Seattle City Light
Rates Advisory Committee

Responses to Questions from the October 6, 2009 RAC meeting timeframe

Councilmember Harrell's press release

At the October 6 RAC meeting, Rod Kauffman introduced Councilmember Harrell's press release about the Mayor's rate proposal and SCL's proposed budget. Sung Yang had a response and Rod asked that this response be written up.

Sung's response (paraphrased) – Councilmember Harrell's observation on the SCL budget appearing larger in 2010 is accurate. It has to do with the estimated size of Purchased Power Cost which is large for purposes of flexibility. The cuts in O&M were made as stated. A new budget with a lower estimated size of Purchased Power Cost will be submitted which will result in a budget about 1% lower rather than 3.5% higher than the endorsed 2010 budget.

Question 1

What is the impact of borrowing costs if the debt service coverage is changed to 1.6? (Paula, you provided an answer on the 1.6 coverage before, but the question is different than the one you answered. Rod is asking if we set the policy to 1.6 [I assume without a PRAM] what would our borrowing cost be compared to our 2.0 policy)

Response:

City Light is hopeful, and has a reasonable basis to believe that there will be no change in borrowing costs if debt service coverage is changed to 1.6 in 2010 (and increased to 1.7 in 2011 and 1.8 in 2012) and a PRAM is adopted. We believe we have a good case to make to the rating agencies that this those revised financial policies provide as much or more protections to bondholders that they will be paid their principal and interest payments on a timely basis as do the current financial policies.

If instead debt service coverage were reduced to 1.6 prospectively without the concurrent adoption of a PRAM or another similarly effective measure to address the revenue volatility that City Light current faces, then there would be adverse consequences to the utility's credit rating and borrowing costs. City Light would almost certainly face a rating downgrade. The bond market will note that the Seattle City government did not adhere to its stated financial policies in 2009; did not pass or even consider a rate increase as City Light financials deteriorated, in spite of assurances made to the bond rating agencies in late 2008 that such consideration would take place. If the downgrade were to the "A" level, City Light would face higher borrowing costs of 0.60 to 1.25% (depending on bond market conditions at the time of issuance). These higher borrowing costs would have rate impacts as documented in the handout provided at RAC meeting 4. Further, there is an additional risk that City Light could face even higher borrowing costs, or no bond market access at all, if once at the "A" rating level, there were further adverse consequences that City Light faced that would precipitate a further ratings downgrade. In other words, the "AA" rating provides a margin that provides greater assurance that City Light can withstand other financial shocks that it may face in the future, and still have access to the bond market to fund capital projects.

Question 2

Can we raise a cash reserve of $80-100 million by a bond issue?

Response:

By way of background, City Light currently has a $25 million contingency fund that can be drawn down in any year where City Light's cash from operations is forecast to be negative. The size of the contingency fund is currently inadequate allow City Light to maintain some degree of stable operations in the event of a significant downturn in wholesale revenues, as was the case in 2009. City Light believes a reserve fund would need to be substantially larger to absorb the volatility in wholesale revenues, such as that we have experienced in 2009 (where wholesale revenues are $70 million lower than planned).

The optimal size of a reserve fund that protects against volatility in wholesale revenue depends on the following:

- City Light's risk tolerance (i.e. current risk tolerance is 95% confidence of positive Cash From Operations)
- The mechanism in which a reserve fund will be refunded when it is depleted
    a. A smaller reserve balance is needed if the reserve fund is refilled within 12 months upon depletion (as compared to say 24 months).

It may be possible to establish a reserve fund as part of the 2010 Bond Issue. However, at this time it is still uncertain if these options would be available. City Light is currently looking into the following options:

- Directly Funding the Reserve Fund with 2010 bond proceeds
    - Would need to specify this use of bond proceeds in the bond ordinance.
- Reimburse City Light's Operating Fund for historical capital expenditures that were not funded through previous bond proceeds

For a reserve fund to be effective in 2010, City Light cannot fund a reserve fund with 2010 Operating Cash. This is because, due to wholesale revenue volatility, it is uncertain if there will be Operating Cash available in 2010 for such purposes. It is not recommended that such a method be used to establish a larger reserve fund.

Other Potential Funding Options:

- Borrow from the City Cash Pool
    - Repay with Cash from Operations over 1 to 3 years.
- Issue a Revenue Anticipation Note
    - Repay with Cash From Operations over 1 to 3 years
- Transfer all proceeds in the Operating Fund into a Reserve Fund at the beginning of 2010
    - This would provide roughly $30 million for a total beginning reserve fund of $55 million
    - Would want to increase the 2010 Bond Issue amount by roughly $30 million
- Some combination of the above

Question 3

Provide a better understanding of current capital needs and those needs over a 5-year horizon.

Response:

The graph and spreadsheet below provide an overview of City Light spending trends over the last ten years (1998 to 2008) and the proposed spending in the Mayor's budget proposal. The figures presented are for spending or cash flow and are stated in constant dollars; this makes comparisons easier to make. There are two charts and a summary sheet. The summary provides a list of principal drivers of changes.

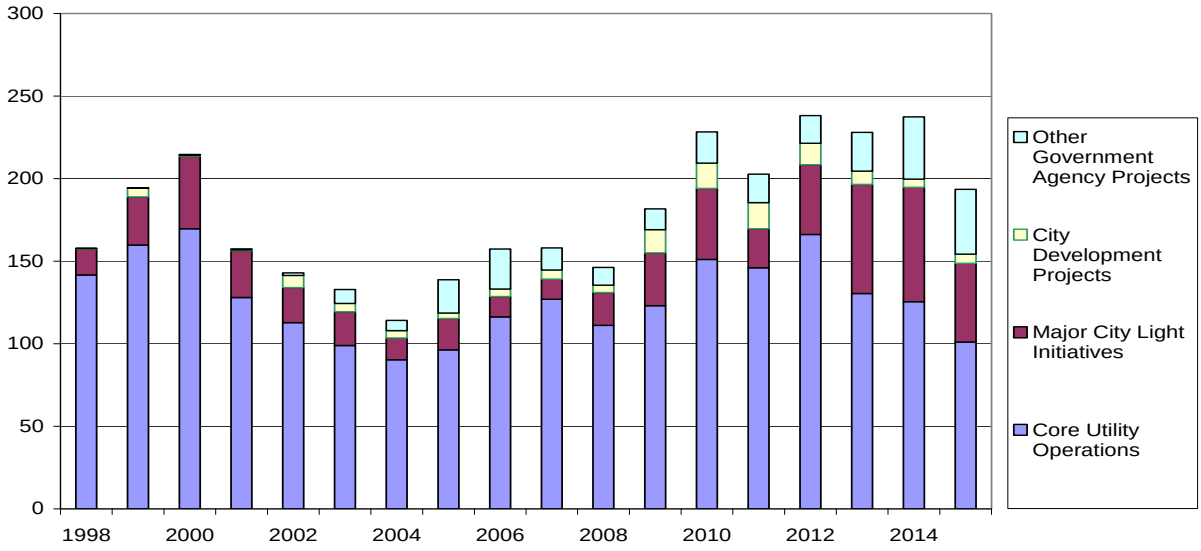
There are four major project categories:

Category	Annualized Growth Rate
City Development Projects	17.9%
Core Utility Operations	1.9%
Major City Light Initiatives	11.6%
Other Government Agency projects	15.2%

Prioritization Process:
City Light rates capital projects based on the criteria identified as the reason for performing the projects (e.g., Electrical Capacity, Customer Service). Each project is assigned to a criterion by the project manager who answers a set of questions determined by the criterion selected. Points are determined by the answers, and the total of the points is the raw score for the project. A criteria weight adjusts the raw scores to include management priorities, specifically the Utility's Mission, Vision, and Values. Questions are different for each criterion, so the questions can carefully fit the nature of the work and the types of justification appropriate for that criterion. The questions and answers were carefully reviewed with the lines of business. There was very effective discussion and the criteria definitions, questions, and answers were extensively modified and improved. The questions and answers were presented and answered on-line through the normal CIP applications. Clients enjoyed real-time calculation of scores and ranks.

City Light Historical Capital Expenditures and Proposed Spending

2009 Constant Dollars in Millions



City Light Capital Improvement Program

Budget Office, June 23, 2009

2009 Constant Dollars with loadings

	City Development Projects	Core Utility Operations	Major City Light Initiatives	Other Government Agency Projects	Total
Average Expenditures from 1998 to 2008	3,753,081	122,881,408	21,407,721	7,823,587	155,865,797
Average Planned CIP from 2009 to 2014	11,873,486	140,370,304	46,027,834	21,090,008	219,361,632
Total Percentage Increase	216.4%	14.2%	115.0%	169.6%	40.7%
Annualized Percentage Increase	17.9%	1.9%	11.6%	15.2%	5.0%

Principal Drivers of Changes

2009	2010	2011	2012	2013	2014	2015
Asset Management	Asset Management	Asset Management	Asset Management	Diablo Generator 31	Diablo Generator 32	Transformer Replacement
Sound Transit	Morse Lake Pump Service	Streetlights	Boundary Relicensing	Boundary Relicensing	Boundary Relicensing	Boundary Relicensing
Service Center Renova	Land Remediation	Laurelhurst Underground	Gorge Tunnel	Gorge Tunnel	Gorge Tunnel	Gorge Tunnel
Substation Land	Cable Injection Program	Spokane Street Exit	Boundary Generator 56	Boundary Generator 56	Boundary Generator 53	Boundary Generator 54
Ross Generator 41	Laurelhurst Underground	Boundary Generator 55	Boundary Generator 55	Distribution Automation	Distribution Automation	Distribution Automation
Outage Management	Intergate East Feeder	Intergate East Feeder	Transformer Replacement		Transformer Replacement	
	Energy Trading Software					
	Streetlights					

Drivers Influencing All Years

Cost increases in materials and contracting
Service Connections, radial and network
Capacity Additions
Equipment Replacement
Alaskan Way Viaduct Replacement
Seattle Transportation support, including relocations and streetlights
Franchise City Undergrounding: SeaTac, Shoreline, and Burien
Vehicle Replacement
Cable Injection Program
LED Streetlight Replacement

Question 4

Provide a better understanding of operations budgets 2007-12 and magnitude of recent cut backs.

Seattle City Light
Budget and Actuals by Category 2007-2010
Response to RAC Question #4

Category	2007 Actuals	2008 Actuals	2009 Adopted Budget	2010 Endorsed Budget	% Chg from 2009 Adopted	2010 Proposed Budget (less $45M)	% Chg from 2010 Endorsed
Non-Power O&M	$165,809,120	$186,177,842	$190,798,368	$199,755,259	4.7%	$191,566,147	-4.1%
Conservation (Deferred O&M)	$44,817,525	$50,746,197	$39,662,271	$42,339,724	6.8%	$42,339,724	0.0%
Power Budget ($45M Reduction)	$337,857,240	$359,603,724	$377,602,570	$408,347,129	8.1%	$363,347,129	-11.0%
CIP	$132,701,653	$160,761,751	$169,979,544	$153,860,469	-9.5%	$163,558,000	6.3%
General Expense	$58,159,428	$63,520,171	$64,478,568	$67,568,253	4.8%	$66,976,000	-0.9%
Debt & Taxes	$198,625,753	$198,033,100	$213,008,635	$218,013,162	2.3%	$219,336,000	0.6%
Total Expenditures	$937,970,719	$1,018,842,785	$1,055,529,956	$1,089,883,996	3.3%	$1,047,123,000	-3.9%

Question 5

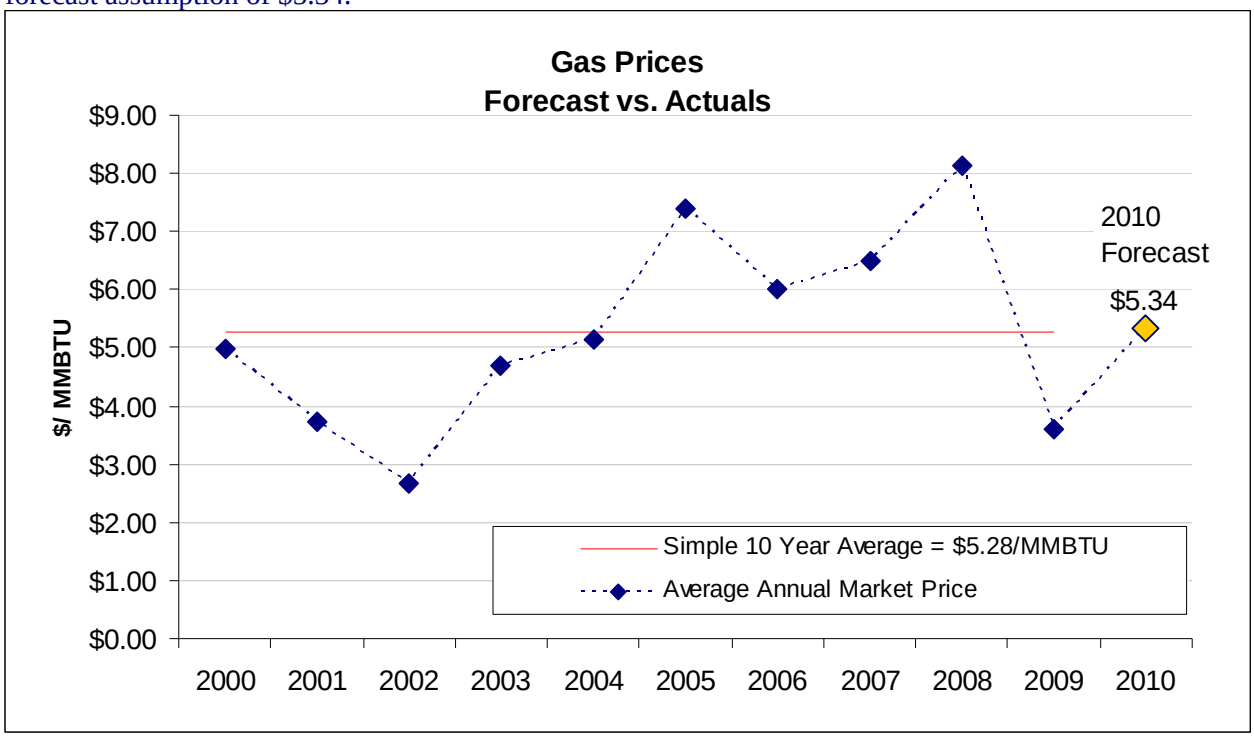
Provide an explanation of the Wholesale Power cost forecast and the natural gas price forecast. (this one is at least partially answered by the answers we brought to the 10/6 meeting, but I think they will want more and to be led through this topic)

Response:

The "Cash to Wholesale Power Sales, Net" shown in the rate study is the average of this measure over the 2001 scenarios run for the rate study. The Cash to Wholesale Power Sales, Net under any one scenario is the product of the energy delivered to (from) market under the scenario and the market price under the scenario. To capture large differences in prices by month and by time-of-day, loads and resources are differentiated by these elements of time. The amount delivered to (from) the wholesale market depends on energy delivered to customers and the energy available from hydro resources. Both of these measures are uncertain. The market price depends on the price of natural gas and the market heat rate (the price of electric energy divided by the price of natural gas). These measures are uncertain and they are not independent of the deviation in loads and resources. The wholesale revenue forecast model uses very fundamental market rules to account for the uncertainty in loads and resources and market prices. The forecast begins with assumptions about resources, average natural gas prices, and average market heat rates. Again, these values are differentiated by month and time-of day.

For the rate study, resource scenarios were taken from the City Light resource simulation model. The average price of natural gas assumed for 2010 is $5.34 per MMBtu. This is the average forward price at Sumas (a major Pacific Northwest gas trading hub) for the months 2010 as of 8-19-09, when forecast inputs were 'frozen' for the rate study. The average market heat rates are from the forward market prices observed for 2010 under what was considered a "stable" market conditions for that year. The monthly heat rate averages 8.611 MMBTU / MWh for peak hours and 6.504 MMBTU / MWh for off peak hours. This yields an average monthly market price of $47.86 / MWh for peak hours and $36.06 / MWh off peak hours.

The average price of natural gas is the single most important unknown in the forecast of Cash from Wholesale Power Sales, Net. The chart below compares the 2010 natural gas price assumption with recent market prices. $5.28 is the simple 10 year average price, which is close to the wholesale power forecast assumption of $5.34.



Question 6

- Provide a discussion of the assumptions and content behind the expense increase portion of the 'gap' calculation

Response:

The table with the cost increases in the "gap" calculation that was provided with the revenue requirements presentation at an earlier meeting is attached at the end of this document. Along with it, is a table of notes addressing each item on the table.

In addition, the paragraph below describes the escalation calculation:

"Inflation assumption from 2007-2008 as a base to 2010 is 10.66%.

We used an assumption about the Seattle CIP-W (1982-1984=100) in our calculation of 2007-2008 rates. The estimated indices for 2007-2008 were 205.688 and 211.241. The average of these indices is 208.4645. Actual indices for 2007 and 2008 turned out to be 210.266 and 219.692, respectively. The forecasts for 2009 and 2010 are 225.184 and 230.678, respectively. 230.678 divided by 208.4645 is 1.1066, subtract the 1, and the result is 10.66%."

Question 7

- Provide a view of the impacts of a lower rate increase, say 4.4%

Response:

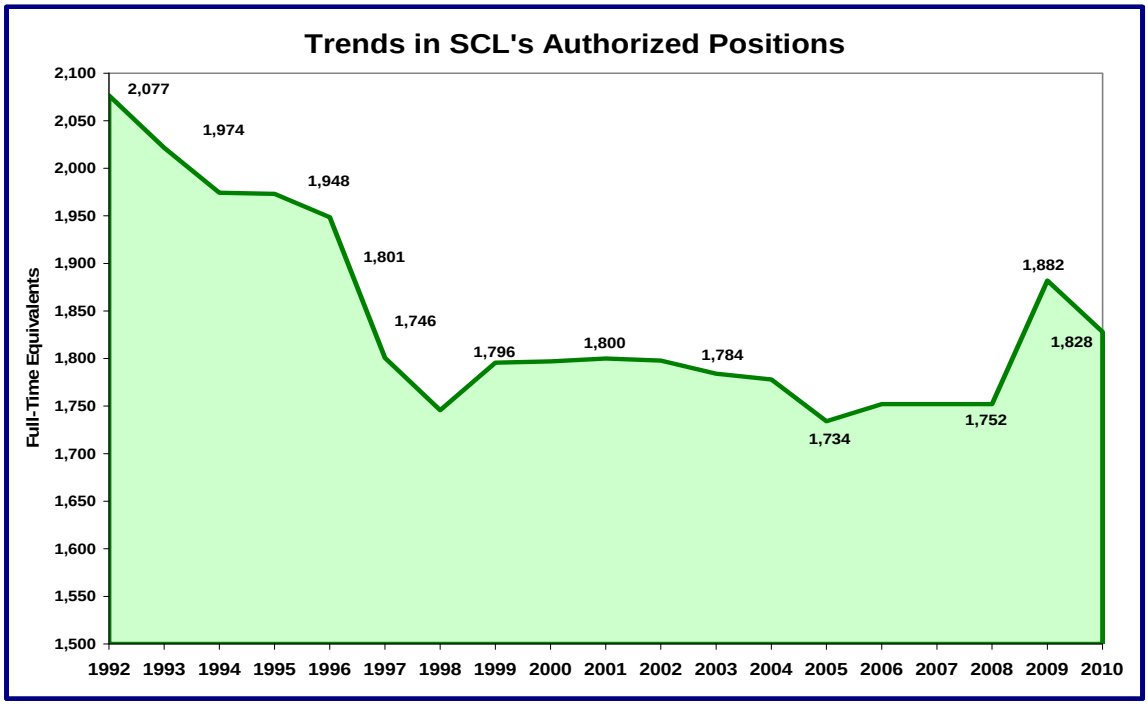
The proposed rate increase for 2010 is 8.8%. To keep debt service coverage at 1.6 and reduce the rate increase to 4.4% would require a $22.5 million reduction in the line item identified in the rate study as "Cash to Operations". This would be a 10.7 percent reduction from the $201.7 million forecast for this line item in the rate study. The impact of a reduction of this magnitude would be significant. A detailed view of the impacts cannot be known without working through the specific cuts that would be made to reduce cash to operations by this amount.

Question 8

- Discuss the impacts of a "smaller" SCL - less staff

Response:

The chart below shows staffing levels at City Light since the 1990s. The Utility currently has fewer staff than during the 1990s. Staffing has increased in recent years due to increase in skill trades staffing (line-workers) and specific Department initiatives.



The average SCL staff cost is $33 per hour with a benefit cost of approximately 36%, for a total cost of $45 per hour.

Question 9

- Provide Benchmark data from other utilities

Response:

See attached summary of benchmarking studies SCL has participated in.

Question 10

- Describe the impact/savings if the 95% supply assurance policy is lowered

Response:

As a point of reference, here is what Council Resolution 30761 adopted May 2, 2005 says about this:

"Section 8. Resource Requirement. City Light shall continue to use a 95% coverage policy in planning to serve customer load. City Light shall secure sufficient long-term power resources so there shall be a 95% probability that City Light will have sufficient power to meet its customer load in any given year and that City Light's financial risk of having to buy power on the spot market during a period when prices are escalating will be reduced."

Given City Light's power supply portfolio, lowering the 95% supply assurance policy is inadvisable since in the long run it would expose our rate payers to a greater risk of high market prices, as happened in 2000-2001.

City Light's resource portfolio is about 90% hydroelectric generation. The 95% supply assurance policy results in the utility having a large amount of surplus power to sell on the wholesale energy market under most conditions, and sizable wholesale revenues. The unpredictability in hydroelectric generation combined with uncertainty in market prices creates tremendous net wholesale revenue uncertainty. However, City Light's risk models indicate that the Utility's surplus position is an advantageous one—surplus energy provides a hedge against generation volume and price risk, because in the Pacific Northwest, as hydro conditions deteriorate, prices will often rise, helping to stabilize our wholesale revenues. Due to this correlation between hydro generation levels and prices, holding only enough hydro resources to meet demand on an average (as City Light did prior to 2002) puts the Utility in the unfavorable position of buying at high prices, and selling at low prices.

This was especially apparent during the 2000-2001 energy crisis: drought conditions left the Utility exposed to extremely high energy prices for an extended period of time, and incurred large costs as a result. Therefore, the utility and policymakers elected to take steps to become a net seller of energy in most years.

There is no immediate term impact if the 95% supply assurance policy is relaxed, as City Light has already procured energy resources to meet this requirement in the near term. In the longer term, City Light could choose to procure less resources by letting existing supply contracts lapse, and not procuring additional supply contracts as load grows, and rely on buying power on the wholesale market as it is needed.

Question 11

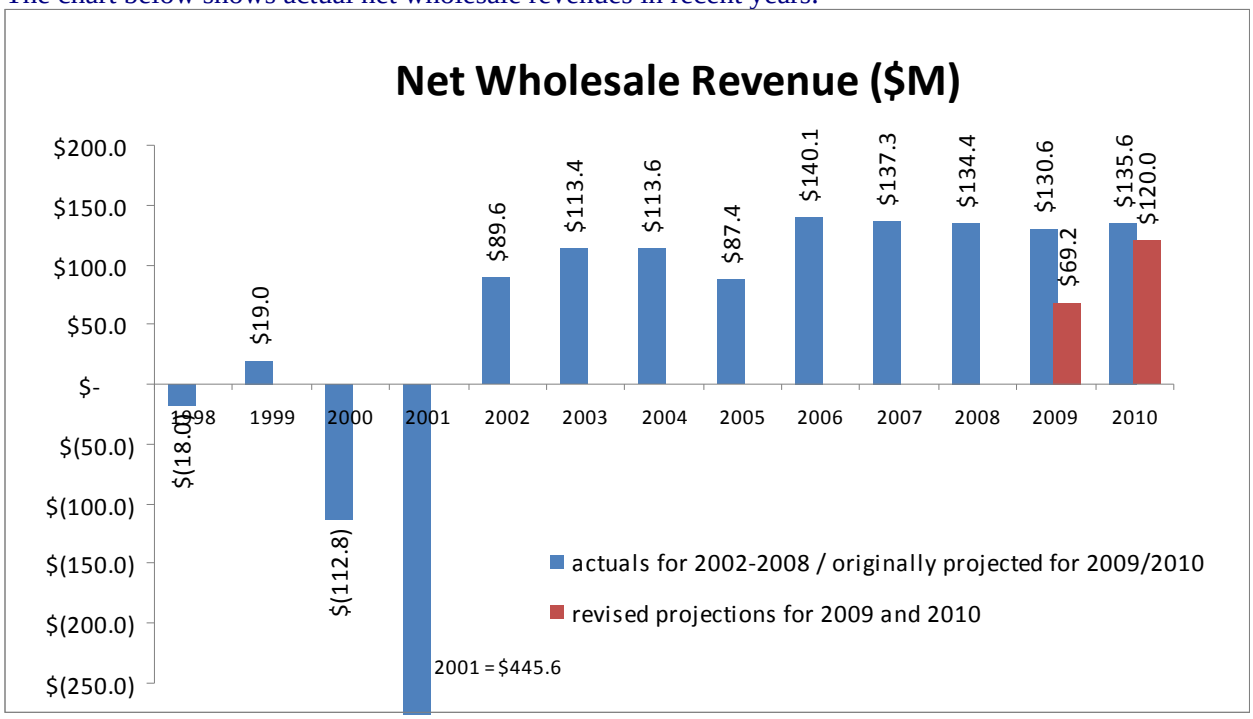
Please provide data on "what rates would have been" without the revenue from wholesale power sales in the past 5 years. My supposition is that a robust wholesale market has been a benefit to SCL customers by lowering their rates from what would have been required absent a robust revenue inflow from external sales. I am trying to get a better handle on the distribution of the risk and reward of Seattle's capacity to generate revenues from out of system sales. The downside of low wholesale revenues is in front of us at the moment (lowering of debt coverage ratio, 8.8% rate increase) and I would like to get a sense of what its upside has been.

My instinct over the long term is that some approach that "smoothes" the vagaries of an unpredictable (and uncontrollable) wholesale market is needed. I think rate predictability is superior to rate volatility.

Response:

City Light's hydro electric resource portfolio and the resulting out of system sales from its surplus energy is an enormous benefit for the Utility and its customers. From a multiple-year perspective, customers face very little economic risk that they will be worse off from City Light's dependence on wholesale revenue, since there is very high likelihood that the surplus hydro electricity City Light produces/ purchases will cost less than what it can be sold for on the wholesale market. Therefore, the "distribution of the risk and reward of Seattle's capacity to generate revenues from out of system sales" is highly favorable towards "reward" (i.e., customers being economically better off).

The chart below shows actual net wholesale revenues in recent years.



The issue in question is how dependant City Light is on wholesale revenue for its *annual* financial performance and retail rate setting.

The "benefit" of counting on a specified level of wholesale revenue in the revenue requirements is that wholesale revenue offsets the amount of retail revenue collected from customers. For instance, in the 2007-2008 Rate Study, the average wholesale revenue assumed in those two years was about $170 million dollars. If this amount was not counted, retail revenue would have to have been roughly $189 million more, or roughly 35% higher retail rates ($189m is $170m adjusted for taxes), If wholesale revenue (projected to be $120 million) was not included in the 2010 rate proposal, rates would be roughly 23% higher than the 8.8% proposed. (We apologize that are not able to provide 5 complete years of data- because rates are set on anticipated rather than actual revenues, this is difficult to do for non-rate case years. Hopefully the wholesale revenue actuals provided can serve as a reasonable proxy).

City Light must maintain a certain level of annual financial performance to maintain its current credit rating. Given City Light's annual operations and debt payments, it must provide a minimum level of revenue from either customers or from wholesale transactions. The financial policies targeting debt service coverage and a 95% certainty of positive Cash from Operations means that retail rates are set high enough so that the Utility can meet its financial obligations even in years where wholesale revenue is extremely bad. Thus, City Light's current policies increase customer base rates to provide certainty that the Utility will meet its minimum financial performance targets. City Light's current Financial Policies favor rate "predictability" over "volatility."

However, given 2010 annual operations and debt payments, City Light would need to raise customer rates significantly (i.e. at least 23%) to give customers "rate predictability" while ensuring that the Utility is able to meet its financial obligations should wholesale revenue come in significantly lower than planned. It would be unwise for the Utility to simply disregard this risk in wholesale revenue and adopt a lower rate increase without having another form of protection.

City Light is proposing that there is a tradeoff in rate stability and rate volatility. Current customers may benefit if their base rates or held low and are only adjusted when wholesale revenue is below the planned amount. This is the concept behind the proposed Power Revenue Adjustment Mechanism (PRAM).

Another option the Utility is exploring is establishing a larger reserve fund to help protect against volatile wholesale revenue. However there are a few outstanding issues with the reserve fund:

- It is still unknown if it will provide the same assurance to rating agencies as a PRAM
- There is an opportunity cost to customers of holding money in a reserve
- It will need to be refilled if depleted and doing so will involve increasing rates.

In conclusion, wholesale revenue is very unpredictable but also very beneficial. If City Light truly wanted to eliminate the current downside uncertainty in its finances, the Utility could remove all or most of its wholesale revenue expectations from the revenue requirements. However, this would cause customers rates to increase substantially and in most cases unnecessarily.

Question 12

It was stated at the meeting that the SCL conservation budget is basically treated as a capital expenditure, funded through the sale of municipal bonds. I also noted that the 2010 conservation targets (and I assume the commensurate budget) was being reduced from 14+ aMW to around 10+ aMW. This would be a more than 30% reduction. I am assuming that this reduction is necessitated by the desire to reduce operating expenses and the effect on rates. However, I would think that a capital expenditure – and the debt service it triggers – would be reasonably muted in any given year. That is, the conservation debt service, even with a 2010 increase, would be a fraction of the total debt service obligation of the utility. I am having a difficult time understanding the deep cuts in conservation if in fact the debt service on conservation spending has a small impact on rates. Conservation acquisition is, as you know, the best

approach to controlling future costs at SCL and the best strategy for maintaining affordable rates over the long term.

Response:

Conservation expenses are broken into two categories: (1) Direct and (2) Deferred. Direct Expenses are NOT capitalized and are current year O&M expenses for administration, planning, marketing, and customer services for all conservation programs. Deferred Expenses are capitalized and are therefore eligible to be financed with bonds. The 2010 reduction in Conservation expense of roughly $1 million are a direct conservation expense and therefore has direct impact on 2010 revenue requirements.

ATTACHMENTS

Additional Material for Question 6

Components of Increase in Cash to Operations since 2007-2008 Rate Case
Millions of Dollars

	See Note	2007-2008	2010	Increase
Total Cash to Operations		**153.4**	**214.4**	**61.0**
Production		**24.0**	**34.5**	**10.5**
Inflation				2.5
Wage Settlements > Inflation				0.6
14 Construction Management Staff	1			1.8
Integrated Resource Plan	2			0.3
Boundary Relicensing	3			1.2
Boundary Sluice Gate Maintenance	4			0.6
Diablo Dredging/Cleaning	5			1.8
Skagit/Boundary-Vessel Maintenance	6			0.4
Skagit Water System Improvement	7			0.2
True-up to Actual Expense				1.1
Transmission		**5.8**	**9.1**	**3.3**
Inflation				0.6
Wage Settlements > Inflation				0.2
True-up to Actual Expense				2.5
Distribution		**41.5**	**64.3**	**22.8**
Inflation				4.4
Wage Settlements > Inflation				1.4
63 Skilled/Line Worker Positions	8			4.6
Apprenticeship Program	9			0.8
Asset Management	10			2.5
Pole Testing/Treatment	11			1.1
Construction and Electrical Materials	12			1.6
Field System & Substation O&M	13			0.5
Fire Resistant Clothing	14			0.3
NERC Regulatory Compliance	15			2.2
Overtime to Repair Outages	16			-1.0
Vegetation Management	17			4.3
True-up to Actual Expense				0.1
Conservation		**2.4**	**8.7**	**6.3**
Inflation				0.3
Wage Settlements > Inflation				0.1
Five Year Plan	18			4.2
Energy Efficiency Fund	19			0.2
True-up to Actual Expense				1.5
Customer Accounting		**26.3**	**31.6**	**5.3**
Inflation				2.8
Wage Settlements > Inflation				0.3
Call Center Payments to SPU	20			1.7
True-up to Actual Expense				0.5
Administration		**53.4**	**66.2**	**12.8**
Inflation				5.7
Wage Settlements > Inflation				1.0
Climate Studies Program	21			0.9
City Cost Allocations	22			1.6
Duwamish Cleanup	23			2.0
Greenhouse Gas Offsets	24			0.9
Low-income Assistance	25			0.2
Rent from City	26			2.6
Risk Management - Annual Audit	27			0.2
Safety Compliance	28			0.4
True-up to Actual Expense				-2.7

Notes for the table for Question 6

1	14 Construction Management Staff	Construction Management will no longer be performed by Seattle Public Utilities. SCL will require 14 positions to perform this function in-house.
2	Integrated Resource Plan	Additional resources are required to meet the new Washington state law (HB 1010) that requires that City Light file an IRP every two years with the Washington Community, Trade, and Economic Development Department.
3	Boundary Relicensing	SCL must complete studies required for Boundary Dam Relicensing. This facility is the single largest and most cost-effective component of our generation portfolio. The facility operates under a Federal Energy Regulatory Commission license that expires in September 2011.
4	Boundary Sluice Gate Maintenance	One-time maintenance costs for Boundary Sluice Gate Maintenance in 2010. This project will remove the old gate, reconstruct, transport and install a new one. Total cost between $6 to 9 million. Past inspections indicate a 10-year maintenance cycle.
5	Diablo Dredging/Cleaning	Removal of the gravel bar that has partially obstructed the Skagit River will increase power production (and revenue) from the Diablo Powerhouse.
6	Skagit/Boundary-Vessel Maintenance	Skagit and Boundary tugs require servicing so that they can continue to support Skagit and Boundary Hydroelectric operations, comply with US Coast Guard regulations and enhance employee safety.
7	Skagit Water System Improvement	SCL plans to install 59 meters in Diablo and 50 meters in Newhalem in an effort to meet the "Water Use Efficiency" rule (contained in WAC 246-290). This will control leakage rates in both Skagit towns, which are currently in excess of 50%.
8	63 Skilled/Line Worker Positions	SCL needs additional skilled trade staff to avoid overtime and to maintain customer service levels as expected retirements of the aging workforce occur.
9	Apprenticeship Program	Resources are required to provide training to an expanded number of apprentices (about 60 more, or double pre-2009 level). Apprentices are needed to fill skilled electrical positions. The apprenticeship training program helps SCL meet its growing staffing needs due to projected retirements and a very competitive utility job market.
10	Asset Management	Resources are required to implement the Work and Asset Management System and the appropriate asset management practices utility-wide so that SCL can make cost-effective investment decisions when it replaces or maintains its aging infrastructure.
11	Pole Testing/Treatment	The 10-year "test and treat" maintenance cycle will extend the life of wood pole assets and reduce life-cycle costs.
12	Construction and Electrical Materials	Additional funds are needed to purchase needed electrical equiment and materials, as significant price escalation above inflation has been experienced since 2006, despite the slowing economy.
13	Field System & Substation O&M	Fourteen major substations require maintenance that has been largely deferred for a significant number of years. This work is essential to delivery of electricity on the transmission and distribution system.
14	Fire Resistant Clothing	Fire resistant clothing is necessary to comply with National Electric Code enforced through OSHA and Washington State Department of Labor, which will enhance employee safety.

15	NERC Regulatory Compliance	Resources are required to pay increased FERC Water License fees, provide NERC-required validation and modeling of generators, pay increased WECC membership fee and NERC-required background checks by outside vendors. Resources are needed to comply with reliability and regulatory standards and to support the internal oversight group. Resources are required to implement mandatory cyber security standards, which reduce risk of power interruption and risk of non-compliance penalties of up to $1M/day.
16	Overtime to Repair Outages	Additional overtime needed to perform long-deferred maintenance work, and to provide the necessary levels of substation and field system operations; network field operation crews will begin to catch up on network feeder maintenance.
17	Vegetation Management	Additional resources will allow the Department to meet its NERC obligations for vegetation control on the Transmission system and achieve the desired 4-year routine trimming cycle.
18	Five Year Plan	SCL plans to acquire energy conservation to meet its future energy resource needs because it has the least cost, risk and environmental impact of available alternative energy sources.
19	Energy Efficiency Fund	This effort will increase conservation in City buildings by offering loans.
20	Call Center Payments	Seattle Public Utilities operates the customer service call center for SCL. Costs for service are increasing and SCL is required to make payments to SPU.
21	Climate Studies Program	The Climate Research Program looks at potential impacts to SCL's system and adaptive measures that can be taken. SCL has been able to secure an agreement with National Department of Energy labs to use their expertise to help downscale global climate models to our watersheds, helping SCL to assess changes in flows and flooding events and their potential impacts on SCL operations and facilities.
22	City Cost Allocations	The City increased Cost Allocation costs. Non-payment would require reductions in the service levels from other City Departments.
23	Duwamish Cleanup	SCL is required to pay for Duwamish Superfund Cleanup. The budget for environmental cleanup is $2.4M in 2010 and is projected to increase in future years.
24	Greenhouse Gas Offsets	Resources will allow SCL to purchase greenhouse gas offsets. The increase is due to the increased costs of offsets, and the need to purchase more offsets due to the new power contracts City Light is signing. This program is the cornerstone of the Mayor's Climate Action Plan, which calls for City Light to continue to meet the GHG neutrality goal. It is also a requirement in Council Resolution 30144.
25	Low-income Assistance	The Human Services Department - Mayor's Office for Senior Citizens (MOSC) administers the Low-Income Rate Assistance Programs. These programs are the Utility Discount Program and Project Share. In 2009, the Mayor's Office for Senior Citizens implemented an aggressive outreach program to increase customer participation in the Utility Discount Program.
26	Rent and Space Lease	The City has increased rent for the Seattle Municipal Tower. In addition, City Light staff has increased and requires more work space. SCL has leased, built-out and moved employees into new office space.
27	Risk Management - Annual Audit	City Light requires additional resources so that it may comply with Executive and Legislative requirements to receive an objective assessment of Seattle City Light's adherence to the Wholesale Energy Risk Management Policy. An annual independent audit will be conducted.

Answer to Question 9

Benchmark Studies

Background:

In 2008 City Light participated in 4 benchmarking studies that utilized 2007 data for comparisons:

1. Transmission and Distribution (T&D) Study conducted by First Quartile Consulting
2. Customer Service Study conducted by First Quartile Consulting
3. American Public Power Association (APPA) Selected Financial and Operating Ratios
4. Hydro generation by the Electric Utility Comparison group (EUCG)

While the APPA study provides information on a few operational performance metrics, the main emphasis is on financial performance. The T&D and Customer Service reports, on the other hand, concentrate mainly on operational performance. The hydro generation study examined costs, both operating and maintenance and capital as well as generation output.
City Light is continuing participation in each of these studies in 2009 with the 2008 results expected by the end of this year.

In addition, City Light annually prepares rate comparisons, one with local utilities and a second comparison against comparable U.S. cities. These rate comparisons are included in City Light's annual reports and other public documents. Other benchmarking studies have been performed for specific areas of City Light as might be appropriate- e.g. salary studies.

Summary information about the 4 studies listed above follows.

Participants:

- T&D Study: 17 utilities, both IOU and public power
- Customer Service: 18 utilities, both IOU and public power
- APPA: 208 of largest publicly owned utilities
- EUCG: 13 utilities, 242 plants, 918 units

Report Highlights:

T&D Results

Excellent System Reliability (One of best)
Highest customer contributions
Limited SCADA control compared to other firms (Lowest)
Performance results don't yet show impact of initiatives

Challenges/Opportunities:

Reducing equipment failures
City Light spending at highest levels for both O&M and CIP
Safety performance highest incident rate in all areas

Complications:

Very high density service territory
High wage rates and staffing levels
Large substations and 26kv delivery voltage

Customer Service Results

Low disconnect percentage

Low credit cost per account and per service order
Highest bill accuracy

Challenges/Opportunities:
- Highest total field service cost per service order
- High total meter reading cost per read
- Highest customer contact center costs

Complications:
- Field Collections of past due amounts
- Worst safety lost time Incident rate
- High staffing levels

APPA Ratio Results

City Light's performance is better than median in 8 of the 22 categories
These include rates, power cost, uncollectible expense, and system load factor

City Light performance is worse in 14 categories
These include safety, debt coverage, debt to asset ratio, distribution cost per circuit mile, and labor expense

EUCG Results

Cedar Falls, South Fork Tolt, and Boundary are all in the first quartile (lowest cost) with Boundary the lowest cost plant in the study

All three of the Skagit plants are in the Second Quartile with Ross almost into the Third Quartile. However, all three units are below the average cost per MWH. Ross had 3 major outages in 2007 which affected the result.

City Light generation is examining what factors affected each plant, including looking at how outages are scheduled.