

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of
LONG ISLAND WATER CORPORATION
Case 11-W-0020
SEPTEMBER 2011

Prepared Testimony of:

Kwaku Duah
Associate Utility Financial
Analyst

Office of Accounting & Finance
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 Kwaku Duah. I am employed by the New
3 York State Department of Public Service
4 (Department). My business address is Three
5 Empire State Plaza, Albany, New York 12223.

6 Q. Mr. Duah, what is your position at the
7 Department?

8 A. My position is Associate Utility Financial
9 Analyst in the Office of Accounting and Finance.

10 Q. Please describe your educational background and
11 professional experience.

12 A. I hold a master's in Business Administration
13 with a concentration in Finance and Accounting
14 from SUNY Institute of Technology (2005). Since
15 I joined the Department in 2007, I have pursued
16 professional development through attendance at
17 two conferences and workshops: the 39th
18 Financial Forum of the Society of Utility and
19 Regulatory Financial Analysts in Washington DC
20 in April 2007 and a one-week school on
21 regulatory studies at the Michigan State
22 University Institute of Public Utilities in
23 August 2007.

24 Q. Please briefly describe your current

1 responsibilities with the Department.

2 A. As an Associate Utility Financial Analyst, my
3 assignments involve analyzing company's
4 financial condition, capital structures,
5 financing mechanisms, risks, cost of debt, cost
6 of equity, diversification, and the relative
7 cost position/competitive position of utilities
8 operating in New York State. My other
9 assignments involve testifying in rate cases on
10 financial issues, and special projects including
11 the determination of allowed returns on equity
12 for independent telephone companies in New York
13 State.

14 Q. Have you previously testified in a regulatory
15 proceeding before the New York State Public
16 Service Commission (Commission)?

17 A. Yes, I have presented testimony before the
18 Commission in the NYSEG/RG&E Electric and Gas
19 Rate Cases (09-E-0715, 09-G-0716, 09-E-0717, and
20 09-G-0718), the Niagara Mohawk Gas Rate Case
21 (08-G-0609), and Niagara-Mohawk Corporation,
22 Electric Rate Case (10-E-0500).

23 Q. Are you sponsoring any other exhibits?

24 A. Yes. I am sponsoring 24 exhibits in addition to

1 11 Company responses to my IRs shown in
2 Exhibit_KXD-1.

3 Q. Please briefly describe these exhibits.

4 A. My exhibits are summarized below:

5	<u>Exhibit Number</u>	<u>Description/Location</u>
6	Exhibit __ (KXD-2)	Summary of Staff's Rate of
7		Return;
8	Exhibit __ (KXD-3)	Public Utilities Fortnightly
9		report on Ring Fencing
10	Exhibit __ (KXD-4)	Standard and Poor's Report On
11		Oncor Electric's Goodwill
12		Adjustment
13	Exhibit __ (KXD-5)	2010 Common Equity Ratio of
14		Electric utilities and
15		Goodwill Adjusted Common
16		Equity Ratio of Staff Proxy
17		Group
18	Exhibit __ (KXD-6)	Standard and Poor's and
19		Moody's Credit Metric
20		Guidelines
21	Exhibit __ (KXD-7)	Credit Metrics of LIAW

1	Exhibit __ (KXD-8)	Mergent Bond Record, August
2		2011 Edition
3	Exhibit __ (KXD-9)	Rate Year Cost of Debt
4	Exhibit __ (KXD-10)	Summary of Staff's Cost of
5		Equity
6	Exhibit __ (KXD-11)	Universe used for Staff Proxy
7		Group Selection
8	Exhibit __ (KXD-12)	Similarity Analysis
9	Exhibit __ (KXD-13)	Staff Proxy Group;
10	Exhibit __ (KXD-14)	Three Month Prices for the
11		Proxy Companies;
12	Exhibit __ (KXD-15)	Discounted Cash Flow
13		calculation for Staff Proxy
14		Group;
15	Exhibit __ (KXD-16)	Capital Asset Pricing Model
16		results
17	Exhibit __ (KXD-17)	McKinsey & Company's Recent
18		report on the Inaccuracy of

4

1 Analysts' Earnings Growth
2 Rate Forecast

3 Exhibit __ (KXD-18) Cited portion of Ms. Ahern's
4 former testimonies in cases
5 09-W-0824 and 09-W-0828;

6 Exhibit __ (KXD-19) Comparative Risk Analysis of
7 Ms. Ahern's Proxy Groups in
8 Case 09-W-0824

9 Exhibit __ (KXD-20) Fortune Magazine article
10 entitled "9% Forever."

11 Exhibit __ (KXD-21) Annie Wong's Article on Size
12 premium

13 Exhibit __ (KXD-22) Richard Roll's Article on
14 size premium

15 Exhibit __ (KXD-23) Ching-Chih Lu's Article on
16 size premium

17 Exhibit __ (KXD-24) Standard and Poor's report on
18 the effect of size on
19 regulated water companies

20 Exhibit __ (KXD-25) Hypothesis Testing of Size

1 Premium in the Water Sector

2 Q. What is the purpose of your testimony in this
3 proceeding?

4 A. My testimony develops the fair rate of return to
5 be used in determining the rate year revenue
6 requirement for Long Island Water Corporation
7 d/b/a Long Island American Water (LIAW or the
8 Company). The development of the fair rate of
9 return requires an estimation of the proper
10 capital structure and cost rates for the capital
11 used to finance the Company's earnings base.

12 **SUMMARY**

13 Q. Please summarize your testimony.

14 A. I recommend an overall after-tax rate of return
15 of 7.09%, as opposed to the Company's request of
16 8.37%. On a pre-tax basis, my overall rate of
17 return is 9.65% compared with the Company's
18 request of 11.67%. In terms of revenue
19 requirement, the after-tax rate of return
20 accounts for approximately \$2.573 million of the
21 difference between Staff and the Company's

1 proposed cost rates. The difference between my
2 recommended rate of return and the Company's is
3 primarily the result of my recommended 8.90%
4 cost of common equity and my recommended cost of
5 debt for the Company of 5.68%. My recommended
6 rate of return is summarized in Exhibit__(KXD-
7 2), attached.

8 **RATE OF RETURN**

9 Q. Please discuss the estimation of a utility's
10 overall rate of return.

11 A. A utility's overall rate of return represents
12 the weighted cost of capital used by the utility
13 to finance the assets providing the regulated
14 utility service to customers. The determination
15 of a utility's rate of return requires an
16 estimate of the company's projected capital
17 structure and the associated cost rates. The
18 ratemaking process should provide a utility with
19 a reasonable opportunity to earn a return on
20 utility investments comparable to the return
21 available on investments of similar risk.

22 Q. What cost of capital is LIAW proposing in this

1 proceeding?

2 A. The Company is requesting an overall after-tax
3 rate of return of 8.37% for the 2011 rate year.
4 The Company based its request upon the following
5 capital structure and cost rates:

6		Capitalization	Cost	Weighted
7		<u>Ratio</u>	<u>Rate</u>	<u>Cost</u>
8	Long-Term Debt	55.73%	6.00%	3.34%
9	Preferred Stock	0.89%	4.50%	0.04%
10	<u>Common Equity</u>	<u>43.38%</u>	<u>11.50%</u>	<u>4.99%</u>
11	Total	100.00%		8.37%

12 **CAPITAL STRUCTURE**

13 Q. What capital structure did the Company use in
14 determining its requested rate relief?

15 A. The Company used its pro-forma stand-alone
16 capital structure.

17 Q. Does the Commission typically use a stand-a-lone
18 capital structure to set the rates of a utility
19 subsidiary in a holding company structure?

20 A. If a subsidiary is not sufficiently ring-fenced
21 or financially isolated from the parent, the
22 Commission has a long-established policy of

1 using the parent company's consolidated capital
2 structure or a hypothetical capital structure.

3 Q. Can you provide some examples of cases in which
4 the Commission has accepted the use of a
5 consolidated capital structure and rejected the
6 use of a stand-alone capital structure when
7 setting the rates of a utility that resides in a
8 holding company structure?

9 A. Yes. I have two apt examples, the first comes
10 from Case 05-E-1222 (*Order adopting recommended*
11 *decision with modifications, Issued and*
12 *Effective August 23, 2006*) and the second is
13 from Case 93-W-0455 (*Opinion and Order Approving*
14 *Settlement subject to modifications, Issued and*
15 *Effective April 18, 1994*).

16 Q. Please describe the Commission's determination
17 regarding the use of a stand-alone
18 capitalization in Case 05-E-1222 cited above.

19 A. In Case 05-E-1222, the Commission employed the
20 capital structure of Energy East (the ultimate
21 parent of New York State Electric and Gas
22 Corporation (NYSEG)) in establishing NYSEG'S

1 cost of capital. In doing so, the Commission
2 stated at page 87 of its Order that:

3 "...the established regulatory practice
4 in New York in fully regulated rate
5 proceedings, like this one, is to use
6 the consolidated capital structure of
7 the holding parent company for rate
8 making purposes. This practice has
9 typically been applied to utility
10 holding company structures in other
11 regulated industries...We find no valid
12 basis for excluding electric utility
13 holding company structures from the
14 time-honored and well-established
15 regulatory practice. There is no
16 rational basis for us to depart from
17 the approach developed and used for
18 consolidated telecommunications,
19 natural gas and water companies when
20 addressing the substantially same
21 issues pertaining to electric
22 operations."

1 In its Opinion, the Commission also
2 stated that it would be prepared to re-
3 evaluate using the parent company
4 capital structure if and when the
5 company were to "fully insulate the
6 subsidiary's capital structure and
7 financial standing in a manner that the
8 credit rating agencies would recognize
9 NYSEG's credit worthiness separate and
10 apart from Energy East's."

11 The Commission also stated that until such
12 "ring-fencing" is in place, it would use the
13 parent company's consolidated capital structure.

14 Q. Could you briefly explain the concept of ring-
15 fencing?

16 A. Ring-fencing, with respect to a regulated public
17 utility subsidiary occurs when the subsidiary
18 financially separates itself from its holding
19 company/parent company to protect the subsidiary
20 from financial instability or bankruptcy in the
21 parent. The intent of the ring-fencing measures
22 is to insulate assets in the subsidiary from the

1 risks of the holding company/parent and from the
2 other subsidiaries in the holding company. In
3 theory, if a subsidiary is ring-fenced, and the
4 holding company or another subsidiary goes
5 bankrupt, creditors cannot attach their claims
6 to the assets of the ring-fenced subsidiary.
7 As a result, ring-fencing protects the assets of
8 the subsidiary in the event of the parent going
9 bankrupt. Moreover, if there is adequate ring-
10 fencing, a subsidiary could be rated higher than
11 the parent. This was underscored in a 2008
12 publication of Public Utilities Fortnightly in
13 which the paper stated, "S&P's rating criteria
14 usually require that subsidiaries of a weak
15 parent be rated no more than the parent, unless
16 there are strong economic and structural
17 features--such as ring fencing---to support a
18 higher rating. Normally with ring fencing, the
19 firm can rate a subsidiary up to three notches
20 higher than the consolidated rating of the
21 parent and its subsidiary." The report is
22 attached as Exhibit_(KXD-3). If a utility

1 subsidiary achieves a relatively higher rating
2 than its parent, there is a benefit of lower
3 cost of debt to the subsidiary and ultimately to
4 ratepayers.

5 Q. Please describe the determination in Case 93-W-
6 0455 where the Commission again rejected the use
7 of a stand-alone capital structure.

8 A. In the Commission Order for Long Island Water in
9 Case 93-W-0455, the Commission stated at page 8
10 that, "[t]he use of the parent company's capital
11 structure follows the long standing practice of
12 the Commission to employ the consolidated
13 capitalization."

14 In discussing the merits of using the parent
15 capital structure, the order also stated in page
16 8 that:

17 "This approach encourages utilities to
18 take advantage of the economies of
19 scale by financing on a consolidated
20 rather than a stand-alone basis. The
21 consolidated approach also focuses on
22 the entity which controls the

1 subsidiaries major financial policies.
2 Finally, the use of the parent's
3 capitalization and cost rates also
4 avoids potential double leverage
5 problems arising from the parent
6 company's issuance of debt that can
7 show up as equity on the subsidiary's
8 balance sheet."

9 Q. Has the Company presented a rationale regarding
10 why the Commission should depart from its policy
11 and employ a stand-alone capital structure for
12 LIAW in this proceeding?

13 A. Yes. In response to IR-7 (KXD-7), Company
14 Witness Watkins stated that:

15 "while it is the Company's
16 understanding that it is generally the
17 Commission's policy to set a utility's
18 cost of capital based upon the pro
19 forma consolidated capital structure of
20 its parent company, however, where the
21 capitalizations of the subsidiary
22 utility and the parent company are

1 essentially one and the same, and the
2 possibility of double leveraging by the
3 parent company is therefore minimal,
4 the Commission may use the standalone
5 capitalization of subsidiary utility."

6 As an example of his understanding of the
7 Commission's policy, Mr. Watkins points to
8 LIAW's and Staff's joint proposal settling
9 the Company's 2004 rate filing.

10 Q. Has Mr. Watkins accurately described the
11 Commission's capital structure methodology?

12 A. No, he has not. Absent adequate ring-fencing
13 between the utility and its parent and
14 affiliates, it is the long-established policy of
15 the Commission to use the parent company's
16 consolidated capital structure or a hypothetical
17 capital structure. A judgment of similarity
18 between the parent and subsidiary capital
19 structure or the absence of double leverage does
20 not justify the use of a stand-alone capital
21 structure.

22 Q. Is LIAW adequately ring-fenced from its parent

1 and affiliated companies?

2 A. No, it is not. As demonstrated in Company's
3 response to Staff IR-78 (KXD-26), LIAW has
4 minimal ring-fencing mechanisms in place.

5 Q. In response to Staff IR-7 (KXD-7), the Company
6 claims that the Commission used LIAW's stand
7 alone capital structure in Case 04-W-0577 (*Order*
8 *establishing rate plan, Issued and Effective*
9 *March 21, 2005*); is this correct?

10 A. Yes, however that usage was contained within a
11 joint proposal.

12 Q. What is the significance of a joint proposal?

13 A. Terms and agreements under a joint proposal are
14 non-precedential and therefore not binding in
15 any way on future Commission action. Joint
16 proposals are typically the result of
17 negotiations involving trade-offs between the
18 parties. To take one settled issue out of the
19 context of the entire settlement would not
20 reflect the overall intentions of the settling
21 parties. The fact that the parties employed a
22 stand-alone capital structure in Case 04-W-0577

1 does not mean that it is applicable in this
2 proceeding.

3 Q. What is the consolidated equity ratio of LIAW's
4 parent, American Water Works Co. (AWW)?

5 A. The consolidated equity ratio of AWW is 42.95%.

6 Q. How did you calculate AWW's 42.95% equity ratio.

7 A. I based the 42.95% on AWW's December 31, 2010
8 actual consolidated capital structure.

9 Q. Why did you not estimate a pro-forma rate year
10 capital structure for AWW?

11 A. While a pro-forma capital structure is the
12 appropriate capital structure to use for the
13 rate year, I am unable to determine the pro-
14 forma structure as the Company refused to
15 provide AWW's projected capital structure. The
16 company's reason for its refusal is that it
17 "considers this information extremely
18 proprietary and does not disclose such
19 forecasted information." See the company's
20 response in Staff IR-2 (KXD-2).

21 Q. Do you recommend the use of AWW's December 31,
22 2010 capital structure in this proceeding?

1 A. No. I have reservations about using AWW's
2 capital structure because it is distorted by the
3 presence of more than \$1.2 billion of goodwill
4 that overstates the strength of the parent's
5 equity ratio. As I will subsequently discuss,
6 since 2006 AWW has written off over \$1.7 billion
7 of goodwill.

8 Q. What is goodwill?

9 A. Goodwill is an intangible asset on the balance
10 sheet and occurs when a company purchases
11 another company and upon the acquisition, the
12 amount paid is greater than the value of the
13 assets of the target company. The amount over
14 book value usually accounts for the target
15 company's intangible assets.

16 Q. Does the Commission allow utilities to earn a
17 return on goodwill?

18 A. No, it does not. The Commission does not allow
19 the inclusion of goodwill in rate base nor has
20 it allowed goodwill to be included in a
21 company's equity balance. As a result, goodwill
22 should be removed from a utility's equity

1 balance when establishing rates.

2 Q. Can you provide an example where any rating
3 agency removed goodwill from the equity of a
4 regulated entity?

5 A. Yes. In computing Oncor Electric Delivery's
6 credit metrics, Standard & Poor's (S&P) backed
7 out the entire amount of goodwill of \$3.78
8 billion from the company's equity. In their
9 report entitled *Oncor Electric Delivery Co. LLC*,
10 dated August 10, 2011, S&P stated, "In computing
11 debt leverage, Standard & Poor's reduces the
12 amount of equity on the balance sheet by an
13 amount that is primarily equal to the goodwill
14 resulting from the leveraged buyout of Oncor's
15 majority owner, EFH. As of December 31, 2010,
16 this amount was \$3.78 billion." This report is
17 attached as Exhibit_(KXD-4).

18 Q. What are the ratemaking implications of
19 goodwill?

20 A. Goodwill is a risky asset. It is booked in
21 anticipation of shareholders receiving savings
22 and other benefits from an acquisition as the

1 result of management efforts. If such savings
2 do not appear likely, the goodwill becomes
3 impaired and the company should write it down to
4 a more realistic level. Goodwill is an even
5 tougher proposition for businesses with price-
6 regulated affiliates. Specifically, for AWW to
7 realize the value of its goodwill it must not
8 only produce savings and benefits consistent
9 with the goodwill balance, it must also convince
10 regulators to flow such benefits to shareholders
11 rather than ratepayers. The Commission's public
12 service responsibilities make such an approach
13 untenable.

14 Q. What is the appropriate vehicle for financing
15 goodwill?

16 A. Goodwill is essentially the amount a company has
17 paid above the fair value for another company
18 and as such is a very risky asset. Therefore, a
19 company should finance goodwill with common
20 equity capital.

21 Q. What are the implications of goodwill on AWW's
22 equity ratio?

1 A. To the extent that AWW's goodwill cannot meet
2 the requirements of an impairment test, then the
3 goodwill must be written off and a charge made
4 to equity.

5 Q. Please discuss AWW's prior goodwill write-offs.

6 A. AWW has written off goodwill of \$450,000 in
7 2009, \$750,000 in 2008, and \$506,000 in 2006.
8 However, the company recorded no impairment
9 charge for the year ended December 31, 2010.

10 Q. If AWW is required to write-off its remaining
11 goodwill what is resulting equity ratio?

12 A. Writing off the remaining goodwill balance of
13 \$1.2 billion results in a pro-forma equity ratio
14 of 34.41% also shown in Exhibit_(KXD-2)

15 Q. Do you think AWW's capital structure is
16 appropriate for use in this proceeding?

17 A. Given the infirmities in the parent's capital
18 structure, AWW's capital structure should not be
19 used to establish rates for LIAW. My analysis
20 indicates that the AWW's true equity ratio most
21 likely falls between 34.41% and 42.95%.

22 Q. Is there another reason why AWW's capital

1 structure is inappropriate for this proceeding?

2 A. Yes. On July 11, 2011, AWW announced an
3 agreement with Aqua America, Inc. (Aqua) to
4 purchase all of Aqua's regulated operations in
5 New York and to simultaneously sell AWW's
6 regulated operations in Ohio to Aqua. S&P views
7 the transaction as marginally beneficial to
8 AWW's business performance and financial
9 metrics, but not material enough to influence
10 the company's BBB+ rating or its stable outlook.
11 Under these circumstances, I cannot accurately
12 project AWW's common equity ratio, neither would
13 I consider a company's projection accurate at
14 this time.

15 Q. Is there another option that the Commission can
16 consider to set the capital structure of AWW?

17 A. Yes. In circumstances where the Commission
18 recognized that a consolidated or stand-alone
19 capital structure should not be applied, the
20 Commission has relied upon a hypothetical
21 capital structure.

22 Q. Are you aware of any proceedings where the

1 Commission employed a hypothetical
2 capitalization when it determined the parent's
3 common equity ratio is uncharacteristic of the
4 subsidiary's risks?

5 A. Yes, a hypothetical capital structure was
6 employed in the Niagara Mohawk Power Corporation
7 (Niagara Mohawk) electric rate proceeding in
8 Case 10-E-0050 (*Issued and Effective January 24,*
9 *2011*).

10 Q. Discuss the Commission's decision in the Niagara
11 Mohawk proceeding.

12 A. In establishing the 48% hypothetical capital
13 structure for Niagara Mohawk, the Commission
14 stated in its Order that:

15 "Nonetheless, in recent rate
16 proceedings involving other public
17 utility companies with corporate
18 parents, integrated operations and
19 combined finances, we have authorized a
20 48% equity position for ratemaking
21 purposes and we have not exceeded this
22 level for any such company. Were we to

1 go beyond this level for Niagara
2 Mohawk, we would add to ratepayer costs
3 about \$10 million without obtaining any
4 greater strength or confidence in the
5 Company's financial metrics. Without
6 an incremental advantage accompanying a
7 movement from a 48% to a 50% equity
8 position, we are not inclined to add to
9 ratepayers' costs. Consequently, we do
10 not find a sufficient basis here to
11 exceed for Niagara Mohawk the 48%
12 equity positions we have previously
13 established for similarly rated
14 companies such as Consolidated Edison
15 and Central Hudson."

16 Q. Please summarize your analysis of LIAW and AWW
17 capital structures.

18 A. I first analyzed the subsidiary's common equity
19 ratio and concluded that it is not proper to use
20 in establishing the cost of capital because
21 sufficient ring-fencing does not exist between
22 LIAW and its parent. Next, I analyzed the

1 parent's consolidated capital structure and
2 concluded that it is not appropriate because of
3 \$1.2 billion of goodwill in the parent's balance
4 sheet. After removal of the goodwill, the
5 common equity ratio was 34.41%. As illustrated
6 in Exhibit_(KXD-2), a 34.41% equity ratio does
7 not support AWW's BBB+/Baa2 bond rating. I
8 believe that LIAW should have parameters
9 supporting AWW's rating since LIAW issues its
10 debt primarily through AWW and LIAW's ratepayers
11 obtain the cost benefits of the parent's bond
12 rating. As I will subsequently demonstrate, my
13 recommendations provide LIAW with financial
14 metrics supporting a BBB+/Baa2 bond rating. I
15 am recommending that LIAW's equity ratio be
16 based upon a hypothetical capital structure.

17 Q. What is your recommended hypothetical equity
18 ratio for LIAW?

19 A. Based on my analysis, I am recommending a 43.76%
20 equity ratio for LIAW.

21 Q. How did you arrive at the hypothetical 43.76%
22 equity ratio?

1 A. I began my analysis by examining the equity
2 ratio of a surrogate group of electric and gas
3 companies. As I will subsequently detail, I
4 have used the surrogate group to estimate LIAW's
5 cost of equity as it reasonably represents the
6 overall risk profile of LIAW. As illustrated in
7 Exhibit_(KXD-5), I have used three sources to
8 estimate an appropriate equity ratio for the
9 surrogate group. I first examined the equity
10 ratio of the surrogate group of companies based
11 upon *Value Line Investment Survey (Value Line)*
12 reports. As the exhibit illustrates, *Value Line*
13 estimates a median and average equity ratio of
14 48.70% and 48.10% respectively for the surrogate
15 group. After adjusting for each company's
16 goodwill balance and short-term debt, *Value*
17 *Line's* estimate for the group's equity ratio is
18 42.04%. I then examined the equity ratio of the
19 surrogate group using the equity values obtained
20 by CapitalIQ, and then removed goodwill to
21 arrive at an equity ratio of 43.76%. Finally, I
22 compared the Value Line and CapitalIQ derived

1 equity ratio to the electric utility common
2 equity ratio as reported by the Edison Electric
3 Institute (EEI). Page 3 of Exhibit_KXD-5
4 illustrates that the EEI estimated equity ratio
5 is 42.6%. My recommendation of a 43.76% ratio
6 represents the high end of the range of
7 reasonable estimated equity ratios for the proxy
8 group.

9 Q. How does your recommended equity ratio compare
10 with the Company's requested equity ratio?

11 A. While the Company and I differ on the proper
12 method for deriving our recommendations, my
13 estimate represents only a 38 basis point
14 difference from the Company's request.

15 Q. You noted that the stand-alone capital structure
16 has some infirmities. Are there measures you
17 recommend that the Commission should apply to
18 rectify the issues you had with the
19 applicability of a stand-alone capital
20 structure?

21 A. Yes. Ring-fencing measures should be employed
22 at LIAW. At a minimum, LIAW should implement a

1 dividend restriction effective if the credit
2 rating of AWW should fall below an investment
3 grade.

4 Q. Does your recommended 43.76% equity ratio
5 provide LIAW financial metrics consistent with
6 AWW's bond rating?

7 A. Yes, my recommended 43.76% equity ratio, when
8 combined with LIAW's resulting financial
9 metrics, will allow LIAW to achieve ratings
10 metrics consistent with AWW's BBB+/Baa2 S&P's
11 and Moody's Investor Service (Moody's) ratings.

12 Q. Please describe your analysis.

13 A. I began my analysis by examining the credit
14 metrics required by S&P and Moody's to achieve
15 various bond ratings. As the reports
16 illustrate, a company's equity ratio is examined
17 in conjunction with a variety of financial
18 metrics in assigning a bond rating. My analysis
19 then compares the credit metrics resulting from
20 Staff's recommendations in this proceeding for
21 LIAW to the metrics required by S&P and Moody's
22 for various credit ratings. As detailed in the

1 rating agency reports contained in
2 Exhibits_(KXD-6), the following credit metrics
3 are used by S&P and Moody's in their
4 evaluations.

5 S&P:

- 6 1. Funds From Operations/Debt
- 7 2. Debt/EBITDA
- 8 3. Debt/Capital

9 Moody's:

- 10 1. Cash flow Interest Coverage
- 11 2. Cash Flow/Debt
- 12 3. Retained Cash Flow/CAPEX
- 13 4. Debt/Capital

14 Q. Please provide the results of your analysis.

15 A. As illustrated in Exhibit_(KXD-7), LIAW's
16 overall credit metrics fall within the ranges
17 established by the rating agencies necessary to
18 support AWW's existing bond ratings. Since LIAW
19 generally issues debt through AWW, I am
20 recommending that ratepayers support AWW's
21 existing bond ratings. Requiring LIAW's
22 ratepayers to support credit metrics above AWW's

1 bond ratings would require its ratepayers to pay
2 for benefits that LIAW would not obtain when
3 issuing securities. In addition, if in the
4 future LIAW were to obtain its own bond rating
5 and issue securities based upon its credit, the
6 lack of any meaningful ring-fencing makes it
7 very unlikely that it would achieve ratings
8 above those of its parent.

9 **LONG-TERM DEBT AND PREFERRED STOCK**

10 Q. Did the Company provide you with work papers
11 deriving its cost of debt and preferred stock?

12 A. Yes. The company provided work papers deriving
13 its cost of debt and preferred stock. Moreover,
14 in response to Staff IR-11 (KXD-11), the Company
15 explained how it derived the estimates of the
16 interest costs of 6.6% and 7.0% associated with
17 the planned debt issuances in 2011 and 2012
18 respectively.

19 Q. How did the Company estimate its interest cost
20 associated with the planned debt issuances in
21 2011 and 2012?

22 A. The Company relied on Bloomberg's forward curve

1 approach to estimate the interest cost
2 associated with the planned debt issuances in
3 2011 and 2012.

4 Q. Has the Commission used a forward yield curve
5 analysis in prior rate proceedings to estimate
6 rate year interest costs?

7 A. No, it has not. In estimating future cost
8 rates, the Commission generally recognizes
9 current rates as the most accurate predictor of
10 rate year interest levels. In addition, the
11 Company has not provided evidence supporting the
12 use of forward yield curves to estimate rate
13 year interest rates and has simply presented its
14 forward yield curve in response to Staff IR-122
15 (KXD-36). Moreover, the cost rate of 6.11%
16 adopted by the Commission in Long Island's last
17 rate case was not based on forward yield curve
18 approach but rather on current interest rates
19 provided by Moody's Credit Perspectives
20 (now Mergent Bond Record).

21 Q. What cost rate of long-term debt did you derive
22 for the company?

1 A. I derived an interest rate of 5.68% based upon
2 5.63% cost of BBB+/Baa2 -rated long-term debt
3 published in the August 2011 Mergent Bond Record
4 (shown as Exhibit_(KXD-8)) plus an estimated 5
5 basis points of issuance premium. The
6 derivation of my recommended cost of debt is
7 shown in Exhibit_(KXD-9). The rate year
8 financing cost should be updated based upon
9 interest rates and yield spreads in existence
10 just prior to the Commission's decision.

11 Q. Why did you derive your cost of long-term debt
12 using the parent's BBB+/Baa2 credit rating?

13 A. I used the parent's BBB+/Baa2 credit rating
14 because LIAW issues its debt primarily through
15 the parent, AWW.

16 Q. Have you reviewed LIAW's forecasted rate year
17 level and cost rate for preferred stock?

18 A. Yes. I have reviewed and accepted the Company's
19 estimated level and cost rate of 4.50% for
20 preferred stock.

21 **SUMMARY OF MY RECOMMENDED RETURN ON COMMON**
22 **EQUITY (ROE)**

1 Q. Please summarize your analysis of the cost of
2 common equity?

3 A. My common equity cost estimate is based on
4 applying a Discounted Cash Flow (DCF) analysis
5 and Capital Asset Pricing Model (CAPM) analysis
6 to a proxy group of water and electric and
7 integrated electric and gas companies having a
8 credit rating from S&P of at least BBB- and a
9 credit rating of at least Baa3 from Moody's.
10 The DCF applied to the proxy group results in a
11 median equity cost of 8.50%. The CAPM applied
12 to the proxy group yields an ROE of 9.30% for
13 the traditional CAPM and 9.90% for the zero-beta
14 CAPM. An average of the two CAPM methods
15 produces an equity return of 9.60%. Applying
16 weightings of two-thirds to the DCF and one-
17 third to the CAPM, results in cost of equity of
18 8.87% rounded up to 8.9%. A summary of these
19 calculations can be seen in Exhibit__(KXD-10).

20 Q. Please discuss prior Commission precedent in
21 estimating the cost of equity.

22 A. In prior rate proceedings the Commission has

1 consistently used the methodology of weighting
2 the DCF result as two-thirds of the total equity
3 cost and the CAPM result as one-third in
4 estimating a utility's cost of equity. For
5 example, in its decision in Case 95-G-1034,
6 Central Hudson Electric and Gas Corporation -
7 Gas Rates (issued October 3, 1996), the
8 Commission authorized a cost of equity based
9 upon a two-thirds DCF and one-third CAPM
10 methodology. Similarly, in Cases 02-E-0198 and
11 02-E-0199, Rochester Gas and Electric
12 Corporation - Electric Rates (issued March 5,
13 2003), Case 06-E-1433, Orange & Rockland
14 Utilities, Inc. - Electric Rates (issued
15 October 18, 2007) and Case 07-E-0523,
16 Consolidated Edison Company of New York, Inc -
17 Electric Rates (issued March 25, 2008), the
18 Commission authorized ROE was based on a two-
19 thirds DCF, one-third CAPM methodology.
20 Consistent with staff approach and prior
21 Commission's precedent, I applied the DCF and
22 the CAPM approach to a proxy group of companies

1 that were selected based on the criteria that
2 will be discussed later in my testimony.

3 **PROXY GROUP**

4 Q. How did you select the proxy group for your
5 analysis?

6 A. The proxy group should contain a sufficient
7 number of companies to provide a statistically
8 relevant sample group size and, as close as
9 possible, represent the risk characteristics of
10 the individual company being analyzed. In most
11 instances, a proxy group analysis involves a
12 trade-off between the size of the proxy group
13 and risk differences between the group and the
14 individual firm being analyzed. When risk
15 differences exist, the analyst must determine if
16 a risk adjustment is required to the proxy group
17 results in order to accurately reflect the risk
18 characteristics of the individual firm.

19 Q. Have you considered the use of a proxy group of
20 publically traded water companies to estimate
21 AWW's cost of equity?

22 A. Yes. As shown in page 3 of Exhibit_KXD-11,

1 there are ten publicly traded water companies.
2 Out of this number, only five have *Value Line*
3 projected data for earnings per share (EPS),
4 dividend per share (DPS), book value per share,
5 (BVPS), and common shares. These companies are
6 American States Water Co., American Water Works
7 Co. Inc., Aqua America, California Water Service
8 Group, and SJW Corp. Out of the five potential
9 candidates, only two, American Water Works Co. ,
10 and Aqua America, have investment grade ratings
11 from both Moody's and S&P. Given America Water
12 Works announcement on July 11, 2011 that it
13 plans to purchase Aqua America New York's
14 operations and in exchange, sell its operations
15 in Ohio to Aqua America, there will be only one
16 candidate for a proxy group. Therefore, a one-
17 company sample does not provide an adequate
18 proxy group size to estimate LIAW's cost of
19 equity.

20 Q. Given the limited number of water utilities
21 whose shares are publicly listed and actively
22 traded, what proxy group do you intend to

1 employ?

2 A: In view of the small number of available
3 publicly traded water utilities, I do not
4 believe that a water company proxy group
5 provides the statistical reliability to
6 accurately estimate LIAW's cost of equity.
7 Therefore, consistent with Staff and the
8 Commission's well-established approach in
9 determining return on equity for water
10 companies, I constructed a proxy group of
11 electric companies to determine the ROE for
12 LIAW. In addition, I have also included a water
13 company that met Staff selection criteria.

14 Q. Why did you apply your DCF and CAPM approach to
15 a proxy group of largely electric companies?

16 A. I applied my DCF and CAPM approach to a proxy
17 group of electric and integrated electric
18 companies because its risk profile is similar to
19 the group of publicly traded water companies.

20 Q. How are the electric proxy companies and
21 publicly traded water utilities similar in risk?

22 A. Like a water utility, the electric proxy

1 companies are regulated public utilities that:
2 (1) invest primarily in a capital-intensive
3 physical network that connects the customer to
4 the source of supply; and (2) sell their
5 products and services at regulated rates to
6 customers.

7 Q. Is there any empirical evidence that supports
8 your assertion that the electric group is
9 similar to the publicly traded water companies?

10 A. Yes. As shown in Exhibit_(KXD-12), in the
11 second quarter of 2011, the average Value Line
12 Safety Rank for the water sector is 2.5 on a
13 scale of 1 to 5, where 1 is the safest and 5 is
14 the least safe; whereas the electric proxy group
15 averaged 2.3. In terms of average S&P credit
16 rating, the water group is ranked closed to A-
17 compared to BBB+ and A- for the electric and Gas
18 LDCs respectively. Regarding capital intensity
19 in 2010, the water group scores 4.23 relative to
20 2.18 and 1.25 for the electric and Gas LDCs
21 respectively. When it comes to *Value Line* beta,
22 both water and T&D electric have an average beta

1 of 0.70, compared to 0.68 for the gas LDCs.

2 Q. What is Value Line Safety Rank?

3 A. The *Value Line* Safety Rank is a measurement of
4 potential risk associated with a company's
5 common stocks. The safety rank is computed by
6 averaging two *Value Line* indexes: the price
7 stability index and the financial strength
8 rating.

9 Q. Please describe how you selected your proxy
10 group of 29 companies.

11 A. I began by identifying a universe of 10 water
12 publicly traded utilities that are followed by
13 *Value Line* and 53 electric utilities also
14 covered by *Value Line*. The 53 electric
15 utilities, as shown in Exhibit__(KXD-11), are
16 classified as "electric (Central, East, and
17 West)" by *Value Line*. These utilities are
18 engaged in pure electric and integrated electric
19 and gas combination business operations.
20 Starting with that group of companies, I
21 selected the utilities that met the following
22 criteria: (1) had investment grade of at least

1 BBB-/Baa3 by S&P and Moody's, respectively; (2)
2 had regulated revenues that contributed at least
3 70% of total revenue, as determined by each
4 company's latest annual report (2010); and (3)
5 were currently paying common stock dividends.
6 Moreover, the companies could not currently be
7 involved in any merger/acquisition activity
8 related to their utility assets. The proxy
9 group of 29 companies shown in Exhibit_(KXD-13)
10 met the above criteria. I did not include
11 Empire District Electric Company in my proxy
12 because it has suspended its dividend payment
13 for 2011. As indicated earlier, I did not
14 include American Water Works because of its
15 recent announcement of acquisition plans.

16 **DISCOUNTED CASH FLOW METHODOLOGY**

17 Q. Please describe the DCF methodology.

18 A. The DCF methodology assumes that the principles
19 used to measure the cost of common equity are
20 the same as those used in measuring the yield
21 investors require on debt. However, while
22 interest payments are known with relative

1 certainty, future dividend payments are
2 uncertain. The foundation of the DCF is that
3 investors will price common stock to equal the
4 present value of future dividend payments.
5 Therefore, the valuation of a share of stock can
6 be represented by the following dividend growth
7 rate expression:

$$8 \quad P_0 = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} \cdot \cdot \cdot \frac{D_n}{(1+k)^n}$$

10 Where:

11 P_0 = current stock price

12 D_n = dividend in period

13 k = cost of equity.

14 Q. Please describe your DCF methodology and its
15 results.

16 A. As illustrated in Exhibit_(KXD-14), the DCF
17 starts with a three-month average stock price,
18 calculated by averaging the high and low monthly
19 price for the period May 2011 to July 2011 for
20 each company in the proxy group. The
21 calculation of the DCF for the proxy group is
22 shown in Exhibit_(KXD-15) which contains the

1 *Value Line* forecasted earnings per share,
2 current year, and forecasted dividend per share,
3 book value per share, and the amount of common
4 stock expected to be issued. The *Value Line*
5 data is based on the most recently available
6 data reported in the *Value Line* for the Electric
7 Industry (East, Central, and the West). By
8 calculating the discount rate required to turn
9 the stream of expected dividend payments into
10 the current stock price, one can determine the
11 rate of return investors require for each
12 company. The discount rate that equates the
13 current stock price to the stream of all future
14 dividends is the cost of equity. Consistent
15 with Commission's recent precedent, I employed
16 the median return on equity as the DCF result
17 for the proxy group.

18 Q. How did you develop your dividend projections?

19 A. I employed a two-stage DCF methodology. For the
20 2011 through 2015 period, *Value Line* dividends
21 per share estimates are used. Beyond 2015, a
22 sustainable growth rate is calculated for each

1 company in the proxy group based on its expected
2 return on equity, projected retention ratio, and
3 the projected growth in common equity through
4 stock issuances. The base year for the dividend
5 projection in my DCF calculation was based on
6 year 2012 dividends, which is the time frame
7 that I propose to be used by the Commission in
8 reaching its decision in this proceeding.

9 Q. What are your average and median sustainable
10 growth rates?

11 A. For my proxy group, the median sustainable
12 growth rate used to estimate expected future
13 dividends is 4.59% and the average is 4.44%.

14 Q. What was the result of your DCF analysis?

15 A. Based on the inputs described above, the median
16 DCF cost of equity for the proxy group was
17 8.50%.

18 **CAPITAL ASSET PRICING MODEL METHODOLOGY**

19 Q. Please explain the basis underlying the CAPM
20 methodology that you used in part to determine
21 the cost of equity for the proxy group.

22 A. The basic concept underlying the CAPM is that

1 risk-averse investors demand higher returns for
2 assuming additional risk. In other words,
3 higher-risk securities are priced to yield
4 higher expected returns than lower-risk
5 securities. I used both the traditional and
6 zero-beta CAPM methodologies.

7 Q. How does the CAPM measure risk?

8 A. The CAPM quantifies the additional return, or
9 risk premium, required for bearing incremental
10 risk above the risk-free rate of return. The
11 model provides a formal risk-return relationship
12 based on the premise that an investor who
13 diversifies his security portfolio is only
14 exposed to a systematic or market risk. The
15 remaining risks are diversifiable and,
16 therefore, are not assumed by a rational
17 investor. Hence, investors are not compensated
18 for diversifiable risks that they can eliminate.
19 For instance, investors must not be rewarded for
20 company size premium because it is a
21 diversifiable risk.

22 Q. What assumptions are the CAPM based on?

1 A. The model is based on the assumptions that: (1)
2 the capital market is competitive and efficient;
3 (2) investors are risk-averse and demand higher
4 returns for higher risk; (3) the model is a
5 single factor model; and (4) investors hold
6 diversified portfolios and operate in capital
7 markets with no transaction costs, taxes, or
8 restrictions on financial transactions.

9 Q. What role should the CAPM play in an ROE
10 analysis?

11 A. As recognized by the Commission in prior rate
12 proceedings, the CAPM presents a conceptual
13 framework that provides a reasonable estimate of
14 a firm's cost of equity. Given some of the
15 weaknesses of the CAPM, it is given a lesser
16 weight (33%) compared to the DCF weighting of
17 67% in our ROE analysis.

18 Q. What are some of the weaknesses of the CAPM
19 methodology?

20 A. The first weakness of the CAPM relates to
21 changes in betas. Betas change over time as
22 both a company's risk profile and capital

1 structure change. The second shortcoming of the
2 CAPM is the reliance on historical betas as a
3 surrogate for true, fundamental, future betas of
4 companies. Historical estimates only reflect
5 the past riskiness of an equity security that
6 need not be representative of the future
7 riskiness that is relevant to equity investors.
8 The CAPM is formulated in terms of investor
9 expectations, which transcend exclusive reliance
10 on historical measures of riskiness like betas
11 that are based solely on the past return
12 performance of stocks. Third, the CAPM model
13 assumes that asset returns are normally
14 distributed random variables. It is, however,
15 frequently observed that returns in equity and
16 other markets are not normally distributed. As
17 a result, large swings occur in the market more
18 frequently than the normal distribution
19 assumption would expect. Fourth, the model
20 assumes that the beta coefficient is an adequate
21 measurement of risk. This might be justified
22 under the assumption of normally distributed

1 returns, but for general return distributions,
2 other risk measures will likely reflect the
3 investors' preferences more adequately.
4 Finally, the model does not appear to adequately
5 explain the variation in stock returns.
6 Empirical studies show that low beta stocks may
7 offer higher returns than the model would
8 predict.

9 Q. Please describe the calculation used in the
10 traditional CAPM.

11 A. The formal traditional CAPM expression takes the
12 form:

$$13 \quad K = R_f + \beta * (R_m - R_f)$$

14 Where:

15 K = investor's required return or
16 equity cost of capital

17 R_f = risk-free rate of return

18 β = beta, measure of both business and
19 financial risk (systematic risk)

20 R_m = market rate of return

21 $R_m - R_f$ = market risk premium.

22 The risk-free rate is measured by the yield on a

1 long-term U.S. Treasury bond. The traditional
2 CAPM determines the return on common equity by
3 adding a company's non-diversifiable risk
4 premium to the risk-free rate. The non-
5 diversifiable risk premium is measured by
6 multiplying the proxy's median beta by the
7 market risk premium.

8 Q. What data did you use as inputs in the CAPM
9 formula?

10 A. I employed the monthly average of 10-year and
11 30-year Treasury bond yields over a three-month
12 period from May 2011 to July 2011, as the risk-
13 free rate. The blending of the 10-year and 30-
14 year Treasury bond yields is a reasonable
15 estimate of the risk-free rate over most
16 investors' time horizon. As illustrated in
17 Exhibit_(KXD-16), the risk-free rate is 3.66%.
18 The estimate of market return was the S&P 500
19 market return obtained from the average of the
20 estimates contained in Merrill Lynch's June,
21 July, and August 2011 editions of Quantitative
22 Profiles. The S&P 500 is an index that tracks

1 the performance of the common stock of 500
2 large, publicly held companies that trade over
3 the New York Stock Exchange and NASDAQ. Over
4 the period May through July 2011, Merrill Lynch
5 estimates the required return for the market to
6 be 11.72%. Given the risk-free rate of 3.66%, a
7 market risk premium of 8.06% was calculated.
8 Finally, I used the median beta of the latest
9 *Value Line* published betas for the 29 utilities
10 in my proxy group. The surrogate group median
11 beta is 0.70

12 Q. What is your estimate of the cost of equity
13 using the traditional CAPM?

14 A. As calculated below, the traditional CAPM cost
15 of equity is 9.30%:

16 Required Return = 3.66% + 0.70 x 8.06%

17 Q. Please describe the zero-beta CAPM.

18 A. The zero-beta CAPM is a two-factor version of
19 the standard CAPM. The zero-beta CAPM
20 determines the return on equity by adding two
21 factors to the risk-free rate: (1) a factor of
22 0.75%, multiplied by the average beta of the

1 proxy group and S&P 500 market risk premium; and
2 (2) a factor of 25% multiplied by S&P 500 market
3 risk premium. The zero-beta CAPM expression
4 takes the form:

$$5 \quad K = R_f + 0.75 * \beta * (R_m - R_f) + 0.25 * (R_m - R_f),$$

6 where all the variables are the same as that of
7 the standard CAPM described above.

8 Q. What is the result of your zero-beta CAPM
9 Methodology?

10 A. As the following calculation illustrates, the
11 zero-beta CAPM produces a 9.90% cost of equity.
12 Required Return = 3.66% + (0.75 x 0.70 x 8.06%)
13 + (0.25 x 8.06%).

14 Q. What CAPM result did you use in the calculation
15 of the proxy group cost of equity?

16 A. Consistent with Commission's precedent in prior
17 rate proceedings, including its most recent
18 decisions and orders in fully litigated cases, I
19 have averaged the results of the traditional and
20 zero-beta CAPM to arrive at a CAPM result of
21 9.60%. The CAPM calculation is shown in
22 Exhibit_(KXD-16).

1 Q. What ROE did you calculate for your proxy group,
2 given the results of your DCF and CAPM analyses?

3 A. The DCF and CAPM produce an ROE of 8.87%
4 (rounded up to 8.9%) for the proxy group. I
5 arrived at this figure by applying two-third and
6 one-third weight to the results of the DCF and
7 CAPM methods, respectively.

8 Q. Is the 8.9% an appropriate ROE for Long Island
9 Water?

10 A. The business and financial risks of the
11 surrogate group must be compared to LIAW's risks
12 to determine if the 8.9% group ROE should be
13 applied to LIAW. If risk differences exist, the
14 surrogate group's cost rate must be adjusted to
15 reflect the different risk profile. Based on
16 this analysis, there are no material risk
17 differences, so the 8.9% ROE is appropriate for
18 Long Island Water.

19 Q. Please discuss the concept of business and
20 financial risk.

21 A. Business risk is the probability of loss
22 inherent in an organization's operations and

1 operating environment that may impair its
2 ability to provide returns on investment.
3 Financial risk is the additional risk a
4 shareholder bears when a company uses debt in
5 addition to equity financing. Companies that
6 issue more debt instruments would have higher
7 risk than companies financed mostly or entirely
8 by equity. Business risk plus the financial
9 risk equal total corporate risk.

10 Q. Are risk adjustments required to the surrogate
11 group cost rate to reflect LIAW's equity cost
12 rate?

13 A. No, my analysis indicates that there is no
14 discernable business or financial risk
15 difference between the group and AWC.

16 **FINANCIAL RISKS**

17 Q. Company witness Ahern is recommending a Hamada
18 adjustment to reflect higher financial risk than
19 her surrogate group. Are you recommending a
20 financial risk adjustment for LIAW?

21 A. No, I am not.

22 A. Please discuss why a financial risk adjustment

1 is not necessary.

2 A. As previously discussed, I am recommending a
3 hypothetical capital structure for LIAW
4 consisting of an equity ratio of 43.76%. My
5 recommendation is based upon the goodwill
6 adjusted equity ratio of the surrogate group.
7 Since my recommendation is identical to the
8 surrogate group's equity ratio, a financial risk
9 adjustment is not required. In addition, I have
10 compared AWW's bond rating of BBB+/Baa2 to the
11 average bond rating of the proxy group. As
12 demonstrated in Exhibit_(KXD-13), the surrogate
13 group's average bond rating is identical to
14 AWW's BBB+/Baa2. This indicates that there is
15 no discernable difference in overall risk
16 between AWW and the group.

17

18 **BUSINESS RISKS**

19 Q. Please discuss the concept of business risk.

20 A. Business risk is the risk associated with a
21 company's operating cash flows. Business risks
22 represent the ability of a firm to generate

1 sales to cover its basic variable and fixed
2 costs over a variety of economic conditions.
3 Business risks for utilities tend to be low
4 because the public need for utility service
5 combined with the ratemaking process assures
6 that utilities will have a reasonable
7 opportunity to recover all of their prudent
8 expenditures. By contrast, business risk for
9 competitive companies is higher because the
10 demand for their products is more dependent on
11 market forces. I have relied upon S&P's
12 business risk profile analysis to analyze the
13 business risks of the proxy group and LIAW.
14 S&P's business risk profile analysis
15 incorporates such factors as country risk,
16 regulatory environment, company position,
17 business, and geographic diversification, and
18 management strategy. Their business risk profile
19 categories include "Excellent", "Strong",
20 "Satisfactory", "Fair", "Weak", and
21 "Vulnerable".

22 Q. Have you analyzed the business risks of the

1 proxy group versus LIAW?

2 A. Yes. As shown in Exhibit_(KXD-13), I assigned
3 numerical scores from 1 to 6 to the six
4 categories of S&P's business profiles where 1
5 corresponds to "Excellent", 2 to "Strong", 3 to
6 "Satisfactory", 4 to "Fair", 5 to "Weak", and 6
7 to "Vulnerable". The average S&P business
8 profile of the proxy group is 1.3, which is
9 between "Excellent" and "Strong". Relative to
10 the proxy group business risk profile, the
11 parent and its subsidiary have "excellent"
12 business risk profile of staff assigned score of
13 1.

14 Q. Do you propose a business risk adjustment to the
15 recommended cost of equity to account for the
16 business risk differentials between LIAW and
17 your proxy group?

18 A. No, as I have previously demonstrated, there is
19 no discernable difference in business risk
20 between LIAW and the surrogate group. As a
21 result, such an adjustment is not necessary.
22 I am not recommending any business risk

1 adjustment because LIAW has almost the same
2 business risk profile relative to my proxy
3 group. The differences in the degree of
4 business risk are relatively minute and nearly
5 imperceptible. The majority of the proxy group
6 companies are "excellent" and a few are
7 "strong;" Therefore, on an overall basis the
8 group leans heavily towards an "excellent"
9 business profile with staff numeric score of 1.3
10 as shown in Exhibit_KXD-13.

11

12 **DISCUSSION OF MS. AHERN'S ROE APPROACH**

13 Q. Has Ms. Ahern previously submitted testimony on
14 the cost of equity to the Commission?

15 A. Yes, Ms. Ahern has previously submitted very
16 similar testimony to the Commission regarding
17 proxy group selection, the DCF-growth factor,
18 the CAPM and DCF weighting methodology, the
19 risk-free rate determination, Comparable
20 Earnings Approach, and her risk premium approach
21 in Cases 04-W-1221 and 09-W-0828 involving
22 United Water New Rochelle Inc. and United Water

1 Westchester, Inc. respectively.

2 Q. Would you please summarize the approach followed
3 by Ms. Ahern in determining her recommended ROE
4 of 11.5% for a one-year rate case?

5 A. To arrive at her 11.5% ROE recommendation, Ms.
6 Ahern employed four cost of common equity models
7 including the single-stage DCF, the Risk Premium
8 Model (RPM), CAPM, and the Comparable Earnings
9 Model (CEM). Her DCF and CAPM models were
10 applied to a proxy group of 8 water companies.
11 Based on all the four different methods she
12 employed, her base equity returns ranged from
13 9.79% to a high of 14.5%. She then equally
14 averaged the results of all four methodologies
15 (DCF, CAPM, RPM, and CEM) to arrive at her
16 recommended cost of common equity of 11.5%.

17 Q. Please describe Ms. Ahern's DCF methodology.

18 A. Ms. Ahern applied her DCF approach to a water
19 proxy group consisting of eight water companies.
20 Her DCF used single-stage earnings growth rates
21 based on Wall Street Analysts' earnings forecast
22 published by *Value Line*, Reuters, Zacks, and

1 Yahoo Finance. In calculating the annual
2 unadjusted dividend yield, Mr. Ahern divided the
3 dividends of a spot date (March 15, 2011) by the
4 average closing stock price of the last 60 days
5 ending March 15, 2011 for each company. She
6 then increased the unadjusted dividend yield by
7 one-half of the assumed EPS growth rate and the
8 unadjusted dividend yield to reflect periodic
9 dividend payment as opposed to continuous
10 payment. Her DCF approach resulted in equity
11 return of 9.79%.

12 Q. Is Ms. Ahern's DCF approach reasonable?

13 A. No, it is not. I have concluded that her proxy
14 group and choice of the appropriate growth rate,
15 and weightings of the CAPM and DCF results are
16 inappropriate and without precedent in New York
17 State.

18 Q. What problem do you see with Ms. Ahern's
19 approach to estimating the growth rate?

20 A. Ms. Ahern based her DCF growth rates only upon
21 projected growth in earnings. There are two
22 problems with her restricted use of earnings

1 growth. First, Ms. Ahern has not demonstrated a
2 link between long-term earnings growth rates and
3 long-term dividend growth rates. Second, she
4 failed to reveal how her earnings growth
5 estimate would be sustainable in the long-term.
6 The analysts' earnings forecast are explicitly
7 short-term in nature (five-year growth rate),
8 and it is unreasonable for Ms. Ahern to assume
9 that investors extrapolate the short-term
10 forecast into their long-term growth estimates.
11 Ms. Ahern growth estimates are inappropriate as
12 well as unsustainable, and should be rejected as
13 inconsistent with Commission precedent. In its
14 Order in the recent Orange & Rockland Utilities,
15 Inc. electric rate cases (Cases 06-E-1433 and
16 06-E-1547, issued October 18, 2007), for
17 instance, the Commission stated:

18 "The company [Orange and Rockland] has
19 not demonstrated any link between its
20 earnings per share growth estimate and
21 the future dividend growth of the proxy
22 group based on the actual dividend pay-

1 out policies of the companies in that
2 group. Moreover, there is no evidence
3 suggesting that Orange and Rockland's
4 earnings growth rate estimate is
5 sustainable over time."

6 Since Ms. Ahern failed to establish the
7 sustainability of her earnings growth rate over
8 time and failed to show any link between her
9 earnings growth estimate and dividend growth,
10 her DCF-derived ROE is unreliable.

11 Q. Have equity analysts' forecast been accurate
12 assessment of future earnings growth?

13 A. No. As recent as 2010, *Mckinsey & Company*, a
14 leading management consulting firm concluded in
15 pages 14 and 16 of their research work that,
16 "Analysts, we found, were typically over-
17 optimistic, slow to revise their forecasts to
18 reflect new economic conditions, and prone to
19 making increasingly inaccurate forecasts when
20 economic growth declined...On average, analysts'
21 forecasts have been almost 100 percent too
22 high." This report is attached as Exhibit_(KXD-

1 17).

2 Q. Please discuss Ms. Ahern's Proxy group.

3 A. Ms. Ahern applied her CAPM and DCF approaches to
4 a water proxy group consisting of American
5 State's Water Co.; American Water Works; Aqua
6 America; California Water Service Group;
7 Connecticut Water Service, Inc.; Middlesex Water
8 Company; SJW Corporation, and York Water
9 Company.

10 Q. Has Ms. Ahern conducted any analysis
11 demonstrating that a proxy group consisting of
12 eight water utilities represents a sufficient
13 number of companies?

14 A. Ms. Ahern has not presented any independent
15 analysis regarding the appropriateness of an
16 eight-member proxy group in measuring AWC's cost
17 of equity. Instead, she has referenced a book
18 by Dr. Roger Morin (*New Regulatory Finance*, page
19 226). A review of the publication indicates
20 that Dr. Morin recommends a sample size of 15 to
21 30 firms to support a reliable equity return
22 recommendation.

1 Q. Has the Commission previously addressed the use
2 of proxy groups consisting of electric utilities
3 in determining a water company's cost of equity?

4 A. Yes. In its Opinion in Case 88-W-113, involving
5 New Rochelle Water Company, the Commission
6 stated that, "In recent years, water companies
7 equity returns have been set on the basis of a
8 proxy group comprising a broad sample of
9 electric utilities..." and concluded on page 31
10 of the same order that, "Judge Schechter's
11 recommendations to use staff's method are
12 adopted."

13 Q. Has Ms. Ahern previously addressed the use of
14 publicly traded water companies in constructing
15 a proxy group?

16 A. Yes, on page 21, lines 1 to 4 of her pre-filed
17 direct testimony in Case 09-W-0824 involving
18 United Water New Rochelle, Inc. (UWNR), Ms Ahern
19 stated that, "Because of the small number of
20 publicly traded water companies available for
21 use as proxies for UWNR as well as the limited
22 availability of comprehensive investment analyst

1 coverage for those companies, I have also
2 utilized a proxy group of gas distribution
3 companies." She made the same statement in Case
4 09-W-0828 involving United Water Westchester,
5 Inc. that was decided on December 17, 2010.
6 This is attached as Exhibit_(KXD-18). In order
7 to make up the size deficiency of her six-water
8 company group in the Cases 09-W-0824 and 09-W-
9 0828, Ms. Ahern selected an additional proxy
10 group consisting of gas LDCs that were similar
11 to UWNR.

12 Q. In this current case, did Ms. Ahern select an
13 additional proxy group to make up the size
14 deficiency of the water proxy group as she did
15 in Cases 09-W-0824 and 09-W-0828 for UWNR and
16 United Water Westchester, Inc., respectively?

17 A. No, she did not. In response to Staff IR-43
18 (KXD-14), she explained:

19 "I have reviewed the relative risks of
20 the water, electric, combination
21 electric, gas and natural gas
22 distribution industries and have

1 concluded that the investment risk of
2 water utilities has increased over the
3 most recent ten years and water
4 utilities currently face greater
5 investment risk relative to electric,
6 combination electric, gas and natural
7 gas utilities."

8 Q. Has Ms. Ahern demonstrated that such a
9 significant change in risk has occurred?

10 A. No. Ms Ahern's Schedules PMA-2 and PMA-3 shows
11 no significant change of relative risks in the
12 water, electric, and gas LDC sectors. In
13 addition, as shown in Exhibit_(KXD-19), an
14 analysis of the relative risk of her typical gas
15 and water proxy groups since 2009 shows no
16 significant change in relative risk measured by
17 beta. If there has been a significant change in
18 relative risk from 2009 to 2011, I would not
19 expect Ms. Ahern to use both gas and water proxy
20 groups in her testimony in Case 09-W-0824 filed
21 on November 23, 2009. Moreover, a comparison of
22 Ms. Ahern's testimony in this proceeding with

1 her testimony in Case 09-W-0824 demonstrates a
2 reduced risk profile for water companies since
3 2009. As the Exhibit_(KXD-19) illustrates, Ms.
4 Ahern used six water companies with an average
5 beta of 0.78 in Case 09-W-0824 compared to the
6 average beta of 0.74 in this case. Furthermore,
7 her gas proxy group in case 09-W-0824 contained
8 an average beta of 0.66 in 2009 and it remains
9 the same in 2011.

10 Q. Please describe Ms. Ahern's CAPM methodology.

11 A. Ms. Ahern used the same form of CAPM analyses
12 that Staff typically uses. She employed both
13 the traditional CAPM and empirical CAPM (ECAPM).
14 However, there are differences in inputs that
15 overstate her CAPM results. Her CAPM method
16 resulted in an ROE estimate of 10.10%, based on
17 the average of ECAPM and traditional CAPM
18 results of 10.34% and 9.86%, respectively.

19 Q. Describe how Ms. Ahern derived her 6.91% total
20 market equity risk premium for her CAPM and
21 ECAPM models.

22 A. In computing the equity risk premium for her

1 CAPM and empirical CAPM (ECAPM), Ms. Ahern began
2 with an estimate of investors' expected total
3 return on the market and subtracted from that an
4 estimate of the risk-free rate. Her estimate of
5 the equity risk premium averaged 6.91%. The
6 projected equity risk premium was computed by
7 averaging the results of two methods. The first
8 method uses *Value Line* data with which she
9 computed the equity risk premium by subtracting
10 the Blue Chip Consensus average risk-free rate
11 of 4.85% from *Value Line's* total market
12 projection of 11.97% for an equity risk premium
13 of 7.12%. The other method uses Ibbotson
14 Associates' data with which she computed the
15 equity risk premium by subtracting the long-term
16 historical income return on US Government
17 Securities of 5.2% from Ibbotson Associates'
18 long-term historical total rate of return on the
19 market of 11.90% for an equity risk premium of
20 6.7%. The average of the two approaches, 6.91%,
21 was Ms. Ahern's calculated equity risk premium
22 and was used in her CAPM and ECAPM models. Her

1 market risk premium should be rejected because
2 of the use of stale Ibbotson data which the
3 Commission has consistently rejected.

4 Q. Please discuss Ms. Ahern's calculation of the
5 risk-free rate of 4.85%.

6 A. Ms. Ahern's CAPM risk-free rate of 4.85% was
7 based only on the average consensus forecast
8 from the March 1, 2011, edition of the Blue Chip
9 Financial Forecast estimate for yields on the
10 30-year Treasury bond for the six quarters
11 ending in the second quarter of 2012. Ms.
12 Ahern's choice of the 30-year U.S. Treasury bond
13 as a proxy for the CAPM risk-free rate is based
14 on her argument that the yield on long-term
15 Treasury bonds is almost risk free and
16 consistent with the long-term investment horizon
17 faced by public utilities. Staff's blending of
18 the 10- and 30-year Treasury rates provides a
19 more accurate representation of the average
20 investor's investment horizon. The use of the
21 30-year Treasury rate results in inflated CAPM
22 and ECAPM results because the yield on the 30-

1 year Treasury rate was higher than the 10-year
2 Treasury rate.

3 Q. Has Ms Ahern accurately estimated the market
4 risk premium of 6.91%?

5 A. No, Ms. Ahern's use of an historical market risk
6 premium using Ibbotson's data for Stocks, Bonds,
7 Bills, and Inflation published by Ibbotson's
8 Associates (now Morningstar) in its Valuation
9 Edition-2010 Yearbook does not accurately
10 estimate the current premium. The estimate is
11 calculated using historical market premiums
12 dating back to 1926 and is based upon stale data
13 that does not reflect the current risk premium.

14 Q. Has the Commission ever discussed the use of
15 Ibbotson data as a basis for developing a market
16 risk premium?

17 A. Yes, in Case 95-G-1034, Central Hudson Gas &
18 Electric Corporation - Gas Rates, Opinion No.
19 96-28 (issued October 3, 1996), the Commission
20 rejected the use of Ibbotson data. At page 14
21 of that Opinion, the Commission said, "...the
22 Judge's market return calculation based on

1 Merrill Lynch data is a reasonable method of
2 deriving a risk premium; and it avoids the
3 problems of stale data in the Ibbotson estimate,
4 or the circularity of the implied risk premium
5 approach in relying on other Commission's return
6 on equity allowances." More recently, the
7 Commission also stated in Case 05-E-1222, New
8 York State Electric & Gas Corp. - Electric
9 Rates, Order, (issued August 23, 2005), that,
10 "...NYSEG's reliance on the historic Ibbotson
11 data to estimate the market return is
12 rejected..."

13 Q. Do you have another reason to reject the use of
14 the Ibbotson data?

15 A. Yes. It is worthy to note that Mr. Roger
16 Ibbotson himself, in December 2005, admitted
17 that the market risk premium is not constant.
18 In an article entitled "9% Forever," published
19 by Fortune Magazine in December 26, 2005
20 (Exhibit__(KXD-20)), Mr. Ibbotson indicated that
21 he had considered the criticisms of his long-
22 term market return data and had, therefore,

1 reduced his long-term market return forecast
2 from 10% to 9.27%. Interestingly, the magazine
3 concludes that Mr. Ibbotson agrees now that he
4 can no longer rely on historical equity premium
5 to predict future returns.

6 Q. Please describe Ms. Ahern's Equity Risk Premium
7 methodology.

8 A. According to Ms. Ahern, the RPM is based on the
9 basic financial principle that investors require
10 greater returns for bearing greater risk and
11 that the cost of common equity equals the
12 expected cost of long-term debt plus a risk
13 premium. Ms. Ahern determined that the cost of
14 long-term debt is 6.14% for her proxy group of
15 eight water companies. She went through four
16 steps to determine the 6.14% cost of debt.
17 First, Ms. Ahern determined the expected bond
18 yield on Aaa-rated corporate bonds for the six
19 calendar quarters ending with the second quarter
20 of 2012. In estimating the average prospective
21 yield on Moody's A-rated public utility bond,
22 Ms. Ahern began with Blue Chip Financial

1 Forecast's estimate of Moody's Aaa-rated
2 corporate bond yield of 5.47% and as a second
3 step adjusted that to 5.98% for Moody's A-rated
4 public utility bond. Ms. Ahern believes that
5 the upward adjustment of 0.51% is necessary to
6 account for the average yield spread between an
7 A-rated public utility bonds and Aaa-rated
8 corporate bond. In the third step, she made an
9 upward adjustment of 16 basis points to reflect
10 Moody's A3 bond rating for her proxy group of
11 eight water companies. She derived the 16 basis
12 points by taking one-third of the spread between
13 Baa2 and A2 public utility bonds. Finally, by
14 adding the 16 basis points to 5.98%, she derived
15 the 6.14% cost of long-term debt for her proxy
16 group of eight water companies.

17 Q. How did Ms Ahern calculate the equity risk
18 premium for her RPM?

19 A. In estimating the equity risk premium for her
20 RPM, Ms. Ahern used two different approaches.
21 First, she calculated the equity risk premium of
22 4.49% based on the total market using the beta

1 approach for her proxy group of eight water
2 companies. Second, she computed a mean equity
3 risk premium of 4.17% based on a study of using
4 various holding period returns for public
5 utilities with A- rated bonds.

6 Q. Do you agree with Ms. Ahern's RPM for the
7 estimation of the appropriate level of cost of
8 equity?

9 A. No, I do not agree with her for the same reasons
10 that the Commission has previously rejected the
11 RPM method in determining the cost of equity.

12 Q. Please discuss the Commission's prior rejections
13 of risk premium analyses?

14 A. In Opinion 96-28, Case 95-G-1034, Central Hudson
15 Gas & Electric Corporation - Gas Rates, issued
16 October 3, 1996, the Commission stated
17 specifically, "...we have avoided reliance on
18 the risk premium approach because it reflects
19 allowed returns which are an inferior
20 alternative to a direct estimate of a company's
21 own cost of equity." The same criticism applies
22 to Ms. Ahern's RPM based estimate. Therefore,

1 the Commission should continue to reject this
2 methodology.

3 Q. Do you have any other concern regarding Ms.
4 Ahern's use of equity risk premium approach?

5 A. Yes, Ms. Ahern estimated the 4.17% market risk
6 premium by subtracting the average long-term
7 utility bond return for the period 1926 to 2009
8 from the arithmetic mean of actual, realized
9 return on equity capital for the Standard Poor's
10 Utility Index for the same period. She then
11 applied her final RPM ROE results of 10.47% to
12 LIAW. In doing so, Ms. Ahern is indirectly
13 taking risk premiums of a group of companies and
14 applying the results to LIAW regardless of any
15 differences in credit quality, regulatory
16 environment, or numerous other factors. Ms.
17 Ahern does not attempt to determine the extent
18 to which LIAW is more or less risky than the
19 average electric utility contained in the S&P's
20 electric utility common stock index. Moreover,
21 Ms. Ahern did not evaluate the market-to-book
22 ratios for the companies in the Standard &

1 Poor's Utility Index to determine whether the
2 past returns on common equity are above or below
3 investors' requirements.

4 Q. Do you have any comments regarding Ms. Ahern's
5 equal weighting of the DCF and CAPM results?

6 A. Yes. The Commission has consistently used the
7 DCF as its primary methodology for determining
8 ROE by applying a 2/3 weighting in the
9 determination of the cost of equity. The 2/3
10 DCF and 1/3 CAPM weighting has been affirmed in
11 2008 by the Commission's Order in Case 07-E-0523
12 Consolidated Edison Company of New York, Inc. -
13 Electric Rates, and in 2007 by the Commission's
14 Order in Case 07-G-0141, National Fuel Gas
15 Supply Co. - Gas Rates. The Commission stated,
16 "We also agree with Staff, CPB, and Multiple
17 Interveners that the Company (NFG) has not
18 provided any compelling reasons to provide equal
19 weight to the DCF and the CAPM methods...
20 Accordingly, we will continue to use the two-
21 thirds DCF Method and one-third CAPM method
22 weighting in this case." Similarly, on pages 14

1 and 15 of the Commission's Order in Cases 06-E-
2 1433 and 06-E-1547, Orange & Rockland Utilities,
3 Inc. - Electric Rates, the Commission stated,
4 "We will continue to accord two-thirds weight to
5 the DCF result and one-third to the CAPM result
6 as we have in past decisions." Ms. Ahern has
7 not presented any new evidence that the
8 Commission should reject its long-standing
9 policy of a two-third and one-third weighting of
10 the DCF and CAPM and her equal weighting
11 approach should be again rejected.

12 Q. Please describe Ms. Ahern's Comparable Earnings
13 methodology.

14 A. On pages 57 through 61 of her testimony, Ms.
15 Ahern employed a Comparable Earnings Model (CEM)
16 to estimate LIAW's cost of equity. According to
17 Ms. Ahern, the basis for her Comparable Earnings
18 analysis is that the return to the equity
19 investor should be commensurate with returns on
20 investment in firms with similar risks. In
21 choosing the similar enterprise group, Ms Ahern
22 chose a proxy group of domestic, non-regulated

1 firms to reflect the systematic and non-
2 systematic risks of LIAW. Her selection
3 criteria were that they be domestic, non-utility
4 companies, have a meaningful rate of return, net
5 worth or partner's capital reported in *Value*
6 *Line* projected for 2014 to 2016. She also used
7 Value Line betas as a measure of systematic risk
8 and the standard error of the regression was
9 used as a measure of unsystematic risk. Ms.
10 Ahern's CEM approach yielded an ROE of 14.40%.

11 Q. Do you have any concern about Ms. Ahern's CEM
12 approach?

13 A. Yes, while her basic doctrine is correct, Ms.
14 Ahern's analysis contains several flaws that
15 render her results useless. First, Ms. Ahern's
16 analysis is based upon a comparison of the
17 earned returns of a surrogate group of
18 competitive companies and applying the earned
19 returns to the equity cost rate of LIAW. In
20 addition, Ms. Ahern fails to recognize that the
21 historical earned returns of the proxy group do
22 not represent the required future cost of

1 equity. That is, a firm may earn above or below
2 its cost of equity.

3 Q. Is Ms. Ahern aware of the Commission's position
4 on the Comparable Earnings Model approach?

5 A. In response to Staff IR-4 (KXD-4), Ms Ahern
6 stated, "The witness (Ms. Ahern) is not aware of
7 any decision of the Commission which accepted
8 the use of the Comparable Earnings approach in
9 determining the allowed cost of equity for
10 utilities regulated by the Commission."

11 Q. What is the Commission's position on the
12 Comparable Earnings Model approach?

13 A. The Commission has specifically rejected the use
14 of the Comparable Earning Methodology in the
15 past. In Opinion No. 96-28, Case 95-G-1034,
16 Central Hudson Gas & Electric Corporation - Gas
17 Rates, Opinion No. 96-28(issued October 3,
18 1996), the Commission stated on page 13: "...we
19 have consistently found the comparable earnings
20 approach unreliable because it does not
21 adequately reflect the cost of equity of the
22 companies in the proxy group." Similarly, the

1 Co-facilitators in the Generic Finance Case
2 recommended decision rejected using this
3 approach in setting a return. On page 47 they
4 stated:

5 "...that approach, for a number of
6 reasons, has almost nothing to do with
7 determining the cost of equity, even
8 for competitive firms. Observations of
9 reported book earnings have only a
10 tenuous link to the cost of equity in
11 any given year, and the inclusion of
12 six observations—one forecast, one
13 current, and four historical—does not
14 cure that defect. Investors in the
15 companies in the "comparable" group do
16 not earn the returns included in the
17 analysis; they earn returns based on
18 the prices they paid for their
19 investments."

20 Q. Did Ms. Ahern propose any adjustments to her
21 base ROE of 10.55%?

22 A. Yes, she did. Ms. Ahern is proposing a

1 size/business risk premium adjustment of 35
2 basis points, financial risk adjustment of 49
3 basis points, and flotation cost adjustment of
4 11 basis points.

5 Q. What justification did Ms. Ahern provide for her
6 size/business risk premium adjustment of 35
7 basis points?

8 A. She argues that because LIAW's size is small
9 relative to that of the average company in her
10 proxy group of water companies, an upward
11 adjustment to the cost of equity is required.

12 Q. Is Ms. Ahern aware of any rate case decision in
13 which the Commission has accepted the use of a
14 size premium adjustment in determining the
15 allowed cost of equity for utilities regulated
16 by the Commission?

17 A. In response to Staff IR-1 (KXD-1), Ms. Ahern
18 stated that, "I am not personally aware of any
19 decision of the Commission that accepted the use
20 of a size premium / size adjustment in
21 determining the allowed cost of equity for
22 utilities. That is not to say it has never been

1 done."

2 Q. Has the Commission ever granted a cost of equity
3 based on company size?

4 A. To the best of my knowledge, the Commission has
5 never granted a higher cost of common equity
6 based on a company's size.

7 Q. Do you believe that a size adjustment is
8 required in this proceeding?

9 A. No, I do not. My review of available financial
10 research reports and Ms. Ahern's rationale for
11 making such an adjustment demonstrates that the
12 adjustment is not necessary and the Commission
13 should not deviate from its established policy.

14 Q. Please discuss the research work you analyzed
15 that concluded that size premium is unwarranted?

16 A. I have reviewed three research papers on this
17 topic. First, in a paper entitled "*Utility*
18 *Stocks and the Size Effect: An Empirical*
19 *Analysis*", Professor Wong offered a number of
20 reasons why size premium would not be applicable
21 to regulated utilities. Using data of 152
22 electric and gas companies to examine whether

1 size effect exists in the public utility
2 industry, Professor Wong concluded that there is
3 no need to adjust for firm size in utility
4 regulation. This is because utilities, unlike
5 their industrial counterparts, are heavily
6 regulated and they follow similar accounting
7 procedures. Moreover, utilities need to gain
8 approvals for security issuances and their
9 revenues are predetermined to a certain extent
10 through ratemaking process involving state
11 commissions, interested parties, and other
12 witnesses, as in this case. Therefore, due to
13 regulation, government oversight, performance
14 reviews, similar accounting standards, and
15 information disclosure, size premium even if it
16 exists all, does apply to regulated utilities.
17 This report is attached as Exhibit_(KXD-21). In
18 another study by Richard Roll (1983), the author
19 found that one-half of the historic return
20 premium for small companies disappears once
21 biases are eliminated and historic returns are
22 properly computed. The error arises from the

1 assumption of monthly portfolio rebalancing and
2 the serial correlation in historic small firm
3 returns. This report is attached as
4 Exhibit_(KXD-22). Third, as recent as 2009,
5 Ching-Chih Lu (2009) in page 4 of a paper
6 entitled "*The Size Premium in the Long Run*",
7 concluded that:

8 "However, an analysis of the evolution
9 of the size premium will show that it
10 is inappropriate to attach a fixed
11 amount of premium to the cost of
12 equity of a firm simply because of its
13 current market capitalization. For a
14 small stock portfolio which does not
15 rebalance since the day it was
16 constructed, its annual return and the
17 size premium are all declining over
18 years instead of staying at a
19 relatively stable level. This
20 confirms that a small firm should not
21 be expected to have a higher size
22 premium going forward sheerly because

1 it is small now."

2 This report is attached as Exhibit_(KXD-23).

3 Q. Has any rating agency spoken to the issue of the
4 effect of size on regulated entities?

5 A. Yes. The fact that smaller water utilities are
6 not necessarily riskier than larger water
7 utilities was underscored in a recent S&P's
8 publication in which twenty-six western water
9 and sewer companies were upgraded. On page 3 of
10 the report, S&P stated:

11 "Our criteria revision reflects our
12 view that for general obligation
13 ratings, a small and/or rural issuer
14 does not necessarily have what we
15 consider weaker credit quality than a
16 larger or more-urban issuer. Although
17 we assess these factors in our credit
18 analysis for some revenue bond
19 ratings, we believe many municipal
20 systems still exhibit, in our view,
21 strong and stable credit quality
22 despite size or location constraints.

1 While we believe that smaller or rural
2 utility systems may not necessarily
3 benefit from the economies of scale
4 that can lead to more-efficient
5 operations or lower costs, in our
6 view, they can still have affordable
7 rates, even in places with less-than-
8 favorable household income and wealth
9 levels."

10 The report is also attached as Exhibit_(KXD-24).

11 Q. Has Ms. Ahern provided any research report
12 demonstrating her claim that size premium
13 matters?

14 A. Yes. In response to Staff IR-1 (KXD-1), Ms.
15 Ahern provided Ibbotson Associates size premium
16 study. She also provided another related study
17 by Thomas M. Zepp in a paper entitled, "*Utility*
18 *stocks and the size effect-revisited*". That
19 paper stated that Professor Wong's report "does
20 not rule out the possibility of a small firm
21 effect for utilities" and that such conclusion
22 should be reexamined in view of two other

1 studies that support a conclusion that smaller
2 water utility stocks are more risky than larger
3 ones.

4 Q. Do you have any comments about the articles
5 provided by Ms. Ahern?

6 A. Yes, I have two comments about Thomas M. Zepp's
7 report. First, the sample size in one of the
8 cited case studies was too small to produce any
9 reliable results. In that cited case study, the
10 sample size of "Larger water utilities" consists
11 of only two companies including American States
12 Water and California Water Service while that
13 for the "Smaller water utilities" was just two
14 consisting of Dominguez Water Company and SJW
15 Corporation. In contrast, Professor Wong
16 employed 152 gas and electric utilities.
17 Therefore, I find Professor Wong's report more
18 reliable than that relied on in Mr. Zepp's
19 article. Moreover, as said earlier, a recent
20 report by Ching-Chih Lu (2009) questioned the
21 size premium adder. Lu concluded, "...it is
22 inappropriate to attach a fixed amount of

1 premium to the cost of equity of a firm simply
2 because of its current market capitalization."
3 As for the use of Ibbotson size premium study,
4 there are already problems with their stock data
5 including delisting bias that when corrected
6 for, causes the small stock effect to disappear.
7 Moreover, in discussing three aspects of the
8 size premium, Ibbotson stated that, "...the firm
9 size effect is seasonal. For example, small
10 company stocks outperformed large company stocks
11 in the month of January in a large majority of
12 the years. Such predictability is surprising
13 and suspicious in the light of modern capital
14 market theory." This statement implies that the
15 excess returns occurred in only a few trading
16 days of January and is not a generalized
17 phenomenon over the entire year. Moreover, even
18 if one acknowledges the Ibbotson study as an
19 evidence of an existence of a size premium,
20 nothing in the study supports Ms. Ahern's
21 conclusion that a size premium is warranted for
22 utility companies. This is because the study is

1 heavily weighted with industrial stocks that are
2 listed on the entire population of NYSE,
3 American Stock Exchange (AMEX), and Nasdaq.
4 Thus, Ms. Ahern's business risk adjustment is
5 unfounded and should be denied.

6 Q. Do you have any empirical evidence that further
7 moots the size premium adder advocated by Ms.
8 Ahern?

9 A. Yes. In page 23 of her testimony, Ms. Ahern
10 quoted Eugene F. Brigham that, "A number of
11 researchers have observed that portfolios of
12 small-firms have earned consistently higher
13 average returns than those of large-firms
14 stocks; this is called 'small-firm effect'."
15 Using regression analysis and hypothesis
16 testing, I then conducted a study to investigate
17 if there is an evidence of any size effect in
18 the Water sector. The results shown in
19 Exhibit_(KXD-25), suggest that there is no
20 evidence of size effect in the water industry.
21 Based upon this review and analysis, I recommend
22 that Ms. Ahern's size premium adder of 35 basis

1 points should be denied.

2 Q. You noted earlier that Ms. Ahern proposed
3 financial risk adjustment of 49 basis points.
4 Please briefly describe it.

5 A. Ms. Ahern has used a Hamada adjustment to
6 estimate the 49 basis point upward adjustment to
7 reflect the financial risks of LIAW versus a
8 proxy group. In computing her proxy group
9 equity ratio of 44.7% she included the preferred
10 stock of the companies into the ratio. The
11 inclusion of preferred stock in her calculation
12 of the group's equity ratio is incorrect as the
13 proper implementation of the Hamada equation
14 does not include preferred stock but rather only
15 the common equity ratio. As Ms. Ahern describes
16 on page 65 of her testimony, the debt to equity
17 is defined as debt to common equity. Moreover,
18 preferred stock should not be characterized as
19 common stock unless it has the features of a
20 common stock. She has not demonstrated that
21 such features occur in her proxy group.

22 Q. You noted earlier that Ms. Ahern made a

1 flotation cost adjustment of 11 basis points.

2 Could you briefly describe it?

3 A. Ms. Ahern seeks the 11 basis points upward
4 flotation cost adjustment as a means to recover
5 costs involved in past security issuances. In
6 order to determine the flotation cost adjustment
7 for the Company, Ms. Ahern relied on the
8 transaction costs associated with the parent's
9 public stock issuances for 2008 and 2009, the
10 average flotation cost percentage resulting from
11 these historical stock issuance costs is 3.3%.
12 Using a modified DCF methodology, the flotation
13 cost percentage equates to an 11 basis points
14 upward adjustment to her base ROE.

15 Q. Do you agree with Ms. Ahern's flotation cost
16 adjustments of 11 basis points to her base ROE
17 to compensate Long Island Water for common
18 equity issuance costs?

19 A. I agree with Ms. Ahern to the extent that a
20 flotation cost adjustment does not retroactively
21 recover past common stock issuances. In this
22 proceeding, the Company plans to receive two

1 equity infusions consisting of \$3 million in
2 2011 and \$3.25 million in 2012. In response to
3 Staff IR-104 (KXD-35), the Company stated that,
4 "No costs/expenses are to be borne by LIAW due
5 to the \$3.0 million and \$3.25 million equity
6 infusions..." Because the Company has indicated
7 that it will not incur any issuance expense
8 within the rate year, I recommend that the 11
9 basis points flotation cost should be denied.
10 Moreover, the Company refused to submit 2011 and
11 2012 financial statements for AWW, therefore, it
12 has not demonstrated if they will be funding the
13 equity infusion with AWW's cash from operations,
14 selling some of AWW's operations, or by issuing
15 debt (short or long-term) versus an equity
16 issuance at the parent level. As noted earlier,
17 the Commission does not allow a utility to
18 retroactively recover common equity issuance
19 costs from ratepayers. Ms. Ahern's position of
20 recovering historical issuance expenses is not
21 consistent with prior orders from this
22 Commission. Moreover, if the 11 basis points

1 (based on the 3.3% parent's flotation cost) were
2 to be paid by LIAW, then the company would in
3 effect be "cross subsidizing" AWW's other
4 subsidiaries that might have received equity
5 funding from the parent.

6 **REASONABLENESS CHECK**

7 Q. How does your recommended ROE of 8.9% for LIAW
8 compare to those allowed in recent rate
9 proceedings in NYS?

10 A. As recently as June 16, 2011, the Commission
11 awarded an ROE of 9.2% for Orange & Rockland
12 Utilities, Inc. (Case 10-E-0362) for a one-year
13 rate case. Given the decline in the interest
14 rate environment that has occurred since that
15 decision, it is reasonable that equity investors
16 would require slightly lower returns at this
17 time.

18 Q. Given the overall ROE of 8.9%, will the company
19 be able to maintain its financial integrity?

20 A. Yes, my rate of return satisfies the relevant
21 criteria for "BBB" rated utilities with a
22 business profile of "Excellent" as presented by

1 Standard and Poor's. These calculations are
 2 found on Exhibit_(KXD-7).

3 **Conclusion**

4 Q. Please summarize the results of your ROE
 5 recommendation.

6 A. I recommend an ROE of 8.9%. This recommendation
 7 is based on my proxy group result, composed of
 8 two-thirds the median DCF result of 8.50% and
 9 one-third the average CAPM result of 9.60%, with
 10 no adjustment for financial and business risks.

11 Q. What is your recommended rate of return for
 12 LIAW?

13 A. As summarized below, my recommended after-tax
 14 rate of return for LIAW is 7.09%

	Capitalization	Cost	Weighted
	<u>Ratio</u>	<u>Rate</u>	<u>Cost</u>
17 Long-Term Debt	56.19%	5.68%	3.19%
18 Preferred Stock	0.05%	4.50%	0.00%
19 <u>Common Equity</u>	<u>43.76%</u>	8.90%	<u>3.89%</u>
20 Total	100.00%		7.09%

21 Q. Does this conclude your testimony?

22 A. At this time, yes.