CITY OF NEWARK
DELAWARE

September 21, 2010 – 7:00 pm
(Council Chamber)

CITY COUNCIL
WORKSHOP AGENDA

A workshop will be held on TUESDAY, September 21, 2010 at 7:00 pm in the Council Chamber to discuss the Electric Rate Study.

/pmf

Posted: September 13, 2010

BUILDING A WORLD OF DIFFERENCE®

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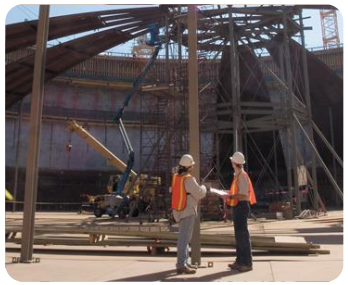


City of Newark, Delaware

Electric Utility Rate Study

Revenue Requirements Overview with Stakeholder's Group

Craig Brown, Project Manager

July 19, 2010

Building Blocks of a Rate Study

How Should Services be Priced?

Rate Design

From Whom Should the Money be Collected?

Cost of Service

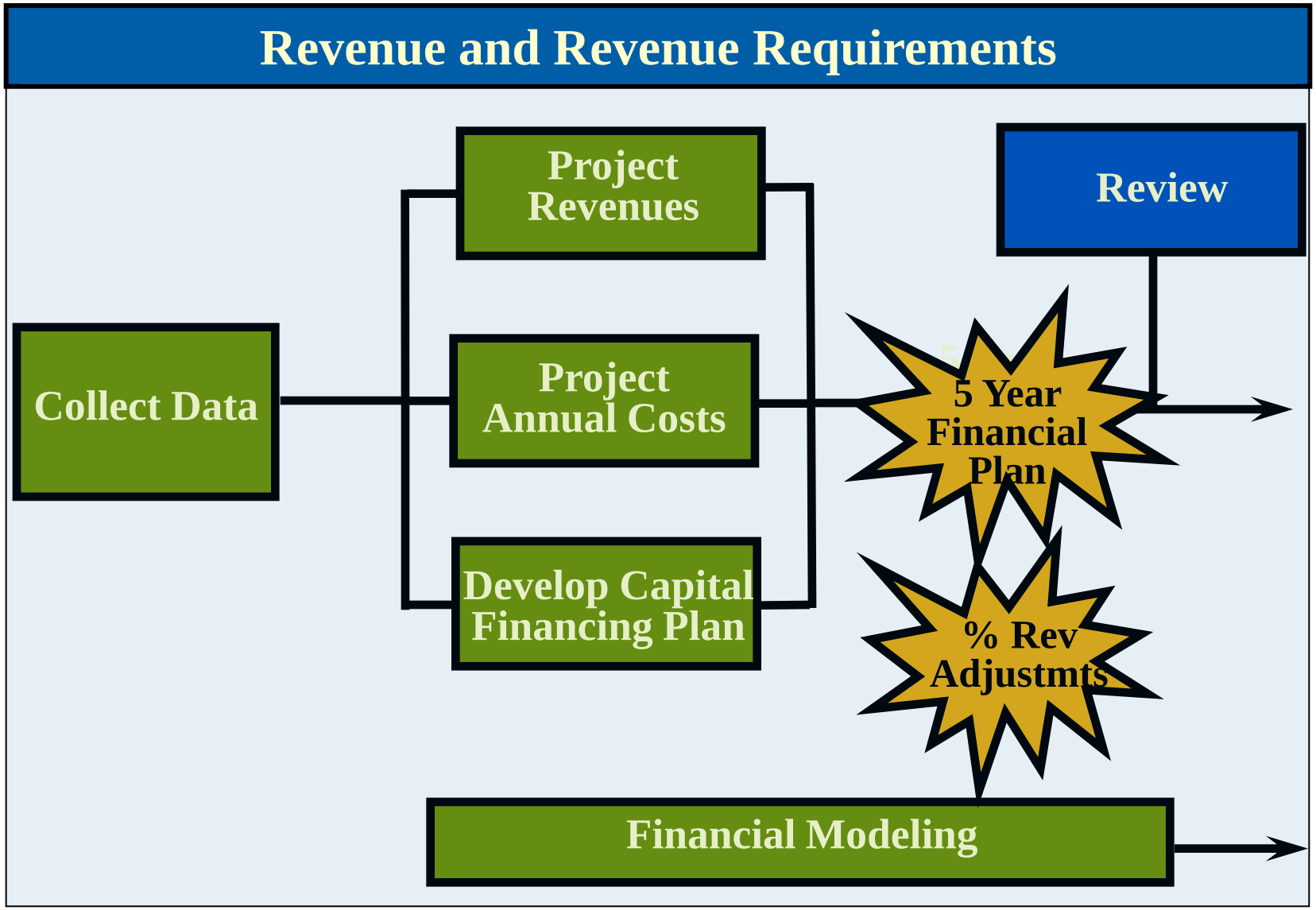
How Much Money is Needed?

Revenue Requirements

Operating & Capital Costs

Revenue from Rates and Misc. Revenue

Typical Work Plan Schematic



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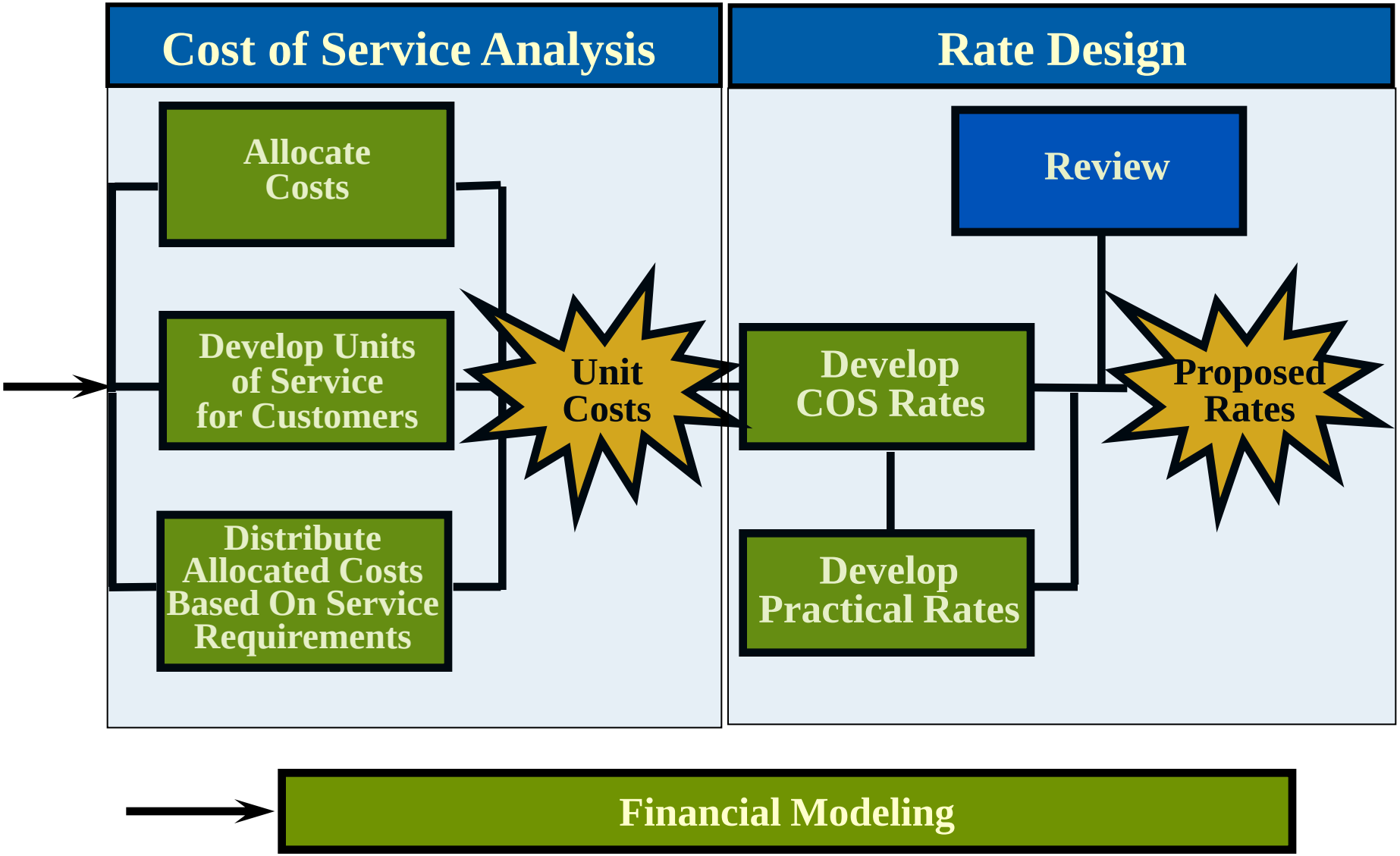

Load Forecast

- Reviewed billing determinants (number of customers and kWh sales) for 2007 – 2009
- Make reasonable forecast of future sales based on trend and other factors

Description	2010	2011	2012	2013	2014	2015
Growth Assumptions						
Residential						
Customers	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Energy Sales	3.0%	1.5%	1.5%	1.5%	1.5%	1.5%
General Service (GS)						
Customers	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Energy Sales	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%
General Service Demand (GSD)						
Customers	0.0%	0.5%	0.5%	0.5%	0.5%	0.5%
Energy Sales	3.0%	0.5%	0.5%	0.5%	0.5%	0.5%
Large Light & Power (P)						
Customers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Energy Sales	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
U Rate - Univ of Delaware						
Customers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Energy Sales	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
U Rate - Rohm & Haas						
Customers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Energy Sales	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Forecast of Energy Sales by Class (MWh)

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015
Forecast of Energy Sales by Class (MWh)									
Residential	93,501	90,474	88,009	90,650	92,009	93,390	94,790	96,212	97,655
General Service (GS)	18,797	18,450	18,287	18,561	18,747	18,934	19,124	19,315	19,508
General Service Demand (GSD)	56,900	53,562	51,168	52,703	52,966	53,231	53,497	53,765	54,033
Large Light & Power (P Rate)	98,276	102,761	78,347	69,207	69,207	69,207	69,207	69,207	69,207
U Rate - Univ of Delaware	133,617	134,277	135,247	135,923	136,603	137,286	137,973	138,662	139,356
U Rate - Rohm & Haas (1)	-	-	18,210	29,205	29,407	29,611	29,818	30,026	30,236
Retail Lighting	295	295	295	295	295	295	295	295	295
City of Newark Usage	9,565	9,393	8,183	8,347	8,472	8,599	8,728	8,859	8,992
	410,951	409,212	397,747	404,892	407,708	410,554	413,432	416,342	419,283

(1) Rohm & Haas moved from the P Rate to the U Rate in June 2009

Assumptions Used in Forecasting Operation and Maintenance Expenses

- Basis is 2010 Budget
- Each line item in budget is assigned a category
  - Labor escalation factor – 3%
  - Labor Burden and Benefits – 10%
  - Non-labor – 3%
  - Merchant Processing Fees – 0.5%
- 2010 includes Indirect Cost Allocation for City provided services including: finance and accounting, Legal, and Supervisory

Historical and Projected Operation and Maintenance Expense

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015
	actual	actual	actual	budget	forecast	forecast	forecast	forecast	forecast
	$	$	$	$	$	$	$	$	$
Personnel Service	1,717,908	1,867,181	2,042,833	2,358,873	2,491,617	2,634,542	2,788,571	2,954,721	3,134,105
Materials and Supplies	132,924	152,427	177,670	168,770	173,833	179,048	184,420	189,952	195,651
Contractual Services	301,312	420,419	464,740	653,215	793,036	808,904	825,207	841,960	859,176
Other Charges	112,949	127,820	105,526	84,570	112,023	115,383	118,845	122,410	126,083
Indirect Cost Allocation	-	-	-	1,170,193	1,205,299	1,241,458	1,278,702	1,317,063	1,356,575
	2,265,093	2,567,847	2,790,769	4,435,621	4,775,808	4,979,335	5,195,745	5,426,106	5,671,588

- Forecast an additional $250,000 in Merchant Processing Fees
- Other annual escalation averages 4%

Capital Improvement Program

2011	2012	2013	2014	2015
$1,476,600	$692,500	$804,000	$674,500	$2,565,000

Major Projects:

- 2011 - New Transformer & Lines - Phillips Substation - $1.2 million
- 2014-15 - SCADA and Automatic Switching - $625,000
- 2015 - New Unit Substation - $1.7 million
- 2012-15 - Vehicle/Equipment Replacement Program - $1.2 million

All projects financed with annual operating revenues – no projected debt financing

Electric Utility Reserve Fund Policies

The Electric Utility has policies to maintain 3 operating reserve funds. None have been funded to date.

- Budget Balance Reserve – target is 8% to 12% of annual operating expenses
- Contingency Fund Reserve – target is 1%of annual operating revenue
- Rate Stabilization Reserve – target is 3% to 10% of annual purchase power expense

Goal is to fund these reserves by the end of the study period (2015) to reduce rate impacts related to building reserves

5-Year Financial Forecast

- Forecast revenue under existing rates
- Incorporate all revenue requirements into 5-year operating cash flow
- Determine targets and timing to fund operating reserves
- Forecast transfer to City's general fund
- Determine overall need for adjustment in rates

Preliminary Results

- Overall 3% rate decrease in 2011 compared to current 2010 rates
- Reset PPCA to zero and update purchased power included in rate
- No rate increases projected in 2012 through 2014
- 5% overall rate increase would be needed in 2015

Questions or Comments?

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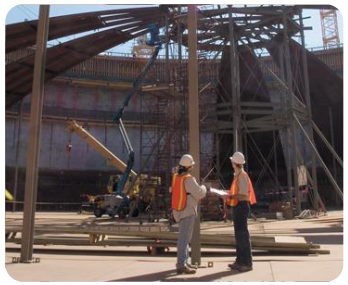

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Cost of Service Overview with Stakeholder's Group

Craig Brown, Project Manager
Larry Loos, Director

August 30, 2010

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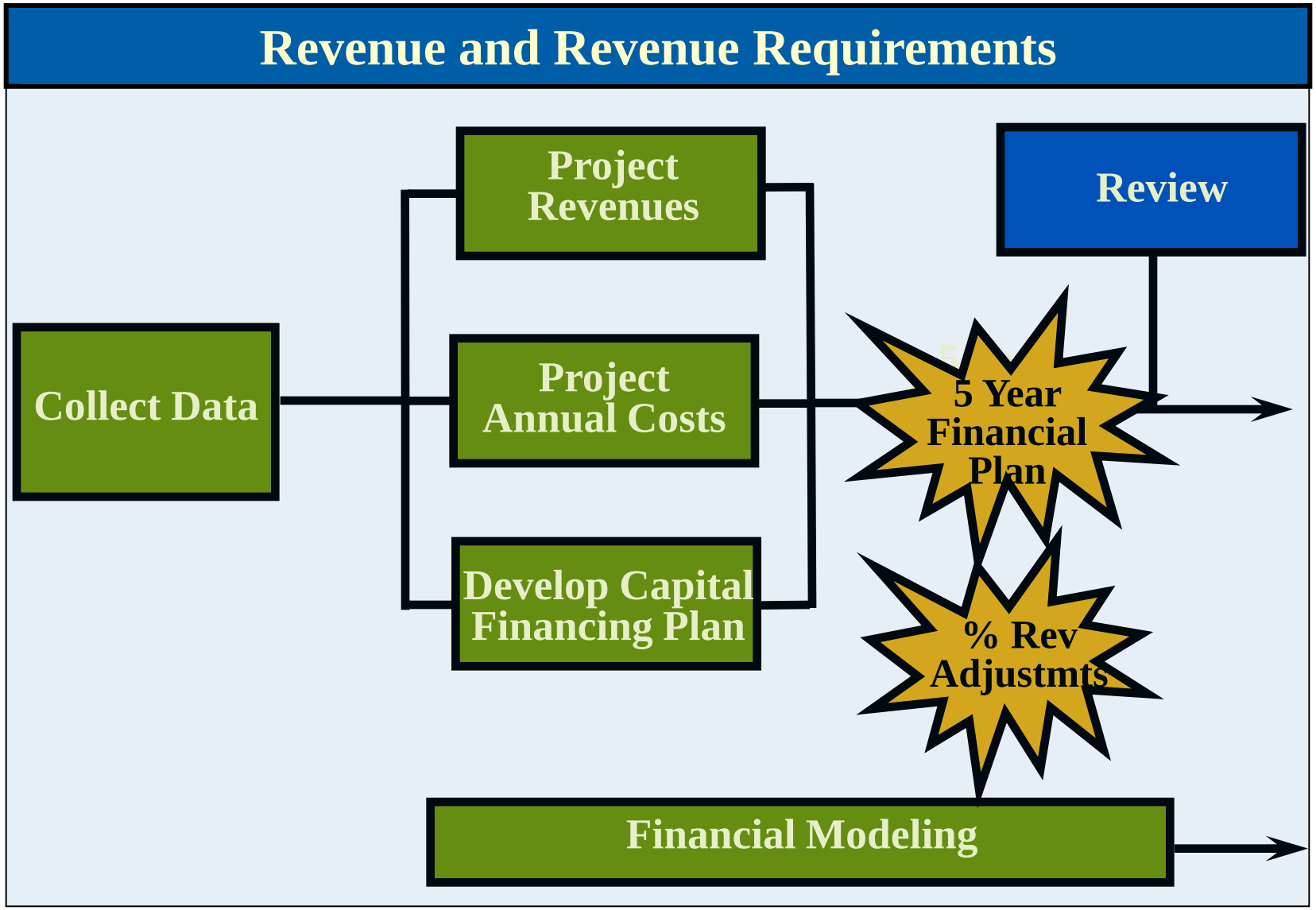

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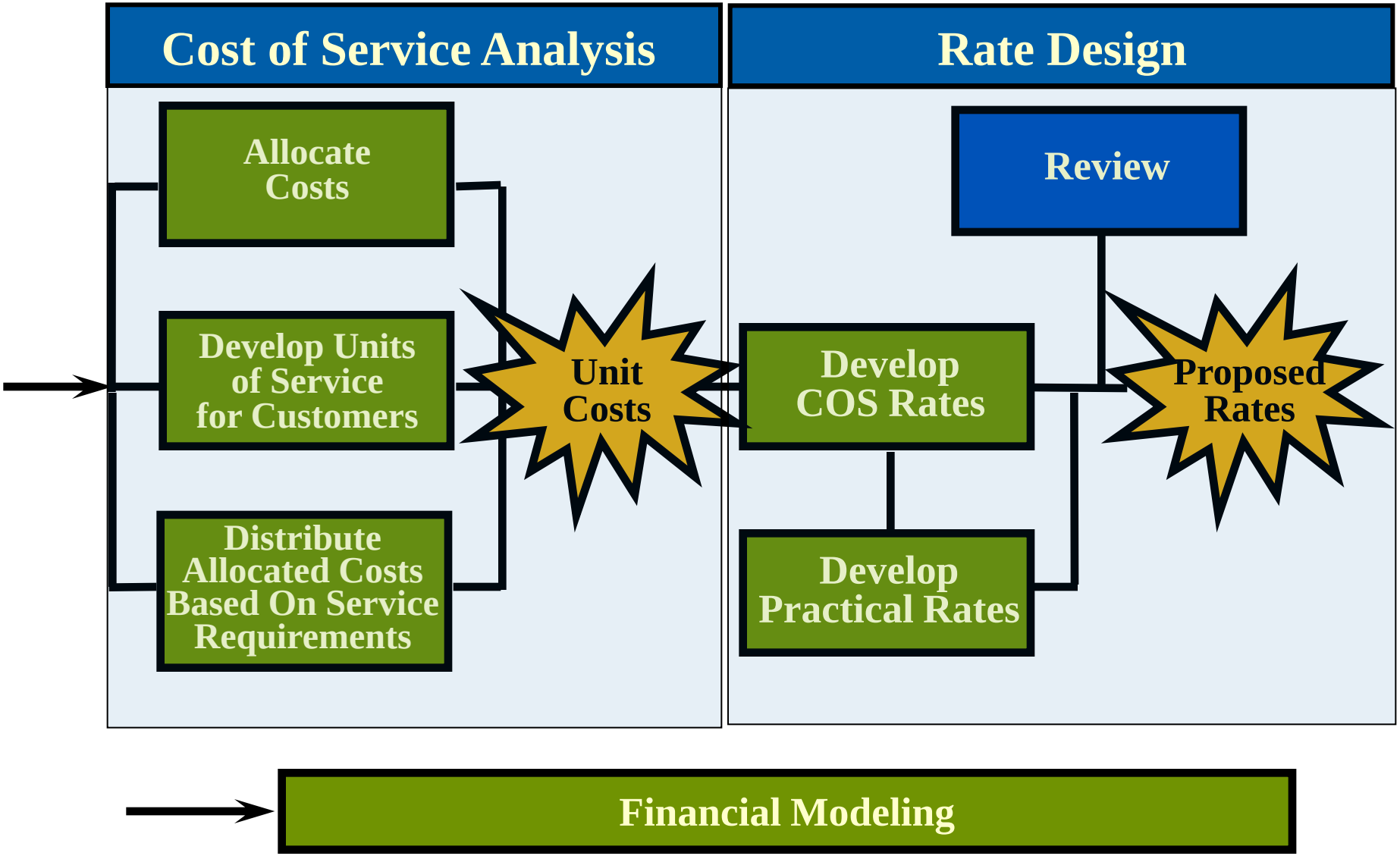


Review of Revenue Requirement Results

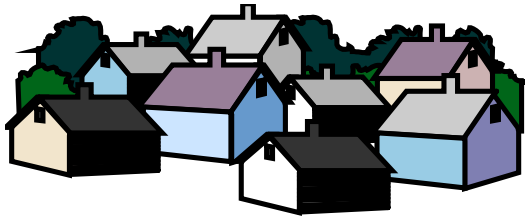
Line No.	Description	2010 Under Current Rates	2011 Under Current Rates	2011 Under Recommended Rates
1	Rate Revenue from Tariff Rates	$ 48,043,539	$ 48,386,263	$ 58,758,700
2	PPCA	$ 8,174,061	$ 10,372,437	$ -
3	Change in Rate Revenue	$ -	$ -	$ (2,791,000)
4	Total Revenue from Rates	$ 56,217,600	$ 58,758,700	$ 55,967,700
5	% Change in 2011 Recommended Revenue			-4.7%
6	Energy Sales (MWh)	396,545	399,235	399,235
7	Average Rate ($/kWh)	$ 0.1418	$ 0.1472	$ 0.1402

Test Year Cost of Service

Line No.	Description	2011 Test Year	Pro Forma Adjustments	Test Year Cost of Service
1	Purchase Power	$ 40,480,200	$ -	$ 40,480,200
2	Operations and Maintenance	$ 4,775,700	$ -	$ 4,775,700
3	Capital Expenditures	$ 1,476,600	$ (1,476,600)	$ -
4	Other Expenditures and Transfers	$ 9,533,900	$ (9,533,900)	$ -
5	Depreciation and Return	$ -	$ 11,010,500	$ 11,010,500
6	Gross Revenue Requirement	$ 56,266,400	$ -	$ 56,266,400
7	Less Other Revenue	$ (298,700)	$ -	$ (298,700)
8	Net Revenue Requirement	$ 55,967,700	$ -	$ 55,967,700

Cost of Service Basics

"From Whom Should the Money be Collected?"



Residential

Commercial

Industrial

Who is Responsible for the Cost?

Functionalize Cost Components

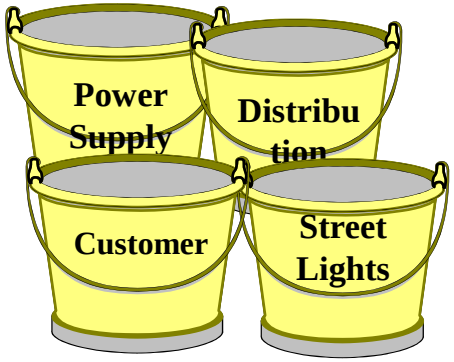
Costs

Operating Expenses

- Power Supply
- Operation and Maintenance

Other Costs

- Capital Projects
- Transfer to City



Functional Cost Components

Power Supply

- Energy
- Capacity (Average & Excess Demand)

Distribution

- Capacity
- Customer

Customer

Street Lights

Functional Cost Components

- Power Supply
  - DEMEC bills the city on the basis of energy delivered. Allocating 100% of purchase power cost on Energy is inappropriate because DEMEC costs are a function of several factors.
  - Based on analysis of DEMEC Budget Report
    - 73% Energy Only
    - 27% Transmission, Capacity, Congestion, and Ancillary Fees
  - Allocate 73% Energy and 27% AED

Functional Cost Components

- Distribution
  - Sub-functionalize Capacity into Substations, Line Transformers, and Lines (Primary)
  - Sub-functionalize Customer into Laterals, Services, and Meters
  - Limited fixed asset detail to develop functional cost bases
  - Relied on data for a proxy group of utilities to develop relative relationships where Newark detail not available
  - Used to functionalize distribution labor and fixed assets

Functional Cost Components

- Customer and Street Lights
  - Generally direct assigned to Customer Accounts or Street/Traffic Light functions
  - Share of Direct Labor based on proxy group allocation
  - Separate direct allocation for Merchant Fees

Determine Units of Service to Allocate Each Functional Cost Among Each Rate Class

- Power Supply
  - Energy
  - Average and Excess Capacity
- Distribution
  - Maximum Class Demand
  - Non-Coincident Peak Demand
- Customer
  - Weighted Customers
  - Weighted Meters
  - Services
  - Merchant Fees
- Street Lights
  - Direct

Calculate Unbundled Cost of Service by Rate Class and Calculate Units Costs

- Multiply the total of each functional cost by its allocation percentage from the units of service for each class
- Determine total cost of service for each rate class

Costs	÷	Units of Service	=	Unit Costs
Energy	÷	kWh	=	$/kWh
Demand	÷	kW	=	$/kW
Customer	÷	Number of Bills	=	$/Bill

Cost of Service Results by Class

Test Year
2011

Line	Description	(a) Revenue Under Existing Rates	(b) Unbundled COS	(c) (Over)/Under Recovery Amount	(d) (Over)/Under Recovery Percent
		$	$	(b) - (a)	(c) / (a)
1	RS RATE - RESIDENTIAL	$15,110,455	$17,503,679	$2,393,224	15.8%
2	GS RATE - GENERAL SERVICE	$3,264,503	$3,419,987	$155,484	4.8%
3	GSD RATE - GENERAL SERVICE DEMAND	$8,020,832	$7,266,923	($753,909)	-9.4%
4	P RATE - LG LIGHT AND POWER	$10,624,533	$8,364,213	($2,260,320)	-21.3%
5	U RATE - UNIV OF DELAWARE	$17,697,500	$15,553,338	($2,144,162)	-12.1%
6	U RATE - ROHM & HAAS	$3,981,568	$3,741,746	($239,822)	-6.0%
7	RETAIL STREET LIGHTS	$59,292	$118,020	$58,728	99.0%
8	TOTAL SYTEM	$58,758,683	$55,967,906	($2,790,777)	-4.7%

Next Steps

- Discuss Rate Design Strategy with City Staff
- Discuss interclass subsidies and impact on Residential and Other Customers
- Rate Design objectives to consider:
  - Promote energy conservation and efficiency
  - Remain competitive and support economic development
  - Revenue decoupling where appropriate
  - Fair recovery from rate classes – work towards cost of service results

Questions or Comments?