

BEFORE THE  
STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

---

In the Matter of

Consolidated Edison Company of New York, Inc.

Case 07-E-0523

September 2007

---

Prepared Testimony of:

Christopher L. Graves  
Principal Economist  
Office of Accounting, Finance,  
and Economics

State of New York  
Department of Public Service  
Three Empire State Plaza  
Albany, New York 12223-1350

1 Q. Please state your name and business address.

2 A. My name is Christopher L. Graves. My business  
3 address is Three Empire State Plaza, Albany, New  
4 York 12223-1350.

5 Q. Please describe your educational background.

6 A. I received a Bachelor of Science degree in  
7 economics from the Illinois State University in  
8 1990 and a M.A. in economics from the Southern  
9 Illinois University at Edwardsville in 1997.

10 Q. Please summarize your professional experience.

11 A. I am a Principal Economist in the Office of  
12 Regulatory Economics in the Office of  
13 Accounting, Finance, and Economics of the  
14 Department of Public Service. I have been with  
15 the New York Department of Public Service  
16 (Department) since January 2002. I have  
17 provided analysis and testimony on electric and  
18 telecommunications issues including: renewable  
19 portfolio standard, demand response in  
20 electricity, hourly pricing of electricity,  
21 telecommunications mergers, and competition in  
22 the local exchange market.

1 Before coming to the Department, I worked in the  
2 Telecommunications Division of the Illinois  
3 Commerce Commission as an Economic Analyst from  
4 1996 to 2002. I provided the Commerce Commission  
5 with independent analysis and recommendations  
6 regarding policy issues, tariffs, pricing, and  
7 the application of laws and regulations. Areas  
8 on which I concentrated included: unbundled  
9 network element (UNE) pricing, implementation of  
10 the Telecommunications Act of 1996, market  
11 competition, line sharing, and the effects of  
12 telecommunications mergers on competition in the  
13 local exchange market. While working on my  
14 master's degree, I worked for the Economic Group  
15 of Southwestern Bell Telephone Company as a  
16 researcher.

17 Q. What is the purpose of your testimony?

18 A. The purpose of this testimony is to address some  
19 details of Consolidated Edison Company of New  
20 York, Inc.'s (Con Edison or the Company)  
21 mandatory hourly pricing (MHP) expansion.

22 Q. In your testimony, will you refer to, or

1 otherwise rely upon, any information produced  
2 during the discovery phase of this proceeding?

3 A. Yes. I will refer to, and have relied upon  
4 several responses to Staff Information Requests  
5 (IR). They are attached as Exhibit\_\_(CLG-1).

6 Q. Do you agree with the Customer Operations  
7 Panel's statement on page 12 of its testimony,  
8 "The Company's proposal is consistent with  
9 Commission policy?"

10 A. Yes. Although the MHP Order, Case 03-E-0641,  
11 Order Denying Petitions for Rehearing and  
12 Clarification in Part and Adopting Mandatory  
13 Hourly Pricing Requirements, issued April 24,  
14 2006 (MHP Order), did not require the Company to  
15 expand its hourly pricing (Rider M) to cover  
16 customers other than those who at the time were  
17 on time of use (TOU) rates, it did cite the  
18 benefits of hourly pricing. Benefits cited by  
19 the MHP Order on page 1 were potential  
20 reductions to peak period prices, enhanced peak  
21 period reliability, wholesale market power  
22 mitigation, and a reduction in New York State's

1 dependence on natural gas fueled generation.  
2 The Public Service Commission (Commission) also  
3 noted on page 33 of the MHP Order that, "Hourly  
4 pricing also yields more equitable customer  
5 bills than does the existing, less exact,  
6 average energy rate." In the MHP Order, other  
7 utilities with customers at similar thresholds  
8 to those proposed, were ordered to transfer  
9 customers to hourly pricing. For instance,  
10 National Grid's demand threshold for MHP was  
11 reduced from 2,000 Kilowatts (kW) to 500 kW. In  
12 Case 07-E-0479, the Commission directed that  
13 NYSEG reduce its demand threshold for MHP from  
14 1,000 kW to 300 kW by 2010.

15 Q. Can you address the scope and scale of the  
16 Company's proposal and how it compares with  
17 previous transition implementations of hourly  
18 pricing?

19 A. Yes, I have compiled a chart from the responses  
20 to Staff IRs DPS-202 and 485, which shows the  
21 customers and load that have moved to hourly  
22 pricing and the number of customers and load

1           scheduled to be moved to hourly pricing  
2           according to the Company's proposal. The chart  
3           is attached as Exhibit\_\_(CSG-2).

4    Q.    The Company proposes to implement hourly pricing  
5           in two steps: in January 2009 for customers with  
6           demands greater than 1 Megawatt (MW); and on  
7           January 2010 for customers with demands over 500  
8           kW. Do you agree with this time table?

9    A.    No. The schedule should be driven by rollout of  
10           meters, outreach and education (O&E), and meter  
11           data management systems. Customers transferring  
12           to hourly pricing should first be informed about  
13           how an hourly pricing tariff would work. My  
14           recommendations regarding O&E are described  
15           further below. Since customers moving to the  
16           hourly pricing tariff will not have previously  
17           experienced time sensitive rates, it is  
18           important that they gain an understanding of  
19           their current load shapes and how hourly pricing  
20           will affect their commodity bill. These  
21           customers will need access to their hourly load  
22           shapes, which can only be accessed after an

1 interval meter is installed. As the Company  
2 explains, none of these customers currently have  
3 interval meters. Ideally, customers should have  
4 access to a year's worth of hourly load data  
5 before moving onto the hourly pricing tariff, so  
6 they can examine their load patterns, and make  
7 adjustments in anticipation of the new hourly  
8 pricing tariff. This way, customers would be  
9 able to see how their load is affected by  
10 season, production patterns, weather, and  
11 lighting needs. This would give customers the  
12 greatest ability to prepare for the tariff  
13 implementation. In the MHP Order, the  
14 Commission stated that customers "need access to  
15 as much interval load data as possible to aid  
16 them in making informed decisions about hourly  
17 pricing."

18 Q. Will customers have access to a full year of  
19 interval load data if Con Edison's current meter  
20 installation schedule is implemented?

21 A. No, according to the Company's response to Staff  
22 IR DPS-204.

1 Q. Do you have a recommendation in view of this  
2 response?

3 A. I recommend that the roll out and expansion of  
4 the hourly pricing tariff for customers with  
5 demands between 1 MW and 1.5 MW should be  
6 delayed to allow customers the opportunity to  
7 review at least six months of hourly load data,  
8 including the data for summer months. It is  
9 critical to give customers access to their  
10 summer hourly load data because that is the  
11 season with the largest potential impact on  
12 their electric bills. While six months of data  
13 will not give customers information on all the  
14 seasonal variations in their load shapes, it  
15 would be expected to give them enough  
16 information to plan for the expansion of hourly  
17 pricing. This gives the Company time to install  
18 meters and gives customers a reasonable amount  
19 of interval data. The installation of interval  
20 meters for customers with demands at or above  
21 500 kW should be timed in order to provide those  
22 customers with at least one full year of

1 interval load data. Because these customers are  
2 not scheduled to convert to hourly pricing until  
3 2010, this would be expected to provide enough  
4 time for an orderly rollout of meter  
5 installation while providing adequate time to  
6 give customers a year's worth of interval load  
7 data. Con Edison developed with Itron, hourly  
8 load management software, called Demand  
9 Monitoring System, for its current hourly  
10 pricing customers to examine their hourly load  
11 and hourly pricing data. The Company has  
12 provided this software to its hourly pricing  
13 customers for two years without charge. It  
14 should do the same for its new hourly pricing  
15 customers.

16 Q. Are there any other thoughts you wish to express  
17 regarding meter installation?

18 A. Yes. During the first several months of 2006,  
19 National Grid installed approximately 1,000  
20 "state-of-the-art" interval meters for its SC-3  
21 customers with demands ranging from 500 kW to  
22 1,999 kW. Some of the lessons learned by

1 National Grid from the experience with its meter  
2 roll-out were reported in its July 30, 2007  
3 "Mandatory Hourly Pricing Six Month Evaluation"  
4 Report. National Grid's findings regarding  
5 meters were: 1) Seven months was not enough  
6 time to procure, program, test and install 1,000  
7 state-of-the-art interval meters; 2) With a one  
8 year lead time, the meter installation process  
9 could be more seamlessly incorporated into the  
10 work planning process; and 3) New meters should  
11 display the same information as the old meters.  
12 (Some customers complained that new meters did  
13 not display demand like the old meters did.)  
14 I understand that National Grid and Con Edison  
15 are two different companies with very different  
16 service territories and customer bases, but Con  
17 Edison should review National Grid's meter  
18 implementation experience. While the planned  
19 interval meter installation is only a portion of  
20 the 200,000 advanced meters that Con Edison  
21 plans to install in the first rate year of its  
22 rate plan, MHP customers' interval meters may

1           require more testing and meter programming than  
2           other installations. Con Edison should develop  
3           timetables for installation of new meters that  
4           realistically take into account its resources.

5   Q.   The Company proposes to extend the current  
6           exemptions to the new expanded group of  
7           customers. Do you agree with this decision?

8   A.   Yes. In its response to Staff IR DPS-202, the  
9           Company stated that 39 customers would be  
10          exempt, representing 36 MW of load. The  
11          Commission in its MHP Order, on page 35, allowed  
12          these exemptions, but encouraged companies to  
13          discuss the optional MHP tariffs with these  
14          customers and allow for them to opt into hourly  
15          pricing. While I agree that the exemptions  
16          should be allowed, the Company should make an  
17          effort to educate these customers about hourly  
18          pricing and its possible benefits so that they  
19          can make more informed decisions about opting  
20          onto the hourly pricing tariff.

21   Q.   The Company has proposed an O&E plan that is  
22          similar to its previous program for hourly

1 pricing customers above 1.5 MW of demand. What  
2 differences are there to the O&E plan for  
3 customers previously put on hourly pricing?

4 A. The Company states in response to  
5 Staff IR DPS-203: "Direct-mail and bill inserts  
6 will be used to communicate with customers  
7 regarding MHP and will be sent to both full  
8 service and retail access customers in the 500  
9 kW to 1500 kW group. Efforts may also include  
10 information exchange meetings. Letters and  
11 information exchange meetings were used for the  
12 over 1500 kW customers but not bill inserts."

13 Q. Please review the Company's experience with  
14 hourly pricing.

15 A. On January 24, 2007, the Company filed its  
16 report with the Commission entitled,  
17 "Consolidated Edison Company of New York, Inc.  
18 Mandatory Hourly Pricing Program Process  
19 Evaluation". This report reviewed the  
20 implementation of hourly pricing through  
21 interviews with Con Edison staff implementing  
22 the program and surveys of customers on the

1 program. For effectiveness of the Company's  
2 implementation efforts of the MHP program among  
3 full mandatory hourly customers, the report  
4 found: 1) Customers were given sufficient  
5 notice to be aware of the pending MHP tariff;  
6 2) Customers who communicated with the Company  
7 personnel or attended an information session  
8 appeared to readily understand MHP; 3) Some  
9 customers still need additional resources to  
10 enable them to assess hourly pricing.  
11 Respondents to customer surveys gave themselves  
12 an average or low score on understanding load  
13 management software; however, those who attended  
14 one of the workshops generally reported a  
15 significantly higher average score for  
16 understanding a number of energy-related issues  
17 compared with those who did not attend a  
18 workshop; and 4) A number of customers, ESCOs,  
19 and energy consultants communicated with the  
20 Company for information and support.  
21 For customer transition issues and effectiveness  
22 of Company assistance to customers during the

1 program transition, the report found on page 43:  
2 1) The Company effectively used a number of  
3 communication channels to reach customers.  
4 Account Executives pursued a strategy of  
5 informing key accounts and industry associations  
6 representing accounts through a combination of  
7 face to face meetings with industry  
8 associations, e-mails, and phone calls; 2)  
9 Educational seminars and internet-based training  
10 sessions made a positive impact for those who  
11 participated; 3) Con Edison's load management  
12 software tool provides a reasonable means for  
13 customers to view their interval meter data and  
14 day-ahead hourly costs; and 4) A significant  
15 portion of customers expressed an inability to  
16 shift their loads.

17 Q. What recommendations did the Company's MHP  
18 Evaluation Report provide for future O&E efforts  
19 for MHP customers?

20 A. The report offered two recommendations regarding  
21 future O&E efforts on pages 44 and 45: 1)  
22 Consider offering another live information

1 exchange in the future. A new information  
2 exchange could provide market updates on real  
3 time pricing, tools and resources available for  
4 managing real time pricing and demand load  
5 management, both from the open marketplace as  
6 well as from NYSERDA and the utility; as well as  
7 live testimonials from customers that have  
8 successfully switched to alternative sources;  
9 and 2) The Company should continue to offer  
10 customer support. As indicated in the survey  
11 responses, the live seminars provided useful  
12 information for customers and the ESCOs. The  
13 Company should continue efforts to invite  
14 customers - directly and through their  
15 associations - and to contact their Account  
16 Executives for direct information on Day-Ahead  
17 Hourly Pricing and direction on use of the Con  
18 Edison energy management software tool. It may  
19 also be useful for the Company to consider  
20 continuing learning sessions with ESCOs and  
21 consultants.

22 Q. Are there any lessons learned from other

1 utilities' roll-out of hourly pricing that can  
2 be taken into account in Con Edison's roll-out  
3 of hourly pricing?

4 A. Yes. In September 2006, National Grid  
5 transferred approximately 800 customers with  
6 demands above 500 kW to hourly pricing. As will  
7 be the case with the proposed Con Edison  
8 customers, the National Grid customers had no  
9 previous experience with time differentiated  
10 rates and required installation of new interval  
11 meters. On July 30, 2007 National Grid filed  
12 its six month report, "Mandatory Hourly Pricing  
13 Six Month Evaluation", wherein the following  
14 lessons learned regarding O&E activities were  
15 identified: 1) Workshops with customers were  
16 extremely helpful in preparing customers for the  
17 transition to MHP; 2) The Company should provide  
18 access to a video or web cast of workshops for  
19 those unable to attend and for new customers  
20 becoming eligible for the first time; 3) O&E  
21 should expand coverage on energy efficiency,  
22 distributed generation, and the use of financial

1 hedges; and 4) Energy management software was  
2 not used by customers as much as expected.

3 Q. In your review of the utilities' implementation  
4 of hourly pricing, do you have any  
5 recommendations regarding Con Edison's O&E  
6 efforts for its roll-out of hourly pricing?

7 A. Yes. Con Edison's O&E efforts should  
8 incorporate the following:

- 9 • Use of live seminars to provide information  
10 on MHP to customers, consultants, and ESCOs.
- 11 • Seminars should include testimonials from  
12 customers already converted to MHP.
- 13 • Customers with demands above 1.5 MW should be  
14 invited to a seminar for updates on the  
15 program.
- 16 • Workshops should be scheduled close to the  
17 launch of hourly pricing tariff.
- 18 • Web cast or video of outreach workshops  
19 should be archived and accessible by the  
20 public on the Company's website.
- 21 • Training should be offered to both retail

- 1 access and full service customers.
- 2 • O&E should offer expanded coverage on the
- 3 topics of energy efficiency, distributed
- 4 generation, and use of financial hedges.
- 5 • A monthly newsletter should be developed
- 6 similar to National Grid's "Business and
- 7 Energy" which provides customers more in-
- 8 depth information on topics such as energy
- 9 efficiency, distributed generation, and how
- 10 to use financial hedges and may be helpful to
- 11 MHP customers. An electronic newsletter can
- 12 be targeted more directly to the energy
- 13 managers or building engineers than the bill
- 14 inserts planned by the company.
- 15 • The Company should communicate with customers
- 16 and vendors to determine if there are any
- 17 ways to make the energy management software
- 18 package more appealing and useful to
- 19 customers.
- 20 Q. The Company proposes to amend its tariff to
- 21 include a special charge of \$1,000 that would be

1           assessed to the customer or the meter access  
2           controller in the event the Company is denied  
3           access to its meter or meters used to measure  
4           the service of an eligible customer.

5    Q.    Do you agree with this proposed Con Edison  
6           charge?

7    A.    No.    The Company cites its experience with  
8           residential time-of-use programs to bolster its  
9           proposed charge.  As the Company explains in  
10          response to Staff IR DPS-205, in 1992, when the  
11          residential time-of-use rate was first  
12          implemented, Con Edison installed 6,100 meters  
13          and had problems accessing five of those meters,  
14          comprising 0.08% of meters installed.  The  
15          proposed hourly pricing implementation involves  
16          the installation of approximately 1,600 meters.  
17          If one used Con Edison's previous experience  
18          from 15 years ago, the prediction would be that  
19          one customer would refuse Con Edison access to  
20          change its meter.

21   Q.    Do you believe that the Company's past  
22          experience with time-of-use meters is an

1 accurate indication of the success that can be  
2 expected in its proposed program?

3 A. I do not believe that Con Edison's past  
4 experience with time-of-use customers is a good  
5 guide for this installation of interval meters.  
6 One might wonder if some customers would refuse  
7 the Company access to meters in order to avoid  
8 paying hourly prices. However, customers could  
9 avoid hourly prices by simply switching to an  
10 ESCO's service. The option of choosing an ESCO  
11 was not available in 1992. In the recent  
12 rollout of advanced meters by National Grid,  
13 which I discussed earlier, it reported no  
14 problems accessing meters. I don't think such a  
15 tariff charge is needed.

16 Q. Has the Company addressed how much it seeks to  
17 recover in relation to implementing Hourly  
18 Pricing for customers with demands below  
19 1,500kW?

20 A. Yes. The Customer Operations Panel testimony at  
21 page 18 projects an expenditure of approximately

1           \$6.1 million. The Panel's Exhibit CO-2 breaks  
2           down this cost between \$5,813,438 in capital  
3           requirements and \$282,600 for operating and  
4           maintenance requirements for calendar year 2008.

5   Q.    Are these costs reasonable?

6   A.    Staff has not undertaken an evaluation of these  
7           costs at this time, but I recommend that the  
8           meter costs be recovered via a tariffed  
9           incremental meter charge in conformance with the  
10          Commission's April 2006 MHP Order. On page 31  
11          of that Order the utilities were directed to  
12          "recover incremental metering costs from the  
13          affected customers over time in conformance with  
14          normal amortization periods." The Commission  
15          subsequently approved National Grid's proposal  
16          to recover metering costs through an incremental  
17          metering charge. It is appropriate for Con  
18          Edison to recover its metering costs in a  
19          similar manner in this case.

20   Q.    Does this conclude your testimony at this time?

21   A.    Yes.