THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #3

INTERROGATORY

Ref: PEG Report, page i

**Issue Number 1.2**
**Issue: What is the method for incentive regulation that the Board should approve for each utility?**

The evidence references the January 5, 2007 EB-2006-0209 Staff Discussion Paper.

a) Did PEG provide any input into this discussion paper and/or write any parts of it? If yes, please specify.
b) Please provide all a copy of all correspondence between PEG and Board Staff members regarding this discussion paper, including e-mails.
c) Please provide all preliminary drafts of the report that were not issued to all parties.
d) Did Board Staff and or PEG have any correspondence with Union Gas and or Enbridge Gas during the preparation of the Staff Discussion Paper other than that at the stakeholder meetings? If yes, please provide copies of all correspondence, including e-mails.

RESPONSE

a) Yes. As stated on page 14 of the Staff Discussion Paper, footnote 5, Section 3.3 of the Paper (X Factor) was written by PEG.

b) Neither PEG nor Board staff filed the Board Staff Discussion Paper in this proceeding. Neither PEG nor Board staff will be relying on the Discussion Paper in this proceeding. Questions relating to PEG's involvement in drafting the Discussion Paper are therefore not relevant to this

proceeding. In addition, this question asks for material covered by privilege, which privilege has not been waived by Board staff.

c) Neither PEG nor Board staff filed the Board Staff Discussion Paper in this proceeding. Neither PEG nor Board staff will be relying on the Discussion Paper in this proceeding. Early drafts of the Discussion Paper are therefore not relevant to this proceeding. In addition, this question asks for material covered by privilege, which privilege has not been waived by Board staff.

d) There is no correspondence between Board staff or PEG with Union or Enbridge relating to the preparation of the Board Staff Discussion Paper outside of the stakeholder meetings.

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #4

INTERROGATORY

Ref: PEG Report, page i

**Issue Number: 4.3**
**Issue: If so, how should the impact of changes in average use be applied (e.g., to all customer rate classes equally, should it be differentiated by customer rate classes or some other manner)?**

a) Please provide a definition of "important service groups".

b) Who provided the definition of "important service groups".

c) What is the difference between "important service groups" and rate classes?

RESPONSE

a) An important service group is one that has a substantial impact on utility costs and revenues.

b) We chose the breakdown of service groups to provide a reasonable balance between simplicity and the need for different PCI trajectories.

c) A service group may contain multiple rate classes.

Witness: Mark Lowry

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #6

INTERROGATORY

Ref: PEG Report, page iii

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

a) Please explain how the summary rate trend of 0.87% was calculated for Union Gas. Please provide all information and calculations used. Please provide the rate increase for each year for the period 2000 – 2005 upon which the trend is based.

b) Please confirm that over the period 2001 – 2003 Union Gas was under a price cap during which the price caps were 1.4% in 2002, 0.0% in 2003 and -2.3% in 2003.

c) Please confirm that for 2005, Union Gas was under a rate freeze.

d) For each year 2000 through 2006, please provide a calculation that shows the annual cost for distribution delivery and storage services for an average sized residential, commercial and industrial customer served under Union's general service rate classes. Please show all rates used by delivery block for delivery, the storage rate and the monthly customer fixed charge as well as the annual consumption levels used in the calculations. Do not include the commodity cost or the cost of upstream transportation in the calculations.

RESPONSE

a) PEG took the specific revenues that were broken down by volumetric or customer charges for each rate class and divided these revenues by the corresponding output. This determined the rate for each category. PEG then calculated the 2005 revenue shares of each category and weighted up the growth rates in each rate by these 2005 revenue shares to determine a summary rate index.

Witness: Mark Lowry

The summary rate increases for 2000-2005 are as follows: .88% (2000-2001), 1.07% (2001-2002), 1.92% (2002-2003), .46% (2003-2004), and .01% (2004-2005). See PEG's response to question 2 of EGD's interrogatories for further details of these calculations.

b) We are not prepared to confirm this.

c) We are not prepared to confirm this.

d) We are not prepared to make this calculation.

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #9

INTERROGATORY

Ref: PEG Report, page 21

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

Please provide all the supplemental data that was sourced from Statistics Canada.

RESPONSE

See PEG's response to question 2 of EGD's interrogatories.

Witness: Mark Lowry

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #12

INTERROGATORY

Ref: PEG Report, page 24

**Issue Number: 4.2**
**Issue: How should the impact of changes in average use be calculated?**

The evidence states that PEG added to the weather normalized volumes used in the revenue-weighted output index estimates, provided by the companies, of their demand-side management ("DSM") savings. Please clarify what information was provided by the utilities: their DSM savings; their weather normalized volumes; and/or the revenue-weighted output index estimates.

RESPONSE

In the construction of the revenue-weighted output index the utilities provided PEG with their DSM savings. PEG estimated the weather normalized volumes using our own weather normalization model. We also calculated the revenue-weighted output index in our indexing code. For these models and the data used see PEG's response to question 2 of EGD's interrogatories.

Witness: Mark Lowry

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #15

INTERROGATORY

Ref: PEG Report, page 27

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

The evidence states that lacking US data on the corresponding revenue shares, PEG employed instead the average of the revenue shares for Union and Enbridge.

a) Please provide the revenue shares for each of Union and Enbridge.

b) What is the value of applying the average of the revenue shares for Union and Enbridge to utilities that may have significantly different revenue shares?

c) What is the sensitivity of the results if it was assumed that the weights used for the US data were 60% for residential and commercial volumes, 15% for other volumes and 25% for customers?

RESPONSE

a) Please see PEG's response to question 8 of the CCC-VECC interrogatories.

b) This approach was taken for three reasons. First, we don't know the base rate revenue shares of the U.S. utilities and must therefore impute them by some means. Secondly, the design of base rates is the outcome of a politicized process and often does not reflect what is known about the effect of billing determinants on cost. Thirdly, the relevance of the exercise is enhanced by using Ontario revenue shares since otherwise the AU comparison might reflect less the difference in average use trends between Ontario and the U.S. than the differences in rate design. Ontario gas utilities have fairly hefty customer charges.

Witness: Mark Lowry

c) This alternative weighting would have only a slight impact on the average annual growth of the U.S. output indexes.

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #17

INTERROGATORY

Ref: PEG Report, page 28

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

a) Please explain the relevance of the construction worker salaries and wages index.

b) What other labour cost indexes were considered for use? Why were these indexes not used in the final analysis?

c) Please provide the Statistics Canada data used and reviewed for all potential labour indexes. Please identify the source of the Statistics Canada data by table number or CANSIM number.

d) What is the impact on the analysis if the utility salary and wage trend index was used?

RESPONSE

a) The construction workers salaries and wages index was used because it was Ontario-specific, involved a similar kind of workers used by gas utilities, displayed a plausible trend, and was one of the few available options to measure total compensation rather than salaries and wages.

b) We looked through a multitude of sources in our effort to find the appropriate labour cost index. This included the following Statistics Canada tables: 383-0009, 282-0072, 111-0007, 281-0026, and 287-0027. Please see our answer to a) for an explanation of our final choice.

Witness: Mark Lowry

c) Please see the answer to b) and the working papers found in PEG's response to question 2 of EGD's interrogatories.

d) This index tends to grow less rapidly since it excludes pensions and other benefits. Its use would slow measured industry input price growth and increase the IPD and the X factor. The modest weight assigned to the labour price subindex would dampen the magnitude of these changes considerably.

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #18

INTERROGATORY

Ref: PEG Report, page 29

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

a) Please provide the data and data source for the GDPIPI for Ontario.

b) Were any other indexes investigated for use in place of the GDPIPI for Ontario? If yes, please provide all other indexes that were considered, along with the data, the data source and reasons for not using this information.

RESPONSE

a) Please see PEG's response to question 2 of EGD's interrogatories.

b) No other indexes were considered in place of the GDPIPI for Ontario.

Witness: Mark Lowry

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #20

INTERROGATORY

Ref: PEG Report, page 39

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

The evidence indicates that data are not readily available that would enable the calculation of the TFP trends of other Canadian gas utilities.

a) Does Statistics Canada publish any data related to the MFP trends of utilities and/or natural gas utilities? If yes, please provide the information published by Statistics Canada and indicate why this information was not used by PEG in their analysis.

b) If Statistics Canada did have such information, would it provide a better estimate of the industry MFP than that provided by PEG in its analysis. Please explain your answer.

c) Given that PEG uses a Statistics Canada measure of the MFP trend of the Canadian economy, would it be more appropriate to also use a MFP trend of the Canadian utility or Canadian natural gas utility industry if it were available? Please explain if the answer is no.

RESPONSE

a) Please see LPMA Q20 Attachment to see the requested series. Statistics Canada publishes in total four relevant MFP series in CANSIM Table 383-0022. Two are for the utilities sector in general, and two are for the sub-index described as "Natural Gas Distribution, Water, and Other Systems." The two utility-sector series (as well as the two natural gas series) differ from each other in whether

they use gross output or value-added as the basis for their output quantity measure[1].

There are five reasons why PEG did not use any of the Statistics Canada series as the basis for productivity calculations. The first is that we were tasked with decomposing the growth in TFP into an index of cost efficiency and an average use factor. The Statistics Canada indexes do not permit this decomposition since output is (implicitly) revenue-weighted.

The second is that neither of the levels of specificity at which MFP indexes are available from Statistics Canada can capture trends in the natural gas distribution sector without the calculation also taking into account other sectors. Firms in the utilities sector provide "electric power, natural gas, steam supply, water supply, and sewage removal[2]." Within this grouping of industries, two sub-indexes are calculated: One for the industries of electricity distribution, generation, and transmission[3], and one for all other utilities, which besides natural gas would include steam, water, and sewage[4]. The latter is the closest approximation Statistics Canada provides to the natural gas-specific index that PEG calculated.

The third reason for not using the Statistics Canada indexes is that recent values of all four series are unavailable. While each series begins in 1961, no data is available for any series after 2003. In restricting ourselves only to the Statistics Canada series, we would have lost all chance to account for relevant productivity observations after 2003. PEG was in a position to provide reliable productivity calculations through 2005 for Enbridge, Union, and the sampled U.S. utilities.

The fourth reason for not using a Statistics Canada MFP index is that it is available only for the entire Canadian industry. With data for individual utilities, it is easier to establish a TFP target that reflects the specific business conditions of Enbridge and Union.

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[1] According to Statistics Canada's current description of it's MFP calculation method, the difference lies in whether the value of outputs (which is then adjusted for output prices to derive output quantity) is the total value of all commodities made, or whether (as in the case of value-added) the value of "intermediate inputs" is removed. "Intermediate inputs" are best understood as outputs which are used as inputs by other firms in the same classified sector, *e.g.* within the overall utility sector, the cost of providing natural gas to an electricity generator. See Baldwin, John, et al. *User's Guide for Statistics Canada Annual Multifactor Productivity Program*. Micro-economic Analysis Division, Statistics Canada, August 2007.

[2] Industries are classified under the North American Industry Classification System (NAICS), which is common to the US, Mexico, and Canada. The 2007 NAICS Manual is available from National Technical Information Service, US Department of Commerce. The NAICS code for the utilities sector is 22.

[3] Ibid. The NAICS code for the electricity providers is 2211.

[4] Ibid. The remaining constituents of NAICS code 22 are 2212 (gas distribution), and 2213 (water, sewage, and steam).

A fifth reason for not using a Statistics Canada MFP index is that it is not computed using COS capital costing. This matters to the extent that we prefer the COS approach due, for example, to its advantages in computing IPD.

b) Statistics Canada does have such indexes.

c) This is one advantage of a Statistics Canada MFP index but not, in our judgement, of sufficient importance to tip the scales in favor of using such an index to set the TFP targets.

# *Canadian Utility MFP Using Most Recent Statistics Canada Data, 1988-2003*

| | Canadian MFP based on gross output[1] | | | | Canadian MFP based on value-added[1] | | | |
|---|---|---|---|---|---|---|---|---|
| | Utilities | | Natural gas dx, water and other systems | | Utilities | | Natural gas dx, water and other systems | |
| | Level | Growth Rate | Level | Growth Rate | Level | Growth Rate | Level | Growth Rate |
| 1988 | 91.9 | 0.4% | 72.3 | 3.7% | 88.8 | 0.6% | 66.2 | 4.3% |
| 1989 | 86.7 | -5.8% | 75 | 3.7% | 82.7 | -7.1% | 69 | 4.1% |
| 1990 | 82.5 | -5.0% | 69.6 | -7.5% | 77.8 | -6.1% | 63.2 | -8.8% |
| 1991 | 82.4 | -0.1% | 70 | 0.6% | 77.7 | -0.1% | 63.7 | 0.8% |
| 1992 | 79.8 | -3.2% | 69.5 | -0.7% | 74.7 | -3.9% | 63.2 | -0.8% |
| 1993 | 80.9 | 1.4% | 71.9 | 3.4% | 76 | 1.7% | 65.7 | 3.9% |
| 1994 | 84.1 | 3.9% | 70.6 | -1.8% | 79.7 | 4.8% | 64.3 | -2.2% |
| 1995 | 87.9 | 4.4% | 72.5 | 2.7% | 84.3 | 5.6% | 66.4 | 3.2% |
| 1996 | 90.7 | 3.1% | 75.3 | 3.8% | 87.6 | 3.8% | 69.4 | 4.4% |
| 1997 | 92.1 | 1.5% | 71.2 | -5.6% | 89.4 | 2.0% | 64.9 | -6.7% |
| 1998 | 90.7 | -1.5% | 68.5 | -3.9% | 87.7 | -1.9% | 61.8 | -4.9% |
| 1999 | 92.9 | 2.4% | 72.5 | 5.7% | 90.4 | 3.0% | 66.4 | 7.2% |
| 2000 | 94 | 1.2% | 81.9 | 12.2% | 91.8 | 1.5% | 77.6 | 15.6% |
| 2001 | 96.3 | 2.4% | 99.4 | 19.4% | 94.9 | 3.3% | 99.2 | 24.6% |
| 2002 | 100 | 3.8% | 100 | 0.6% | 100 | 5.2% | 100 | 0.8% |
| 2003 | 99.1 | -0.9% | 104.4 | 4.3% | 98.8 | -1.2% | 105.7 | 5.5% |
| **Average Annual Growth Rates** | | | | | | | | |
| **1988-2003** | | **0.50%** | | **2.45%** | | **0.71%** | | **3.12%** |

[1] Table 383-0022, Statistics Canada CANSIM series, current as of September 2007.

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #26

INTERROGATORY

Ref: PEG Report, page 46

**Issue Number: 3.1**
**Issue: How should the X factor be determined?**

a) What would the MFP trend of the economy be if the same 2000 – 2005 period was used as it was for the econometric estimation of the utility specific TFP figures?

b) Why has PEG used a different time period for the Canadian economy as compared to the time period used in the econometric approach?

RESPONSE

a) The MFP trend of the Canadian economy during the 2000-2005 period was reported to be 0.72% at the time of our study. However, please note that the Statistics Canada aggregate business sector MFP series that PEG used has changed significantly between the time of the study and September 2007. The series at the time of the study were discontinued, and the current series differs in many respects (*e.g.* industry classification, output aggregation across industries, common revisions in the GDP series). According to the current series, the MFP trend for Canada over this period is -0.08%. Please note that a revision in this series has exactly offsetting effects on the PD and IPD and therefore has no net effect on the X factors.

b) Our choice of a time period for the Canadian economy is based on the following fundamental result discussed on p. 12 of the June report:

Growth PCI = growth GDPIPI
- [trend TFP + (trend GDPIPI – trend Input Prices) + Stretch Factor].

According to this result, X depends ultimately on trend GDPIPI – trend Input Prices and the sample period for this comparison must be chosen carefully to

reflect a longer term trend. We use the MFP trend that corresponds to this period. Please note that the MFP trend has exactly offsetting effects on the IPD and PD and no net effect on the X factor.

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #27

INTERROGATORY

Ref: PEG Report, page 47

**Issue Number: 4.2**
**Issue: How should the impact of changes in average use be calculated?**

a) Please provide all the data used to normalized based on the PEG methodology.

b) What degree days were used to normalize to?

c) Please explain why the data used for normalization was limited to 2000 through 2005. Was data prior to 2000 provided to PEG? If so, why was it not used?

RESPONSE

a) See PEG's response to question 2 (Section 3.3) of EGD's interrogatories.

b) We used sample means calculated for the 1999-2005 period (for Union) and the 2000-2005 period (for Enbridge).

c) Degree day data were provided for some earlier years. We elected not to use them, believing that the mean for a shorter sample period was satisfactory for our purpose of smoothing for short term weather volatility.

Witness: Mark Lowry

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #36

INTERROGATORY

Ref: PEG Report, page 16

**Issue Number: 1.2**
**Issue: What is the method for incentive regulation that the Board should approve for each utility?**

The evidence indicates that a revenue per customer freeze results under a price cap mechanism when GDPIPI equals X.

a) Under a price cap mechanism is a price freeze the result when the GDPIPI equals X?

b) Would the use of a price freeze mechanism simplify a price cap mechanism in that it eliminates the need for a determination of the appropriate inflation factor to be used?

c) Would the use of a price freeze mechanism simplify a price cap mechanism in that it eliminates the need to estimate the various components of an X factor?

d) Would the use of a price freeze mechanism eliminate or reduce the potential for controversy associated with sample periods and data used to estimate the various components of the X factor?

e) Is PEG aware of any approved IR plans that have been approved? If so, please provide a summary of the number and mechanisms involved (eg. rebasing timing, plan terms, rebasing methodologies, etc.) with these plans.

f) Is a rate freeze mechanism a viable option that should be considered as potential price cap mechanism to be used by the Board? Please explain.

g) Is a rate freeze mechanism a common approved methodology worldwide or in the United Kingdom or in the United States? Please elaborate.

Witness: Mark Lowry

RESPONSE

a) Yes. We wish to note that for the purposes of the following discussions a rate freeze is any plan with zero rate escalation that lasts for a defined period before the company may apply for rate relief.

b) Yes.

c) Rate freezes usually result from settlement discussions and have the support of the subject utility. Indexing research might be needed to justify the freeze in the absence of utility consent.

d) No. Please see the responses to subpart c. Controversy may be expected in the discussion of a rate freeze mechanism, concerning the justification of the underlying assumption that inflation equals X.

e) We do not have a thorough and up to date review of IR plans. However, we provide in LPMA Q36 Attachment A a summary table of some plans that feature rate or revenue cap indexes. A summary of plans involving rate freezes is discussed in our response to subpart g below.

f) Probably not. While rate freezes have been used in other situations, in this case a rate freeze would not reflect the evidence gathered thus far on the economic reality facing Ontario gas utilities.

g) A rate freeze is a commonly approved methodology in the United States. See LPMA Q36 Attachment B for a representative sample of rate freezes for electric and natural gas distribution in the United States. Note that a large proportion of these cases were associated with electric restructuring in the 1990s. There has to our knowledge never been a rate freeze for electric or gas distribution in the UK.

## LPMA Q36 Attachment A
## REPRESENTATIVE SAMPLE OF IR PLANS APPROVED FOR ELECTRIC AND NATURAL GAS UTILITIES

| Industry | Company | Jurisdiction | Term | Cap Form | Acknowledged Productivity Trend | Inflation Measure (P) | Stretch Factor | X-Factor |
|---|---|---|---|---|---|---|---|---|
| Bundled power service | Pacificorp | California | 1994-1996 | Price Cap | 1.4% | Industry specific | NA | 1.4% |
| Bundled power service | Central Maine Power (I) | Maine | 1995-1999 | Price Cap | NA | GDPPI | NA | 0.9% (average) |
| Gas distribution | Southern California Gas | California | 1997-2002 | Revenue Cap | 0.50% | Industry specific | 0.80% (Average) | 2.30% (Average) |
| Power distribution | Southern California Edison | California | 1997-2002 | Price Cap | NA | CPI | 0.58% (Average) | 1.48% (Average) |
| Gas distribution | Boston Gas (I) | Massachusetts | 1997-2003 | Price Cap | 0.40% | GDPPI | 0.50% | 0.50% |
| Gas distribution | San Diego Gas and Electric | California | 1999-2002 | Price Cap | 0.68% | Industry specific | 0.55% (Average) | 1.23% (Average) |
| Power distribution | San Diego Gas and Electric | California | 1999-2002 | Price Cap | 0.92% | Industry specific | 0.55% (Average) | 1.47% (Average) |
| Gas distribution | Consumers Gas | Ontario | 2000-2002 | Cap on O&M Component of Revenue | 0.63% | CPI | 0.50% | 1.10% |
| Power distribution | All Ontario distributors | Ontario | 2000-2003 | Price Cap | 0.86% | Industry specific | 0.25% | 1.5% |
| Gas distribution | Union Gas | Ontario | 2001-2003 | Price Cap | 0.9% | GDPPI | 0.5% | 2.5% |
| Power distribution | Central Maine Power (II) | Maine | 2001-2007 | Price Cap | NA | GDPPI | NA | 2.57% (Average) |
| Gas distribution | Berkshire Gas | Massachusetts | 2002-2011 | Price Cap | 0.40% | GDPPI | 1.0% | 1.0% |
| Gas distribution | Boston Gas (II) | Massachusetts | 2004- 2013 | Price Cap | 0.58% | GDPPI | 0.30% | 0.41% |
| Power distribution | All Dutch distributors | Netherlands | 2004-2006 | Price Cap | 1.5% | CPI | NA | NA |
| Power distribution | All New Zealand distributors | New Zealand | 2004-2009 | Price Cap | 2.1% | CPI | 0% (Average) | 1% |
| Gas distribution | Bay State Gas | Massachusetts | 2006-2015 | Price Cap | 0.58% | GDPPI | 0.4% | 0.51% |
| Power distribution | Nstar | Massachusetts | 2006-2012 | Price Cap | NA | GDPPI | NA | 0.63% (Average) |

# Selected Rate Freezes in the US Electric and Gas Industries

| Location | Company | Sector | Period | Application | Reason |
|---|---|---|---|---|---|
| **North Atlantic** | | | | | |
| MA | National Grid/NEES | E | 2000-2005 | Base Rate Freeze; PBR Plan specified for 2005-2009 | Merger |
| MA | Nstar | E, G | 1999-2003 | Base Rate Freeze | Merger |
| NH | Public Service NH | E | 1992-1997 | Rate Freeze | Merger |
| NH | Public Service NH | E | 2001-2004 | Delivery Service Rate Freeze | Restructuring |
| **Mid Atlantic** | | | | | |
| DC | Potomac Electric Power | E | 2000-2005 | Total Rate Freeze | Restructuring |
| DC | Potomac Electric Power | E | 2000-2007 | Total Rate Freeze (Low-Income Customers) | Restructuring |
| DC | Potomac Electric Power | E | 2005-2007 | Total Rate Freeze | Merger |
| DC | Potomac Electric Power | E | 2007-2009 | Total Rate Freeze (Low-Income Customers) | Merger |
| DE | Delmarva P&L/Conectiv | E | 1999-2003 | Total Rate Freeze | Restructuring |
| DE | Delmarva P&L/Conectiv | E | 2003-2006 | Total Rate Freeze | Merger |
| MD | BG&E | E | 2000-2006 | Base Rate Freeze | Restructuring |
| MD | Delmarva P&L/Conectiv | E | 2000-2004 | Base Rate Freeze | Restructuring |
| MD | Delmarva P&L/Conectiv | E | 2004-2006 | Base Rate Freeze | Merger |
| MD | Potomac Edison/Allegheny | E | 2000-2008 | Base Rate Freeze | Restructuring |
| MD | Potomac Electric Power | E | 2000-2004 | Base Rate Freeze | Restructuring |
| NJ | Atlantic City Electric | E | 1999-2003 | Total Rate Freeze | Restructuring |
| NJ | Jersey Central | E | 1999-2003 | Total Rate Freeze | Restructuring |
| NJ | PSE&G | E | 1999-2003 | Total Rate Freeze | Restructuring |
| NY | Niagara Mohawk/National Grid | G | 2001-2004 | Base Rate Freeze | Merger |
| NY | Rochester | E, G | 2004-2008 | Base Rate Freeze | Alternative Regulation |
| PA | Allegheny | E | 1998-2007 | Base Rate Freeze | Restructuring |
| PA | Met Ed | E | 1998-2007 | Base Rate Freeze | Restructuring |
| PA | PECO | E | 1998-2007 | Base Rate Freeze | Restructuring |
| PA | PECO | E | 2002-2006 | Base Rate Freeze | Merger |
| PA | Penn Elec | E | 1998-2007 | Base Rate Freeze | Restructuring |
| PA | Penn Power | E | 1998-2007 | Base Rate Freeze | Restructuring |
| PA | PP&L | E | 1998-2007 | Base Rate Freeze | Restructuring |
| PA | West Penn Power | E | 1998-2007 | Base Rate Freeze | Restructuring |
| **South Atlantic** | | | | | |
| FL | Gulf Power | E | 2005-2007 | Base Rate Freeze | Hurricane Cost Recovery Settlement |
| FL | Tampa Electric | E | 2005-2007 | Base Rate Freeze | Hurricane Cost Recovery Settlement |
| GA | Atlanta Gas Light | G | 2005-2010 | Base Rate Freeze | Alternative Regulation |
| NC | CP&L | E | 1999-2004 | Base Rate Freeze | Restructuring |
| NC | CP&L | E | 2002-2007 | Base Rate Freeze | Alternative Regulation |
| NC | Duke | E | 2002-2007 | Base Rate Freeze | Alternative Regulation |
| VA | Appalachian Power | E | 1998-2000 | Base Rate Freeze | Restructuring |
| VA | Dominion Virginia Power | E | 2003-2010 | Base Rate Freeze | Restructuring |

# Selected Rate Freezes in the US Electric and Gas Industries

| Location | Company | Sector | Period | Application | Reason |
|---|---|---|---|---|---|
| VA | Columbia Gas of Virginia | G | 2007-2010 | Base Rate Freeze | Alternative Regulation |
| VA | Virginia Natural Gas | G | 2006-2011 | Base Rate Freeze | Alternative Regulation |
| WV | WV Power/Allegheny | E, G | Electric 2000-2002; Gas 2000-2005 | Base Rate Freeze | Merger |
| **North Central** | | | | | |
| IA | Mid-American Energy | E | 1995-2000 | Total Rate Freeze | Alternative Regulation |
| IA | Mid-American Energy | E | 2001-2005 | Total Rate Freeze | Alternative Regulation |
| IA | Mid-American Energy | E | 2005-2010 | Total Rate Freeze | Alternative Regulation |
| IL | CIL | E | 1997-2006 | Total Rate Freeze | Restructuring |
| IL | CIPS | E | 1997-2006 | Total Rate Freeze | Restructuring |
| IL | Commonwealth Edison | E | 1997-2006 | Total Rate Freeze | Restructuring |
| IL | Illinois Power | E | 1997-2006 | Total Rate Freeze | Restructuring |
| IL | Iowa Illinois | E | 1997-2006 | Total Rate Freeze | Restructuring |
| IL | Ameren/CILCO | E, G | 2004-2006 | Total Rate Freeze | Merger |
| IN | Indiana-Michigan | E | 2002-2007 | Base & Fuel Rate Freeze | Reorganization |
| MI | Consumers Power | E | 2000-2006 | Total Rate Freeze | Restructuring |
| MI | Detroit Edison | E | 2000-2006 | Total Rate Freeze | Restructuring |
| MI | Indiana-Michigan | E | 2000-2006 | Total Rate Freeze | Restructuring |
| MN | Northern States Power/New Century Energy | E, G | Electric 2000-2006; Gas 2000-2004 | Base Rate Freeze | Merger |
| OH | Cincinnati G&E | E | 2000-2005 | Total Rate Freeze | Restructuring |
| OH | Cleveland Electric Illuminating | E | 2000-2006 | Total Rate Freeze | Restructuring |
| OH | Columbus Southern | E | 2000-2007 | Total Rate Freeze | Restructuring |
| OH | Dayton P&L | E | 2000-2008 | Total Rate Freeze | Restructuring |
| OH | Ohio Edison | E | 2000-2009 | Total Rate Freeze | Restructuring |
| OH | Ohio Power | E | 2000-2010 | Total Rate Freeze | Restructuring |
| OH | Toledo Edison | E | 2000-2011 | Total Rate Freeze | Restructuring |
| WI | WP&L/Interstate Power | E, G | 1997-2000 | Base Rate Freeze | Merger |
| **South Central** | | | | | |
| KY | LG&E and KU | E, G | 1997-2002 | Base Rate Freeze | Merger |
| **Southwest** | | | | | |
| AZ | Tucson Electric Power | E | 2000-2008 | Base Rate Freeze | Restructuring |
| TX | Central P&L | E | 1999-2002 | Total Rate Freeze | Restructuring |
| TX | Reliant | E | 1999-2002 | Total Rate Freeze | Restructuring |
| TX | Texas Utilities | E | 1999-2002 | Total Rate Freeze | Restructuring |
| TX | West Texas | E | 1999-2002 | Total Rate Freeze | Restructuring |
| **Pacific** | | | | | |
| CA | SDG&E | E | 1996-2000 | Base Rate Freeze | Restructuring |
| CA | SCE | E | 1996-2002 | Base Rate Freeze | Restructuring |
| CA | PG&E | E | 1996-2002 | Base Rate Freeze | Restructuring |
| WA | Puget Sound Energy | G | 1997-1999 | Base Rate Freeze | Merger |

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #39

INTERROGATORY

Ref: PEG Report, page 16

**Issue Number: 2.2**
**Issue: Should the inflation factor be based on an actual or forecast?**

a) Do the majority of rate indexing plans approved worldwide feature the use of an actual or forecast measure of inflation?

b) If an actual measure of inflation is used, is any true up incorporated into the plans for revised actuals when the price cap for a future year is calculated?

c) If a forecast measure of inflation is used, is any true up incorporated into the plans for the forecast error when the price cap for a future year is calculated?

d) Does PEG believe that a true up as contemplated in (b) or (c) above is appropriate? If not, please explain why.

RESPONSE

a) We believe that actual measures of inflation are used in the majority of rate indexing plans in worldwide.

b) Although we have never done a systematic review of this issue it is our impression that true-ups are sometimes undertaken.

c) We have never done a systematic review of this issue and are not prepared to answer this question.

d)Yes. Such true-ups are easy to implement and could enhance the reasonableness of rates considerably in the event of a hyperinflationary episode.

Witness: Mark Lowry

THE LONDON PROPERTY MANAGEMENT ASSOCIATION ("LPMA"), THE WHOLESALE GAS SERVICE PURCHASERS GROUP ("WGSPG"), AND THE BUILDING OWNERS AND MANAGERS ASSOCIATION OF THE GREATER TORONOTO AREA ("BOMA") #43

INTERROGATORY

Ref: PEG Report, page 47 & 67 and Union Gas Evidence, Exhibit B, Tab 1, page 27

**Issue Number: 4.2**
**Issue: How should the impact of changes in average use be calculated?**

Union's evidence suggests that the decline in average use is accelerating for general service customers. Union may also have use impacts relating from the addition or large gas fired generators and ethanol producers.

a) Given the potential range of outcomes related to average use over the proposed five year term of the plan would it be advisable to update the AU and ADJ factors on an annual basis to reflect the most recent year of data available. If not, why not?

b) Please provide the calculations and the data used to calculate the output quantity indexes with revenue and elasticity weights that resulted in the AU figures shown on page 47 of the PEG Report so that they can be replicated in the future when additional year information is available.

c) Please provide the calculations and the data used to calculate the ADJ factors found on page 67 of the PEG Report (assuming COS capital costing) so that they can be replicated in the future when additional year information is available.

RESPONSE

a) It is difficult to adjust these factors over time to reflect developments in Union's service territory without affecting its incentives for effective marketing. A revenue cap would effect adjustments, but would also weaken marketing incentives.

Witness: Mark Lowry

b) See PEG's response to question 2 of EGD's interrogatories. Please note that access to some portions of the working papers requires the signing of a confidentiality agreement.

c) See PEG's response to question 2 of EGD's interrogatories. Please note that access to some portions of the working papers requires the signing of a confidentiality agreement.

For a discussion on how to calculate the ADJ factors, please see pages 93-96 of PEG's June report.