

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

- Case 02-E-0781** - Consolidated Edison Company of New York, Inc. – Proceeding on Motion of the Commission as to an Electric Tariff Filing to Establish a New Standby Service in Accordance With Commission Order.
- Case 02-E-0780** - Orange & Rockland Utilities, Inc. – Proceeding on Motion of the Commission as to an Electric Tariff Filing to Establish Standby Service in Accordance With Commission Order.

**Joint Supporters Initial Comments and  
Proposal in Opposition  
to Joint Proposal Filed March 12, 2003  
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**Introduction**

Opinion No. 01-4, Opinion and Order Approving Guidelines for the Design of Standby Service Rates (Issued and Effective October 26, 2001), launched a process to which the above utilities (collectively the “Company”) responded with a set of proposed tariffs filed on June 7, 2002. A series of technical conferences and settlement meetings were held among interested parties. The Joint Supporters<sup>1</sup> mobilized by The E Cubed Company, LLC, participated in all of the conferences and meetings among all the active parties. A Joint Proposal for settlement of issues was filed by several other parties on March 12, 2003.

Joint Supporters hereby oppose the original filings and the proposed Joint Settlement in the above-referenced proceeding, both in terms of the broad structure and in several of the specific details. Supporting Testimony are submitted by a group of knowledgeable practitioners and experts including:

- Bruce Hedman, Ph.D. Energy and Environmental Analysis, Inc., Potential Combined Heat and Power Opportunities and Chilling Effects of Standby Rate proposals
- Frank Frankini, P.E. and Thomas Smith, Equity Office Properties Trust, End User Issues

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<sup>1</sup> Joint Supporters is a thirteen-year-old voluntary association of entities advocating robust competitive energy services, including electricity, natural gas, and new technologies and services. Its associated entities participating in this proceeding include: All-Systems Cogeneration, Inc., Brooklyn United Methodist Church Home, Capstone Turbines, Inc., Clover Lake Nursing Home (SI), Energy Concepts, P.C., Hess Microgen, Hillside Manor Care Center, Ingersoll-Rand Energy Systems, Integrated Engineering Concepts Engineering, PC, Invensys, Inc., KeySpan Technology Inc., Manhattanville Nursing Care Center, Margaret Teitz Care Center, RealEnergy Inc., Seacrest Healthcare Center, Siemens Building Technology Inc., Utility Metals and The E Cubed Company, LLC. Additional companies and groups endorsing all or part of these comments and testimony include: Equity Office Property Trust, Inc., altPower, Inc. and the New York Solar Energy Industry Association.

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- Arthur Pearson, C.E.M., Invensys, Developer Issues
- Constantino Damaskos and Timothy Daniels, RealEnergy, Inc., Developer Issues
- Neal Elliott, Ph.D., American Council for Energy Efficient Economy,  
Environmentally Advantaged Technology Issues
- Mark B. Lively, P.E., The E Cubed Company, LLC. Rate Structure And Issues

Accordingly, Joint Supporters offers four structural changes to the proposed rate as well several improvements to the filed Joint Proposal. The primary flaws that Joint Supporters seek to address involve equity, revenue neutrality, the effect upon On Site Generation's (OSG) ability to fairly compete in the energy marketplace, and the proposal's failure to comport with Opinion No. 01-4 and with other New York State energy policies.

One overarching issue to keep in mind is that forcing customers who install OSG onto a new and unfamiliar rate structure, while customers who chose not to install OSG retain an entirely different structure, would institutionalize a profound "chilling effect" on the OSG industry. If all customers were to face a similar contract demand rate structure, then the competition between OSG and full service would occur on transparent grounds.

However, the proposed imposition of two separate structures would create an intrinsically anticompetitive environment for OSG. Therefore, and for a vast array of other policy considerations, certain measures are called for to protect New York's well-earned reputation for workable competition from the potential distortions of the proposed standby rates. These measures may be either structural, or prophylactic within the proposed rate structure.

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Initially we provide a summary overview:

1. Overall Rate Levels, Winners and Losers.
2. Competitive Neutrality is not achieved by the Joint Proposal.
3. Revenue Neutrality will not be established as required by Opinion No. 01-4
4. Contract Demand Penalties Neither are Justified Nor Supported in Opinion No. 01-4.
5. The “Allocation Matrix” Requires a New Rate Level.
6. As-Used and Contract Demand Allocation does not conform to Opinion 01-4.
7. Supplemental Delivery Service Should Not be Paid Through Standby Rates.
8. Dynamic Pricing of Backup/Standby Delivery Service is recommended.
9. Determination of Contract Demand should based upon an alternative proposal.
10. Highly Efficient CHP warrants exemption from standby rates.
11. Further Studies are Required to Understand and Correct Known and Potential Flaws of the Standby Rates.
12. Utility-caused trips should not create new levels of demand charges.
13. The Threshold Date for Existing Projects Should be the Effective Date Of Tariff.
14. The future should be considered now.
15. Perverse Incentives Should Never be Turned Against the OSG Industry.

This filing begins with structural concerns and solutions and then moves into proposed improvements to the proposed settlement.

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**Overall Rate Levels and Data, Winners and Losers**

The proposed settlement does not include rates, and therefore is not acceptable on its face. The effect of this new rate structure would be uncertain in any case, but a “Joint Proposal” that does not even identify the rates is entirely unwarranted. Therefore, several of our witnesses will attest to the impossibility of effective consideration of the settlement proposal.

Who are “winners” and “losers” in this ratemaking is largely determined by load factor, but even alleged high load factor “winners” are advocating relatively lower rates for contract demands. The fact that some participants are willing to “hurt themselves” economically by advocating higher as-used charges than would be optimal on purely economic grounds underscores the point that the perception of risk is a real barrier to OSG deployment. The chilling effect must be mitigated either by special provisions or improved rate structure.

**Competitive Neutrality is Not Achieved by the Joint Proposal**

The established Commission policy of encouraging market-based competition and ensuring that the impacts of Commission decisions are competitively neutral must be respected in this case. Opinion No. 01-4 summarizes the principle perfectly:

“Cost-based standby delivery rates should provide neither a barrier nor an unwarranted incentive to customers contemplating the installation of DG or OSG.”<sup>2</sup>

Furthermore, in concluding Opinion No. 01-4, the Commission indicated that it will monitor implementation of the principles ”... in order to balance our interest in assuring the

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<sup>2</sup> Opinion No. 01-4, Pg. 11.

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recovery of prudent, unavoidable utility costs with our goal of not impeding the development of alternative sources of energy.”<sup>3</sup>

Unfortunately, the rates that The Company proposed, and the Joint Proposal that has been filed, do not provide a level playing field but rather tilt it, and associated distribution revenues and rate base, toward the utility. In fact, the rates are not cost based but are proposed to be “revenue neutral.”

As long as the utility has two distinctly different rate structures, one of which applies only to customers with OSG and the other “Standard Tariff” that applies to everyone else, special provisions are required to keep the playing field level. These provisions include the proposals for a Supplemental Rate Structure, Dynamic Pricing, and treatment for highly efficient environmentally advantageous CHP..

### **The Risks of Revenue Neutrality**

The Joint Supporters are generally concerned that the standby rates proposed by the Company are not truly cost based to represent the costs to serve OSG customers in a standby capacity, but are instead driven by "revenue neutrality." While Opinion No. 01-4 can be read to drive or require this approach, what the revenue neutrality scam does, in effect, is to create a zero sum game where any change in the rates creates new winners and losers, but does not change the overall revenue from the class. Nor does the revenue neutrality scam fairly assess OSG benefits to the grid.

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<sup>3</sup> Opinion No. 01-4, Pg. 27.

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Although the Joint Supporters believe that there are issues of whether the Company's rate is, in fact, revenue neutral as the PSC envisions such term to be applied, the "revenue neutrality" concept appears to be what significantly underlies the frequently expressed statement that the structure of the standby rate will not adversely affect onsite generation deployment overall.

With due respect, the Joint Supporters do not agree with this viewpoint. It misses a critical, yet difficult to quantify, point which is that whether the rate proposal is revenue neutral or not, the new rates create a level of OSG customer risk that simply did not exist under the prior rate structure. This risk arises from several sources, but most directly from the ratchets and penalties and from significant "as used" KW charges.

Consider a customer who has a 1 MW total load and 600 KW of OSG provided by 3 generating units. Should the virtually unthinkable happen and all 3 units go down simultaneously, the customer faces not only ratchets and penalties, but 600KW provided at a significant "as used" cost. The effect is to convert that "winner" into a loser. A hospital or other enterprise facing overall budget constraints, for example could be plunged into consideration of abandonment of its existing OSG and default on mortgage financing with the State Dormitory Authority.

This risk factor is not terribly important for the "losers" in the new rate structure-- they are economically compelled by the rate structure not to consider OSG, since there is no "inverse benefit" if it happens that their demand falls below contract levels on a consistent basis over a longer period of time. But is critically important to people who might be winners in a perfect world under the new rate structure or to companies such as RealEnergy which own the equipment at a customer's site and recover the investment by billing for energy.

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*Rate Structure Can turn Winners into Losers*

When considering whether or not to make an investment in OSG, the "winners" will look at the rate structure but will find that there is a risk, which is difficult to quantify, that under certain circumstances the rate structure will convert them to losers. This risk factor, which gets worse where higher percentages of the base load are supplied by OSG, will cause even many "winners" to conclude that OSG is too risky to be used, even if, on average, they will save money on the new rate structure. This is particularly true for enterprises which do not happen to have many OSG units, so that risk is not spread out. The "average" makes little difference in risk analysis if you happen not to be an average customer. As a consequence of this risk deterrent effect, the Joint Supporters believe that the proposed rate structure will deter the installation of OSG throughout the O&R and Consolidated Edison territories.

Witnesses Frank Frankini and Thomas Smith of Equity Office Properties Trust, the largest commercial landlord in the country, Arthur Pearson of Invensys, a major worldwide energy resource manager and entering OSG developer/installer in the Downstate area, and Timothy Daniels and Constantino Damaskos of RealEnergy, Inc. a major national developer of OSG projects and William Cristofaro of Energy Concepts Engineering, P.C. speak tellingly about the chilling effects of the proposed rate structure.

It is important in the context of this proceeding to recognize that Order 01-4 does not create a NEW rate class because of the absence of cost data for that class, but is, instead, fixes rates for a subsection of an existing class.



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For this reason, the Joint Supporters express particular concern with the application of the “revenue neutrality” standard in the matter, because the rate structures for regular customers in this class and standby customers differ substantially in structure and concept. For example, the Company standby rate creates a “maximum potential” contract demand charge and imposes significant rate ratchets and penalties in many cases. This rate structure differs dramatically from the rate structure for the rest of the class, which does not have to pay for T&D changes based on a maximum potential demand, but rather on a modified monthly peak usage basis, in which lesser penalties are incorporated.

As a result, customers in the standard rate design face a much lower degree of rate risk, while those in the standby category now face a higher degree of risk. It is much harder to compare and determine “revenue neutrality” between a low risk rate and a high risk rate structure, because there are many more variables that exist in determining billing which do not affect non-standby customers. The Joint Supporters believe that creating a structure for standby rates which differs from the structure used for other members of the same class may not only be violative of PURPA, but will have a strong tendency to shift recoverable cost burdens from the standard rate customers to standby rate customers. This occurs primarily by charging the standby customers a rate which is based on maximum potential demand and charging non-standby customers off of a modified peak demand formula.

On average, it is likely that the maximum potential formula yields a higher base demand on which standby customer is charged than if the monthly peak demand formula is used. Based on our reading of Order 01-4, there is no justification for this difference, since both Company and the PSC view the cost impact on local T&D as driven by the maximum potential demand, since

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those facilities must be sized to reflect the potential demand. It is our view that this difference in rate structure unfairly penalizes OSG customers on the standby rate and subsidizes standard rate customers.

Accordingly, the Joint Supporters have suggested a number of means by which this difference in rate treatment can be reduced or eliminated, such as by the split metering proposals made by this group. Another way of accomplishing rate parity and avoiding even the risk of cost shifting is to require Company to adopt the same rate design structure for all members of the same class before even considering a special rate structure for one part of that same class. While this may be a politically or procedurally daunting task for Company, it is the right and fair way to proceed so that a single subclass does not find itself faced with even the possibility, let alone the reality, of a disadvantageous rate structure.

*The Ability of OSG to Help Meet Downstate Load Growth Need should Overwhelm the Impetus to Adopt A rate Structure that is Not Cost-Based,*

This effect in dampening OSG demand is not without potentially dire consequence both for the ratepayers of these two utilities and for the City of New York. Regardless of whatever other factors the PSC may chose to consider in determining a just and reasonable standby rate, the PSC is clearly aware of the long term growth in demand in the downstate market for electricity, the already overburdened T&D system which exists throughout the market, especially for Consolidated Edison, and the almost desperate need to add generation capacity to this strained system, which would reduce overall T&D losses and help ensure that all customers, not just those with OSG facilities, will continue to have power over the next few years.

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Witness Bruce Hedman addresses the availability and advantages of OSG/CHP resources in meeting Downstate Resource needs (Con Edison 500 MW by 2005 December 2002 RFP) and the barriers that the proposed standby rates create to meeting those needs.

That need for power and the ability of OSG to help meet that need should overwhelm the impetus to adopt a rate structure that is not cost based, but instead uses a theoretical "revenue neutrality" standard which will discourage the deployment of OSG. To the extent that it is truly possible to quantify the adverse effects, the Independence Day 1999 outage which darkened Washington Heights and many parts of Westchester cost ratepayers and the economy of the region hundreds of millions of dollars.

OSG holds out the promise not only of reducing the risk of another catastrophic outage, but, when used in combined heat and power mode, reducing greenhouse gas emissions and dependence on foreign oil. These are the stated objectives in Executive Order 111 and of the New York Legislature in passing legislation to assess system reliability in the wake of the Washington Heights outage. These objectives should be the guiding principles for any decision on the Company's standby rate filing.

Without clear and compelling evidence that the standby rate will achieve the broader objectives of system reliability, energy independence and a cleaner environment, the rate as proposed should be rejected by PSC. No standby rate should be approved unless it is able to meet these objectives.

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**Contract Demand Penalties Neither are Justified Nor Supported in Opinion**

**No. 01-4**

There is no basis, precedent, or authority for the penalties proposed to be imposed on Con Edison customers who exceed their contract demand levels. Opinion No. 01-4 does not even mention the word “penalty.”

No rate class currently carries any comparable penalty. It would be wholly inequitable to subject some customers to the risk of penalties merely because they have made a decision to self-supply some electricity.

Furthermore, the chilling effect of penalties is palpable. Industry participants tell us that they would likely set their contract demand significantly higher than expected peak demand (assuming that customers have the right to set their own contract demand) just to avoid any risk of penalties. It is not just that people are naturally risk-averse: investment decisions are made according to predictable risk profiles, and the uncertainty of potentially onerous penalties may not be acceptable to many investors.

Thus, not only might the threat of penalties cause some otherwise beneficial OSG investments not to occur, the likelihood that contract demand would be systematically overstated would result in Con Edison systematically over collecting revenues. And because of the nature of contract demand, this is a one-way ratchet upwards for Con Edison’s potential revenue. The letter of Opinion No. 01-4, which does not allow for any penalty or surcharge structure that does not exist in other tariffs, must be respected.

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**The “Allocation Matrix” Requires a New Rate Level**

The Joint Supporters believe that the Company developed its allocation matrix incorrectly. The Company’s approach seriously misallocates its costs and results in allocating too much costs to the contract demand. Specifically, The Company ignores distribution costs that are shared between distribution customers. Metering and service drop costs are customer specific and should be allocated by contract demand. Distribution wires other than service drops as well as transformers capacitors poles and other equipment as well as operating and maintenance cost are more related to coincident diversified demand than a specific customer’s installed capacity.

Witness Mark B. Lively addresses these issues.

Proper cost allocation would allocate each of these items as a separate cost category. Service drops and meter costs should be allocated 100% to contract but all other components were designed to serve the aggregated demand and would more properly be allocated to as used demand. The proper matrix percentage allocated to contract would be the sum of all customer specific costs divided by the total secondary distribution system cost.

The same principles would hold true for customers served at higher voltage segments of the distribution system. We fail to see any justification for allocating any cost of the primary system by secondary contract demand. The individual secondary customer demand does not impact primary system design all primary system costs are incurred to serve primary customers and the aggregated demand of secondary customers. As such the Primary costs for secondary customers are shared costs that should be allocated 100% by as used demand. Again the same

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principle would apply when stepping from primary to subtransmission and subtransmission to transmission.

The Company ignores the distinction between customer specific costs and shared costs. Cost segregation should be added to the proposed allocation matrix, both in Con Edison's proposal and in the proposed joint settlement, to account more accurately for cost causation. This could be done by expanding the matrix to include individual cost components or allocating the components and setting the matrix percentages to the resulting composites. In either case any cost recovered from service charges should be removed from the cost attributable to contract demand.

**As-Used and Contract Demand Allocation does not conform to Opinion No. 01-4**

One of the central ratemaking issues has been the fair allocation between "shared" facilities and "local" facilities. According to Opinion No. 01-4, "...costs associated with "local" facilities should be recovered to the extent possible through a contract demand charge" while "...costs associated with shared facilities costs should be recovered through a daily As-used Demand Charge."<sup>4</sup> Unfortunately, the sponsors of the Joint Proposal have failed to demonstrate that their cost allocation proposal meets the requirements of the Guidelines.

Local facilities are defined in the Guidelines to be those facilities that are closer to a customer's site and that are assumed to be put in place to mostly serve that individual customer. Discussion in Opinion No. 01-4 indicates additionally that the commission would expect the

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<sup>4</sup> Opinion No. 01-4, Appendix A IIE3 and 4.

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utilities to apportion facilities designed on the basis of coincident peak loads for recovery via as-used demand charges, while delivery facilities designed on the basis of aggregate customer non-coincident peak loads should be apportioned for recovery through contract demand charges.<sup>5</sup>

This expectation is consistent with the guidelines as most of the transmission and distribution system are shared facilities designed to meet the system's coincident peak. Any other design parameter would lead to either over engineering of the system or inadequate system capacity.

The only components of the system that are designed to meet the non-coincident peaks are those components installed to meet the individual customer's peak needs.

The Joint Proposal implies that the sponsors believe that 75 percent of the Company's and 100 percent O&R's secondary distribution system costs are incurred to serve the individual customer connected at the secondary level of the system. The sponsors provide no evidence to support this assertion. The Joint Proposal makes a similar unsupported assertion with respect to the costs of the primary distribution system. The sponsors of the Joint Proposal fail to identify the cost components that comprise the 75 percent and 100 percent of secondary system costs and they therefore are unable to provide any explanation of how those cost components comply with the Guideline's criteria for being "local" costs.

Moreover, the primary distribution system is entirely shared by customers connected at the secondary level and is entirely designed to meet coincident peak loads. To be in compliance with the Guideline, these costs should be 100 per cent recoverable as As-used Demand charges.

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<sup>5</sup> Opinion No. 01-4, page 15.

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Joint Supporters note that it is difficult to challenge these determinations directly, due to lack of data about Con Edison’s system. DPS Staff made a highly relevant observation in another proceeding:<sup>6</sup>

“There was a recurring utility theme at the hearings that generalized allocations were simplistic and not as accurate as special studies.

What the utilities did not argue was that reliance on special studies gives them a huge advantage because such an approach is very difficult to verify. George Stigler won a Noble Prize [sic] in 1982 for concluding that regulated entities always know more about their activities than the regulator does, and that fact shouldn't be lost on the Commission. Con Edison analyzed thousands of telephone calls for its study in this case (TR 746), and its [sic] not at all clear that parties should be put through the time and trouble necessary to provide similar results. Understanding and verifying the special studies is burdensome, and regulators and customers should not bear the burden that their lack of knowledge causes.”

Given the truth of this statement, and lack of justification for the proposed allocation, the allocation matrix should be revised to the following levels which are justified in the testimony of Witness Mark Lively: (See Exhibit \_\_\_\_ (MLB-3).

Table 3

Delivery Voltage Level

Distribution	Secondary Customers		Primary Customers		Transmission Customers	
	% Contract	% As-Used	% Contract	% As-Used	% Contract	% As-Used
Secondary Distribution	50%	50%				
Transformers	25%	75%				
Primary Distribution	0%	100%	50%	50%	100%	0%
Substation	0%	100%	25%	75%	100%	0%
Transmission	0%	100%	0%	100%	50%	50%

<sup>6</sup> Case 00-M-0504; Staff Initial Brief on the Con Edison and NYSEG Cost of Service Studies; Dec. 6, 2002; P. 24.



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**Supplemental Delivery Service Should Not be Paid Through Standby Rates**

The Joint Supporters believe that there should be separate billing procedures for supplemental power delivery services as opposed to backup/standby power delivery services. The billing procedure for supplemental service should follow the rate in the standard delivery or retail access (RA) tariff. Billing for backup/supplemental power delivery service should use dynamic prices that change with time and location, as is discussed in the following section. A procedure for separating interval energy consumption between supplemental delivery service and backup/standby delivery service is presented in Appendix A. [NB this may not be attached] This is the most direct and elegant way to address the structural anti-competitiveness briefly noted above. Although in the opinion of some participants this Supplemental Rate proposal may deviate from certain principles expressed in Opinion No. 01-4, a Supplemental Rate proposal both (1) remains closer to the intent of that Order than other apparently acceptable proposals (i.e., penalties and real time energy pricing) and (2) more importantly solves a number of pressing problems with the rate proposed.

*Application Only to OSG Customers Impugns Revenue Neutrality*

The Joint Settlement proposal would change the structure of the distribution tariff for those customers who have distributed generation. The new tariff would be revenue neutral compared to the existing tariff, if the new tariff were applied to *all* of the Company's commercial and industrial customers. The proposed new tariff structure applies only to distributed generation customers and therefore, is not revenue neutral.

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*Stifling Effect on Distributed Generation*

The proposal to bill all of a customer's delivery on the new standby tariff will stifle distributed generation. Distributed generation developers attempt to compete against the economics that consumers experience by remaining "on the grid" as full service customers. The Company's insistence that all electricity through the meter be billed under the new standby tariff sets a new and unfamiliar price for the supplemental part of the consumer's load—that is, the part of the consumer's load that is still served by the Company. Forcing the consumer to face a new price for its entire load, including the supplemental part of its load, increases the uncertainty that the consumer faces, and the *perceived* risk that investing in OSG will be economically harmful. Whether or not the perception of risk is justified, this increased uncertainty will reduce the likelihood that the consumer will utilize distributed generation.

Some customers would benefit from the change to the new tariff whether or not they install distributed generation. The Joint Supporters estimate that the Company will be exposed to a potential revenue erosion of \$70 million, calculated as 7% of the Company's distribution services revenue. This revenue erosion would occur when select existing customers, with or without distributed generation, switch to the proposed Company standby rate. (This ramification is part of the rationale for the proposed 15% of load exemption, which provision is not in Con Edison's original proposal.) Under the Company's proposal, such customers could qualify for the proposed Company standby rate by installing an inconsequential generating unit, even if that unit never operated. The split rate concept would limit the effect of such revenue erosion to customers who installed and substantially operated distributed generation and would not effect the portion of a customer's load not impacted by the distributed generation.

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The absence of a split rate creates harmful uncertainty for customers considering the installation of distributed generation. Further, for those customers who have already installed distributed generation, the new tariff could dramatically and artificially increase the amount that they are paying to the Company. The split tariff structure would buffer the Company from revenue erosion and also mitigate the discomfort distributed generation customers would feel from being forced onto a new tariff when they installed distributed generation for part of their loads.

Standby service should apply to load when the distributed generator operates at less than its maximum capacity. Electrical needs of the customer in excess of the maximum capacity of the distributed generator should be considered to be supplemental to the capability of the generator, and billed at the standard “parent” rates. This structural bifurcation would cease at such time as all customers in a rate class are billed according to the same rate structure and principles. The Joint Supporters propose a method to split electricity between standby electricity and supplemental electricity that treats supplemental power as the first energy through the meter

**Dynamic Pricing of Backup/Standby Delivery Service**

*Background*

The Company proposes a fixed rate tariff for pricing the use of its distribution system by distributed generation customers. The Joint Supporters note that distributed generation is driven by economics that change throughout the day and across the Company’s distribution grid. The Company and Staff implicitly acknowledge that the cost of using the distribution grid varies throughout the day. The existing Company tariff provides support for the concept that the cost of using the distribution system varies by time of day in that usage charges only accrue during defined on-peak hours during each weekday, not during the night and not during the weekend.

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To address this reality, the wires charges for backup/standby power should be determined dynamically using the estimated marginal line losses between the customer and the location associated with the NYISO price. The estimated marginal line losses should be evaluated financially at the NYISO price. The estimated marginal line losses initially should be assumed to be proportional to the loading on the company's substation providing power to the distribution grid serving the customer and the distance that the customer is from the substation. The estimated marginal line losses should also reflect the non-linearity associated with periods of congestion on the distribution grid.

"Con Edison's July 1999 Electric Services Outages: A Report to the People of the State of New York From the Office of the Attorney General," Dated March 9, 2000, provides evidence that the economics of the use of the Con Edison distribution grid varies by location. The Attorney General's Report identified five of the Company's distribution grids as suffering capacity constraints during the July 1999. In contrast, there are a total of 55 distribution grids. Thus there are some areas of the Company distribution grid where distributed generation should be encouraged. Dynamic pricing will send the right signals for helpful siting decisions.

The Joint Supporters also note that the Company and the other utilities in the state have embarked on bidding programs to locate distributed generation in specific areas of the Company distribution grid. To the extent that the Company is using a bidding program to encourage distributed generation to be located in specific areas, the Company should change its pricing mechanism for distributed generation to provide that same encouragement. The experience with the bidding programs to date has been spotty at best because the design militates against multiple

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benefit streams to the OSG. Adding benefits in the form proposed here could help the Company meet projected capacity shortfalls during the coming summer and future years.

**Determination of Contract Demand**

The utilities propose to change the way that they bill customers for demand. This change in the format of the way that the utilities bill their customers creates undue risk for customers seeking to install OSG. The change in the format complicates the economic calculation for those customers who wish to install OSG for a part of their load. This change will also encourage customers who do install OSG to install enough OSG to disconnect from the utility entirely. Such a disconnection would lessen the benefits to society of having OSG.

Currently the utilities bill customers for the demand that they impose that month on the network, but no less than 50% of the highest demand imposed during the previous year. The latter clause is often called a 50% annual demand ratchet. The utilities have proposed to bill customers based on a Contract Demand. As presented by the utilities, the Contract Demand is a 100% perpetual demand ratchet. Not only does the Contract Demand move the floor from 50% to 100%, but the Contract Demand also lengthens the ratchet period from one year to perpetuity.

The Contract Demand has been presented by the utilities as a way to protect its transformation equipment from having to serve demands unexpectedly in excess of the capability of that transformation equipment. The current tariff has no such provision. And its demand ratchet is limited to 50%. There are other ways to protect transformation equipment, including providing the customer the option of owning or leasing transformation equipment from the utility when the OSG customer is the only customer on the transformer. When the OSG customer is not

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the only customer on the transformer, there will be diversity between the OSG customer and the other customers on the transformer, invalidating the rationale for the Contract Demand as the utilities have formulated it.

**Highly Efficient CHP**

For reasons of equity, competitive neutrality, and to support established New York public policy objectives, highly efficient Combined Heat and Power systems (CHP) should be exempt from this ratemaking process or at least be eligible for the phase-in of the standby rate, as are other environmentally preferred systems. Support for this view can be found in many quarters, and for a wide variety of reasons.

Whatever policy argumentation may be used to justify the renewable grandfathering treatment also applies to highly efficient CHP. The technologies and expertise that facilitates exceptional heat recovery are not nearly so well established that they can be considered a “mature industry;” if it is true that justification for the special treatment afforded fuel cells, solar panels and geothermal energy derives from their “infant industry” status, the same is also true for leading edge CHP development. If energy savings are the key, using existing energy not once but twice, both for heat use and electricity generation, meets the same standard. If the treatment is justified by support for new technologies, development of New York industry, or the creation of jobs, the manufacture, design, installation and maintenance of highly efficient CHP systems certainly qualifies as well. And if synchronization with other State policies is the rationale, then the Commission should note the New York State Energy Plan and the strong initiatives of NYSERDA to support the best examples of CHP.

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Joint Supporters agree that the bar delineating “highly efficient” in terms of total fuel use for both electricity generation and heat recovery should be set high enough that only CHP projects that meet or exceed a specific efficiency level should be included in the provision.

Highly efficient CHP systems offer significant reductions in emissions of both greenhouse gases and improvements in the efficiency of utilization of non-renewable energy resources relative to conventional separate heat and power systems. As the State Energy Planning Board has indicated in its state energy plan, these factors benefit the state by providing improvements in environmentally emission and resource utilization efficiency while addressing the expanding need for energy to fuel growth in the state.

Three criteria are identified by Witness R. Neal Elliott that build upon the definitions of efficient CHP developed by the U.S. Combined Heat and Power Association and emissions criteria that emerged by the Regulatory Assistance Project’s (RAP) model emission rule discussions. To qualify for environmentally advantaged status a CHP system should:

1. Have a total system design efficiency, adjusted for seasonal thermal demand factors, of at least 55% for systems with a power output of less than 500kW and 60 % for systems of 500 kW or greater.
2. Produce at least 15% of the total usable energy output in the form of electrical power and at least 20% of the total usable energy output in the form of thermal power.
3. Achieve an emissions rate for NOX equal to or less than 0.35 pounds per kWh based on the total usable system output converted into kWh.

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Any system that is added to an existing thermal facility that recovers waste heat to produce usable power should be excluded from the above criteria. This exclusion is added for such instances as the application of a heat engine such as a Stirling engine or the replacement of a steam pressure-reducing valve when a backpressure turbine is added to an existing system. In these cases power is produced directly from reducing wasted energy, and no additional fuel consumption or emissions result from the modification.

**Further Studies are Required to Understand and Correct Known and Potential Flaws of the Standby Rates**

*A Study of the cost allocations needed to properly allocate costs between contract and as used capacity for Standby Rates Should Be Commissioned as Part of This Proceeding*

Allocation of individual costs directly from the books and records of the company should be used to identify the costs directly related to customers. These costs should be used to determine how much of the total distribution cost should be recovered from the service and contract demand components of the standby rates. All remaining costs are for shared system that was installed and is maintained and operated to serve aggregated rather than customer specific loads.

*A Study of the Effects on OSG Deployment Generally by Standby Rates Should Be Commissioned as Part of This Proceeding*

Standby tariffs certainly will change the incentives facing potential OSG installation. Some sites and projects will become relatively more or less attractive from a business and developer perspective. These new incentives may or may not comport with other New York State energy policies: it should be the business of this Commission to make that determination, and



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amend the rates if it becomes known with greater certainty that these rates do not optimize the potential benefits of OSG to New York State.

*A Unique Standby Rate, Without Reference to Parent Rate Classes, Should be Established As Soon As Possible*

The current rate is not truly cost based because it assumes the diversity of the parent service classes. Unfortunately, the principle of “Cost Based” has been trumped here by a principle of “Revenue Neutrality.” This flaw must be corrected as soon as possible as data become available.

**Utility-caused trips**

Customers who set a new contract demand if their OSG fails due to power quality failures of Con Edison’s grid should not be subject to any penalty or surcharge. Joint Supporters consent that any new peak may establish a new contract demand level, however if such new peak is caused by the utility, rules should clarify that, even if penalties endure in the final order, no penalty would apply in this case.

**The Threshold Date for Existing Projects Should be the Effective Date Of Tariff**

It is unreasonable to expect potential OSG customers throughout Con Edison’s service territory to have anticipated the effect of the proposed standby tariffs by the date proposed. Representatives of OSG developers continued to make new appearances in the case until the very end of settlement negotiations, providing evidence that the proceeding was not well publicized among affected parties. Even now the actual rates are not clear, so developers could not possibly

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have analyzed potential projects accounting for the new rates. And even NYSERDA has funded a series of projects, based on available rate assumptions. For these reasons it would be reasonable to extend the definition of “existing” projects even further into the future. Given the amount of time and effort involved in analyzing and developing an economically viable OSG installation, using the effective date of the tariff for projects selected by NYSERDA to qualify for the eight year “grandfathering” treatment is imminently reasonable.

**Consideration of the Future**

1. Develop a rate distinct from the parent class that uses actual, not assumed, coincidence factors.
2. Quickly move to equitable rates that treat all customers in a rate class equally. Eliminate the skewed structural incentives
3. Analyze the impact of this rate on future projects; currently the rate has been designed only by looking at the past, and has not taken into account even the most reasonable and conservative assumptions about the reliability and other benefits of OSG.

**Perverse Incentives Should Never be Turned Against the OSG Industry**

Another incentive effect is that only economic OSG to be installed. In a secondary effect, DG that compares favorably on the rate will likely be built, and OSG that compares unfavorably will not. Joint Supporters fears that in the medium term, Con Edison will identify revenue erosion “due to OSG,” but that actually may be caused by the incentives implicit in these standby rates. Under no circumstances should any claim of “revenue erosion” that results from the unfavorable

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incentives arising from Con Edison's already unfavorable rates be used to justify further forays into irrational ratemaking.

**Conclusion**

Structural changes are necessary to level the playing field rather than the suggestions to "tweak" the proposed Joint Settlement. However, even if the Commission does not adopt some of the Joint Supporters proposed structural fixes and continues to move forward along what appears to be the current track, the Joint Supporters proposals regarding highly efficient CHP, cutoff date for grandfathering treatment, elimination of contract demand penalties, future studies etc. should still be accepted.