

PENDING PETITION MEMO

Date: 5/17/2007

TO : OCS  
OGC

FROM: CENTRAL OPERATIONS

UTILITY: CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

SUBJECT: 07-E-0580

Petition of Court Plaza Associates and ETC Management to submeter electricity at 123-33 83rd Avenue, Queens New York, located in the territory of Consolidated Edison Company of New York, Inc., filed in C 26998.

RECEIVED  
PUBLIC SERVICE  
COMMISSION  
EXEC-FILES-ALBANY

ENERGY INVESTMENT SYSTEMS, INC

2007 MAY 17 PM 1:46

May 15, 2007

Hon. Jaclyn A. Brillling  
Secretary  
State of New York Public Service Commission  
Three Empire State Plaza  
Albany, New York 12223-1350

RE: Submetering Application for Court Plaza  
123-33 83<sup>rd</sup> Avenue, Queens, NY

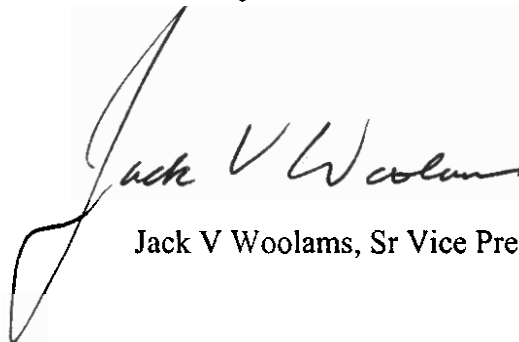
Dear Secretary Brillling:

Energy Investment Systems (EIS) is pleased to present the enclosed Petition (Application) to the State of New York Public Service Commission for the submetering of Court Plaza. We are submitting this petition at the request of and on behalf of the property's owners, Court Plaza Associates and its Manager, ETC Management Corp. We are working jointly with MEMO COGEN, Inc. to implement the submetering project for Court Plaza Associates.

They have requested that communications and inquiries concerning the review of the Petition be directed to EIS. Please direct initial questions to me at 212-966-6641, e-mail [jvw@eisnincorp.com](mailto:jvw@eisnincorp.com).

I have enclosed 5 additional copies.

Sincerely,



Jack V Woolams, Sr Vice President

Cc: Steven J Kramer, Assistant Counsel, NYS PSC  
Honor Marie Kennedy, Consumer Services, NYS PSC  
Timothy Ryan, General Manager, Con Edison  
Sara Schoenwetter, Assistant General Counsel, Con Edison  
Ed Coviello, President, ETC Management Corp

515 Greenwich Street, Suite 504, New York, NY 10013  
212.966.6641 • Fax: 212.966.7010 [eis@eisnincorp.com](mailto:eis@eisnincorp.com)

**Application for the Residential Submetering  
of Court Plaza  
a Master-Metered Rental Building**

**Submitted to:  
Jaclyn A. Brillling  
Secretary  
New York State Department of Public Service**

**Submitted by:  
Lewis M. Kwit and Jack V. Woolams  
Energy Investment Systems, Inc.**

**On behalf of:  
  
Court Plaza Associates and  
ETC Management**

**May 2007**

## Introduction

This application conforms to the Residential Submetering regulation 96.2 (b) of the Public Service Law. Section (b) pertains to “Master Metered residential rental units owned or operated by private or government entities.”

The subject property of this application is Court Plaza, a 248 unit multifamily building located at 123-33 83<sup>rd</sup> Avenue, Queens, NY 11385, owned by Court Plaza Associates. **See Appendix A for the regulatory history and status of the building.**

The submetering of the apartments would be mutually beneficial to the landlord and tenants. The owners of the building are committed to the long-term economic stability of the property. By submetering, the landlord would be able to offset an escalating cost and shift responsibility to the resident end-users. This would help stabilize rents in the long term. Tenants would receive an opportunity to save that did not exist before. When residents begin to pay their own electric bills, they will recognize electricity as the precious resource that it is rather than the free commodity it is perceived to be. This will facilitate more judicious use of electricity.

As residents are not presently billed for electricity in accordance with their individual usage, they have little incentive to use electricity efficiently. Similar sized apartments with the same number of air-conditioners are billed at fixed electricity surcharges regardless of consumption. Additional electricity costs beyond surcharges are passed through to tenants as part of their added rent. Thus, residents who run air-conditioners continuously increase costs for the entire building. These increased electricity costs are borne management since not all costs can be passed along to tenants.

Submetering apartments will encourage individual responsibility and directly incent reduced usage by providing residents with the opportunity to lower their costs. Studies prove that submetering of master-metered buildings results in building cost savings of 10% to 25%. Submetered master meter buildings also can manage peak demand resulting in additional savings for common areas.

The balance of this document addresses the eight requisite areas of 96.2 (b).

(1) a statement substantiating the economic advantages of submetering over direct utility metering

Direct-metered service is significantly more expensive than submetered service. Switching to master-metered service typically results in 15-30% savings over direct-metered service. This was borne out in a recent analysis of a low-income master-metered building that revealed savings of 27% over direct-metered costs.

Savings are due to several factors. Direct-metered customer service charges are higher, about \$12 per account before consumption charges are added. The Market Supply Charge for SC-1 direct-metered accounts is structurally higher than that for an SC-8 master-metered account: "multiple dwelling redistribution customers." Delivery charges for SC-1 accounts are generally higher. Even when demand charges are included under SC-8, master-metered apartment buildings pay considerably less than direct-metered units. In this interest the owner wants to preserve these lower costs for the tenants.

Master-metered customers are also able to benefit directly from New York State's deregulated electricity market, as instituted through PSC retail competition orders. Master-metered buildings can take advantage of low bulk purchasing rates through full-service Con Edison accounts. As larger customers, they are also more attractive to the new generation of alternative electricity providers (ESCOs). Today, approximately 5% of SC-1 customers receive ESCO service from the State's unregulated electricity market while 25% of SC-8 customers purchase electricity from alternative providers.

(2) a description of the type of submetering system to be installed and a validation of its reliability and accuracy

The system to be installed at Court Plaza is an Intech 21 wireless communication system that satisfies appropriate American National Standard Institute (ANSI) requirements for meter accuracy. The Intech 21 system meets ANSI C 12.1 and C 12.16 standards and has Underwriter Laboratory approval (UL 3111-1 and UL listed 36 NB).

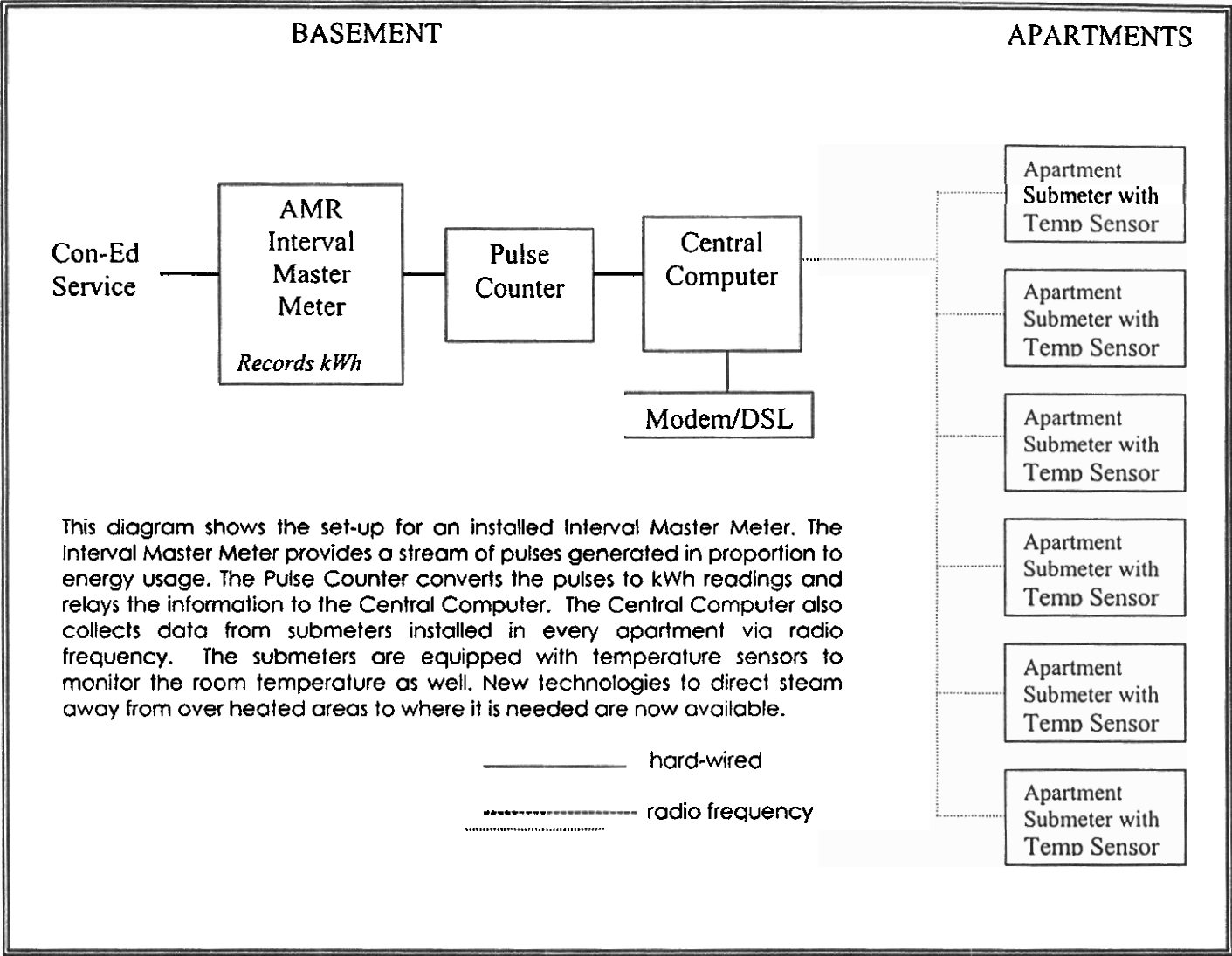
The system to be installed will possess all of the advantages that submetering technology offers:

- It is a digital advanced metering system with Automated Meter Reading (AMR) capability to read, store and transmit electric data. Because the meters are read electronically, usage data can be measured as it occurs, or in "real time." When combined with computerized billing software, the data can be used to produce sophisticated bills and inform a more efficient, reliable and competitively priced electric system. Advanced meters also record and display additional electricity information like voltage, amperage and kilowatts.
- Real-time billing offers an additional pathway to electric savings. AMR systems have the capacity to store the data collected in time increments, enabling time-of-use (TOU) billing. Although most systems record data in 15-minute intervals, the apartment building would find hourly measurement adequate to establish an internal time-of-use billing system that enables consumers to adjust usage and save money.

- In addition to time-of-use savings, the system can identify the building's peak demand period. The building can then employ consumer education, technological fixes and price signals to flatten its demand peak and lower building-wide charges.
- Usage histories for each apartment will be a powerful tool in settling billing disputes at Court Plaza. Hourly data can establish usage patterns for the entire building and for individual customers, to project the impact of time-differentiated rate structures for building rate selection.
- These new advanced meters can be programmed to display written messages to individual units from building management or other authorized parties. They may inform residents of pending power emergencies or curtailment events called by the New York State Independent System Operator (ISO). Reminders such as, "There will be no hot water tomorrow from 10:00 AM to 12:00 PM while the boiler is being serviced," might be scrolled across the meter screen.
- Advanced metering systems are also capable of modular upgrading to receive information from outside the building and communicate with electric relays to automatically turn on and turn off air conditioners or other discretionary electric service products when blackouts threaten. (In this case, MEMO/EIS recommends resident capability to override any turn-off.)

Furthermore, potential applications for advanced metering and related communications technologies have yet to be discovered. Court Plaza owners, energy practitioners and building managers will have a unique opportunity to create new cost-saving and quality-enhancing applications.

Figure 1 depicts the proposed advanced submetering set-up.



Before recommending the Intech 21 system at Court Plaza, as project consultant, Energy Investment Systems (EIS) issued the following findings for six submetering systems available in New York City's submetering market:

EIS addressed a variety of performance criteria in reviewing advanced metering technologies. On the most fundamental level, EIS targeted technologies that would satisfy NYSERDA performance specifications for its CEM program, including accuracy, AMR, interval measurement, and data storage and access. For applications to demonstration projects in New York City, we assessed the equipment's compliance with the New York City electric code and the requirements of the City's Bureau of Electrical Controls. To develop a business model for cost effective time-sensitive pricing, EIS sought enhanced functions to support sensor and control capabilities and in-apartment customer communications. We also sought systems that could automatically activate load-shedding for window air conditioning units. With only one exception, the systems show strength in some areas but major deficiencies in others.

Two-way communication is the functionality for which EIS has been striving. Apartment meters do not merely submit usage data in time intervals; information from the outside can be sent to the apartment meter. This information can take many forms, including signals to disconnect or reconnect circuits to enable automatic load shedding, price data based on hourly RTP prices or internal rate tiers, notification of immediate price hikes to permit critical peak pricing options, and even a series of colored light displays to signal high, low and moderate pricing.

Finding that the Intech 21 system best satisfied its technology criteria, EIS recommended it to Court Plaza. EIS reviewed its metering and related communications and software data analysis functions, which could be added modularly to the Court Plaza AMR system.

Intech 21 provides compact in-apartment meters that display kilowatt hour usage, as well as kilowatt and voltage readings to show how much electricity is being drawn by the apartment at any one moment. Graphic displays of system status and load profiles for the building and individual apartments are available through secure access to the building account at Intech 21's website. The system produces interval data at modest cost that, with some filtering, can be used with standard database and spreadsheet programs that can generate time-of-use bills. The wireless metering system and software is a platform for a variety of sensors and controls for other critical building operations, including fire and security detection and alarm, fuel efficiency and electricity load management. Its sensors and controls for window air conditioners and steam system balancing in residential submetering systems have been deployed in projects for EIS and others.

The meters have two-way communications capability that enables them to receive and transmit commands for controls and sensors. The controls can communicate their status and receive commands within a wireless network. To date the metering systems have been used by building



managers primarily for flat monthly billing. Intech 21 has been eager, however, to work with EIS to tailor and upgrade its systems to respond to innovative pricing for apartment residents. Intech 21 is currently developing ways for residents to access pricing and cost data and receive messages about critical prices and curtailment events directly.

This project recognizes that the core of any enhanced and sophisticated billing application is the ability to verify its accuracy. This cannot be compromised. When the system is installed it will be scrupulously commissioned to assure that each meter is properly calibrated and functions accordingly. The commissioning protocol will be conducted before, during and after the system's installation.

(3) the method and basis for calculating rents to tenants

Submetered rates will be calculated to recover building costs for master-metered electricity service. The submetering system calculates usage in its simplest form, as an odometer logs automobile mileage: the number of kilowatt hours consumed by each unit during a billing period is computed by subtracting the final reading from the initial one. The monthly cost of building-wide electric service is divided by kilowatt hours consumed by the master meter to yield a flat monthly rate. (Under full Con Edison service, the Con Ed master meter bill is simply divided by kilowatt hours consumed. Under ESCO service, the master meter cost includes a Con Ed delivery charge which is added to the ESCO charge for the commodity (the generated portion of electricity service). Since Con Ed is responsible for reading the master meter, the number of kilowatt hours consumed is identical for both the ESCO and Con Ed accounts.. The rate per unit of electricity service is then multiplied by submeter readings of consumption to yield individual charges. An administration fee of about \$4 is added to each resident's bill. Charges to tenants shall not exceed the utility's tariffed residential rate for direct metered service to such tenants. Time of use rates will not be billed to any resident without the resident's prior written agreement or written approval of the Commission.

(4) complaint procedures and tenant protections consistent with the Home Energy Fair Practices Act

The submetering program administrator will provide technical support services to resolve complaints regarding billing accuracy and billing services. The submetering administrator will conduct investigations and respond to the tenant and building manager on behalf of the owner within 30 days on all complaints concerning billing accuracy. Any aggrieved tenant may appeal the submetering administrator's findings to the building manager. Management will be responsible for all account collections and will respond directly to tenant complaints about collection practices. The manager will offer the tenant a hearing within 30 days of the appeal of the submetering administrator's findings or complaints about account collections. These proceedings will be consistent with the requirements of HEFPA.

The tenant's rights to basic electricity service will be protected at all times. Electricity service will not be interrupted or suspended while tenants are in occupancy unless allowed or ordered by the NYC PSC in accordance with HEFPA procedures. Submetering administrative procedures will be updated and supplemented to comply with evolving policies and procedures developed by the PSC.

Submetering administrative services will be provided in ways to minimize tenant complaints and the need for resolution by the PSC and to minimize account delinquencies and the need for account termination.

The building manager will cooperate with any proceedings before the PSC initiated by tenants and comply with resulting decisions by the PSC.

**(5) a procedure for notifying in writing all tenants of the proposal to submeter.**

The applicant or its consultant will prepare form letters to tenants that incorporate the aspects of the proposed submetering program described above. The letters will explain:

1. the economic advantages of submetering over direct utility metering
2. the type of submetering system to be installed and a validation of its reliability and accuracy
3. the method and basis for calculating rates to tenants, which shall include a maximum rate provision (rate cap) preventing charges to tenants from exceeding the utility's tariffed residential rate for direct metered service to such tenants
4. complaint procedures and tenant protections consistent with the Home Energy Fair Practices Act (Public Service Law, sections 31-50; 16 NYCRR Parts 11 and 12)

The applicant assisted by its consultant will supervise the distribution of these letters and communications between the tenants, landlord and the PSC to make sure that the proposal is understood and that any outstanding issues are properly addressed. An informational meeting will be held with the tenants to explain the submetering procedures and address questions of administration.

**(6) enforcement mechanism is available to the tenants to ensure that their rights are protected under the law**

The complaint procedure detailed in section 4 above constitutes the tenant's standard enforcement program, which is in compliance with the Home Energy Fair Practices Act.

**(7) certification that all required proposal information for tenants shall be incorporated in plain language into all leases governing submetered premises;**

The method of rate calculation, the rate cap, complaint procedures, tenant protections and the enforcement mechanisms will be incorporated in plain language into all leases governing the submetered premises. Program features will be incorporated into all leases, under authority of an order from the PSC, to make the submetering program an integral part of the landlord-tenant relationship. This authority will be employed to encourage tenant cooperation and provides a firm foundation for enforcement.

Enforcement and consumer protections will be accompanied with tenant education about the benefits of comprehensive building-wide submetering. It will be emphasized that the implementation of submetering meets objectives of electric efficiency and fairness for the entire building. Current rent allocation formulas do not allow for major disparities in

electricity usage between apartments of the same size. Under a submetered system, high users will pay more and lower users will pay less, according to their actual usage. When residents pay for the electricity they use, they will have a financial incentive to reduce waste and improve efficiency.

- (8) a description of an appropriate rent reduction formula that accurately reflects the applicant's overall reduction in his total electric costs resulting from conversion to submetering

As this building is regulated by the US Department of Housing and Urban Development (HUD), conversion from master metering to submetering has to be performed in accordance with HUD rules. The rules are found in Section 5 [12-18 to 12-23] of the HUD Handbook 4350.1 REV-1 of 9/92. These rules overlap and supplement the PSC rules but are fundamentally consistent with them. An application for submetering must be submitted to HUD and approved by HUD in accordance with its rules.

The HUD application requires detail in addition to that required by the PSC. HUD requires: inclusion of other utilities to be "converted" in addition to electricity, breakdown of dwelling units by number and size, monthly costs for past year by unit type and size, a statement of [Projected] utility costs by unit type and size from the "utility company" [here the submeterer], a "utility allowance" for each size unit recommended by the manager, and estimated effects of the conversion on total housing costs and rents.

With submeter billing, all surcharges for air-conditioners will be eliminated and all apartments will receive a reduction in their monthly rent. The rent reduction will be based on the building wide electricity costs allocated according by apartment size. The total for all building wide and per apartment rent reductions will be calculated as follows:

1. The annual cost of electricity for building wide master metered service will be calculated as the summation of all electricity costs billed by Con Edison for the past year, then
2. A reasonable amount, approximately 25%, will be deducted from the bill for common area usage, to arrive at total apartment usage, then.
3. All existing surcharges to tenants, to be eliminated will be deducted from total apartment usage to arrive at total net apartment usage, then
4. Total net apartment usage will be allocated among all apartments according to their size to calculate the amount by which their rents will be reduced per apartment in addition to the elimination of surcharges.

Since units in Court Plaza are no longer rent-stabilized or rent-controlled and therefore not under DHCR jurisdiction, no application needs to be submitted to DHCR for approval, and DHCR rent reduction formulas do not apply. The proposed reductions will be provided to achieve an "appropriate rent reduction formula that accurately reflects the applicant's overall reduction in his total electric costs resulting from conversion to submetering" as required by this section of the regulations.

## Appendix A

### Regulatory History and Status:

#### 1) **HUD Regulatory Jurisdiction over the Submetering of Electricity at Court Plaza:**

Court Plaza continues to be subject to a regulatory agreement with HUD as part of its refinancing under Section 223f in 1977. The HUD submetering rules apply to HUD refinances of prior Section 236 and 202 projects. While there is no evidence that Court Plaza ever was a 236 or a 202 project, the regulatory agreement requires HUD approval of rents and operating budgets. Rent reductions due to decreases in building operating costs from directly billing tenants for submetered electricity would be a part of such regulation. The Chief of Project Management for New York Multifamily HuB of HUD has advised **MEMO/EIS** that Court Plaza is subject to HUD rules for the conversion from master metering to submetering. The rules are found in Section 5 [12-18 to 12-23] of the HUD Handbook 4350.1 REV-1 of 9/92. Since none of the apartments are subject to rent stabilization or rent control, it is not also not subject to DHCR regulation. As such, conversion of Court Plaza to submetering would be regulated only by the NYS Public Service Commission (PSC) and HUD.

HUD rules overlap and supplement the PSC rules but are fundamentally consistent with them. At PSC fact-finding meetings in 2005, submetering stakeholders expressed the need for one uniform procedure to reduce time consuming duplication. Streamlining the application process is expected to be addressed in pending regulatory reform proceedings. As long as the HUD rules remain in effect, however, a separate application has to be prepared and submitted to HUD for approval.

While the DHCR rent reduction rules are based on estimated average market costs of electricity, HUD rules are based on the building's specific electricity costs and the size of the unit and an application can be submitted simultaneously with the PSC application. DHCR rules contain a fixed schedule for rent reductions in accordance with the number of rooms. HUD rules require the manager to propose its own per apartment rent reductions based on the building's electric costs and the number of rooms per apartment.

The design of the advanced submetering program proposed in an application for approval by the PSC will qualify the building for incentive payments that reimburse at least half of the cost of the submetering system installation. Obtaining an order from the PSC approving the application is a requirement for receipt of these incentives from the New York State Energy Research and Development Authority (NYSERDA). Court Plaza's section 223f status does not qualify it as low-income for enhanced incentives according to NYSERDA's itemized list. **MEMO/EIS** did however obtain an opinion from a NYSERDA consultant for the incentive program that it would qualify as low income. This makes sense as the regulatory agreement requires HUD approval of rent increases to keep the apartments affordable. Proof of low income status with submission of a copy of the Regulatory Agreement will add another 10% of system costs to the incentive payments.