## Next Step

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Comments due by March 2, 2006.