## BEFORE THE STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION	,
OF PUBLIC SERVICE ELECTRIC AND	· ·
GAS COMPANY FOR APPROVAL OF	)
AN EXTENSION OF A SOLAR	j)
GENERATION INVESTMENT	)
PROGRAM AND ASSOCIATED COST	) DDI DOCKET NO EQ1000501
RECOVERY MECHANISM AND FOR	<b>BPU DOCKET NO. E012080721</b>
CHANGES IN THE TARIFF FOR	)
ELECTRIC SERVICE, B.P.U. N.J. NO.	)
15 ELECTRIC PURSUANT TO N.J.S.A.	)
48:2-21, 48:21-21.1 AND N.J.S.A. 48:3-	j ,
98.1	)

## SURREBUTTAL TESTIMONY OF MATTHEW I. KAHAL ON BEHALF OF THE NEW JERSEY DIVISION OF RATE COUNSEL

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1		I. QUALIFICATIONS	
2	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.	
3	A.	My name is Matthew I. Kahal. I am employed as an independent consultant retained	
4		in this matter by the Division of Rate Counsel (Rate Counsel). My business address	
5		is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044.	
6	Q.	PLEASE STATE YOUR EDUCATIONAL BACKGROUND.	
7	A.	I hold B.A. and M.A. degrees in economics from the University of Maryland and	
8		have completed course work and examination requirements for the Ph.D. degree in	
9		economics. My areas of academic concentration included industrial organization,	
10		economic development and econometrics.	
11	Q.	WHAT IS YOUR PROFESSIONAL BACKGROUND?	
12	A.	I have been employed in the area of energy, utility and telecommunications	
13		consulting for the past 35 years working on a wide range of topics. Most of my work	
14		has focused on electric utility integrated planning, plant licensing, environmental	
15		issues, mergers and financial issues. I was a co-founder of Exeter Associates, and	
16		from 1981 to 2001 I was employed at Exeter Associates as a Senior Economist and	
17		Principal. During that time, I took the lead role at Exeter in performing cost of capital	
18		and financial studies. In recent years, the focus of much of my professional work has	
19		shifted to electric utility restructuring and competition.	
20		Prior to entering consulting, I served on the Economics Department faculties	
21		at the University of Maryland (College Park) and Montgomery College teaching	
22		courses on economic principles, development economics and business.	
23		A complete description of my professional background is provided in	
24		Appendix A.	

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25		on a range of issues, including cost of capital, mergers and electric restructuring.		
24	A.	Yes, I have done so on numerous occasions involving electric, gas and water utilities		
23		BOARD OF PUBLIC UTILITIES?		
22	Q.	HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NEW JERSEY		
21		Resources and Energy Administration, and MCI.		
20		Commission, the Maine Public Advocate, Maryland Department of Natural		
19	of Public Utilities, Louisiana Public Service Commission, Arkansas Public Service			
18		of Consumer Advocate, New Jersey Division of Rate Counsel, Rhode Island Division		
17		Energy Regulatory Commission, Connecticut Attorney General, Pennsylvania Office		
16		Department of Justice, U.S. Air Force, U.S. Department of Energy, the Federal		
15		capital and other regulatory issues. Current and recent clients include the U.S.		
14		electric restructuring, purchase power contracts, environmental controls, cost of		
13	A.	Since 2001,1 have worked on a variety of consulting assignments pertaining to		
12		LEAVING EXETER AS A PRINCIPAL IN 2001?		
11	Q.	WHAT PROFESSIONAL ACTIVITIES HAVE YOU ENGAGED IN SINCE		
10		qualifications.		
9		utilities. A list of these cases may be found in Appendix A, with my statement of		
8		regulatory policy issues. These cases have involved electric, gas, water and telephone		
. 7		restructuring, rate design, purchased power contracts, merger economics and other		
6		of return, resource planning, financial assessments, load forecasting, competitive		
5		regulatory cases. My testimony has addressed a variety of subjects including fair rate		
4		commissions, the U.S. Congress and federal court in more than 380 separate		
3	A.	Yes. I have testified before approximately two-dozen state and federal utility		
2		BEFORE UTILITY REGULATORY COMMISSIONS?		
1	Q.	HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS		

1		II. <u>OVERVIEW OF FINDINGS</u>
2	Q.	WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY AT
3		THIS TIME?
4	A.	I have been asked by the Division of Rate Counsel ("Rate Counsel") to respond to the
5		Rebuttal Testimony of Public Service Electric & Gas Company ("PSE&G" or "the
6		Company") witness Mr. Paul Moul on the appropriate cost of equity to use in the
7		solar program cost recovery. Mr. Moul's rebuttal testimony takes issue with Rate
8		Counsel witness Andrea Crane who recommended lowering the Company's proposed
9		cost of equity of 10.3 percent to 9.75 percent. Mr. Moul supports the use of the
10		higher figure of 10.3 percent.
11		I also respond briefly to the Rebuttal testimony of PSE&G witness Stephen
12		Swetz on the inherent risks confronting PSE&G with its solar cost recovery tracker
13		mechanism and the appropriate cost of debt. Mr. Swetz asserts that the proper rate of
14		return to use at this time in the solar cost recovery mechanism is the 10.3 percent
15		approved in the Company's most recent base rate case, BPU Docket No. GR0905042
16		which was concluded by a settlement agreement in early 2010.
17	Q.	HAVE YOU PREVIOUSLY TESTIFIED IN THIS PROCEEDING?
18	A.	No. However, I testified on behalf of Rate Counsel in the Company's most recent
19		base rate case in BPU Docket No. GR0905042 on the subject of fair rate of return.
20		That base rate case proceeding extended through the 2009/2010 time period, which
21		was directly following the financial crises of late 2008/early 2009. Ultimately, as
22		noted above, that case was resolved by a settlement agreement in early 2010.
23	Q.	WHAT IS YOUR POSITION ON THE APPROPRIATE RATE OF
24		RETURNS TO USE IN THIS CASE?

A.	I disagree with Mr. Moul that PSE&G's cost of equity today is 10.3 percent or more.
	In fact, it is far below 10.3 percent. Ms. Crane's recommendation of 9.75 percent is
	entirely reasonable - and in fact conservatively high - given current market
	conditions. In addition, I do not agree with what I understand Mr. Swetz's position to
	be that a stale embedded cost of debt taken from the Company's 2009/2010 base rate
	case should be used. However, I do not object to the use of the updated 5.35 percent
	figure for the embedded cost of debt as of November 2012 that he presents in his
	rebuttal testimony if that calculation is accurate.

In my opinion it is entirely appropriate to use in the solar cost recovery mechanism a cost of equity benchmark of 9.75 percent, or even less, in conjunction with the Company's current embedded cost of long-term debt. Moreover, it is my understanding that 9.75 percent is the most recent Board-approved cost of equity established in an electric utility base rate case.<sup>1</sup>

The key questions for the Board to consider are the following:

- (1) As a policy matter, in implementing a cost recovery tracker for a special program, such as a solar investment program, is it proper to recognize a decline in capital costs since the last full base rate case, assuming the decline can be clearly documented?
- (2) As a factual matter, have market capital costs declined materially since the time of the Company's most recent base rate case in 2009/2010?

<sup>&</sup>lt;sup>1</sup> I/M/O The Petition of Atlantic City Electric Company for Approval of Amendments to its Tariff to Provide for an Increase in Rates and Charges for Electric Service Pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1 and for Other Appropriate Relief, BPU Docket No. ER11080469 (Order Approving Stipulation, Oct. 23, 2012) at 4.

1		(3) Setting aside trends over time, does the objective cost of capital		
2		evidence support a cost of equity today for PSE&G of 9.75 percent		
3		or less?		
4		(4) Does the cost recovery mechanism that the utility intends to employ		
5		for cost recovery involve less risk, in an overall sense, than rate		
6		recovery under "standard" rate base/rate of return regulation, which		
7		is based on conventional base rate cases?		
8	Q.	WHAT IS YOUR POSITION ON THE FIRST QUESTION CONCERNING		
9		WHETHER A REDUCTION IN THE COST OF CAPITAL MERITS		
10		RECOGNITION IN A TRACKER-TYPE COST RECOVERY		
11		MECHANISM?		
12	A.	I do believe that any such reduction, if documented, should be employed in the cost		
13		recovery tracker in place of an out-of-date rate of return from the last base rate case.		
14		This is precisely Rate Counsel witness Crane's recommendation. As I understand the		
15		tracker, its purpose is to reimburse the utility exactly for the costs that it incurs		
16		(including capital costs) in operating the Board-approved program. Quite simply,		
17		charging ratepayers through the tracker mechanism for program-related capital costs		
18		that exceed the actual capital costs would overcharge those customers and		
19	-	overcompensate the utility shareholders. That is neither the purpose nor the intent of		
20		the cost tracker.		
21		I was not able to find any substantive discussion in the Company's rebuttal		
22		filing that would justify overcharging customers in the tracker mechanism and		
23		ignoring the readily observable capital cost decline. This issue is discussed further in		
24		Section IV of my Surrebuttal Testimony.		

1	Q.	YOUR DISCUSSION CONCERNING THE FIRST QUESTION IS BASED
2		ON THE ASSUMPTION THAT THE COST OF CAPITAL SINCE THE
3		COMPANY'S LAST BASE RATE CASE HAS DECLINED. IS THAT, IN
4		FACT, THE CASE?
5	A.	Yes, it is. Section III of my testimony documents the general decline in capital costs
6 .		since the 2009/2010 base rate case and explains the reasons for this declining trend.
7		For example, long-term interest rates since that time period have declined by at least a
8		full percentage point or more. The Company's embedded cost of debt has declined
9		materially, as acknowledged by the Company.
10	Q.	ASIDE FROM MARKET TRENDS SINCE 2009/2010, IS THERE
11		PERSUASIVE EVIDENCE THAT THE COST OF EQUITY FOR PSE&G
12		IS AT OR BELOW THE 9.75 PERCENT THAT MS. CRANE
13		RECOMMENDS?
14	A.	Yes, I present such evidence in Section IV of my testimony. Mr. Moul attempts to
15		show that PSE&G's current cost of capital is at or above the proposed 10.3 percent,
16		presenting a collection of studies using the Discounted Cash Flow (DCF), Capital
17		Asset Pricing Model (CAPM), Risk Premium (RP) and Comparable Earnings (CE)
18		methods. However, he obtains such results only by including inappropriate adders
19·		that have nothing to do with the cost of capital methods or PSE&G's actual cost of
20		equity. When Mr. Moul's DCF and CAPM studies are corrected, after removing the
21		extraneous "adders" unrelated to the cost of equity, they produce cost of equity
22		estimates below Ms. Crane's 9.75 percent recommendation. Such results comport
23		with common sense, given that capital costs have declined sharply since the
24		Company's 2009/2010 rate case when 10.3 percent was approved.

1	Q.	WHAT RESULTS DID YOU OBTAIN WHEN CORRECTING MR.	
2		MOUL'S ANALYSES?	
3	A.	My correction to Mr. Moul's' DCF study produces a cost of equity estimate of 9.34 to	
4		9.61 percent, and my correction to his CAPM study produces a cost of equity of about	
5		8.5 percent. Technically, these estimates apply to the proxy group selected by Mr.	
6		Moul. However, the majority of these proxy companies have substantial relatively	
7		risky regulated and/or unregulated generation. Therefore, the proxy group cost of	
8		equity figures in my corrections to Mr. Moul's studies may somewhat overstate	
9		PSE&G's cost of equity.	
10		I have not attempted to correct Mr. Moul's Risk Premium and Comparable	
11		Earnings studies. The Risk Premium approach he takes has no value at all in	
12		estimating the utility cost of equity, and his Comparable Earnings study does not even	
13		pretend to estimate PSE&G's cost of equity. Rather, it is nothing more than a	
14		compilation of accounting earnings which tells us nothing about the actual returns on	
15		invested capital that investors required.	
16	Q.	HAVE YOU CONDUCTED YOUR OWN INDEPENDENT COST OF	
17		EQUITY STUDY?	
18	A.	No, I have not. In the spirit of surrebuttal testimony, I am limiting my analysis to	
19		correcting Mr. Moul's own studies, relying almost entirely on data provided in his	
20		testimony. In other recent electric and gas utility cases, I have obtained midpoint	
21		DCF estimates within the range of about 9.0 to 9.5 percent, or well below Ms.	
22		Crane's recommendation.	
23	Q.	THE FOURTH QUESTION CONCERNS THE RISK ATTRIBUTES	
24		CONFRONTING PSE&G FROM ITS SOLAR INVESTMENTS UNDER	

1		113 FLAMMED AND PROPOSED COST RECOVERY. PLEASE
2		COMMENT.
3	A.	Mr. Swetz provides some brief rebuttal testimony to Ms. Crane suggesting that
4		PSE&G has a prudence obligation and exposure with respect to this and similar
5		programs, and this creates risk. I agreed with Mr. Swetz that the Company has such
6		an obligation, and in that sense cost recovery is not entirely risk free. But this
7		argument misses the point. The issue is not whether PSE&G has any risk associated
8		with these programs, but rather whether such risk is comparable to that under
9		standard regulation, based on cost recovery in base rate cases. Base rate case
10		recovery of costs is the context to the current 10.3 percent return on equity.
11		Unquestionably, cost recovery is far more certain under the fully reconcilable cost
12		recovery tracker proposed for the solar program. It is therefore appropriate for the
13		Board to at least consider this fact in determining whether it is reasonable to use a
14		9.75 percent return on equity, instead of the higher 10.3 percent, in the solar program
15		tracker.
16	Q.	MR. MOUL CITES TO COMMISSION AWARDS OF ROEs FOR 2012.
17		DOES THIS SURVEY SUPPORT HIS RECOMMENDATION?
18	A.	No. This survey shows that electric utility ROE awards in 2012 averaged about
19		10.0 percent. However, Mr. Moul fails to mention that these awards, on average,
20		were above 10.0 percent for vertically-integrated electrics and below 10.0 percent for
21		the delivery service electrics. PSE&G, of course, is a delivery service utility. In
22		addition, these awards are in standard base rate cases and would overstate the cost of
23		equity used in a tracker.

1	Q.	MR. MOUL ARGUES THAT THE 10.3 PERCENT ROE SHOULD NOT BE
2		LOWERED BECAUSE CAPITAL COSTS IN THE FUTURE WILL BE
3		HIGHER. DO YOU AGREE?
4	A.	No, I do not. This is speculation on Mr. Moul's part and contrary to market evidence.
5		It is true that capital markets are not static and do change over time - in both
6		directions. It is, however, absurd to argue that the Board should ignore the clear and
7		indisputable market evidence that a sharp decline in capital costs has occurred since
8		2009/2010. Based on Mr. Moul's logic, the ROE award could never change.
9		Capital costs are very low at present due to market fundamentals, and there is
10		no reason to expect that to change (including the Fed's accommodative policies) any
11		time soon. I discuss these fundamental forces in Section III of my testimony.

#### III. CAPITAL COST TRENDS IN RECENT YEARS

2	Q.	HAVE YOU EXAMINED GENERAL TRENDS IN CAPITAL COSTS IN
3		RECENT YEARS?

A. Yes. I show the capital cost trends since 2002, through calendar year 2012, on page 1 of Schedule MIK-1. Pages 2, 3 and 4 of that Schedule show monthly data for January 2007 through December 2012. The indicators provided include the annualized inflation rate (as measured by the Consumer Price Index), 10-year Treasury yields, 3-month Treasury bill yields and Moody's single A and triple B yields on long-term utility bonds. While there is some fluctuation, these data series show a general declining trend in capital costs. For example, in the very early part of this 10-year period, utility bond yields averaged about 7 to 8 percent, with 10-year Treasury yields of 4 to 5 percent. By 2011, single A utility bond yields had fallen to an average of 5.1 percent, with 10-year Treasury yields declining to an average of 2.8 percent. Within the past year (i.e., calendar 2012), Treasury and utility long-term bond rates have declined even further to near or below the lowest levels in many decades.

For the past three years, short-term Treasury rates have been close to zero, with three-month Treasury bills averaging about 0.1 percent. These extraordinarily low rates (which are also reflected in non-Treasury debt instruments) are the result of an intentional policy of the Federal Reserve Board of Governors (the Fed) to make liquidity available to the U.S. economy and to promote economic activity. The Fed has also sought to exert downward pressure on long-term interest rates through its policy of "quantitative easing." Quantitative easing is a policy whereby the Fed

<sup>&</sup>lt;sup>2</sup> By law, the Fed has a "dual mandate" to pursue policies both to ensure price stability (i.e., low inflation) and to promote full employment.

engages on an ongoing basis in the purchase of financial assets (such as Treasury
bonds or agency mortgage backed debt), both to support the market prices of financial
assets and to increase the U.S. money supply. The intent of quantitative easing is to
keep the cost of capital low (which increases the value of financial assets such as
utility stocks) and make credit more abundant. Although that program ended this past
summer, the Fed announced in September 2012 a continuation of its near zero short-
term interest rate policy at least through 2015, and an indefinite continuation of
quantitative easing. In its December 12, 2012 meeting, the Fed indicated that its low
interest rate and accommodative policies would continue at least until a much lower
U.S. unemployment rate is achieved (i.e., a target of 6.5 percent), an endeavor which
is expected to take several years. As a result, interest rates have remained low and
have trended down and, for at least an extended period of time, this very low short-
and long-term interest rate and cost of capital environment is expected to continue.
HAS THE FED ISSUED ANY MORE RECENT INFORMATION ON ITS
POLICY INTENT?
Yes. The latest information on Fed policy is from its press release issued on
January 30, 2013 following a meeting of the Federal Open Market Committee

Yes. The latest information on Fed policy is from its press release issued on January 30, 2013 following a meeting of the Federal Open Market Committee ("FOMC," the monetary policy decision-making forum for the Fed). That statement affirmed that for the foreseeable future its "highly accommodative" policy will continue until progress toward "maximum employment" is achieved. Specifically, the Fed will continue its near zero short-term interest rate policy and will foster lower long-term interest rates by asset purchases, namely \$85 billion per month of incremental purchases of mortgage backed securities and long-term Treasury bonds. The FOMC further stated that an accommodative monetary policy "will remain appropriate for a considerable time after the asset purchase program ends and the

Q.

1		economic recovery strengthens." In addition, the FOMC observes that inflation
2.		trends have been running below its 2 percent per year target level and that "long-term
3		inflation expectations remain stable."
4	Q.	ARE THERE FORCES CONTRIBUTING TO LOW INTEREST RATES
5		OTHER THAN FED POLICY?
6	A.	Yes. While the decline in short-term rates is largely attributable to Fed policy
7		decisions, the behavior of long-term rates reflects more fundamental economic forces,
8		along with the Fed's asset purchase program. Factors that drive down long-term bond
9		interest rates include the ongoing weakness of the U.S. and global macro economy,
10		the inflation outlook and even international events. A weak economy (as we have at
11		this time) exerts downward pressure on interest rates and capital costs generally
12		because the demand for capital is low and inflationary pressures are lacking. While
13		inflation measures can fluctuate from month to month, long-term inflation rate
14		expectations presently remain quite low, as the FOMC recently noted. Europe's
15		Euro-zone continuing sovereign debt crisis likely contributes somewhat to lower U.S.
16		interest rates, as U.S. securities are valued as a relative "safe haven" for global
17		capital. This "safe haven" benefit for U.S. assets may have abated slightly in the last
18		two or three months, but it could return if Euro-zone financial stability is not achieved
19		and sustained.
20	Q.	DO LOW LONG-TERM INTEREST RATES IMPLY A LOW COST OF
21		EQUITY FOR UTILITIES?
22	A.	In a very general sense and over time, that is normally the case, although the utility
23		cost of equity and cost of debt need not move together precisely in lock step or
24		necessarily in the short run. The economic forces mentioned above (and Fed policy)
25		that lead to lower interest rates also tend to exert downward pressure on the utility

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1		cost of equity. After all, many investors tend to view utility stocks and bonds as
2		alternative investment vehicles for portfolio allocation purposes, and in that sense
3		utility stocks and long-term bonds are related by market forces.
4	Q.	ARE RELATIVE ECONOMIC WEAKNESS AND LOW INFLATION
5		EXPECTED TO CONTINUE?
6	A.	Yes, that appears to be the case. I have consulted the latest "consensus" forecasts
7		published by Blue Chip Economic Indicators (Blue Chip), January 10, 2012 edition,
8		which is a survey compilation of approximately 40 major forecast organizations. The
9		"consensus" calls for real GDP growth of 2.0 percent in 2013 and 2.6 percent in 2014
10		and inflation (GDP deflator) of 1.8 percent and 1.9 percent in 2013 and 2014,
11		respectively. The October 2012 edition of Blue Chip also publishes a consensus
12		10-year inflation forecast of 2.1 percent per year, almost no change from the near
13		term. Thus, both the near- and long-term economic outlooks are for sluggish
14		economic growth and low inflation, implying low market capital costs.
15	Q.	HAS THE PATTERN BEEN SIMILAR FOR EQUITY MARKETS?
16	A.	As one would expect, equity markets have exhibited more volatility than bond
17		markets. Following the onset of the financial crisis about four years ago, stock
18		market indices plunged, reaching a bottom in March 2009. Since then, stock prices
19		recovered impressively and the major indices have largely recovered to pre-crisis
20		levels. The market recovery continued through most of the first half of 2011, but it
21		then began to deteriorate in late July 2011 with the debt ceiling crisis. The second
22		half of 2011 was characterized by significant stock market losses, some recovery and
23		high volatility. The federal debt ceiling debate issue and the subsequent Standard &
24		Poors (S&P) downgrade of Treasury securities may have been initial triggering
25		events for the equity market turmoil during August and September 2011. The larger

fundamental concerns of investors, based on reporting by the financial press, include
the unraveling of the Euro-zone sovereign debt crisis (and its potential adverse impact
on the European banking system) and the expectations by investors of the potential
for further weakening in the U.S. economy (and to some extent, the global economy).
In the fourth quarter of 2011, the stock market recovered, and for calendar 2011
overall, the stock market was approximately flat or provided only very modest returns
for investors. In general, 2012 was a positive year for the stock market, as has been
the case in January 2013.

The effects of these economic events on U.S. utilities (such as PSE&G), however, are difficult to interpret. It would seem that the Euro-zone and global economic issues would have little to do directly with U.S. electric utilities. The stock market improvement over the past year may reflect increased investor interest in U.S. common equities, including utilities. At the same time, the continuing economic weakness tends to exert downward pressure on capital costs, interest rates and inflation. Thus, despite the turmoil in global financial markets, the U.S. provides a generally low capital cost environment for good quality utilities.

HAVE YOU BEEN ABLE TO INCORPORATE THESE RECENT
CHANGES IN FINANCIAL MARKETS INTO YOUR COST OF CAPITAL
ANALYSIS IN THIS CASE?

Yes, to a large extent I have done so. As a general matter, utility stocks have been reasonably stable during 2012. Specifically, I present DCF evidence that relies on utility stock market data from the last half of 2012 as developed by Mr. Moul. Such market data directly incorporate the economic forces and monetary policy choices described above. The use of a recent six months of market data is reasonable for

Q.

1		assessing PSE&G's current cost of capital as it reflects recent market and economic
2		trends.
3	Q.	PLEASE RELATE THESE CAPITAL COST TRENDS TO THE 2010
4		SETTLEMENT THAT ESTABLISHED THE AUTHORIZED ROE FOR
5		PSE&G.
6	A.	As noted earlier, PSE&G's last base rate case took place in 2009, with a settlement
7		reached in 2010. Both the Company's and Rate Counsel's market and cost of capital
8		data were from that time period. The information shown on Schedule MIK-1
9		illustrates trends since that time period. During 2009/2010, long-term A-rated utility
10		bonds were providing yields of about 6 percent, with 10-year Treasury bonds yielding
11		about 3.0 to 3.5 percent. During the last half of 2012, Single A utility bond yields
12		were in the 4 to 4.5 percent range with 10-year Treasury security yields in the 1.5 to
13		2.0 percent range. These are very sharp reductions from 2009/2010 conditions and
14		are at least indicative of a very sharp reduction in the cost of equity for credit worthy,
15		stable utilities such as PSE&G.

1	IV. MR. MOUL'S COST OF EQUITY ESTIMATES				
2	A. <u>C</u>	Overview of Mr. Moul's Estimates			
3	Q.	Q. IN REBUTTING MS. CRANE, HOW DID MR. MOUL SUPPORT THE			
4		COMPANY'S REQUEST FOR A RETURN	ON EQUITY OF		
5		10.3 PERCENT?			
6	A.	Mr. Moul did so primarily by conducting his own cos	t of equity (plus Comparable		
7		Earnings) studies, obtaining the following results:			
		DCF: Risk Premium: CAPM: Comparable Earnings:	10.90% 11.66 9.39 11.15		
		Average:	10.78%		
8		Average w/o Comparable Earnings:	10.65%		
9		The average of his three cost of equity studies is 10.65	5 percent, which is somewhat		
10	greater than the requested 10.3 percent, and the average is a slightly higher				
11	10.78 percent if the Comparable Earnings measure is included.				
12		Mr. Moul's DCF and CAPM studies are based	l on a ten-company proxy group		
13		of electric utility companies that he selected. The ma	jority of these companies are		
14		vertically integrated (six of the ten, as acknowledged	by Mr. Moul), meaning their		
15		market cost of equity is also reflective of the risks of	generation supply. Yet, Mr.		
16		Moul makes no downward risk adjustment for PSE&C	G, which is a low-risk delivery		
17		service utility.			
18	Q.	WHAT EXPLAINS MR. MOUL'S RELATIV	ELY HIGH COST OF		
19		EQUITY ESTIMATION RESULTS?			

1	A.	In the case of the DCF and CAPM studies, which are based on his ten-company proxy
2		group, he includes two extraneous adders that have nothing to do with the PSE&G
3		cost of equity. The first is his so-called "leverage adjustment," which he proposes in
4		order to compensate investors for the fact that standard BPU ratemaking practice is to
5		use a book value instead of market value capital structure. This adjustment is
6		0.8 percent in his DCF study and 0.7 percent in his CAPM study. (Mr. Moul refers to
7		it as the "Hamada" adjustment in the CAPM.) To be clear, Mr. Moul includes this
8		adjustment because he believes PSE&G shareholders are entitled to additional
9		compensation over and above the cost of equity due to the Board's book value
10		ratemaking practice.
11		The second adder, 0.16 percent, is for PSE&G's flotation expense, i.e.,
12		expenses incurred when PSE&G or its parent issues new common equity. I do not
13		object to flotation expense recovery in principle, provided that such costs can be
14		documented. That is, there must be some evidence that there are actual flotation
15		expenses incurred or to be incurred by PSE&G that are in need of recovery. In the
16		case of PSE&G and Mr. Moul's rebuttal testimony, there is no such evidence.
17	Q.	IF THESE TWO IMPROPER ADJUSTMENTS ARE REMOVED, WHAT
18		ARE MR. MOUL'S DCF AND CAPM RESULTS?
19	A.	Using all of Mr. Moul's input data and assumptions, but removing these two
20		improper adjustments, his studies would produce the following results:
21		DCF: 4.68% (dividend yield) + 5.25% (growth rate) = 9.93%
22 23		CAPM: $3.00\% + 0.69 (7.99) = 8.52\%$
24		This range of 8.5 to 9.9 percent clearly validates the reasonableness of Ms. Crane's
25		9.75 percent even before accounting for the fact that (a) PSE&G is somewhat less
26		risky than Mr. Moul's ten-company proxy group; and (b) the solar program cost

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	recovery.
Q.	THE RISK PREMIUM STUDY PRODUCES A MUCH HIGHER
	11.66 PERCENT ESTIMATE. WHY IS THIS ESTIMATE SO HIGH?
A.	Mr. Moul employs an extremely unusual risk premium method in his testimony,
	apparently abandoning the risk premium method he has used in past years. Using
	historical stocks versus bonds for selected years, he calculates a 7.0 percent risk
	premium relative to a current single A utility bond yield of 4.5 percent. Mr. Moul's
	previous risk premium methodology (employed up until now) estimated a utility risk
	premium value of 5.5 percent, or about 1.5 percent lower. While in my opinion even
	the 5.5 percent is excessive, had Mr. Moul stayed with his previous methodology, he
	would have obtained a risk premium cost of equity estimate of 10.0 percent
	(excluding an adjustment for flotation expense).
Q.	IS MR. MOUL EMPLOYING AN ACCEPTED RISK PREMIUM
	METHOD?
A.	No, he is not. Analysts frequently make use of historical market returns data series to
	estimate the equity risk premium (typically for the overall stock market and not for ar
	individual firm or industry). But unlike Mr. Moul, they use the entire historical data
	series, not selected years. Mr. Moul's study method is unprecedented and bears no
	resemblance to other risk premium studies.
Q.	WHAT WEIGHT SHOULD BE GIVEN TO MR. MOUL'S COMPARABLE
	EARNINGS STUDY?
A.	None, since it has nothing to do with PSE&G's cost of equity. This study is nothing
	more than a compilation of accounting returns on equity, earned historically and
	projected for a group of unregulated companies. Accounting returns are unrelated to
	A. Q.

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1	prospective market returns which is what investors focus on in deciding whether to
2	purchase a company's stock. It is therefore the market returns expectation measure
3	(e.g., using the DCF model) that address the crucial "capital attraction standard" of a
4	fair rate of return. For example, whether a company has achieved an accounting
5	return on equity of 5, 10 or 15 percent for some time period, by itself, tells us nothing
6	about that company's cost of equity.

#### B. The DCF Estimate

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Q. SETTING ASIDE THE LEVERAGE AND FLOTATION ADDERS, IS THE
 UNADJUSTED 9.9 PERCENT DCF ESTIMATE REASONABLE?

While removing the two improper "adders" greatly improves the realism of Mr. Moul's DCF study, I believe that his 9.9 percent estimate is still too high. In particular, Mr. Moul's study assumes a long-run growth rate of 5.25 percent, but he does not fully explain the basis for this figure. (See Mr. Moul's rebuttal testimony, page 23.) He provides a lengthy discussion advocating the use of securities analyst projections of five-year earnings growth, but the 5.25 percent appears to be his

judgment based on his informal perusal of this evidence.

While I agree with Mr. Moul that a proxy group growth rate of 5.25 percent falls within his range of evidence, it appears to be near the higher end of the range. For example, his Schedule 4 presents nine separate measures of projected growth, and eight of the nine measures are *lower* than 5.25 percent. More specifically, five of the nine measures are his preferred measure of securities analyst earnings growth rate estimates, and four of the five measures are below 5.25 percent. Thus, based on his own evidence (including his preferred measures), his DCF growth rate estimate is excessive.

WHAT WOULD BE A MORE REALISTIC ESTIMATE?

1	A.	Mr. Moul on Schedule 4 and in testimony cites to five separate sources of securities			
2		analyst earnings growth rates for his proxy companies that he believes should be			
3		employed:	employed:		
		SNL Zack Mor		4.48% 5.01 4.40 5.69 5.20	
		Ave	rage:	4.96%	
4		Based on my experience, Fire	st Call, Zacks and	d Value Line are well-known sources of	
5		analyst earnings projections a	analyst earnings projections available to investors and used by witnesses in rate cases.		
6		SNL and Morningstar may be more recent entrants and are not as widely cited. The			
7		average of First Call, Zacks and Value Line is 4.69 percent.			
8		A more reasonable DCF estimate would employ a growth rate range of 4.69 to			
9		4.96 percent, based on these published securities analyst projections. I have also			
10		accepted, for surrebuttal purposes, Mr. Moul's proxy growth dividend yield for the			
11		last six months of 2012 of 4.54 percent. (See Mr. Moul's Schedule 2.) This produces			
12		the following DCF proxy group results:			
13		DCF cost of equity = $D_0/P_0 (1.0 + 0.5g) + g$			
14 15		Lower end: $4.54\% (1.0235) + 4.69\% = 9.34\%$			
16 17		Upper end: $4.54\%$ ( $1.0248$ ) + $4.96\%$ = $9.61\%$			
18		`	•		
				y group, from Mr. Moul's own data set,	
19				s the fact that Ms. Crane's 9.75 percent	
20		value is both reasonable and conservatively high.			
21		This DCF range, of course, does not account for PSE&G's inherently lower			
22		risk than the proxy group or the very low risk nature of a solar tracker.			

#### C. The Flotation Expense Adder

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Q.

3	A.	Mr. Moul recommends including within the solar program cost recovery mechanisms
4		a 0.16 percent return on equity adder to recover the flotation expense allegedly
5		associated with operating these programs. But he has provided no evidence that such
6		costs have been or will be incurred by PSE&G. To the contrary, all available
7		evidence suggests there are no such costs to be recovered. The fact that other utilities
8		may have in the past incurred or will incur these costs has nothing to do with
9		appropriate cost recovery within the PSE&G solar program trackers.
10	Q.	WHAT IS YOUR EVIDENCE THAT SUCH COSTS HAVE NOT AND
11		WILL NOT BE INCURRED BY PSE&G?
12	A.	Common stock issuances, if any, are undertaken by the publically-traded entity Public
13		Service Enterprise Group (PSEG), not the PSE&G utility subsidiary. The response to
14		RCR-ROR-6 states that PSEG has not had a public issuance of common stock within
15		the past three years. RCR-ROR-7 requested information concerning prospective
16		PSEG stock issuances, and the Company refused to provide the information. Thus,
17		Company data responses provide no evidence of any flotation expense.

WHY DO YOU OPPOSE THE FLOTATION EXPENSE ADDER?

The Value Line Investment Survey provides both a historical data series on PSEG shares outstanding and projected increases over the next five years (until 2017). The November 23, 2012 report on PSEG indicates that there has been no significant change in shares outstanding since 2005, or about the last eight years. Value Line further projects no change in PSEG shares outstanding between now and 2017. This suggests no PSEG (and therefore PSE&G) flotation expense during 2005 to 2017, or a 12-year period of time.

1		There is simply no factual basis for Mr. Moul's 0.16 percent flotation expense
2		adder for use in the solar tracker mechanisms. These are phantom expenses.
3	D.	The Leverage Adjustment
4	Q.	WHY DOES MR. MOUL INCLUDE HIS LEVERAGE ADDER IN HIS
5		DCF AND CAPM STUDIES?
6	A.	His rebuttal testimony clearly states that the purpose of the leverage adjustment is to
7		provide PSE&G shareholders with additional compensation because a book value
8		rather than a market value capital structure is used for ratemaking. For example, at
9		page 24, lines 14-15 he states, "if book values are used to compute the capital
10		structure ratios, then an adjustment is required." This is a candid admission that the
11		leverage adder is not part of the utility cost of equity, as measured by the standard
12		DCF formula, but is included due to capital structure ratemaking practices.
13	Q.	IS THERE ANY BASIS FOR ASSERTING THAT THE COMBINATION
14		OF THE STANDARD DCF COST OF EQUITY AND A BOOK VALUE
15		CAPITAL STRUCTURE HAS FAILED TO ADEQUATELY
16		COMPENSATE INVESTORS?
17	.А.	No, such a criticism has no validity. This standard practice (a market cost of equity
18		coupled with a book value capital structure) is the essence of cost-based ratemaking
19		that fully meets the capital attraction standard and has been used successfully by the
20		BPU (and other regulatory commissions) for decades. I am also not aware of PSE&G
21		in past cases advocating an ROE adder above its cost of equity due to the Board's use
22		of a book value capital structure.
23	Q.	IS CAPITAL STRUCTURE IN DISPUTE IN THIS CASE?
24	A.	No. Both the Company and Rate Counsel accept the use of a book value capital
25		structure for rate setting.

Q.	PLEASE EXPLAIN WHY THE LEVERAGE ADJUSTMENT IS NOT
	PART OF THE COST OF EQUITY AND IMPROPER?

Α.

As I explained, using Mr. Moul's own data and approach, the proxy group DCF estimate is about 9.3 to 9.6 percent, based on available market data. The DCF results automatically reflect all information and risks associated with the ten proxy companies, as perceived by investors. Investors are fully aware of the companies' use of debt leverage and that all regulators use book value capital structure for rate making. Hence, the 9.3 to 9.6 percent DCF estimate range therefore already fully accounts for the fact that utility regulators routinely set rates using book value capital structures for all ten proxy companies. It also fully accounts for these companies' actual use of debt leverage to finance operations.

While Mr. Moul does not directly claim that his leverage adder is part of the cost of equity, he does assert that investors either require or merit this additional compensation. He is wrong. Cost-based ratemaking adequately and fairly compensates investors. If that were not the case, the ten proxy companies could not attract capital (and they clearly do). Investor requirements for compensation are automatically captured in the standard DCF formula.

There is one other possibility to be considered. An adder conceivably could be justified if the PSE&G ratemaking capital structure is more leverage than the actual proxy group average capital structure. Mr. Moul's Schedule 5, however, puts that concern to rest. This shows an actual proxy group average capital structure of 46 percent equity and 54 percent debt – somewhat more leverage than PSE&G's 51 percent equity 49 percent debt capital structure. Thus, if debt leverage is a relevant risk factor, then the proxy group DCF study results would merit a downward, not an upward adjustment.

1	Q.	IS THERE PROFESSIONAL REGULATORY ACCEPTANCE OF MR.
2		MOUL'S LEVERAGE ADJUSTMENT?
3	A.	Very little. I do not recall PSE&G cost of equity witnesses in past cases advocating
4		this adder or making the argument that additional compensation is required due to the
5		use of a book value capital structure. Mr. Moul cites to certain cases in Pennsylvania
6		several years ago in which some form of leverage adder was included, but he could
7		cite no cases since 2007 or in any other state. (Response to RCR-ROR-8 and 9.) I
8		have participated in numerous other rate cases on the cost of equity issue in various
9		other jurisdictions. In those cases, this type of adjustment is not supported by other
10		cost of equity experts be they commission staff, consumer advocate or utility-
11		sponsored (other than Mr. Moul). There is also no support for this adjustment in the
12		professional literature on cost of capital or regulatory ratemaking.
13	Q.	DOESN'T MR. MOUL CITE AS AUTHORITY FOR HIS ADJUSTMENT
14		THE WORKS OF DOCTORS MODIGLIANI, MILLER AND HAMADA?
15	A.	He purports to apply their formulas, but he does in a manner that is highly misleading
16		and that has nothing to do with the underlying financial theory. Modigliani, Miller
17		and Hamada have not advocated the inclusion of a rate of return "adder" to the actual
18		DCF or CAPM cost of equity because state regulators employ book value capital
19		structures for ratemaking. Rather, their formulas are relevant to a very different issue,
20		i.e., if PSE&G is more leveraged than the ten proxy companies. But Mr. Moul's
21		Schedule 5 demonstrates that this is not the case.
22	Q.	SHOULD THE LEVERAGE ADDER BE REJECTED?

1	A.	Yes. It has no place in either the DCF or CAPM studies, and the notion that
2		conventional cost-based ratemaking fails to adequately compensate investors must be
3		rejected as without foundation. <sup>3</sup>
4	E.	Risk Premium Study
5	Q.	WHAT IS YOUR OBJECTION TO MR. MOUL'S RISK PREMIUM
6		STUDY?
7	A.	As noted above, Mr. Moul has inexplicably changed his Risk Premium methodology
8		in his rebuttal testimony in this case, as compared to his past testimony, which has
9		resulted in the equity risk premium increasing from 5.5 percent to 7.0 percent, or a
10		27 percent increase.
11	Q.	WHAT ACCOUNTS FOR THE INCREASE?
12	A. ·	A more conventional approach to estimating the risk premium, widely used in the
13		professional literature, is to compare market returns on stocks and bonds over the
14		historic period for which data are available. Mr. Moul previously used this approach.
15		In this case, the first problem is that Mr. Moul employs only those years when long-
16		term Treasury yields were "low," i.e., a subset of his historical data base. He justifies
۱7		this selectivity arguing that the risk premium increases when market bond yields are
18		low, although he provides no support for that assertion (other than his own risk
19		premium data series).
20		The second problem with Mr. Moul's 7.0 percent risk premium estimate, even
21		if valid, has nothing to do with PSE&G and its risk profile. It appears to be based
22		entirely on the historical market returns on "large company stocks" (i.e.,
23		predominantly non utilities) versus long-term corporate (not utility) bonds. Thus, the

<sup>&</sup>lt;sup>3</sup> Please note that in the CAPM the leverage adjustment is used to increase the proxy group beta from 0.69 to 0.78, which increase the CAPM estimate by about 0.7. Since the corrected CAPM estimate is 8.5 percent, I do not address any further in my surrebuttal testimony. This should not be interpreted as my concurrence with other aspects of Mr. Moul's CAPM study.

7.0 percent risk premium and the resulting roughly 11.5 percent cost of equity at best
is applicable to the overall stock market, not the ten company proxy group or
PSE&G. It is important to note that in his CAPM study, Mr. Moul found an overall
stock market required return (i.e., cost of equity) of 11.0 percent. In order for his
Risk Premium study to be valid, one would be forced to believe that PSE&G has a
higher cost of equity than the overall stock market. Clearly, such an illogical result
cannot be correct.

Finally, inspection of Mr. Moul's Risk Premium data base reveals a serious problem. Mr. Moul begins with annual market returns observations obtained from Morningstar for the time period 1926-2011 – 86 total observations. (See his Schedule 8, page 2 of 2.) He then extracts from that data base a subtotal of 43 years, or half of the years. However, of those 43 years in his subset, 40 of the 43 (or over 90 percent) are from the time period 1926 to 1965, with only three observations being years since 1965 (i.e., nearly 50 years ago). In other words, what Mr. Moul has done is to take the Morningstar 1926 to 2011 time period and for practical periods segregate it into two subperiods (with three minor exceptions) – 1926 to 1965 and 1965 to 2011. He then bases *today's* PSE&G equity risk premium on the 1926 to 1965 market returns, largely ignoring all observations between 1966 and 2011, which is the last half century.

Mr. Moul's method of using the historical data base is unreasonable and lacks any credibility. In addition, the equity risk premium value of 7.0 percent is based largely on non-utility market data. It is not surprising that it produces such illogical and overstated results.

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F.	Con	aparable	Earnings

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2	Q.	HOW DID MR. MOUL DEVELOP HIS COMPARABLE EARNINGS
3		ESTIMATE OF 11.15 PERCENT?

- A. Mr. Moul assembled a large group of non-regulated companies and recorded their historical and projected earned return on equity. In other words, it is nothing more than a compilation of accounting returns.
- 7 Q. IS COMPARABLE EARNINGS A COST OF EQUITY METHOD?
- A. No, and I do not read Mr. Moul's testimony as asserting otherwise. For this reason, the comparable earnings data set simply cannot address the capital attraction standard because it fails to measure the return that investors actually require, which is the prospective market return on capital that they invest today. For example, the simple fact that the achieved accounting return for a company is, say 18 percent, tells us nothing about what rate of return investors expect to earn from investing today in that stock. To state the obvious, the expected return depends on the price of the stock.
- 15 Q. ARE THERE OTHER PROBLEMS WITH MR. MOUL'S COMPARABLE
  16 EARNINGS?
  - Yes, there are numerous problems. As examples, the return on equity for unregulated companies can be distorted by equity accounting write downs, which inflate the reported accounting return on equity. This is typically not an issue for utilities. An additional concern is that some unregulated firms may possess and exercise market power. Utilities, of course, possess market power (as monopolies), but cost of service regulation prevents them from exercising it. Mr. Moul concedes that he has not investigated whether the accounting ROEs in his study have been increased due to the presence of market power. (Response to RCR-ROR-11.) Earnings that have been

1	affected by the possession and exercise of market power cannot be referenced as a
2	legitimate benchmark for setting the utility fair rate of return.
3	Mr. Moul's Comparable Earnings study is of no use either in determining
4	PSE&G's current cost of equity or establishing a fair return on equity for the solar
5	programs.

1		V. OTHER CONSIDERATIONS
2	Q.	THE PREVIOUS SECTION FOR YOUR TESTIMONY ADDRESSED THE
3		COST OF EQUITY STUDIES ALLEGED TO SUPPORT THE
4		10.3 PERCENT ROE REQUEST FOR THE SOLAR TRACKERS. WHAT
5		ARE THE OTHER ISSUES RAISED IN REBUTTAL?
6	A.	Both Mr. Moul and Mr. Swetz oppose reducing the return on equity, as recommended
7		by Ms. Crane, for the following additional reasons:
8		Both witnesses either deny or deemphasize the argument that the solar
9		tracker mechanisms are very low in risk.
10		<ul> <li>Mr. Moul seems to concede that capital costs have declined to some</li> </ul>
11		degree since the 2009/2010 rate case, but he argues that this need not be
12		recognized at this time because he believes that capital costs eventually
13		will increase.
14		Mr. Moul argues that too low of an authorized ROE will undermine
15		investment incentives in the solar program.
16		• Mr. Moul takes issue with Ms. Crane's observation that state commission
17		ROE awards have declined sharply recently and support 9.75 percent.
18	Q.	AS A CONCEPTUAL MATTER, WHY IS IT REASONABLE FOR
19	,	PURPOSES OF A TRACKER TO UPDATE THE COST OF CAPITAL
20		FROM THE LAST RATE CASE?
21	A.	For purposes of this question, I shall assume there has been a material reduction in the
22		cost of capital since the last rate case, a notion that Mr. Moul to some degree seems to
23		accept. The purpose of the tracker is to provide accurate, actual program cost
24		recovery, no more and no less. If we acknowledge that the cost of capital has
25		declined, but fail to reflect that cost saving in the solar tracker, then we are
	Surre	buttal Testimony of Matthew I. Kahal Page 29

2		actually costs. Intentionally overcharging ratepayers is particularly objectionable
3		given that the tracker mechanism is structured to provide dollar-for-dollar recovery.
4		The need to update the cost of debt in the tracker seems particularly obvious
5		since there is really no dispute over the current embedded cost rate, i.e., 5.35 percent.
6		PSE&G's cost of equity, while more controversial, clearly has declined since 2009
7		and is well below 10.3 percent, as my testimony demonstrates. Mr. Crane's
8		9.75 percent is more than fair for use in the solar program trackers.
9	Q.	HAVE PSE&G WITNESSES BEEN ABLE TO SUPPORT THEIR
10		ASSERTIONS THAT THE SOLAR INVESTMENTS ARE SUBJECT TO
11		THE SAME OR SIMILAR RISK AS PSE&G AS A WHOLE?
12	A.	No. Mr. Moul is dismissive of the entire issue arguing that the "Solar Programs are
13		not dissimilar in risk from the overall PSE&G utility business." He has absolutely
14		no basis for such an assertion, and it clearly is not true, as discussed by Rate Counsel

intentionally allowing the utility to charge customers for more than the program

The salient point is not that such trackers are risk free, but rather that it is indisputable that they are lower in risk than conventional utility cost recovery.

Contrary to Mr. Moul's concern, Rate Counsel is not seeking to quantify and impose a specific rate of return reduction for this lower risk, although doing so would not be

witness Crane. The only risk that Mr. Swetz could point to is that the PSE&G solar

programs are exposed to prudence disallowances. The reality is that PSE&G has

never experienced a prudence disallowance associated with any of its energy

efficiency or renewable energy programs. (Response to RCR-ROR-17.)

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<sup>&</sup>lt;sup>4</sup> In the response to RCR-ROR-2, Mr. Moul argues for ignoring the issue because there is no readily available method of quantifying the lowered risk.

1		unreasonable. Rather this low-risk cost recovery helps to provide a further
2		compelling argument for updating to recognize declining capital costs.
3		Ultimately, PSE&G in this docket is proposing single issue ratemaking. In
4		this context, it is one sided and unfair to its customers to disregard the clearly
5		documented cost of capital savings.
6	Q.	MR. MOUL ARGUES THAT TODAY'S ULTRA-LOW CAPITAL COSTS
7		EVENTUALLY WILL INCREASE AND FOR THAT REASON THE
8		10.3 PERCENT ROE SHOULD BE RETAINED. PLEASE COMMENT.
9	A.	This argument is both inaccurate and unpersuasive. It is inaccurate because the
10		Company's response to RCR-A-51 states that rate of return will be periodically
11		updated over time when the Company completes base rate cases. PSE&G, of course,
12		to a large extent controls the timing of when future base rate cases will take place. It
13		is therefore the Company's own position that rate of return can be revisited at times
14		of its choosing.
15		The argument is also unpersuasive because Mr. Moul provides no market
16		evidence that capital markets will soon reverse and that PSE&G's cost of equity will
17		move sharply upwards. The fundamental conditions that have given rise to today's
18		very low capital costs are expected to persist for some extended period of time. Mr.
19		Moul has no basis for claiming that "markets today are wrong" and that current low-
20		cost capital market conditions must be disregarded as ephemeral.
21	Q.	MR. MOUL EXPRESSES CONCERN THAT AT A LOWER RATE OF
22		RETURN PSE&G WILL LACK INCENTIVE TO INVEST IN
23		RENEWABLE RESOURCES. IS HE CORRECT?
24	A.	Mr. Moul is correct that if the authorized return on equity were to be set at a
25		sufficiently low level, for example, well below the Company's current cost of equity,

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1		doing so could distort investment incentives. This possibility, however, is not the
2		case here because the 9.75 percent recommended by Ms. Crane clearly is not below
3		PSE&G's cost of equity, particularly in the context of the solar tracker mechanism.
4		On the other hand, retaining the 10.3 percent requested by the Company exceeds its
5		cost of equity thereby creating a perverse incentive to overinvest.
6	Q.	MR. MOUL AT PAGE 10 OF HIS REBUTTAL TESTIMONY CITES
7		CERTAIN 2012 RETURN ON EQUITY AWARDS IN OTHER STATES TO
8		VALIDATE THE REASONABLENESS OF THE REQUESTED
9		10.3 PERCENT. IS THIS INFORMATION PERSUASIVE?
10	A.	No, it is not. Mr. Moul cites the Regulatory Research Associates (RRA) survey of
11		state regulator ROE awards for electric utilities in 2012, which he attaches to his
12		testimony as Exhibit PRM-2. He is indeed correct that there have been some rate of
13		return on equity awards at or above 10.3 percent. RRA notes that the average award
14		for electric utilities in 2012, excluding some special case awards in Virginia, <sup>5</sup> was
15		10.01 percent. This average result is roughly midway between the requested
16		10.3 percent and Ms. Crane's 9.75 percent.
17		The problem is that the 10.01 percent 2012 ROE average is a combination of
18		state commission ROE awards for vertically-integrated electric utilities and delivery
19		service electric utilities. It is obviously the latter that is relevant to PSE&G. Using
20		Mr. Moul's Exhibit PRM-2, I have extracted the 2012 ROE awards for delivery
21		service electric utilities.

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<sup>&</sup>lt;sup>5</sup> RRA discusses the average award in 2012 excluding the Virginia results because those very high returns are associated with generation plant surcharges where a ROE bonus was mandated by statute.

Company	State	Date	Award
Comm. Edison	Illinois	5/29	10.05%
Orange & Rockland	New York	6/15	9.40
Delmarva Power	Maryland	7/20	9.81
PEPCO	Maryland	7/20	9.31
Ameren	Illinois	9/19	10.05
PEPCO	D.C.	2/26	9.50
Lone Star Transmission	Texas	10/12	9.60
Atlantic City	New Jersey	10/23	9.75
Delmarva Power	Delaware	11/29	9.75
Ameren	Illinois	12/5	9.71
PPL Electric	Pennsylvania	12/5	10.40
Comm. Edison	Illinois	12/19	9.71
Narragansett	Rhode Island	12/20	9.50
Average			9.74%

There is only one delivery service ROE award materially above 10 percent,
the PPL Electric decision cited by Mr. Moul (which, as he notes, includes a
management performance bonus). Nearly all others are at or below 10 percent, with
the average ROE award being 9.74 percent. I believe that Mr. Moul's RRA survey
for 2012 (Exhibit PRM-2) helps to validate the reasonableness of Ms. Crane's
recommendation.

- 8 Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?
- 9 A. Yes, it does.

### BEFORE THE STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF AN EXTENSION OF A SOLAR GENERATION INVESTMENT PROGRAM AND ASSOCIATED COST RECOVERY MECHANISM AND FOR CHANGES IN THE TARIFF FOR ELECTRIC SERVICE, B.P.U. N.J. NO. 15 ELECTRIC PURSUANT TO N.J.S.A. 48:2-21, 48:21-21, 1 AND N.J.S.A.	) ) ) ) ) BPU DOCKET NO. E012080721 ) )
15 ELECTRIC PURSUANT TO N.J.S.A. 48:2-21, 48:21-21.1 AND N.J.S.A. 48:3- 98.1	

# SCHEDULES ACCOMPANYING THE SURREBUTTAL TESTIMONY OF MATTHEW I. KAHAL ON BEHALF OF THE NEW JERSEY DIVISION OF RATE COUNSEL

STEFANIE A. BRAND, ESQ. DIRECTOR, DIVISION OF RATE COUNSEL

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## Trends in Capital Costs

	Annualized Inflation (CPI)	10-Year <u>Treasury Yield</u>	3-Month Treasury Yield	Single A <u>Utility Yield</u>	Baa <u>Utility Yield</u>
2002	1.6%	4.6%	1.6%	7.4%	8.0%
2003	1.9	4.1	1.0	6.6	6.8
2004	2.7	4.3	1.4	6.2	6.4
2005	3.4	4.3	3:.0	5.6	5.9
2006	2.5	4.8	4.8	6.1	6.3
2007	2.8	4.6	4.5	6.1	6.3
2008	3.8	3.4	1.6	6.5	7.2
2009	(0.4)	3.2	0.2	6.0	7.1
2010	1.6	3.2	0.1	5.5	6.0
2011	3.1	2.8	0.0	5.0	5.6
2012	2.1	1.8	0.1	4.1	4.9

# U.S. Historic Trends in Capital Costs (Continued)

	Annualized Inflation (CPI)	10-Year Treasury Yield	3-Month Treasury Yield	Single A <u>Utility Yield</u>	Baa <u>Utility Yield</u>
<u>2007</u>					
January	2.1%	4.8%	5.1%	6.0%	6.2%
February	2.4	4.7	5.2	5.9	6.1
March	2.8	4.6	5.1	5.9	6.1
April	2.6	4.7	5.0	6.0	6.2
May	2.7	4.8	5.0	6.0	6.2
June	2.7	5.1	5.0	6.3	6.5
July	2.4	5.0	5.0	6.3	6.5
August	2.0	4.7	4.3	6.2	6.5
September	2.8	4.5	4.0	6.2	6.5
October	3.5	4.5	4.0	6.1	6.4
November	4.3	4.2	3.4	6.0	6.3
December	4.1	4.1	3.1	6.2	6.5
2008					
January	4.3%	3.7%	2.8%	6.0%	6.4
February	4.0	3.7	2.2	6.2	6.6
March	4.0	3.5	1.3	6.2	6.7
April	3.9	3.7	1.3	6.3	6.8
May	4.2	3.9	1.8	6.3	6.8
June	5.0	4.1	1.9	6.4	6.9
July	5.6	4.0	1.7	6.4	7.0
August	5.4	3.9	1.8	6.4	7.0
September	4.9	3.7	1.2	6.5	7.2
October	3.7	3.8	0.7	7.6	8.6
November	1.1	3.5	0.2	7.6	9.0
December	0.1	2.4	0.0	6.5	8.1

U.S. Historic Trends in Capital Costs (Continued)

	Annualized Inflation (CPI)	10-Year Treasury Yield	3-Month Treasury Yield	Single A Utility Yield	Baa <u>Utility Yield</u>
<u>2009</u>					
January	0.0%	2.5%	0.1%	6.4%	7.9%
February	0.2	2.9	0.3	6.3	7.7
March	(0.4)	2.8	0.2	6.4	8.0
April	(0.7)	2.9	0.2	6.5	8.0
May	(1.3)	2.9	0.2	6.5	7.8
June	(1.4)	3.7	0.2	6.2	7.3
July	(2.1)	3.6	0.2	6.0	6.9
August	(1.5)	3.6	0.2	5.7	6.4
September	(1.3)	3.4	0.1	5.5	6.1
October	(0.2)	3.4	0.1	5.6	6.1
November	1.8	3.4	0.1	5.6	6.2
December	2.5	3.6	0.1	5.8	6.3
<u>2010</u>					
January	2.6%	3.7%	0.1%	5.8%	6.2%
February	2.1	3.7	0.1	5.9	6.3
March	2.3	3.7	0.2	5.8	6.2
April	2.2	3.9	0.2	5.8	6.2
May	2.0	3.4	0.2	5.5	6.0
June	1,1	3.2	0.1	5.5	6.0
July	1.2	3.0	0.2	5.3	6.0
August	1.1	2.7	0.2	5.0	5.6
September	1.1	2.7	0.2	5.0	5.5
October	1.2	2.5	0.1	5.1	5.6
November	1.1	2.8	0.1	5.4	5.9
December	1.2	3.3	0.1	5.6	6.0

U.S. Historic Trends in Capital Costs (Continued)

	Annualized				
	Inflation	10-Year	3-Month	Single A	Baa
	(CPI)	Treasury Yield	Treasury Yield	Utility Yield	Utility Yield
<u>2011</u>					
January	1.6%	3.4%	0.1%	5.6%	6.1%
February	2.1	3.6	0.1	5.7	6.1
March	2.7	3.4	0.1	5.6	6.0
April	2.2	3.5	0.1	5.6	6.0
May	3.6	3.2	0.0	5.3	5.7
June	3.6	3.0	0.0	5.3	5.7
July	3.6	3.0	0.0	5.3	5.7
August	3.8	2.3	0.0	4.7	5.2
September	3.9	2.0	0.0	4.5	5.1
October	3.5	2.2	0.0	4.5	5.2
November	3.0	2.0	0.0	4.3	4.9
December	3.0	2.0	0.0	4.3	5.1
<u>2012</u>					
January	2.9	2.0	0.0	4.3	5.1
February	2.9	2.0	0.0	4.4	5.0
March	2.7	2.2	0.1	4.5	5.1
April	2.3	2.1	0.1	4.4	5.1
May	1.7	1.8	0.1	4.2	5.0
June	1.7	1.6	0.1	4.1	4.9
July	1.4	1.5	0.1	3.9	4.9
August	1.7	1.7	0.1	4.0	4.9
September	2.0	1.7	0.1	4.0	4.8
October	2.2	1.8	0.1	3.9	4.5
November	1.8	1.7	0.1	3.8	4.4
December	1.7	1.7	0.1	4.0	4.6
<u>2013</u>					
January	1.6	1.9	0.1	4.2	4.7

Source: Economic Report of the President, Mergent's Bond Record, Federal Reserve Statistical Release (H.15), Consumer Price Index Summary (BLS)

## APPENDIX A

**QUALIFICATIONS OF** 

MATTHEW I. KAHAL

#### MATTHEW I. KAHAL

Since 2001, Mr. Kahal has worked as an independent consulting economist, specializing in energy economics, public utility regulation and utility financial studies. Over the past three decades, his work has encompassed electric utility integrated resource planning (IRP), power plant licensing, environmental compliance and utility financial issues. In the financial area he has conducted numerous cost of capital studies and addressed other financial issues for electric, gas, telephone and water utilities. Mr. Kahal's work in recent years has shifted to electric utility restructuring, mergers and various aspects of regulation.

Mr. Kahal has provided expert testimony on more than 350 occasions before state and federal regulatory commissions and the U.S. Congress. His testimony has covered need for power, integrated resource planning, cost of capital, purchased power practices and contracts, merger economics, industry restructuring and various other regulatory and public policy issues.

#### Education:

B.A. (Economics) - University of Maryland, 1971.

M.A. (Economics) - University of Maryland, 1974.

Ph.D. candidacy - University of Maryland, completed all course work and qualifying examinations.

#### **Previous Employment:**

1981-2001 - Exeter Associates, Inc. (founding Principal, Vice President and President).

1980-1981 - Member of the Economic Evaluation Directorate, The Aerospace Corporation, Washington, D.C. office.

1977-1980 - Economist, Washington, D.C. consulting firm.

1972-1977 - Research/Teaching Assistant and Instructor, Department of Economics, University of Maryland (College Park). Lecturer in Business and Economics, Montgomery College.

#### Professional Work Experience:

Mr. Kahal has more than thirty years experience managing and conducting consulting assignments relating to public utility economics and regulation. In 1981, he and five colleagues founded the firm of Exeter Associates, Inc. and for the next 20 years he served as a Principal and corporate officer in the firm. During that time, he supervised multi-million dollar support contracts with the State of Maryland and directed the technical work conducted both by Exeter professional staff and

numerous subcontractors. Additionally, Mr. Kahal took the lead role at Exeter in consulting to the firm's other governmental and private clients in the areas of financial analysis, utility mergers, electric restructuring and utility purchase power contracts.

At the Aerospace Corporation, Mr. Kahal served as an economic consultant to the Strategic Petroleum Reserve (SPR). In that capacity he participated in a detailed financial assessment of the SPR, and developed an econometric forecasting model of U.S. petroleum industry inventories. That study has been used to determine the extent to which private sector petroleum stocks can be expected to protect the U.S. from the impacts of oil import interruptions.

Before entering consulting, Mr. Kahal held faculty positions with the Department of Economics at the University of Maryland and with Montgomery College teaching courses on economic principles, business and economic development.

#### **Publications and Consulting Reports:**

<u>Projected Electric Power Demands of the Baltimore Gas and Electric Company</u>, Maryland Power Plant Siting Program, 1979.

<u>Projected Electric Power Demands of the Allegheny Power System</u>, Maryland Power Plant Siting Program, January 1980.

An Econometric Forecast of Electric Energy and Peak Demand on the Delmarva Peninsula, Maryland Power Plant Siting Program, March 1980 (with Ralph E. Miller).

A Benefit/Cost Methodology of the Marginal Cost Pricing of Tennessee Valley Authority Electricity, prepared for the Board of Directors of the Tennessee Valley Authority, April 1980.

An Evaluation of the Delmarva Power and Light Company Generating Capacity Profile and Expansion Plan, (Interim Report), prepared for the Delaware Office of the Public Advocate, July 1980, (with Sharon L. Mason).

Rhode Island-DOE Electric Utilities Demonstration Project, Third Interim Report on Preliminary Analysis of the Experimental Results, prepared for the Economic Regulatory Administration, U.S. Department of Energy, July 1980.

<u>Petroleum Inventories and the Strategic Petroleum Reserve</u>, The Aerospace Corporation, prepared for the Strategic Petroleum Reserve Office, U.S. Department of Energy, December 1980.

<u>Alternatives to Central Station Coal and Nuclear Power Generation</u>, prepared for Argonne National Laboratory and the Office of Utility Systems, U.S. Department of Energy, August 1981.

"An Econometric Methodology for Forecasting Power Demands," <u>Conducting Need-for-Power Review for Nuclear Power Plants</u> (D.A. Nash, ed.), U.S. Nuclear Regulatory Commission, NUREG-0942, December 1982.

State Regulatory Attitudes Toward Fuel Expense Issues, prepared for the Electric Power Research Institute, July 1983, (with Dale E. Swan).

"Problems in the Use of Econometric Methods in Load Forecasting," <u>Adjusting to Regulatory</u>, <u>Pricing and Marketing Realities</u> (Harry Trebing, ed.), Institute of Public Utilities, Michigan State University, 1983.

<u>Proceedings of the Maryland Conference on Electric Load Forecasting</u>, (editor and contributing author), Maryland Power Plant Siting Program, PPES-83-4, October 1983.

"The Impacts of Utility-Sponsored Weatherization Programs: The Case of Maryland Utilities," (with others), in <u>Government and Energy Policy</u> (Richard L. Itteilag, ed.), 1983.

<u>Power Plant Cumulative Environmental Impact Report</u>, contributing author, (Paul E. Miller, ed.) Maryland Department of Natural Resources, January 1984.

<u>Projected Electric Power Demands for the Potomac Electric Power Company</u>, three volumes with Steven L. Estomin), prepared for the Maryland Power Plant Siting Program, March 1984.

"An Assessment of the State-of-the-Art of Gas Utility Load Forecasting," (with Thomas Bacon, Jr. and Steven L. Estomin), published in the <u>Proceedings of the Fourth NARUC Biennial Regulatory Information Conference</u>, 1984.

"Nuclear Power and Investor Perceptions of Risk," (with Ralph E. Miller), published in <u>The Energy Industries in Transition: 1985-2000</u> (John P. Weyant and Dorothy Sheffield, eds.), 1984.

The Financial Impact of Potential Department of Energy Rate Recommendations on the Commonwealth Edison Company, prepared for the U.S. Department of Energy, October 1984.

"Discussion Comments," published in <u>Impact of Deregulation and Market Forces on Public Utilities: The Future of Regulation</u> (Harry Trebing, ed.), Institute of Public Utilities, Michigan State University, 1985.

An Econometric Forecast of the Electric Power Loads of Baltimore Gas and Electric Company, two volumes (with others), prepared for the Maryland Power Plant Siting Program, 1985.

A Survey and Evaluation of Demand Forecast Methods in the Gas Utility Industry, prepared for the Public Utilities Commission of Ohio, Forecasting Division, November 1985, (with Terence Manuel).

A Review and Evaluation of the Load Forecasts of Houston Lighting & Power Company and Central Power & Light Company -- Past and Present, prepared for the Texas Public Utility Commission, December 1985, (with Marvin H. Kahn).

<u>Power Plant Cumulative Environmental Impact Report for Maryland</u>, principal author of three of the eight chapters in the report (Paul E. Miller, ed.), PPSP-CEIR-5, March 1986.

"Potential Emissions Reduction from Conservation, Load Management, and Alternative Power," published in <u>Acid Deposition in Maryland</u>: A Report to the Governor and General Assembly, Maryland Power Plant Research Program, AD-87-1, January 1987.

<u>Determination of Retrofit Costs at the Oyster Creek Nuclear Generating Station</u>, March 1988, prepared for Versar, Inc., New Jersey Department of Environmental Protection.

Excess Deferred Taxes and the Telephone Utility Industry, April 1988, prepared on behalf of the National Association of State Utility Consumer Advocates.

<u>Toward a Proposed Federal Policy for Independent Power Producers</u>, comments prepared on behalf of the Indiana Consumer Counselor, FERC Docket EL87-67-000, November 1987.

Review and Discussion of Regulations Governing Bidding Programs, prepared for the Pennsylvania Office of Consumer Advocate, June 1988.

A Review of the Proposed Revisions to the FERC Administrative Rules on Avoided Costs and Related Issues, prepared for the Pennsylvania Office of Consumer Advocate, April 1988.

Review and Comments on the FERC NOPR Concerning Independent Power Producers, prepared for the Pennsylvania Office of Consumer Advocate, June 1988.

The Costs to Maryland Utilities and Ratepayers of an Acid Rain Control Strategy -- An Updated Analysis, prepared for the Maryland Power Plant Research Program, October 1987, AD-88-4.

"Comments," in New Regulatory and Management Strategies in a Changing Market Environment (Harry M. Trebing and Patrick C. Mann, editors), Proceedings of the Institute of Public Utilities Eighteenth Annual Conference, 1987.

Electric Power Resource Planning for the Potomac Electric Power Company, prepared for the Maryland Power Plant Research Program, July 1988.

<u>Power Plant Cumulative Environmental Impact Report for Maryland</u> (Thomas E. Magette, ed.) authored two chapters, November 1988, PPRP-CEIR-6.

Resource Planning and Competitive Bidding for Delmarva Power & Light Company, October 1990, prepared for the Maryland Department of Natural Resources (with M. Fullenbaum).

<u>Electric Power Rate Increases and the Cleveland Area Economy</u>, prepared for the Northeast Ohio Areawide Coordinating Agency, October 1988.

An Economic and Need for Power Evaluation of Baltimore Gas & Electric Company's Perryman Plant, May 1991, prepared for the Maryland Department of Natural Resources (with M. Fullenbaum).

The Cost of Equity Capital for the Bell Local Exchange Companies in a New Era of Regulation, October 1991, presented at the Atlantic Economic Society 32nd Conference, Washington, D.C.

A Need for Power Review of Delmarva Power & Light Company's Dorchester Unit 1 Power Plant, March 1993, prepared for the Maryland Department of National Resources (with M. Fullenbaum)

The AES Warrior Run Project: Impact on Western Maryland Economic Activity and Electric Rates, February 1993, prepared for the Maryland Power Plant Research Program (with Peter Hall).

An Economic Perspective on Competition and the Electric Utility Industry, November 1994. Prepared for the Electric Consumers' Alliance.

<u>PEPCO's Clean Air Act Compliance Plan: Status Report, prepared for the Maryland Power Plant Research Plan, January 1995 (w/Diane Mountain, Environmental Resources Management, Inc.).</u>

The FERC Open Access Rulemaking: A Review of the Issues, prepared for the Indiana Office of Utility Consumer Counselor and the Pennsylvania Office of Consumer Advocate, June 1995.

A Status Report on Electric Utility Restructuring: Issues for Maryland, prepared for the Maryland Power Plant Research Program, November 1995 (with Daphne Psacharopoulos).

Modeling the Financial Impacts on the Bell Regional Holding Companies from Changes in Access Rates, prepared for MCI Corporation, May 1996.

The CSEF Electric Deregulation Study: Economic Miracle or the Economists' Cold Fusion?, prepared for the Electric Consumers' Alliance, Indianapolis, Indiana, October 1996.

Reducing Rates for Interstate Access Service: Financial Impacts on the Bell Regional Holding Companies, prepared for MCI Corporation, May 1997.

The New Hampshire Retail Competition Pilot Program: A Preliminary Evaluation, July 1997, prepared for the Electric Consumers' Alliance (with Jerome D. Mierzwa).

Electric Restructuring and the Environment: Issue Identification for Maryland, March 1997, prepared for the Maryland Power Plant Research Program (with Environmental Resource Management, Inc.)

<u>An Analysis of Electric Utility Embedded Power Supply Costs</u>, prepared for Power-Gen International Conference, Dallas, Texas, December 1997.

Market Power Outlook for Generation Supply in Louisiana, December 2000, prepared for the Louisiana Public Service Commission (with others).

A Review of Issues Concerning Electric Power Capacity Markets, prepared for the Maryland Power Plant Research Program, December 2001 (with B. Hobbs and J. Inon).

The Economic Feasibility of Air Emissions Controls at the Brandon Shores and Morgantown Coal-fired Power Plants, February 2005, (prepared for the Chesapeake Bay Foundation).

The Economic Feasibility of Power Plant Retirements on the Entergy System, September 2005 with Phil Hayet (prepared for the Louisiana Public Service Commission).

Expert Report on Capital Structure, Equity and Debt Costs, prepared for the Edmonton Regional Water Customers Group, August 30, 2006.

Maryland's Options to Reduce and Stabilize Electric Power Prices Following Restructuring, with Steven L. Estomin, prepared for the Power Plant Research Program, Maryland Department of Natural Resources, September 2006.

Expert Report of Matthew I. Kahal, on behalf of the U. S. Department of Justice, August 2008, Civil Action No. IP-99-1693C-MIS.

#### **Conference and Workshop Presentations:**

Workshop on State Load Forecasting Programs, sponsored by the Nuclear Regulatory Commission and Oak Ridge National Laboratory, February 1982 (presentation on forecasting methodology).

Fourteenth Annual Conference of the Michigan State University Institute for Public Utilities, December 1982 (presentation on problems in forecasting).

Conference on Conservation and Load Management, sponsored by the Massachusetts Energy Facilities Siting Council, May 1983 (presentation on cost-benefit criteria).

Maryland Conference on Load Forecasting, sponsored by the Maryland Power Plant Siting Program and the Maryland Public Service Commission, June 1983 (presentation on overforecasting power demands).

The 5th Annual Meetings of the International Association of Energy Economists, June 1983 (presentation on evaluating weatherization programs).

The NARUC Advanced Regulatory Studies Program (presented lectures on capacity planning for electric utilities), February 1984.

The 16th Annual Conference of the Institute of Public Utilities, Michigan State University (discussant on phase-in and excess capacity), December 1984.

U.S. Department of Energy Utilities Conference, Las Vegas, Nevada (presentation of current and future regulatory issues), May 1985.

The 18th Annual Conference of the Institute of Public Utilities, Michigan State University, Williamsburg, Virginia, December 1986 (discussant on cogeneration).

The NRECA Conference on Load Forecasting, sponsored by the National Rural Electric Cooperative Association, New Orleans, Louisiana, December 1987 (presentation on load forecast accuracy).

The Second Rutgers/New Jersey Department of Commerce Annual Conference on Energy Policy in the Middle Atlantic States, Rutgers University, April 1988 (presentation on spot pricing of electricity).

The NASUCA 1988 Mid-Year Meeting, Annapolis, Maryland, June 1988, sponsored by the National Association of State Utility Consumer Advocates (presentation on the FERC electricity avoided cost NOPRs).

The Thirty Second Atlantic Economic Society Conference, Washington, D.C., October 1991 (presentation of a paper on cost of capital issues for the Bell Operating Companies).

The NASUCA 1993 Mid-Year Meeting, St. Louis, Missouri, sponsored by the National Association of State Utility Consumer Advocates, June 1993 (presentation on regulatory issues concerning electric utility mergers).

The NASUCA and NARUC annual meetings in New York City, November 1993 (presentations and panel discussions on the emerging FERC policies on transmission pricing).

The NASUCA annual meetings in Reno, Nevada, November 1994 (presentation concerning the FERC NOPR on stranded cost recovery).

U.S. Department of Energy Utilities/Energy Management Workshop, March 1995 (presentation concerning electric utility competition).

The 1995 NASUCA Mid-Year Meeting, Breckenridge, Colorado, June 1995, (presentation concerning the FERC rulemaking on electric transmission open access).

The 1996 NASUCA Mid-Year Meeting, Chicago, Illinois, June 1996 (presentation concerning electric utility merger issues).

Conference on "Restructuring the Electric Industry," sponsored by the National Consumers League and Electric Consumers Alliance, Washington, D.C., May 1997 (presentation on retail access pilot programs).

The 1997 Mid-Atlantic Conference of Regulatory Utilities Commissioners (MARUC), Hot Springs, Virginia, July 1997 (presentation concerning electric deregulation issues).

Power-Gen '97 International Conference, Dallas, Texas, December 1997 (presentation concerning utility embedded costs of generation supply).

Consumer Summit on Electric Competition, sponsored by the National Consumers League and Electric Consumers' Alliance, Washington, D.C., March 2001 (presentation concerning generation supply and reliability).

National Association of State Utility Consumer Advocates, Mid-Year Meetings, Austin, Texas, June 16-17, 2002 (presenter and panelist on RTO/Standard Market Design issues).

Louisiana State Bar Association, Public Utility Section, October 2, 2002. (Presentation on Performance-Based Ratemaking and panelist on RTO issues). Baton Rouge, Louisiana.

Virginia State Corporation Commission/Virginia State Bar, Twenty Second National Regulatory Conference, May 10, 2004. (Presentation on Electric Transmission System Planning.) Williamsburg, Virginia.

	Subject	Economic Impacts of Proposed Rate Increase	Load Forecasting	Test Year Sales and Revenues	Test Year Sales, Revenues, Costs and Load Forecasts	Time-of-Use Pricing	Load Forecasting, Marginal Cost pricing	am Load Forecasting	am Need for Plant, Load Forecasting	PURPA Standards	Time-of-Use Pricing	Time-of-Use Rates	am Load Forecasting, Load Management	PURPA Standards	Rate of Return	Rate of Return, CWIP
प्र र	Client	Nassau & Suffolk	MD Power Plant Siting Program	Ohio Consumers' Counsel	Attorney General	League of Women Voters	Office of Consumer Advocate	MD Power Plant Siting Program	MD Power Plant Siting Program	Commission Staff	Commission Staff	Commission Staff	MD Power Plant Siting Program	Division of Public Utilities	Office of Consumer Advocate	U.S. Department of Defense
Expert Testimony of Matthew I. Kahal	Jurisdiction	New York Counties	Maryland	Ohio	Alabama	TVA Board	Pennsylvania	Maryland	Maryland	Maryland	Maryland	West Virginia	Maryland	Rhode Island	Pennsylvania	Illinois
	Utility	Long Island Lighting Company	Generic	Ohio Power Company	Alabama Power Company	Tennessee Valley Authority	West Penn Power Company	Potomac Edison Company	Delmarva Power & Light Company	Potomac Electric Power Company	Baltimore Gas & Electric	Monongahela Power	Potomac Edison Company	Blackstone Valley Electric and Narragansett	Pennsylvania Bell	Illinois Power Company
	Docket Number	27374 & 27375 October 1978	6807 January 1978	78-676-EL-AIR February 1 <i>9</i> 78	17667 May 1979	None April 1980	R-80021082	7259 (Phase I) October 1980	7222 December 1980	7441 June 1981	7159 May 1980	81-044-E-42T	7259 (Phase II) November 1981	1606 September 1981	RID 1819 April 1982	82-0152 July 1982
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			Expert Testimony of Matthew I. Kahal		
Doc	Docket Number	Utility	Jurisdiction	Client	Subject
7559 Septe	7559 September 1982	Potomac Edison Company	Maryland	Commission Staff	Cogeneration
820 Sep	820150-EU September 1982	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return, CWIP
82 Jan	82-057-15 January 1983	Mountain Fuel Supply Company	Utah	Federal Executive Agencies	Rate of Retum, Capital Structure
5200 Augus	5200 August 1983	Texas Electric Service Company	Texas	Federal Executive Agencies	Cost of Equity
28069 August	28069 August 1983	Oklahoma Natural Gas	Oklahoma	Federal Executive Agencies	Rate of Retum, deferred taxes, capital structure, attrition
83- Fet	83-0537 February 1984	Commonwealth Edison Company	Illinois	U.S. Department of Energy	Rate of Return, capital structure, financial capability
-45 m	84-035-01 June 1984	Utah Power & Light Company	Utah	Federal Executive Agencies	Rate of Return
p g	U-1009-137 July 1984	Utah Power & Light Company	Idaho	U.S. Department of Energy	Rate of Return, financial condition
R-8	R-842590 August 1984	Philadelphia Electric Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
840 Au	840086-EI August 1984	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return, CWIP
-84 Au	84-122-E August 1984	Carolina Power & Light Company	South Carolina	South Carolina Consumer Advocate	Rate of Return, CWIP, load forecasting
0 0 0	CGC-83-G & CGC-84-G October 1984	Columbia Gas of Ohio	Ohio	Ohio Division of Energy	Load forecasting
% Q	R-842621 October 1984	Western Pennsylvania Water Company	Pennsylvania	Office of Consumer Advocate	Test year sales
R-8 Jan	R-842710 January 1985	ALLTEL Pennsylvania Inc.	Pennsylvania	Office of Consumer Advocate	Rate of Return
Feb Feb	ER-504 February 1985	Allegheny Generating Company	FERC	Office of Consumer Advocate	Rate of Return
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	Subject	Rate of Relum, conservation, time-of-use rates	Rate of Return, incentive rates, rate base	Interest rates on refunds	Rate of Return, CWIP in rate base	Rate of Return, capital Structure	Rate of Return	Rate of Return, financial conditions	Power supply costs and models	Rate of Return	Rate of Return	Rate of Return, financial condition	Rate of Return	Rate of Return, rate phase-in plan	Generation capacity planning, purchased power contract	Rate of Return	
	Client	Office of Consumer Advocate	U.S. Department of Energy	Delaware Commission Staff	Oklahoma Attorney General	Division of Public Utilities	Office of Consumer Advocate	Office of Consumer Advocate	U.S. Department of Energy	PA Office of Consumer Advocate	Office of Consumer Advocate	Division of Public Utilities	Ohio Consumers' Counsel	Public Service Commission	Commission Staff	Louisiana PSC	
Expert Testimony of Matthew I. Kahal	Jurisdiction	Pennsylvania	Illinois	Delaware	Oklahoma	Rhode Island	Pennsylvania	Pennsylvania	Idaho	FERC .	Pennsylvania	Rhode Island	Ohio	Louisiana	Maryland	FERC	
	Utility	West Penn Power Company	Commonwealth Edison Company	Generic	Oklahoma Gas & Electric Company	Bristol County Water Company	Quaker State & Continental Telephone Companies	Philadelphia Suburban Water Company	Idaho Power Company	Allegheny Generating Company	National Fuel Gas Distribution Corp.	Blackstone Valley Electric	East Ohio Gas Company	Louisiana Power & Light Company	Potomac Electric Power Company	System Energy Resources and Middle South Services	
	Docket Number	R-842632 March 1985	83-0537 & 84-0555 April 1985	Rulemaking Docket No. 11, May 1985	29450 July 1985	1811 August 1985	R-850044 & R-850045 August 1985	R-850174 November 1985	U-1006-265 March 1986	EL-86-37 & EL-86-38 September 1986	R-850287 June 1986	1849 August 1986	86-297-GA-AIR November 1986	U-16945 December 1986	Case No. 7972 February 1987	EL-86-58 & EL-86-59 March 1987	
	·	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	42.	43.	4,	45.	

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	Subject	Rate of Return	Revenue requirement update phase-in plan	Cogeneration contract	Rate of Return	Rate of Retum	Cogeneration/small power	Rate of Return	Financial condition	Rate of Return, phase-in	Economics of power plant site selection	Cogeneration economics	Rate of Return	Merger economics	Financial projections	Rate of Return	12
Ī	Client	PA Office of Consumer Advocate	Commission Staff	Office of Consumer Advocate	Ohio Consumers' Counsel	Ohio Consumers' Counsel	Commission Staff	Commission Staff	Resorts International	Federal Executive Agencies	Power Plant Research Program	Smith Cogeneration	Indiana Utility Consumer Counselor	Nucor Steel	Federal Executive Agencies	Office of Consumer Advocate	
Expert Testimony of Matthew I. Kahal	Jurisdiction	FERC	Louisiana	Pennsylvania	Ohio	Ohio	Delaware	Rhode Island	New Jersey	Texas	Maryland	Oklahoma	FERC	FERC	Illinois	Pennsylvania	
	Utility	Orange & Rockland	Louisiana Power & Light Company	Pennsylvania Electric Company	Cleveland Electric Illuminating Company	Toledo Edison Company	Delmarva Power & Light Company	Newport Electric Company	Atlantic City Sewerage Company	West Texas Utilities Company	Potomac Electric Power Company	Oklahoma Gas & Electric Company	Panhandle Eastem Pipe Line Company	Utah Power & Light Co. PacifiCorp	Commonwealth Edison Company	Philadelphia Suburban Water Company	
	Docket Number	ER-87-72-001 April 1987	U-16945 April 1987	P-870196 May 1987	86-2025-EL-AIR June 1987	86-2026-EL-AIR June 1987	87-4 June 1987	1872 July 1987	WO 8606654 July 1987	7510 August 1987	8063 Phase I October 1987	00439 November 1987	RP-87-103 February 1988	EC-88-2-000 February 1988	87-0427 February 1988	870840 February 1988	
		46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	. 59.	-09	

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			of Matthew I. Kahal		
	Docket Number	Utility	Jurisdiction	Client	Subject
61.	870832 March 1988	Columbia Gas of Pennsylvania	Pennsylvania	Office of Consumer Advocate	Rate of Return
62.	8063 Phase II July 1988	Potomac Electric Power Company	Maryland	Power Plant Research Program	Power supply study
63.	8102 July 1988	Southern Maryland Electric Cooperative	Maryland	Power Plant Research Program	Power supply study
64.	10105 August 1988	South Central Bell Telephone Co.	Kentucky	Attorney General	Rate of Return, incentive regulation
65.	00345 August 1988	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Need for power
.99	U-17906 September 1988	Louisiana Power & Light Company	Louisiana	Commission Staff	Rate of Return, nuclear power costs Industrial contracts
.19	88-170-EL-AIR October 1988	Cleveland Electric Illuminating Co.	Ohio	Northeast-Ohio Areawide Coordinating Agency	Economic impact study
	1914 December 1988	Providence Gas Company	Rhode Island	Commission Staff	Rate of Return
.69	U-12636 & U-17649 February 1989	Louisiana Power & Light Company	Louisiana	Commission Staff	Disposition of litigation proceeds
70.	00345 February 1989	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Load forecasting
71.	RP88-209 March 1989	Natural Gas Pipeline of America	FERC	Indiana Utility Consumer Counselor	Rate of Return
72.	8425 March 1989	Houston Lighting & Power Company	Texas	U.S. Department of Energy	Rate of Return
73.	EL89-30-000 April 1989	Central Illinois Public Service Company	FERC	Soyland Power Coop, Inc.	Rate of Return
74.	R-891208 May 1989	Pennsylvania American Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return

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	Subject	Rate of Return	Rate of Return	Sales forecasting	Emissions Controls	Rate of Return, DSM, off- system sales, incentive regulation	Excess deferred income tax	Rate of Return	Rate of Return	Financial impacts (surrebuttal only)	Rate of Return	Rate of Return	Rate of Return	Avoided Cost	Need for Power
	Client	Citizens Utility Board	Federal Executive Agencies	Office of Consumer Advocate	Depart. Natural Resources	Utility Consumer Counselor	NA	Utility Consumer Counselor	PA Office of Consumer Advocate	PA Office of Consumer Advocate	Indiana Utility Consumer Counselor	Louisiana Public Service Commission	PA Office of Consumer Advocate	Depart. Natural Resources	Smith Cogeneration Mgmt.
Expert Testimony of Matthew I. Kahal	Jurisdiction	Illinois	Florida	Pennsylvania	Maryland	Indiana	U.S. House of Reps. Comm. on Ways & Means	Indiana	FERC	Pennsylvania	FERC	FERC	FCC	Maryland	Oklahoma
	Utility	Illinois Bell Telephone Company	Gulf Power Company	National Fuel Gas Distribution Company	Potomac Electric Power Company	Public Service Company of Indiana	Generic	Indiana Michigan Power Company	National Fuel Gas Supply Corporation	Philadelphia Electric Company	Trunkline Gas Company	System Energy Resources, Inc.	Bell Atlantic	Potomac Edison Company	Public Service Company of Oklahoma
,	Docket Number	89-0033 May 1989	881167-EI May 1989	R-891218 July 1989	8063, Phase III Sept. 1989	37414-S2 October 1989	October 1989	38728 November 1989	RP89-49-000 December 1989	R-891364 December 1989	RP89-160-000 January 1990	EL90-16-000 November 1990	89-624 March 1990	8245 March 1990	000586 March 1990
		75.	76.	77.	78.	79.	80.	81.	82.	83.	<u>%</u>	85.	86.	87.	<u> </u>

		Expert Testimony		
Docket Number	Utility	Jurisdiction	Client	Subject
38868 March 1990	Indianapolis Water Company	Indiana	Utility Consumer Counselor	Rate of Return
1946 March 1990	Blackstone Valley Electric Company	Rhode Island	Division of Public Utilities	Rate of Return
000776 April 1990	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration Mgmt.	Need for Power
890366 May 1990, December 1990	Metropolitza Edison Company	Pennsylvania	Office of Consumer Advocate	Competitive Bidding Program Avoided Costs
EC-90-10-000 May 1990	Northeast Utilities	FERC	Maine PUC, <u>et al</u> .	Merger, Market Power, Transmission Access
ER-891109125 July 1990	Jersey Central Power & Light	New Jersey	Rate Counsel	Rate of Return
R-901670 July 1990	National Fuel Gas Distribution Corp.	Pennsylvania	Office of Consumer Advocate	Rate of Retum Test year sales
8201 October 1990	Delmarva Power & Light Company	Maryland	Depart, Natural Resources	Competitive Bidding, Resource Planning
EL90-45-000 April 1991	Entergy Services, Inc.	FERC	Louisiana PSC	Rate of Return
GR90080786J January 1991	New Jersey Natural Gas	New Jersey	Rate Counsel	Rate of Return
90-256 January 1991	South Central Bell Telephone Company	Kentucky	Attorney General	Rate of Return
U-17949A February 1991	South Central Bell Telephone Company	Louisiana	Louisiana PSC	Rate of Return
ER90091090J April 1991	Atlantic City Electric Company	New Jersey	Rate Counsel	Rate of Return
8241, Phase I April 1991	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	Environmental controls
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,	Subject	Need for Power, Resource Planning	Rate of Return, rate base, financial planning	Purchased power contract and related ratemaking	Purchased power contract and related ratemaking	Rate of Return	Rate of Retum	Capacity transfer	Rate of Retum	Rate of Return	Rate of Return	Rate of Return	Rate of Return	Rate of Return	Cogeneration contracts
0.y. hal	Client	Dept. of Natural Resources	Utility Consumer Counselor	Office of Consumer Advocate	Office of Consumer Advocate	Rate Counsel	U.S. Dept. of Energy	Louisiana PSC	Attorney General	Louisiana PSC Staff	Louisiana PSC Staff	Rate Counsel	Rate Counsel	Rate Counsel	Office of Consumer Advocate
Expert Testimony of Matthew I. Kahal	Jurisdiction	Maryland	Indiana	Pennsylvania	Pennsylvania	New Jersey	Nevada	FERC	Oklahoma	Louisiana	Louisiana	New Jersey	New Jersey	New Jersey	Pennsylvania
	Utility	Baltimore Gas & Electric Company	Indianapolis Water Company	Duquesne Light Company	Metropolitan Edison Company Pennsylvania Electric Company	Elizabethtown Gas Company	Nevada Power Company	Entergy Services	Southwestern Bell Telephone	Arkansas Louisiana Gas Company	Louisiana Gas Service Company	Rockiand Electric Company	South Jersey Gas Company	New Jersey Natural Gas Company	Pennsylvania Electric Company
	Docket Number	8241, Phase II May 1991	39128 May 1991	P-900485 May 1991	G900240 P910502 May 1991	GR901213915 May 1991	91-5032 August 1991	EL90-48-000 November 1991	000662 September 1991	U-19236 October 1991	U-19237 December 1991	ER91030356J October 1991	GR91071243J February 1992	GR91081393J March 1992	P-870235 <u>et al.</u> March 1992
i		103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.	115.	116.

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	Subject	IPP purchased power contracts	Least-cost planning Need for power	Rate of Return	Rate of Return	Rate of Return	Rate of Return	Rate of Return	Rate of Return	Rate of Return	Merger Impacts (Affidavit)	Rate of Return	Merger analysis, competition competition issues	QF contract evaluation	Power Supply Clause
	Client	Dept. of Natural Resources	Utility Consumer Counselor	Office of Consumer Advocate	Rate Counsel	PSC Staff	Rate Counsel	Office of Consumer Advocate	Committee of Consumer Services	Attorney General	Louisiana PSC	Louisiana PSC	Staff	Dept. of Natural Resources	Federal Executive Agencies
Expert Testimony of Matthew I. Kahal	<u>Jurisdiction</u>	Maryland	Indiana	Pennsylvania	New Jersey	Louisiana	New Jersey	Pennsylvania	Utah	Virginia	FERC	FERC	Louisiana	Maryland	Idaho
	Utility	Potomac Electric Power Company	Indianapolis Power & Light Company	Equitable Gas Company	Public Service Electric & Gas Company	Trans Louisiana Gas Company	Jersey Central Power & Light Company	Metropolitæn Edison Company	US West Communications	Commonwealth Gas Company	Entergy Services, Inc.	System Energy Resources	Louisiana Power & Light Company	Baltimore Gas & Electric Company	Idaho Power Company
; ;	Docket Number	8413 March 1992	39236 March 1992	R-912164 April 1992	ER-91111698J May 1992	U-19631 June 1992	ER-91121820J July 1992	R-00922314 August 1992	92-049-05 September 1992	92PUE0037 September 1992	EC92-21-000 September 1992	ER92-341-000 December 1992	U-19904 November 1992	8473 November 1992	IPC-E-92-25 January 1993
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	Subject	Rate of Return	QF contracts prudence and procurements practices	Merger Issues	Power Plant Certification	Rate of Return	Rate of Return	Rate of Return, Financial Projections, Bell/TCI merger	Rate of Return	Competitive Bidding for Power Supplies	Rate of Return	Rate of Return	Price Cap Regulation Fuel Costs	Rate of Return	Rate of Return	Rate of Return	
	Client	Attorney General	Staff.	Louisiana PSC	Dept. of Natural Resources	Federal Executives Agencies	Division of Public Utilities	Office of Consumer Advocate	Office of Consumer Advocate	Dept. of Natural Resources	Attorney General	МСІ Сопип. Согр.	Advocacy Staff	Federal Executive Agencies	Federal Excoutive Agencies	Rate Counsel	
Expert Testimony of Matthew I. Kahal	Jurisdiction	Minnesota	Maine	FERC	Maryland	Texas	Rhode Island	Pennsylvania	Pennsylvania	Maryland	Minnesota	FCC	Maine	Nevada	Illinois	New Jersey	
	Utility	Northern States Power Company	Central Maine Power Company	Entergy Corporation	Delmarva Power & Light Company	Texas Electric Utilities Company	Providence Gas Company	Bell Telephone Company of Pennsylvania	Pennsylvania-American Water Company	Conowingo Power Company	Minnesota Power & Light Company	Generic Telephone	Central Maine Power Company	Nevada Power Company	Commonwealth Edison Company	South Jersey Gas Company	
	Docket Number	E002/GR-92-1185 February 1993	92-102, Phase II March 1992	EC92-21-000 March 1993	8489 March 1993	11735 April 1993	2082 May 1993	P-00930715 December 1993	R-00932670 February 1994	8583 February 1994	E-015/GR-94-001 April 1994	CC Docket No. 94-1 May 1994	92-345, Phase II June 1994	93-11065 April 1994	94-0065 May 1994	GR94010002J June 1994	
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	Subject	Rate of Return	Environmental Externalities (oral testimony only)	Rate of Return	Rate of Return, Emission Allowances	Rate of Return	Merger Savings and Allocations	Rate of Return	Rate of Return (Rebuttal Only)	Incentive Plan True-Ups	Rate of Return Industrial Contracts Trust Fund Earnings	Rate of Return	Electric Competition Incentive Regulation (oral only)	Rate of Return Nuclear decommissioning Capacity Issues	Class Cost of Service Issues	
	Client	Rate Counsel	Customer Group	Boston Edison Company	Office of Consumer Advocate	Attomey General	Utility Consumer Counsel	Federal Executive Agencies	Regional Customer Group	Attorney General	PSC Staff	Consumer Advocate	Dept. Natural Resources	Consumer Advocate	Commission Staff	
Expert Testimony of Matthew I. Kahal	Jurisdiction	New Jersey	FERC	FERC	Pennsylvania	Kentucky	Indiana	Idaho	Alberta, Canada	Kentucky	Louisiana	Pennsylvania	Maryland	Pennsylvania	Louisiana	
	Utility	New Jersey-American Water Company	Tennessee Gas Pipeline Company	Ocean State Power	West Penn Power Company	South Central Bell Telephone Company	PSI Energy, Inc.	Idaho Power Company	Edmonton Water	South Central Bell Telephone Company	Louisiana Power & Light Company	Pennsylvania-American Water Company	Generic	Pennsylvania Pow <del>a</del> & Light Company	Louisiana Power & Light Company	
	Docket Number	WR94030059 July 1994	RP91-203-000 June 1994	ER94-998-000 July 1994	R-00942986 July 1994	94-121 August 1994	35854-S2 November 1,994	IPC-E-94-5 November 1,994	November 1994	90-256 December 1994	U-20925 February 1995	R-00943231 February 1995	8678 March 1995	R-000943271 April 1995	U-20925 May 1995	
		146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	156.	157.	158.	159.	

			Expert Testimony of Matthew I. Kahal		
	Docket Number	Utility	Jurisdiction	Client	Subject
160.	2290 June 1995	Narragansett Electric Company	Rhode Island	Division Staff	Rate of Retum
161.	U-17949E June 1995	South Central Bell Telephone Company	Louisiana	Commission Staff	Rate of Return
162.	2304 July 1995	Providence Water Supply Board	Rhode Island	Division Staff	Cost recovery of Capital Spending Program
163.	ER95-625-000 <u>et al.</u> August 1995	PSI Energy, Inc.	FERC	Office of Utility Consumer Counselor	Rate of Return
164.	P-00950915 <u>et al.</u> September 1995	Paxton Creek Cogeneration Assoc.	Pennsylvania	Office of Consumer Advocate	Cogeneration Contract Amendment
165.	8702 September 1995	Potomac Edison Company	Maryland	Dept. of Natural Resources	Allocation of DSM Costs (oral only)
166.	ER95-533-001 September 1995	Ocean State Power	FERC	Boston Edison Co.	Cost of Equity
167.	40003 November 1995	PSI Energy, inc.	Indiana	Utility Consumer Counselor	Rate of Return Retail wheeling
168.	P-55, SUB 1013 January 1996	BeilSouth	North Carolina	AT&T	Rate of Return
169.	P-7, SUB 825 January 1996	Carolina Tel.	North Carolina	AT&T	Rate of Return
170.	February 1996	Generic Telephone	FCC	MCI	Cost of capital
171.	95A-531EG April 1996	Public Service Company of Colorado	Colorado	Federal Executive Agencies	Merger issues
172.	ER96-399-000 May 1996	Northern Indiana Public Service Company	FERC	Indiana Office of Utility Consumer Counselor	Cost of capital
173.	8716 June 1996	Delmarva Power & Light Company	Maryland	Dept. of Natural Resources	DSM programs
174.	8725 July 1996	BGE/PEPCO	Maryland	Md. Energy Admin.	Merger Issues
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			Expert Testimony of Matthew I. Kahal		
	Docket Number	Utility	Jurisdiction	Client	Subject
175.	U-20925 August 1996	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Rate of Return Allocations Fuel Clause
176.	EC96-10-000 September 1996	BGE/PEPCO	FERC	Md. Energy Admin.	Merger issues competition
177.	EL95-53-000 November 1996	Entergy Services, Inc.	FERC	Louisiana PSC	Nuclear Decommissioning
178.	WR96100768 March 1997	Consumers NJ Water Company	New Jersey	Ratepayer Advocate	Cost of Capital
179.	WR96110818 April 1997	Middlesex Water Co.	New Jersey	Ratepayer Advocate	Cost of Capital
180.	U-11366 April 1997	Ameritech Michigan	Michigan	MCI	Access charge reform/financial condition
181.	97-074 May 1997	BellSouth	Kentucky	MCI	Rate Rebalancing financial condition
182.	2540 June 1997	New England Power	Rhode Island	PUC Staff	Divestiture Plan
183.	96-336-TP-CSS June 1997	Ameritech Ohio	Ohio	MCI	Access Charge reform Economic impacts
184.	WR97010052 July 1997	Maxim Sewerage Corp.	New Jersey	Ratepayer Advocate	Rate of Return
185.	97-300 August 1997	LG&E/KU	Kentucky	Attorney General	Merger Plan
186.	Case No. 8738 August 1997	Generic (oral testimony only)	Maryland	Dept. of Natural Resources	Electric Restructuring Policy
187.	Docket No. 2592 September 1997	Eastern Utilities	Rhode Island	PUC Staff	Generation Divestiture
188.	Case No.97-247 September 1997	Cincinnati Bell Telephone	Kentucky	MCI	Financial Condition

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			Expert Testimony		
			or Matthew I. Kahal		
	Docket Number	<u>Utility</u>	Jurisdiction	Client	Subject
189.	Docket No. U-20925 November 1997	Entergy Louisiana	Louisiana	PSC Staff	Rate of Return
190.	Docket No. D97.7.90 November 1997	Montana Power Co.	Montana	Montana Consumers Counsel	Stranded Cost
191.	Docket No. E097070459 November 1997	Jersey Central Power & Light Co.	New Jerscy	Ratepayer Advocate	Stranded Cost
192.	Docket No. R-00974104 November 1997	Duquesne Light Co.	Pennsylvania	Office of Consumer Advocate	Stranded Cost
193.	Docket No. R-00973981 November 1997	West Penn Power Co.	Pennsylvania	Office of Consumer Advocate	Stranded Cost
194.	Docket No. A-1101150F0015 Allegheny Power System November 1997 DQE, Inc.	Allegheny Power System DQE, Inc.	Pennsylvania	Office of Consumer Advocate	Merger Issues
195.	Docket No. WR97080615 January 1998	Consumers NJ Water Company	New Jersey	Ratepayer Advocate	Rate of Return
196.	Docket No. R-00974149 January 1998	Pennsylvania Power Company	Pennsylvania	Office of Consumer Advocate	Stranded Cost
197.	Case No. 8774 January 1998	Allegheny Power System DQE, Inc.	Maryland	Dept. of Natural Resources MD Energy Administration	Merger Issues
198.	Docket No. U-20925 (SC) March 1998	Entergy Louisiana, Inc.	Louisiana	Commission Staff	Restructuring, Stranded Costs, Market Prices
199.	Docket No. U-22092 (SC) March 1998	Entergy Gulf States, Inc.	Louisiana	Commission Staff	Restructuring, Stranded Costs, Market Prices
200.	Dooket Nos. U-22092 (SC) and U-20925(SC) May 1998	Entergy Gulf States and Entergy Louisiana	Louisiana	Commission Staff	Standby Rates
201.	Docket No. WR98010015 May 1998	NJ American Water Co.	New Jerscy	Ratepayer Advocate	Rate of Return
202.	Case No. 8794 December 1998	Baltimore Gas & Electric Co.	Maryland	MD Energy Admin/Dept. Of Natural Resources	Stranded Cost/ Transition Plan

			Expert Testimony of Matthew I. Kahal		
	Docket Number	Utility	Jurisdiction	Client	Subject
203.	Case No. 8795 December 1998	Delmarva Power & Light Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan
204.	Case No. 8797 January 1998	Potomac Edison Co.	Maryland	MD Energy Admin/Dept. Of Natural Resources	Stranded Cost/ Transition Plan
205.	Docket No. WR98090795 March 1999	Middlesex Water Co.	New Jersey	Ratepayer Advocate	Rate of Return
206.	Docket No. 99-02-05 April 1999	Connecticut Light & Power	Connecticut	Attorney General	Stranded Costs
207.	Docket No. 99-03-04 May 1999	United Illuminating Company	Connecticut	Attorney General	Stranded Costs
208.	Docket No. U-20925 (FRP) June 1999	Entergy Louisiana, Inc.	Louisiana	Staff	Capital Structure
209.	Docket No. EC-98-40-000, <u>et al.</u> May 1999	American Electric Power/ Central & Southwest	FERC	Arkansas PSC	Market Power Mitigation
210.	Docket No. 99-03-35 July 1999	United Illuminating Company	Connecticut	Attorney General	Restructuring
211.	Docket No. 99-03-36 July 1999	Connecticut Light & Power Co.	Connecticut	Attorney General	Restructuring
212.	WR99040249 Oct. 1999	Environmental Disposal Corp.	New Jersey	Ratepayer Advocate	Rate of Return
213.	2930 Nov. 1999	NBES/EUA	Rhode Island	Division Staff	Merger/Cost of Capital
214.	DE99-099 Nov. 1999	Public Service New Hampshire	New Hampshire	Consumer Advocate	Cost of Capital Issues
215.	00-01-11 Feb. 2000	Con Ed/NU	Connecticut	Attorney General	Merger Issues
216.	Case No. 8821 May 2000	Reliant/ODEC	Maryland	Dept. of Natural Resources	Need for Power/Plant Operations

			Expert Testimony of Matthew I. Kahal		
	Docket Number	Utility	Jurisdiction	Client	Subject
217.	Case No. 8738 July 2000	Generic	Maryland	Dept. of Natural Resources	DSM Funding
218.	Case No. U-23356 June 2000	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Fuel Prudence Issues Purchased Power
219.	Case No. 21453, <u>et al</u> July 2000	SWEPCO	Louisiana	PSC Staff	Stranded Costs
220.	Case No. 20925 (B) July 2000	Entergy Louisiana	Louisiana	PSC Staff	Purchase Power Contracts
221.	Case No. 24889 August 2000	Entergy Louisiana	Louisiana	PSC Staff	Purchase Power Contracts
222.	Case No. 21453, <u>et al.</u> February 2001	CLECO	Louisiana	PSC Staff	Stranded Costs
223.	P-00001860 and P-0000181 March 2001	GPU Companies	Pennsylvania	Office of Consumer Advocate	Rate of Return
224.	CVOL-0505662-S March 2001	ConEd/NU	Connecticut Superior Court	Attorney General	Merger (Affidavit)
225.	U-20925 (SC) March 2001	Entergy Louisiana	Louisiana	PSC Staff	Stranded Costs
226.	U-22092 (SC) March 2001	Entergy Gulf States	Louisiana	PSC Staff	Stranded Costs
227.	U-25533 May 2001	Entergy Louisiana/ Gulf States	Louisiana Interruptible Service	PSC Staff	Purchase Power
228.	P-00011872 May 2001	Pike County Pike	Pennsylvania	Office of Consumer Advocate	Rate of Return
229.	8893 July 2001	Baltimore Gas & Electric Co.	Maryland	MD Energy Administration	Corporate Restructuring
230.	8890 September 2001	Potomac Electric/Connectivity	Maryland	MD Energy Administration	Merger Issues

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	Docket Number	Utility	Jurisdiction	Client	Subject
231.	U-25533 August 2001	Entergy Louisiana / Gulf States	Louisiana	Staff	Purchase Power Contracts
232.	U-25965 November 2001	Generic	Louisiana	Staff	RTO Issues
233.	3401 March 2002	New England Gas Co.	Rhode Island	Division of Public Utilities	Rate of Return
234.	99-833-M.R April 2002	Illinois Power Co.	U.S. District Court	U.S. Department of Justice	New Source Review
235.	U-25533 March 2002	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Nuclear Uprates Purchase Power
236.	P-00011872 May 2002	Pike County Power & Light	Pennsylvania	Consumer Advocate	POLR Service Costs
237.	U-26361, Phase I May 2002	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Purchase Power Cost Allocations
238.	R-00016849C001 et al. June 2002	Generic	Pennsylvania	Pennsylvania OCA	Rate of Return
239.	U-26361, Phase II July 2002	Entergy Louisiana/ Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contracts
240.	U-20925(B) August 2002	Entergy Louisiana	Louisiana	PSC Staff	Tax Issues
241.	U-26531 October 2002	SWEPCO	Louisiana	PSC Staff	Purchase Power Contract
242.	8936 October 2002	Delmarva Power & Light	Maryland	Energy Administration Dept. Natural Resources	Standard Offer Service
243.	U-25965 November 2002	SWEPCO/AEP	Louisiana	PSC Staff	RTO Cost/Benefit
244.	8908 Phase I November 2002	Generic	Maryland	Energy Administration Dept. Natural Resources	Standard Offer Service
245.	02S-315EG November 2002	Public Service Company of Colorado	Colorado	Fed. Executive Agencies	Rate of Return
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			Expert Testimony of Matthew I. Kahal	X nal	
Docket Number Utility	Utility		<u>Jurisdiction</u>	Client	Subject
EL02-111-000 December 2002	PJM/MISO		FERC	MD PSC	Transmission Ratemaking
02-0479 Commonwealth February 2003 Edison	Commonweal Edison	ŧ.	Illinois	Dept. of Energy	POLR Service
PL03-1-000 Generic March 2003	Generic		FERC	NASUCA	Transmission Pricing (Affidavit)
U-27136 Entergy Louisiana April 2003	Entergy Louis	iana	Louisiana	Staff	Purchase Power Contracts
8908 Phase II Generic July 2003	Generic		Maryland	Energy Administration Dept. of Natural Resources	Standard Offer Service
U-27192 Entergy Louisiana June 2003 and Gulf States	Entergy Louis and Gulf Sta	iiana tes	Louisiana	LPSC Staff	Purchase Power Contract Cost Recovery
C2-99-1181 Ohio Edison Company October 2003	Ohio Edison (	Ompany	U.S. District Court	U.S. Department of Justice, <u>et al</u> .	Clean Air Act Compliance Economic Impact (Report)
RP03-398-000 Northern Natural Gas Co. December 2003	Northern Natu	ral Gas Co.	FERC	Municipal Distributors Group/Gas Task Force	Rate of Return
8738 Generic December 2003	Generic		Maryland	Energy Admin Department of Natural Resources	Environmental Disclosure (oral only)
U-27136 Entergy Louisiana, Inc. December 2003	Entergy Louis	iana, Inc.	Louisiana	PSC Staff	Purchase Power Contracts
U-27192, Phase II Entergy Louisiana & October/December 2003 Entergy Gulf States	Entergy Louis Entergy Gulf	siana & States	Louisiana	PSC Staff	Purchase Power Contracts
WC Docket 03-173 Generic December 2003	Generic		FCC	MCI	Cost of Capital (TELRIC)
ER 030 20110 Atlantic City Electric January 2004	Atlantic City	Electric	New Jersey	Ratepayer Advocate	Rate of Return
E-01345A-03-0437 Arizona Pub January 2004	Arizona Pub	Arizona Public Service Company	Arizona	Federal Executive Agencies	Rate of Return
03-10001 Nevada Power Company January 2004	Nevada Powe	r Company	Nevada	U.S. Dept. of Energy	Rate of Return
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		Subject	Rate of Retum	Rate of Return Capacity Resources	Purchase Power Contract	Purchase Power Contract	Purchase Power Contract	Rate of Return	Power plant Purchase and Cost Recovery	Global Scitlement, Multiple rate proceedings	Securitization of Deferred Costs	POLR Service	QF Contract	QF Contract	Rate of Return	POLR Service	Independent Coordinator of Transmission Plan
, xux	<u>ahal</u>	Client	Office of Consumer Advocate	PSC Staff	PSC Staff	PSC Staff	PSC Staff	Municipal Distributors Group/Gas Task Force	PSC Staff	PSC Staff	Ratepayers Advocate	Department of Energy	LPSC Staff	LPSC Staff	Federal Executive Agencies	MD. Energy Administration	LPSC Staff
Expert Testimony	of Matthew I. Kahal	Jurisdiction	Pennsylvania	Louisiana	Louisiana	Louisiana	Louisiana	FERC	Louisiana	Louisiana	New Jersey	Illinois	Louisiana	Louisiana	Florida	Maryland	Louisiana
		Utility	PPL Elec. Utility	Entergy Louisiana, Inc.	Southwest Electric Power Co.	Cleco Power	Entergy Louisiana, Inc. Entergy Gulf States	Northem Natural Gas Company	Entergy Louisiana/ Gulf States	Entergy Gulf States/ Louisiana	Public Service Electric & Gas	Commonwealth Edison	Entergy Louisiana	Entergy Gulf States	Florida Power & Lt.	Generic	Entergy Louisiana Entergy Gulf States
		Docket Number	R-00049255 June 2004	U-20925 July 2004	U-27866 September 2004	U-27980 September 2004	U-27865 October 2004	RP04-155 December 2004	U-27836 January 2005	U-199040 et al. February 2005	EF03070532 March 2005	05-0159 June 2005	U-28804 June 2005	U-28805 June 2005	05-0045-EI June 2005	9037 July 2005	U-28155 August 2005
			261.	262.	263.	264.	265.	266.	267.	268.	269.	270.	271.	272.	273.	274.	275.

			Expert Testimony of Matthew I. Kahal	r al	
	Docket Number	Utility	<u>Jurisdiction</u>	Client	Subject
291.	R-000061366 July 2006	Metropolitan Ed. Company Penn. Electric Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
292.	9064 September 2006	Generic	Maryland	Energy Administration	Standard Offer Service
293.	U-29599 September 2006	Cleco Power LLC	Louisiana	Commission Staff	Purchase Power Contracts
294.	WR060302 <i>57</i> September 2006	New Jersey American Water Company	New Jersey	Rate Counsel	Rate of Return
295.	U-27866/U-29702 October 2006	Southwestern Electric Power Company	Louisiana	Commission Staff	Purchase Power/Power Plant Certification
296.	9063 October 2006	Generic	Maryland	Energy Administration Department of Natural Resources	Generation Supply Policies
297.	EM06090638 November 2006	Atlantic City Electric	New Jersey	Rate Counsel	Power Plant Sale
298.	C-2000065942 November 2006	Pike County Light & Power	Pennsylvania	Consumer Advocate	Generation Supply Service
299.	ER06060483 November 2006	Rockland Electric Company	New Jersey	Rate Counsel	Rate of Return
300.	A-110150F0035 December 2006	Duquesne Light Company	Pennsylvania	Consumer Advocate	Merger Issues
301.	U-29203, Phase II January 2007	Entergy Gulf States Entergy Louisiana	Louisiana	Commission Staff	Storm Damage Cost Allocation
302.	06-11022 February 2007	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return
303.	U-29526 March 2007	Cleco Power	Louisiana	Commission Staff	Affiliate Transactions
304.	P-00072245 March 2007	Pike County Light & Power	Pennsylvania	Consumer Advocate	Provider of Last Resort Service
305.	P-00072247 March 2007	Duquesne Light Company	Pennsylvania	Consumer Advocate	Provider of Last Resort Service
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			expert Testimony of Matthew I. Kahal	र <u>ब</u>	
	Docket Number	Utility	Jurisdiction	Client	Subject
306.	EM07010026 May 2007	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Power Plant Sale
307.	U-30050 June 2007	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contract
308.	U-29956 June 2007	Entergy Louisiana	Louisiana	Commission Staff	Black Start Unit
309.	U-29702 June 2007	Southwestern Electric Power Company	Louisiana	Commission Staff	Power Plant Certification
310.	U-29955 July 2007	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contracts
311.	2007-67 July 2007	FairPoint Communications	Maine	Office of Public Advocate	Merger Financial Issues
312.	P-00072259 July 2007	Metropolitan Edison Co.	Pennsylvania	Office of Consumer Advocate	Purchase Power Contract Restructuring
313.	EO07040278 September 2007	Public Service Electric & Gas	New Jersey	Rate Counsel	Solar Energy Program Financial Issues
314.	U-30192 September 2007	Entergy Louisiana	Louisiana	Commission Staff	Power Plant Certification Ratemaking, Financing
315.	9117 (Phase II) October 2007	Generic (Electric)	Maryland	Energy Administration	Standard Offer Service Reliability
316.	U-30050 November 2007	Entergy Gulf States	Louisiana	Commission Staff	Power Plant Acquisition
317.	IPC-E-07-8 December 2007	Idaho Power Co.	Idaho	U.S. Department of Energy	Cost of Capital
318.	U-30422 (Phase I) January 2008	Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contract
319.	U-29702 (Phase II) February, 2008	Southwestern Electric Power Co.	Louisiana	Commission Staff	Power Plant Certification
320.	March 2008	Delmarva Power & Light	Delaware State Senate	Senate Committee	Wind Energy Economics
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Docket Number Utility	Utility		Jurisdiction	Client	Subject
U-30192 (Phase II) Entergy Louisiana March 2008	Entergy Louisiana		Louisiana	Commission Staff	Cash CWIP Policy, Credit Ratings
U-30422 (Phase II) Entergy Gulf States - LA April 2008	Entergy Gulf States - LA		Louisiana	Commission Staff	Power Plant Acquisition
U-29955 (Phase II) Entergy Gulf States - LA April 2008 Entergy Louisiana	Entergy Gulf States - L.A Entergy Louisiana		Louisiana	Commission Staff	Purchase Power Contract
GR-070110889 New Jersey Natural Gas April 2008 Company	New Jersey Natural Gas Company		New Jersey	Rate Counsel	Cost of Capital
WR-08010020 New Jersey American July 2008 Water Company	New Jersey American Water Company		New Jersey	Rate Counsei	Cost of Capital
U-28804-A Entergy Louisiana August 2008	Entergy Louisiana		Louisiana	Commission Staff	Cogeneration Contract
IP-99-1693C-M/S Duke Energy Indiana August 2008	Duke Energy Indiana		Federal District Court	U.S. Department of Justice/ Environmental Protection Agency	Clean Air Act Complance (Expert Report)
U-30670 Entergy Louisiana September 2008	Entergy Louisiana		Louisiana	Commission Staff	Nuclear Plant Equipment Replacement
9149 Generic October 2008	Generic		Maryland	Department of Natural Resources	Capacity Adequacy/Reliability
IPC-E-08-10 Idaho Power Company October 2008	Idaho Power Company		Idaho	U.S. Department of Energy	Cost of Capital
U-30727 Cleco Power LLC October 2008	Cleco Power LLC		Louisiana	Commission Staff	Purchased Power Contract
U-30689-A Cleco Power LLC December 2008	Cleco Power LLC		Louisiana	Commission Staff	Transmission Upgrade Project
IP-99-1693C-M/S Duke Energy Indiana February 2009	Duke Encrgy Indiana		Federal District Court	U.S. Department of Justice/EPA	Clean Air Act Complance (Oral Testimony)
U-30192, Phase II Entergy Louisiana, LLC February 2009	Entergy Louisiana, LLC		Louisiana	Commission Staff	CWIP Rate Request Plant Allocation
U-28805-B Entergy Gulf States, LLC February 2009	Entergy Gulf States, LLC		Louisiana	Commission Staff	Cogeneration Contract
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Docket Number	<u>nber</u>	<u>Utility</u>	Jurisdiction	Client	Subject
U-31196 (ITA February 2010	U-31196 (ITA Phase) February 2010	Entergy Louisiana	Louisiana	Staff	Purchase Power Contract
ER09080668 March 2010	99 0:	Rockland Electric	New Jersey	Rate Counsel	Rate of Return
GR10010035 May 2010	335	South Jersey Gas Co.	New Jersey	Rate Counsel	Rate of Return
P-2010-2157862 May 2010	57862	Pennsylvania Power Co.	Pennsylvania	Consumer Advocate	Default Service Program
10-CV-2275 June 2010	75	Xeel Energy	U.S. District Court Minnesota	U.S. Dept. Justice/EPA	Clean Air Act Enforcement
WR09120987 June 2010	)987 )	United Water New Jersey	New Jersey	Rate Counsel	Rate of Return
U-30192, Phase III June 2010	Phase III	Entergy Louisiana	Louisiana	Staff	Power Plant Cancellation Costs
31299 July 2010		Cleco Power	Louisiana	Staff	Securities Issuances
App. No. July 2010	App. No. 1601162 July 2010	EPCOR Water	Alberta, Canada	Regional Customer Group	Cost of Capital
U-31196 July 2010		Entergy Louisiana	Louisiana	Staff	Purchase Power Contract
2:10-CV-13101 August 2010	-13101 010	Detroit Edison	U.S. District Court Eastern Michigan	U.S. Dept. of Justice/EPA	Clean Air Act Enforcement
U-31196 August 2010	010	Entergy Louisiana Entergy Gulf States	Louisiana	Staff	Generating Unit Purchase and Cost Recovery
Case No. 9233 October 2010	9233 2010	Potomac Edison Company	Maryland	Energy Administration	Merger Issues
2010-2194652 November 2010	4652 rr 2010	Pike County Light & Power	Pennsylvania	Consumer Advocate	Default Service Plan

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	Docket Number	Utility	Jurisdiction	Client	Subject
365.	2010-2213369 April 2011	Duquesne Light Company	Pennsylvania	Consumer Advocate	Merger Issues
366.	U-31841 May 2011	Entergy Gulf States	Louisiana	Staff	Purchase Power Agreement
367.	11-06006 September 2011	Nevada Power	Nevada	U. S. Department of Energy	Cost of Capital
368.	9271 September 2011	Exelon/Constellation	Maryland	MD Energy Administration	Merger Savings
369.	4255 September 2011	United Water Rhode Island	Rhode Island	Division of Public Utilities	Rate of Return
370.	P-2011-2252042 October 2011	Pike County Light & Power	Pennsylvania	Consumer Advocate	Default service plan
371.	U-32095 November 2011	Southwestern Electric Power Company	Louisiana	Commission Staff	Wind energy contract
372.	U-32031 November 2011	Entergy Gulf States Louisiana	Louisiana	Commission Staff	Purchased Power Contract
373.	U-32088 January 2012	Entergy Louisiana	Louisiana	Commission Staff	Coal plant evaluation
374.	R-2011-2267958 February 2012	Aqua Pa.	Pennsylvania	Office of Consumer Advocate	Cost of capital
375.	P-2011-2273650 February 2012	FirstEnergy Companies	Pennsylvania	Office of Consumer Advocate	Default service plan
376.	U-32223 March 2012	Cleco Power	Louisiana	Commission Staff	Purchase Power Contract and Rate Recovery
377.	U-32148 March 2012	Entergy Louisiana Energy Gulf States	Louisiana	Commission Staff	RTO Membership
378.	ER11080469 April 2012	Atlantic City Electric	New Jersey	Rate Counsel	Cost of capital
379.	R-2012-2285985 May 2012	Peopies Natural Gas Company	Pennsylvania	Office of Consumer Advocate	Cost of capital
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	of Subject	on Staff Environmental Compliance Plan	on Staff Cost of equity (gas)	artment of Energy Rate of retum	on Staff Power Plant Joint Ownership	rdment of Energy Rate of Return	f Public Utilities Rate of Return (electric and gas)	f Public Utilities Debt issue	sel Cost of capital	sel Cost of capital	Office of Consumer Advocate Cost of capital	nn Staff Formula Rate Plan	Service PJM Market Impacts (deposition)	sel Solar Tracker ROE	sel Solar Tracker ROE
Expert Testimony of Matthew I. Kahal	Jurisdiction	Louisiana Commission Staff	Louisiana Commission Staff	Missouri U. S. Department of Energy	Louisiana Commission Staff	Missouri U.S. Department of Energy	Rhode Island Division of Public Utilities and Carriers	Rhode Island Division of Public Utilities and Carriers	New Jersey Rate Counsel	New Jersey Rate Counsel	Pennsylvania Office of Consume	Louisiana Commission Staff	Federal District MD Public Service Court Commission	New Jersey Rate Counsel	New Jersey Rate Counsel
Expert Tes of Matthew	Jurisdiction	Louisiana	ates									.Ç.	Federal District Court		
	Utility	Cleco Power	Entergy Gulf States Louisiana LLC	Kansas City Power & Light Company	Entergy Louisiana/ Entergy Gulf States	KCP&L Greater Missouri Operations	Narragansett Electric Company	Narragansett Electric Company	New Jersey Natural Gas Company	South Jersey Gas Company	Columbia Gas of Pennsylvania	Southwestern Electric Power Co.	PPL et al.	Public Service Electric & Gas	Public Service Electric & Gas
	Docket Number	U-32153 July 2012	U-32435 August 2012	ER-2012-0174 August 2012	U-31196 August 2012	ER-2012-0175 August 2012	4323 August 2012	D-12-049 October 2012	GO12070640 October 2012	GO12050363 November 2012	R-2012-2321748 January 2013	U-32220 February 2013	CV No. 12-1286 February 2013	EO12080721 March 2013	EO12080726 March 2013
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