MURRAY
CITY COUNCIL

MURRAY CITY MUNICIPAL COUNCIL
WORKSHOP

The Murray City Municipal Council met for a Power Webinar workshop on Wednesday, September 25, 2019 at 12:30 p.m. in the conference room at the Home 2 Suites, located at 4927 South State Street, Murray, Utah.

Council Members in Attendance:

Dave Nicponski, Chair	District #1
Dale Cox	District #2
Jim Brass	District #3
Diane Turner	District #4
Brett Hales	District #5

Others in Attendance:

Blair Camp	Mayor	Jan Lopez	Council Executive Director
Pattie Johnson	Council Office	G.L. Critchfield	City Attorney
Doug Hill	Chief Administrative Officer	Brenda Moore	Finance Director
Blaine Haacke	Power General Manager	Bruce Turner	Power Operations Manager
Greg Bellon	Power Assistant General Manager	Rosalba Dominquez	Candidate/Resident
Matt Youngs	Power Energy Services Manager	Adam Thompson	Candidate/Resident
Kat Martinez	Candidate/Resident	One Citizen	

Welcome and Introductions – Dave Nicponski, Council Chair

Mr. Nicponski called the workshop to order at 12:30 p.m. and welcomed all in attendance. Brief introductions were conducted.

Overview Power Financial Policy - Diane Turner, Budget & Finance Chair

Ms. Turner explained the reason for the workshop was to share important information with the entire council that she, Ms. Lopez, Mr. Critchfield, and Mayor Camp attained during a session at a recent UAMPS (Utah Associated Municipal Power Systems) conference, titled: "Follow the Money – Sound Financial Planning" - by Dawn Lund of Utility Financial Solutions. Ms. Turner read a description of the workshop stating: *"Utilities are under pressure to minimize rate impacts on customers, while keeping the system reliable and planning for infrastructure replacement. What role do financial decision makers play in this scenario? Learn how to define revenue requirements and what other key targets help ensure utility long-term financial stability."*

Ms. Turner noted Murray's current Code, Chapter 15.20.260 - *Power Fund Financial Standards*, which was revised in May of 2014. (See Attachment #1) She stated the UAMPS presentation was more comprehensive than the webinar, because issues like: *Reliability vs. Price, Rate of Return, Best Practices on Rate Adjustments, and Debt Coverage Ratio* were discussed, but she thought the council would benefit from listening to the webinar. Ms. Moore stated the power department has an abundance of *Debt Ratio Coverage* because the power department has no debt, currently.

Mr. Haacke agreed the webinar applied to power departments in general, however, the information would benefit all enterprise funds. He did not attend the specific session during the UAMPS conference but was familiar with other lectures by Dawn Lund. He confirmed the power department is debt free, and a plan is in place to replace 40-year old infrastructure. He noted, due to reserves, past bonds for gas turbines, substations, and infrastructure rebuilds were all paid off early, which provided a savings of $700,000. He said they would continue to replace outdated infrastructure, invest in small nuclear reactors, and would participate in a solar project, but he did not anticipate bonding in the years to come because the department is in such good standing.

Webinar - Cash Reserve Policies - Utility Financial Solutions, LLC by Dawn Lund

The webinar was approximately 86 minutes long. (See Attachment #2)

Group Discussion

Mr. Nicponski asked Ms. Moore to address a reference in the webinar about rate structuring and preparations to adjust rates based on enterprise fund transfers; he thought rate increases to justify transfers would be concerning to most citizens. Ms. Moore said a rate increase had not occurred in the last seven years, since her employment in Murray, and there were no plans to do so, because costs are kept in line with revenue. She confirmed a random transfer would never occur and reviewed the annual budget process when those transfers happen. She reported two inter-enterprise fund loans related to the golf course, for the need of new golf carts, and a new sprinkling system.

Ms. Turner asked about the formal cash reserve policy. Ms. Moore confirmed Murray Code's required minimum was 25% of fund revenues.

Mr. Haacke reported revenue of $37 million in the Power Fund, so with the required 25% minimum, $9.3 million would be held in reserves. He explained the Power Fund did not always have reserves in the past, and the balance grew slowly over time - 12 years ago reserves were zero. He said with good luck, and low natural gas prices, reserves grew to the current amount of $19.6 million, which is approximately $10 million over the required 25% amount. Ms. Turner said good management also contributed.

Ms. Lopez asked if Capital Investments Projects suffered over the time of saving. Mr. Haacke confirmed during his first five years as General Manager, money did not go back into the system. Old trucks were not replaced, purchases did not occur, backyard rebuilds did not happen; capital was zero, and COLA (Cost of Living Adjustments) were nonexistent to all city employees - until reserves reached $8-9 million. Currently, the reserve total allows for active backyard rebuilds.

Mayor Camp noted the power infrastructure system was still 73% depreciated. Ms. Moore confirmed backyard rebuilds were not costly enough to be claimed as fixed assets, because they are considered maintenance. She explained when one or two power poles are rebuilt at a time, the cost of $4,000 is not enough to be capitalized; if an entire neighborhood was rebuilt all at once at a cost over $12,000 just for parts and materials, then it would be considered a capital project, therefore, depreciation would increase.

Mr. Haacke noted the city's formal ILOT (in lieu of taxes) transfer policy, where 8% of revenue from each enterprise fund is transferred annually to the General Fund, except from the golf course and storm water revenue. Ms. Moore confirmed the formula was put in place by the former finance director in 2014. Therefore, power is already operating according suggestions made in the webinar. Ms. Lopez asked whether all utility funds had reserves of 25%. Ms. Moore could not confirm at this time but would research that.

Mr. Haacke mentioned cities like Lehi, St. George, and Bountiful; all have different percentages of revenue going back into their systems, similar to Murray's 8% policy. He said although Murray was on the higher end statewide, many other cities do not require any return, and some provide up to 12%. Therefore, he had peace of mind knowing Murray had a good reserve policy, because 20 years ago, only 2.2% of revenues went back into the General Fund. He explained as the city's needs increased, the ILOT percentage rose to 5.6%, and then increased to 6.8%, which evolved to 8% - where it remains.

Ms. Moore confirmed profit from the power department would never match expenses. As a result, funds are transferred to the city's General Fund to help balance the city's budget, because large tax-exempt companies that use a great deal of the city's power and water resources, do not generate sales tax revenue. The transfers make up lost revenue from resource users like IMC Hospital, other healthcare facilities, schools, and churches.

Mr. Hales agreed ILOT transfers made sense knowing large utility users do not pay property taxes either.

Mr. Haacke shared important reasons the power department needs to maintain such a high reserve balance, at all times as a rainy-day fund. He noted an incident in Provo City, when a dump truck caught a communications line and tore out 12 power poles, as a good of example of what can happen overnight. Had someone else caused the accident, the cost to the city would have been $250,000 to repair; in this case, insurance companies covered the damage. In addition, extreme weather could be as costly as one million dollars in one weekend; for example, two years ago high winds caused a three-day power outage in Bountiful City that cost $1.4 million. Although FEMA (Federal Emergency Management Agency) provided some assistance, the cost was greater than they anticipated.

He reviewed the Enron situation in 2001, which cost the power department $7 million that year; three times the amount of normal expenses, due to related issues. Usually the city's power bill is $1-2 million per year. He said the largest infrastructure issue is transformers, in which the cost per transformer is $2 million; the city has 12 of them. He said should something catastrophic occur, the cost would be over $20 million to replace them all at once. Other infrastructure needs include $500,000 for one power line truck alone. Mr. Haacke stressed having the financial buffer was imperative and necessary for overall operations in the city.

Ms. Moore discussed the formal policy of administrative service allocations in the budget, for things such as, utility billing based on the number of accounts within all enterprise service funds; included are fleet assessments based on the number vehicles within each service. She noted the power department utilizes attorney services more than all other enterprise funds because more contracts are written, which justifies the expense.

Mr. Haacke concluded Murray Power is big and generates a lot of money; should a major outage or significant damage occur, money would be spent very fast, therefore, having a high reserve balance is a nice advantage.

Ms. Turner agreed and noted recent wildfires in California, which caused significant financial damage to PG&E (Pacific Gas and Electric) Mr. Haacke confirmed.

Resource Synopsis and Future Plans - Blaine Haacke, Power General Manager

Mr. Haacke provided detailed information related to the city's current and future resources. (See Attachment #3) He said the city is well prepared for the next decade, however, due to supply and demand, natural gas price increases, and fluctuating market prices, one never knows what could happen. Ms. Turner hoped renewable options would also increase in the future. Mr. Haacke agreed but is not a fan of wind because they are unreliable resources.

Mr. Bellon addressed the webinar suggestion about having a range of 90 to 200-days cash-on-hand to meet necessary operating expenses. He confirmed the required 25% minimum provided the 90 days cash-on-hand; and, because of additional reserves of $19.6 million; the equivalent of 200 days cash-on-hand was readily available.

Adjournment: 3:00 pm

Ms. Turner thanked everyone for attending and providing all helpful information.

Pattie Johnson
Council Office Administrator II

ATTACHMENT #1

Follow the Money
Making Sound Financial Decisions

Utility Financial Solutions, LLC

Hometown Connections

A PRESENTATION FROM UAMPS AND UFS

Dawn Lund Vice-President
Utility Financial Solutions, LCC
dlund@ufsweb.com

Utility Financial Solutions, LLC

- International consulting firm providing cost of service and financial plans and services to utilities across the country, Canada, Guam and the Caribbean
- Instructors for cost of service and financial planning for APPA, speakers for organizations across the country, including AWWA.
- Hometown Connections preferred vendor for Cost of Service and Financial Analysis

Introduction

- Overview of basic indicators to help with financial planning and determine overall financial health
- Concepts we talk about are what we repeatedly see working in the industry – there are exceptions to everything in this presentation
- Being out of the “range”, doesn’t necessarily mean you have a problem; maybe just further investigation.

Introduction

- Methodical review the same any size of utility
- Review can apply to other utility types

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Ultimate Goal of Financial Planning?

True or False?

- Price is the number one concern among end users

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False

- Reliability – customers want you to provide service

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Reliability VS Price

- 64% – outages cause "really significant problems" for their households
- 55% – would pay their utility more if outages could be kept to under four hours
- 45% – would pay their utility $10, $20 or $40 per month more if power outages could be kept under four hours
- Up to 42% would not accept a two-day outage even if they were paid as much as $1,000 for it

Sponsored jointly by Build Energy America and Potomac Communications Group of Washington, D.C., conducted by YouGov Definitive Insights of Portland, Ore. – 500 polled.

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Information Gathering for Financial Check-Up

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Where Do I Find the Information?

- Income Statement
- Balance Sheet
- Cash Flow Statement

- Most of the time a pretty accurate picture of financial health can be determined from the financial statements after a quick review

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Do You Know What I'm Talking about?

- We haven't had a rate increase in XX years ☺
  - Board/Council avoids rate adjustments
  - Operating at a loss
  - Spending down cash
  - Foregoing capital investment
  - Have to borrow for regular capital
  - Need major improvements
  - *We want to be the lowest cost provider*

"We're in good shape.
Nobody understands our financial statement."

All of these keeping rates low by artificial means

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Consequences of Avoiding Rate Increase

- Need doesn't go away
- Waiting only compounds the increase
- DON'T– push off capital improvements
  - System reliability
  - Aged system
  - Financially burdened when improvements are needed

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Need Doesn't Go Away = COMPOUNDS

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
2008	3.5%	26,613,448	25,481,830	(593,382)	11,894,226	1,700,000	-	1.70
2009	3.5%	27,100,028	27,262,643	(162,615)	9,901,550	2,419,692	-	0.88
2010	3.5%	27,537,303	26,930,109	607,194	11,277,991	1,907,039	-	-
2011	0.0%	29,046,768	28,029,914	**1,016,854**	**15,804,097**	5,743,381	6,950,000	-
2012	0.0%	30,884,443	30,944,182	**(59,739)**	**12,406,020**	5,151,597	-	2.82
2013	0.0%	$ 31,276,116	$ 32,310,794	**$ (1,034,678)**	**$ 7,026,799**	$ 5,997,171	$ -	1.60
2014	8.5%	34,230,179	34,265,896	(35,717)	6,911,091	1,859,500	-	2.70
2015	8.5%	37,646,341	35,404,131	2,242,210	8,863,022	2,131,000	-	4.98
2016	8.5%	41,348,948	36,647,148	4,701,801	12,226,141	3,279,000	-	7.46
Recommended Target in 2014				**$ 2,835,680**				
Recommended Target in 2016				**$ 2,840,329**				
Recommended MINIMUM Target in 2014					**$ 11,419,203**			**1.45**
Recommended MINIMUM Target in 2016					**$ 11,857,050**			**1.45**

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Assess Key Financial Targets

Are they Reviewed and Policies Established?

1. Debt Coverage Ratio
2. Minimum Cash Reserves
3. Operating Income

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Debt Coverage Ratio
Do you know what your requirements are?

Debt Coverage Ratio

- Identifies cash generated by operations on a yearly basis for debt service payments (how many times can I pay my payment = 1.25 times)
- Debt coverage ratios mandated by covenants and established in bond ordinances
- Know your requirements and calculate with the yearly budget process

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General Calculation

- Cash Generated by Operations divided by Debt Service
- Typical Formula:
  - Net Income, plus depreciation expense plus interest expense
  - Divided by Debt Service Payment
- Typical revenue bond requirements are 1.25X

Build in Safety Factor

- When setting rates a safety factor must be built into the coverage ratio for planning purposes
  - Electric sales dependent on weather
  - Power supply prices fluctuate
  - Unexpected expense can occur
  - Unexpected Transfers to City
- Potentially causes the utility to fall below coverage requirements
- Safety factor of 0.2 is typically added to Bond Coverage requirement

Bond Covenent Requirement	Saftey Factor	Minimum Target Level for Planning Purposes
1.10	0.20	1.30
1.20	0.20	1.40
1.25	0.20	1.45

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Not Meeting Debt Coverage

- Technically in default even if making payment but not meeting Debt Coverage Ratio

- <u>DEFAULT OF LOAN</u>
- Affects ratings and ability to issue bonds in future
- Affects interest rate in the future = higher risk

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Why Ratings are Important

- If you participate in projects through a Joint Action Agency, may have significant impacts on future bond ratings of the Agency and other participating utilities
- Ability to use revenue bonds instead of GO bonds
  - Confidence doing things right
  - Pride

Debt % of NBV

- Identifies the amount of debt outstanding against the remaining Net Book Value
  - How “leveraged” is the system
- Typical of what we see:
  - Generator and distribution between 50 – 70 %; 70% MAX
  - Distribution only 30 to 50%
  - Sometimes no debt

Calculate % Debt to NBV

	Outstanding Debt %	
	Electric	
A	**$ 33,057,749**	NBV
B	$ 10,030,000	Principal
(B/A)	**30%**	

Comments:				
(Distributor less than 50%; Producer less than 70%)				
Find Info on your Balance Sheet				

Minimum Cash Reserves Do you have a formal policy?

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Reasons for Minimum Cash

- Pay Bills
- Catastrophic Events
  - Wind, Ice, Equipment Failure
- Changes in Power Supply (PCA helps)
- Capital Costs
- Debt Service

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Formal Policy

- Customers and council may not understand why Utilities need to maintain reserves

- Provides detailed description of the methodology used by the utility

- Identifies time period to restore cash reserve if falls below minimum cash levels
  - Cash restored through issuance of debt, rate adjustments, reduced expenses

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Some Utilities Identify Maximum Levels of Reserves

- Due to external pressures a maximum may be considered by the utility
- We don't recommend a maximum
  - Are you reinvesting enough in the system?
- Restricting Reserves can help justify reserves to public
  - Replacement Reserves
  - Rate Stabilization Reserves

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Determination of Minimum Cash – At Least Five Factors to Consider

Five Risk Factors to Consider	% Risk Range to Allocate	Influenced By:
O&M Expenses (Less Power Costs and Depreciation)	12-25%	Billing Cycle - timing of expenses VS Receipts
Power Costs	10-25%	Max Month converted to working capital days
Historical Investment in Assets	1-3%	Age of System, Likelihood of ice, wind, other
Annual Debt Payment	50-100%	Timing of Debt Payments
Total Five-Year Capital Plan	20%	1/5 of five-year plan - funds beginning of season
Total of These Five Items		**$X,XXX,XXX MINIMUM Recommendation**

Add others unique to your utility – seasonal billing?

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Minimum Reserve Policy

Five Risk Factors to Consider	% Risk Range to Allocate	MINIMUM Reserves
O&M Expenses (Less Power Costs and Depreciation)	12.3%	$2,958,904
Power Costs	15.6%	5,675,082
Historical Investment in Assets	2.0%	3,311,700
Annual Debt Payment	80.4%	505,879
Total Five-Year Capital Plan	20.0%	1,800,000
Total of These Five Items		$14,251,565

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Simplification of Policy

- Once the methodology is established, can simplify policy for number of days of O&M

Policy Simplification		
Annual Expense	$	24,000,000
Power Supply		36,356,174
Total Expenses	**$**	**60,356,174**
Minimum Cash Reserve	$	14,251,556
Factor ($60,356,174/$14,251,556)		4.23
Days Cash on Hand (365/4.23)		**86.0**

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Calculate Your Days Cash on Hand

	Cash On Hand		**Comments:**
	Electric		
A	$ 33,945,391	O&M Expenses	
B	$ 5,205,300	Cash on Hand (non-restricted)	
(A/B)	6.52	Factor	
365/Factor	**56**	**Days Cash on Hand of Total O&M for Electric**	**LOW**

Comments:
Find this information on your balance sheet and Income statement
Establish a Cash reserve policy for each utility
Typical Range 90-120 days of O&M
High Bond Rating 150 Days

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Operating Income Target – ROR Do you know what your target should be?

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Should Public Power Have a Rate of Return?

- Adequate rate of return on investment to help ensure current customers are paying their fair share of the use of the infrastructure and not deferring the charge to future generations

"Break-Even" ROR to funds two things:
- Interest Expense
- Inflationary increase on historical investment of system

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Determination of Target Operating Income

- Operating Income divided by Net Book Value (Rate of Return %)
- Typically 4-7% for municipals

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Calculate Rate of Return

	Rate of Return		**Comments:**
	Electric		
A	33,057,749	Net Book Value	
B	**$ (1,071,944)**	**Operating LOSS 2013**	**Loss - Critical**
C	**$ 478,000**	**Operating Income 2012**	
(C/A)	**1.45%**	**2012 Return Percent**	**Very Low**

Comments:
NBV on Balance Sheet
Operating Income on Income statement
Divide Operating Income by NBV to get return %
Cost of service study and/or finanical projection to set a rate track to meet operating income
Rate of Return (Typical range 4-7%)

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Piecing the Targets Together

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How Three Targets Work Together

- Debt Coverage is the minimum to target
- Operating Income the maximum to target
- If capital improvement program causes cash reserves to fall below minimum cash requirements, bonds needed.
  - Only large capital or extraordinary = normal capital funded through rates

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Financial Projection
Base Case – No Rate Increase

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
Year 1	0.00%	140,298,723	141,333,703	(1,034,980)	35,313,396	6,975,000	-	2.34
Year 2	0.00%	143,900,552	146,605,317	(2,704,765)	29,549,231	6,265,000	-	2.14
Year 3	0.00%	145,430,257	150,971,486	(5,541,229)	20,701,100	6,516,000	-	1.78
Year 4	0.00%	147,395,894	155,879,882	(8,483,988)	7,246,116	8,123,000	-	1.42
Year 5	0.00%	148,176,101	160,519,276	(12,343,175)	(7,718,630)	7,068,000	-	1.13
Recommended Operating Income Target – Year 1				**$ 10,887,198**				
Recommended Operating Income Target – Year 5				**$ 10,273,763**				
Recommended Minimum Year 1					**$ 40,304,223**			**1.45**
Recommended Minimum Year 5					**$ 44,995,205**			**1.45**

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Financial Projection
Debt Coverage

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
Year 1	0.00%	140,298,723	141,333,703	(1,034,980)	35,313,396	6,975,000	-	2.34
Year 2	0.00%	143,900,552	146,605,317	(2,704,765)	29,549,231	6,265,000	-	2.14
Year 3	0.00%	145,430,257	150,971,486	(5,541,229)	20,701,100	6,516,000	-	1.78
Year 4	0.00%	147,395,894	155,879,882	(8,483,988)	7,246,116	8,123,000	-	1.42
Year 5	1.50%	150,139,276	160,519,276	(10,379,999)	(5,755,455)	7,068,000	-	1.43
Recommended Operating Income Target – Year 1				**$ 10,887,198**				
Recommended Operating Income Target – Year 5				**$ 10,273,763**				
Recommended Minimum Year 1					**$ 40,304,223**			**1.45**
Recommended Minimum Year 5					**$ 44,995,205**			**1.45**

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Financial Projection
Operating Income Adjustments

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
Year 1	9.50%	152,251,052	141,333,703	10,917,349	47,265,726	6,975,000	-	3.86
Year 2	1.00%	157,342,310	146,605,317	10,736,993	55,331,769	6,265,000	-	3.88
Year 3	2.00%	161,831,873	150,971,486	10,860,388	63,723,187	6,516,000	-	3.94
Year 4	1.50%	166,199,289	155,879,882	10,319,407	70,469,815	8,123,000	-	3.93
Year 5	2.50%	170,898,520	160,519,276	10,379,244	80,282,259	7,068,000	-	4.88
Recommended Operating Income Target – Year 1				**$ 10,887,198**				
Recommended Operating Income Target – Year 5				**$ 10,273,763**				
Recommended Minimum Year 1					**$ 40,304,223**			**1.45**
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Financial Projection
Minimum Cash Reserve Target

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
Year 1	2.80%	145,331,282	141,333,703	3,997,579	40,345,956	6,975,000	-	2.98
Year 2	1.00%	150,294,744	146,605,317	3,689,427	41,139,540	6,265,000	-	2.97
Year 3	2.00%	154,575,379	150,971,486	3,603,893	41,813,217	6,516,000	-	2.98
Year 4	3.50%	161,519,807	155,879,882	5,639,925	43,168,289	8,123,000	-	3.26
Year 5	0.90%	163,735,895	160,519,276	3,216,620	44,930,808	7,068,000	-	3.66
Recommended Operating Income Target – Year 1				**$ 10,887,198**				
Recommended Operating Income Target – Year 5				**$ 10,273,763**				
Recommended Minimum Year 1					**$ 40,304,223**			**1.45**
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Financial Projection Recommended Rate Track

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
Year 1	2.80%	145,331,282	141,333,703	3,997,579	40,345,956	6,975,000	-	2.98
Year 2	2.80%	152,669,729	146,605,317	6,064,412	43,514,526	6,265,000	-	3.27
Year 3	2.80%	158,116,137	150,971,486	7,144,652	47,806,147	6,516,000	-	3.43
Year 4	2.80%	164,233,081	155,879,882	8,353,199	52,069,264	8,123,000	-	3.62
Year 5	2.80%	169,308,261	160,519,276	8,788,985	59,693,430	7,068,000	-	4.55
Recommended Operating Income Target – Year 1				**$ 10,887,198**				
Recommended Operating Income Target – Year 5				**$ 10,273,763**				
Recommended Minimum Year 1					**$ 40,304,223**			**1.45**
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Power of Yearly Rate Increases

Financial Projection
Base Case – No Rate Increase

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
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Financial Projection Recommended Rate Track

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
Year 1	2.80%	145,331,282	141,333,703	3,997,579	40,345,956	6,975,000	-	2.98
Year 2	2.80%	152,669,729	146,605,317	6,064,412	43,514,526	6,265,000	-	3.27
Year 3	2.80%	158,116,137	150,971,486	7,144,652	47,806,147	6,516,000	-	3.43
Year 4	2.80%	164,233,081	155,879,882	8,353,199	52,069,264	8,123,000	-	3.62
Year 5	2.80%	169,308,261	160,519,276	8,788,985	59,693,430	7,068,000	-	4.55
Recommended Operating Income Target – Year 1				**$ 10,887,198**				
Recommended Operating Income Target – Year 5				**$ 10,273,763**				
Recommended Minimum Year 1					**$ 40,304,223**			**1.45**
Recommended Minimum Year 5					**$ 44,995,205**			**1.45**

The compounding effect of small yearly rate increases is amazing!

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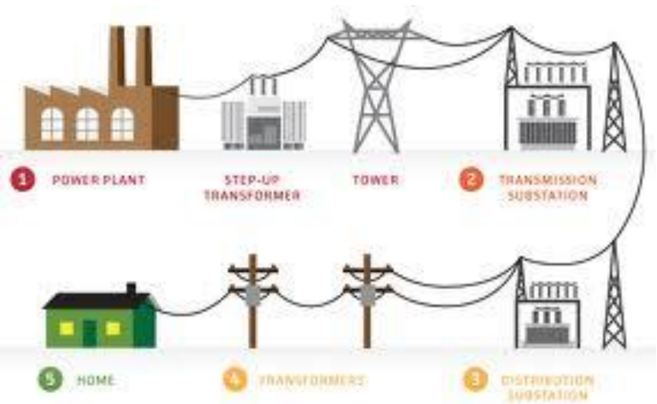
Best Practices – Rate Adjustments

- Small periodic increases to keep up with inflation
  - 0–5% – inflationary
  - 5–9% – a few large industrials
  - Double digits = complaints

- Implement increase in transition month = transparent

Other Financial Indicators to Check

Proper Asset Management



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Age of System

- Proper depreciation rates
- Accumulated deprecation/total historical investment in system
- Between 0.40 – 0.50 average range
- Over 0.60 depreciated system is aging
  - Capital program will probably be increasing in the future

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Capital Planning

- Ever cut capital to keep rates low?
- Five-year capital plan?
- "Pay as you go" for regular capital
- Bonding for extra-ordinary capital
- Future reinvesting in the system (at least depreciation, can be age dependent)

PILOT Payment
(Contribution to the City)

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Justification for Contribution to City

- Investor-owned utility would pay property taxes and/or franchise fee to the City
- City authorized formation of the electric utility
  - Risk of starting utility
- Transfers can come in many forms
  - Annual cash - % of Revenues or NBV
  - Free services
  - Aggressive allocations
  - One-time transfers

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Annual Cash Transfers

- If we know transfer amount, we can prepare rates to recover the costs
- Having a fair established amount can limit "one time" transfers
- Percent of Revenues:
  - Ranges seen 0% – 33%

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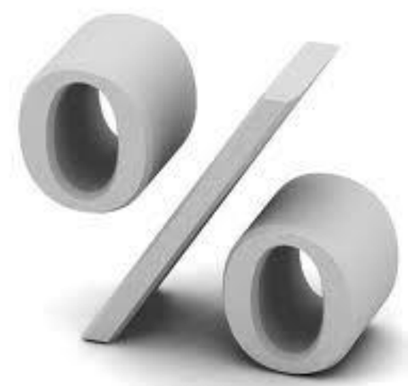
Contribution to City

- National average of cash-only contributions approximately 3.9% of Revenues
- National average including free service about 5.9% Revenues
- What we see: 7% on average



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Assessment of Rate Structure Risks – and Revenue Stability

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When was the last time your utility had a COS?

- Was the study used?
- Key indicator can be the monthly customer charge

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Cost of Service Studies

- Cost of Service studies should be completed every three to five years or when substantial changes in costs occur
  - Change in power supply contract,
  - Adding additional generation resources
  - Major distribution or transmission upgrade or investment

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Cost of Service Study

- Defines rates to recover costs to provide service to customers
- Defines Optimal rate structure
  - Customer Charge
  - kWh Charge
  - Demand Charge
  - Power Cost Adjustment
- Provides a document to defend and justify rates charged to a customer

Customer Charge and Rate Designs

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Customer Charges

- Costs that do not vary with usage:
  - Meter operation, maintenance and replacement
  - Meter reading
  - Billing Costs
  - Customer Service
  - Service into customers facilities
  - Portion of Distribution System (30-50% Minimum system)

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Customer Charges

- Increasing customer charges helps stabilize revenues
- Reduces subsidy between year-round customers and seasonal customers
- Can impact low use customers
- Low income not the same as low use
  - *At many utilities, low income customers tend to be higher than average users (depends on housing mix). A higher customer charge may benefit low income*

Typical Residential Cost Based Customer Charge

- Typical cost based residential customer charges:
  - Typical Municipal System – \$12 – \$25/Month
  - Rural Utilities – \$20 – \$30/Month
- Density of the service territory can affect the monthly customer charges

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Rate structure far from COS?
Rate Design the "Art"

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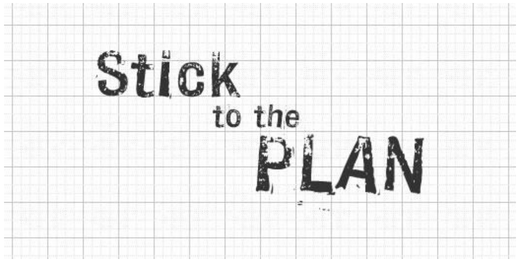
Correction of Customer Charges

- Correct during rate changes
- Revenue neutral rate adjustment when increases are not required
  - Customer charge increased
  - Energy charge decreased



- Set a plan to move in increments over time
- Look at impact by usage and dollar
  - Percentages can sound scary

COS Results

Customer Class	Current Customer Charge	COS Customer Charge	Difference
Residential	$ 6.80	$ 16.83	$ 10.03
General Service	10.80	84.80	$ 74.00
Large Power	50.00	154.51	$ 104.51

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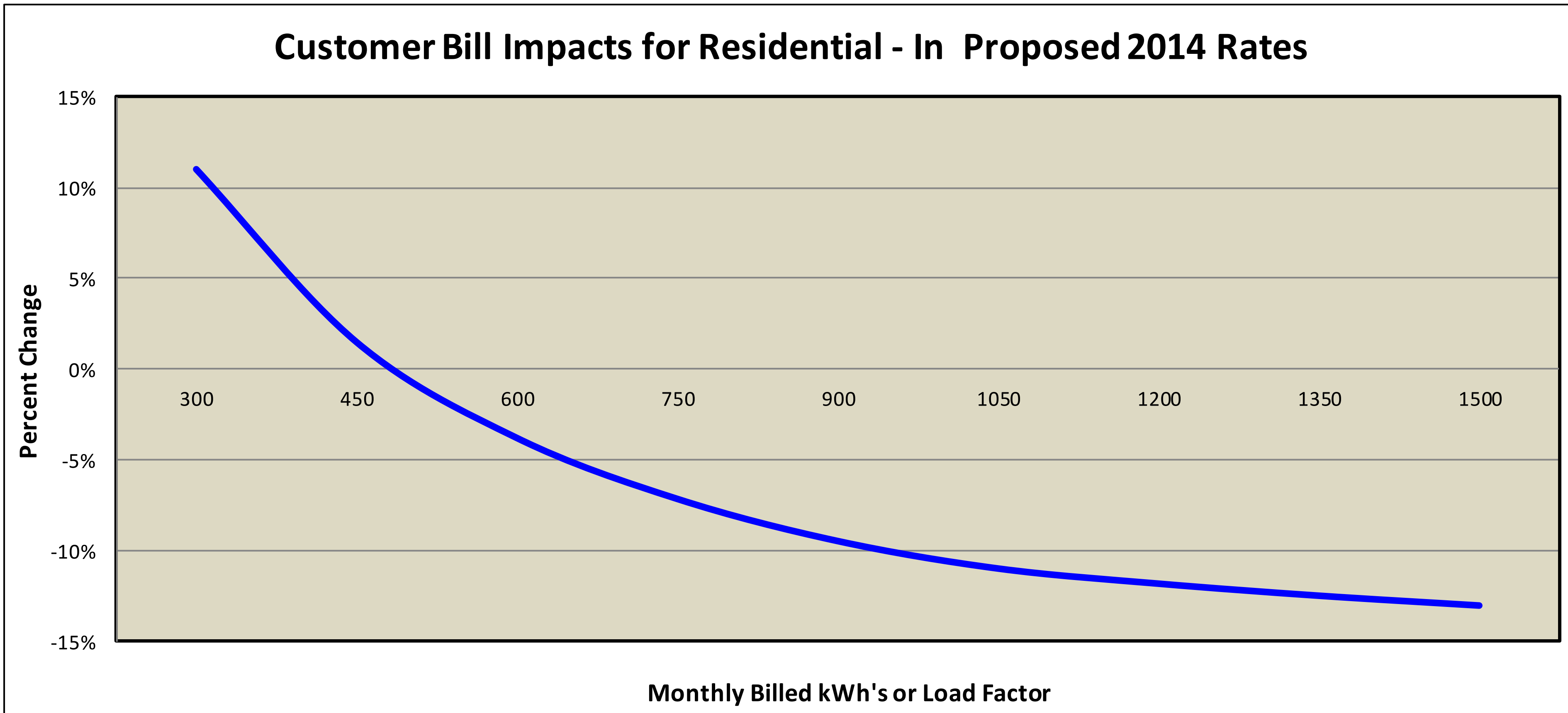
Current Rates		Proposed 2014 Rates		Cost of Service Rates	
Monthly Customer Charge:		**Monthly Customer Charge:**		**Monthly Customer Charge:**	
All Customers	$ 6.80	All Customers	$ 16.83	All Customers	$ 16.83
Energy Charge:		**Energy Charge:**		**Energy Charge:**	
Winter Block 1 (0 - 1000 kWh)	$ 0.0744	Winter Block 1 (0 - 1000 kWh)	$ 0.0685	Winter	$ 0.0750
Winter Block 2 (1001 - Excess kWh)	$ 0.0700	Winter Block 2 (1000 - Excess kWh)	$ 0.0685	Summer	$ 0.0890
Summer Block 1 (0 - 1000 kWh)	$ 0.0744	Summer Block 1 (0 - 1000 kWh)	$ 0.0800		
Summer Block 2 (1001 - Excess kWh)	$ 0.0700	Summer Block 2 (1000 - Excess kWh)	$ 0.0800		
Fuel Adjustment(PCA) (0 - 0 kWh)	$ 0.01862	Fuel Adjustment(PCA) (0 - 0 kWh)	$ -		
Revenues from Current Rates	$ 4,597,848	**Revenues from Proposed Rates**	$ 4,598,664	**COS Revenues**	$ 4,915,075
Model Proof to Financial Statements	***0.23%***	**Percentage Change from Current**	0.02%		



Current Rates		Proposed 2014 Rates		Cost of Service Rates	
Monthly Customer Charge:		**Monthly Customer Charge:**		**Monthly Customer Charge:**	
All Customers	$ 6.80	All Customers	$ 8.30	All Customers	$ 16.83
Energy Charge:		**Energy Charge:**		**Energy Charge:**	
Winter Block 1 (0 - 1000 kWh)	$ 0.0744	Winter Block 1 (0 - 1000 kWh)	$ 0.0880	Winter	$ 0.0750
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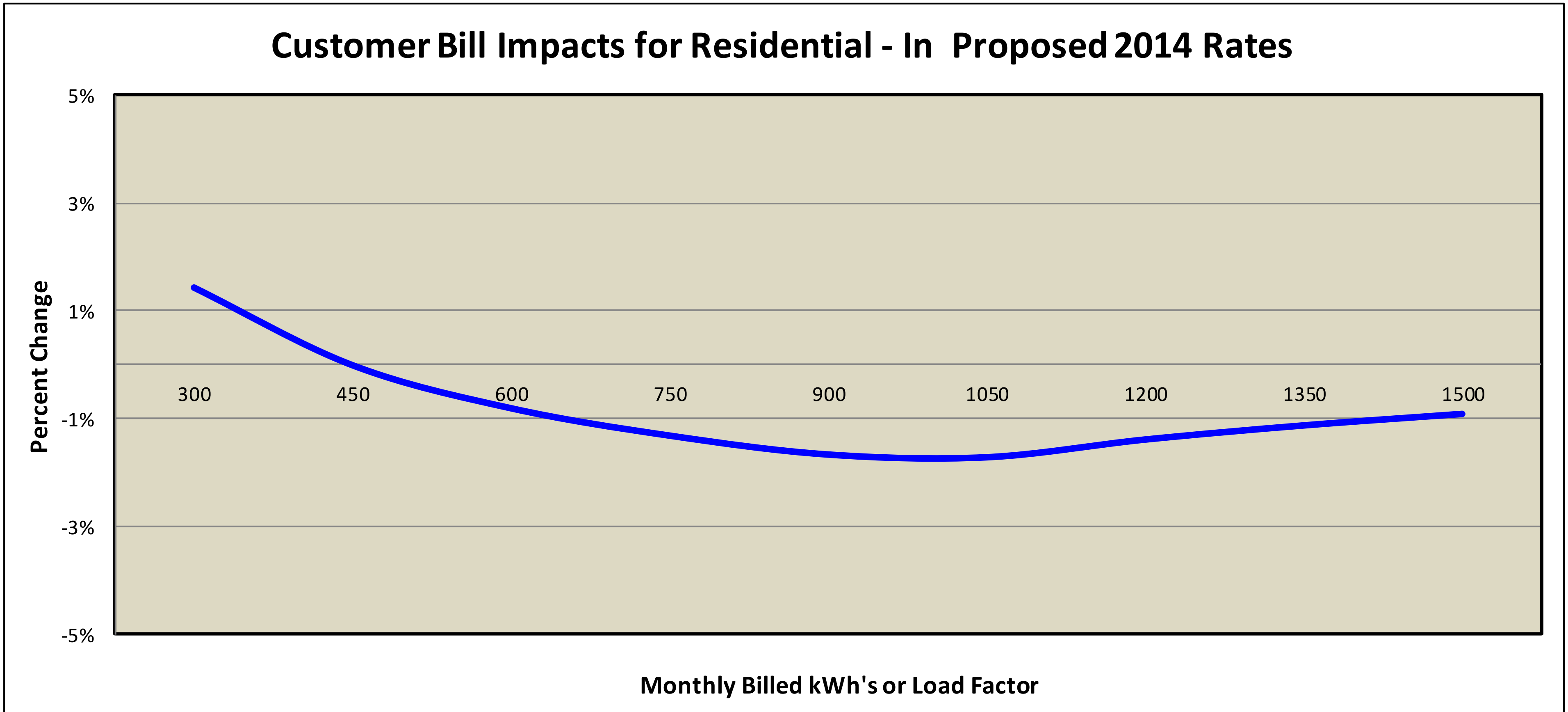
Summer Block 2 (1001 - Excess kWh)	$ 0.0700	Summer Block 2 (1000 - Excess kWh)	$ 0.0930		
Fuel Adjustment(PCA) (0 - 0 kWh)	$ 0.01862	Fuel Adjustment(PCA) (0 - 0 kWh)	$ -		
Revenues from Current Rates	$ 4,597,848	**Revenues from Proposed Rates**	$ 4,598,313	**COS Revenues**	$ 4,915,075
Model Proof to Financial Statements	***0.23%***	**Percentage Change from Current**	0.01%		



Demand Rate Set Properly?

- Could be harming your high load factor customers if cost recovery in kWh

- Try to correct with Economic Development rate??
  - Get the demand set properly first

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Distribution Cost Recovery

Method of Distribution Recovery					
Demand Rate	$ 5.90				
kWh Charge	0.0223				
Load Factor	**20.0%**	**30.0%**	**40.0%**	**50.0%**	**60.0%**
Peak Demand	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**
kWh's Used by Customer	**146,000**	**219,000**	**292,000**	**365,000**	**438,000**
Demand Rate	5,899	5,899	5,899	5,899	5,899
Energy Rate	3,259	4,888	6,517	8,147	9,776
Difference	(2,640)	(1,011)	619	2,248	3,877

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Power Costs Adjustment (PCA)

Mitigating Power Supply Risk

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(PCA) Power Cost Adjustment

- Automatic kWh charge that is passed-through to customers for increasing power costs
- Used by about 60% of the municipal systems and most investor owned
- Limits utilities expense risk (PP 60-80% O&M)
  - Does not limit board control of rates, concentrate on things more likely in their control – distribution and admin related (20% – 40%)
- Reduces amount and frequency of rate adjustments

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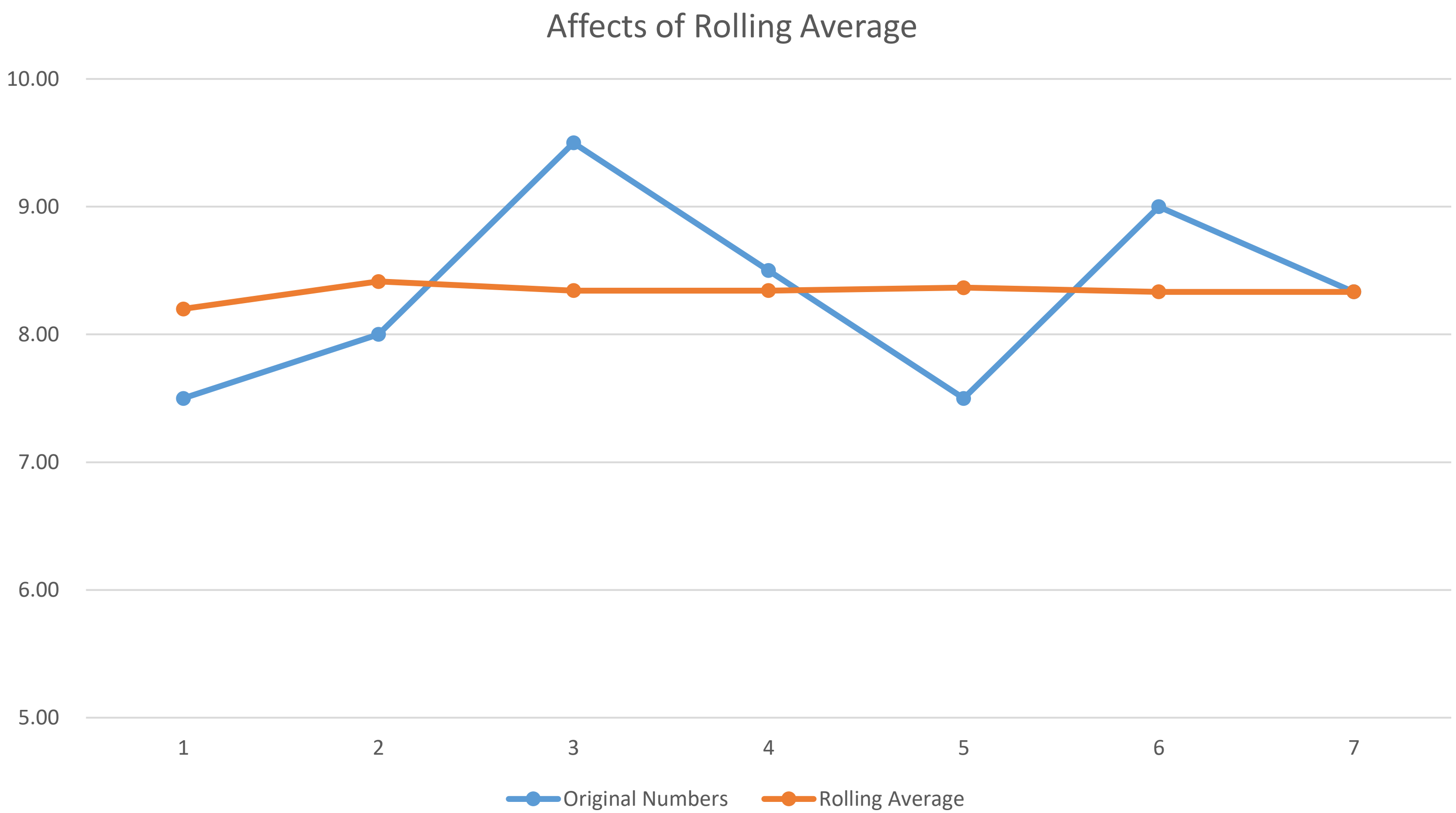
Possible PCA Pitfalls

- Large fluctuations can cause customer complaints
  - 6 to 12 month rolling average
- Are modifications subject to influences other than changes in power costs?
    - If so not a true PCA
- Are you “fixing” your PCA?

How Does it Effect Rates?



These are example numbers to show the mathematics of rolling average

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Does Utility Have a Process for Rate Change Approval?

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Know Your Board for Rate Planning

- Rate Policies of Utility
  - Every year
  - Three to five years
  - Almost Never?
    - Independent opinion = must
- Length of time to obtain approval
  - Board Control
  - Public Hearing
  - Short or Lengthy process

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Survey – They WILL Ask

- Survey of local rates is NOT a guide to determine if an increase is needed
  - On a <u>COS</u> basis, it doesn't matter what the neighbor charges
  - Structure apple to apples?
  - Are you comparing yourself to a financially burdened utility
    - Do you really want to be like "them"?
- Surveys can be used be sensitive in the rate design, not guide for a rate adjustments

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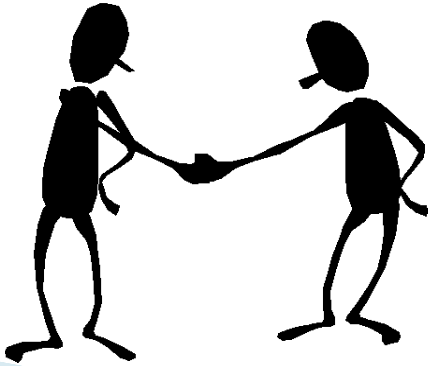
City	Monthly
Community 1	$45.02
Community 2	$49.01
Community 3	$50.35
Community 4	$54.25
Community 5	$59.00
Community 6	$63.46
Community 7	$63.80
Community 8	$65.36
Community 9	$68.00
Community 10	$69.67
Community 11	$71.47
Community 12	$71.75
Community 13	$72.20
Community 14	$78.77
Community 15	$82.88
Community 16	$95.00
Community 17	$95.80
Community 18	$98.98
Community 19	$100.64
Community 20	$101.10
Community 21	$104.60
Community 22	$109.63
Community 23	$113.30
Community 24	$117.10
Community 25	$117.23
Community 26	$120.40
Community 27	$120.80
Community 28	$121.10
Community 29	$122.59
Community 30	$134.90
Community 31	$140.40

Educate your Board NOW

- Educate Board on importance of COS and financial targets
  - Critical they understand
  - Don't wait until an increase is needed – ongoing process
- Get input from them = "buy-in"
- Get Formal Approval on Targets
- More likely to act and support when needed



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Questions?

Dawn Lund, Vice-President
Utility Financial Solutions, LLC
dlund@ufsweb.com

ATTACHMENT #2

Accounting & Finance Webinar Series

Developing Cash Reserve Policies

September 10, 2018 | 2 – 3:30 p.m. Eastern

Dawn Lund

Vice President, Utility Financial Solutions

Traverse City, Michigan

dlund@ufsweb.com

231-218-9664

Accounting & Finance Webinar Series

Upcoming Webinars*:

- **Aligning Rate Strategies to Future Trends: September 25, 2018**
- **A Financial Health Check-Up: October 9, 2018**

Past Webinars**:

- **Financial Pathways to the Utility of the Future**
- **How to Set and Achieve Revenue Targets**
- **Meeting New GASB Standards**

**All webinars take place from 2-3:30 p.m. Eastern*

***All webinars are recorded. Recordings are available for purchase at www.PublicPower.Org/Shop*

Establishing a Cash Reserve Policy

APPA Webinar

Instructor:

Dawn Lund
Vice President
Utility Financial Solutions
Traverse City, Michigan

P: 231-218-9664
E: dlund@ufsweb.com

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- International consulting firm providing cost of service and financial plans and services to utilities across the country, Canada, Guam and the Caribbean
- Instructors for cost of service and financial planning for APPA, speakers for organizations across the country.
- Hometown Connections preferred vendor for COS and financial analysis

Objectives

- Importance of cash reserve policy
- Factors that influence a utility's need for cash reserves
- Calculation of a sample cash reserve policy
- Other Cash Factors
- Methodology for any size utility
- Methodology for other utility types

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Why Development of a Cash Reserve Policy is Important

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Reasons for Adequate Cash

Funds exist to:

- Pay expenses
- Fund system improvements help ensure reliability
  - Normal capital improvements = approx depreciation expense
- Pay Debt Service
- Fund unanticipated cost contingencies
- Phase in large rate adjustment
- Keep utility healthy for future Mgmt.

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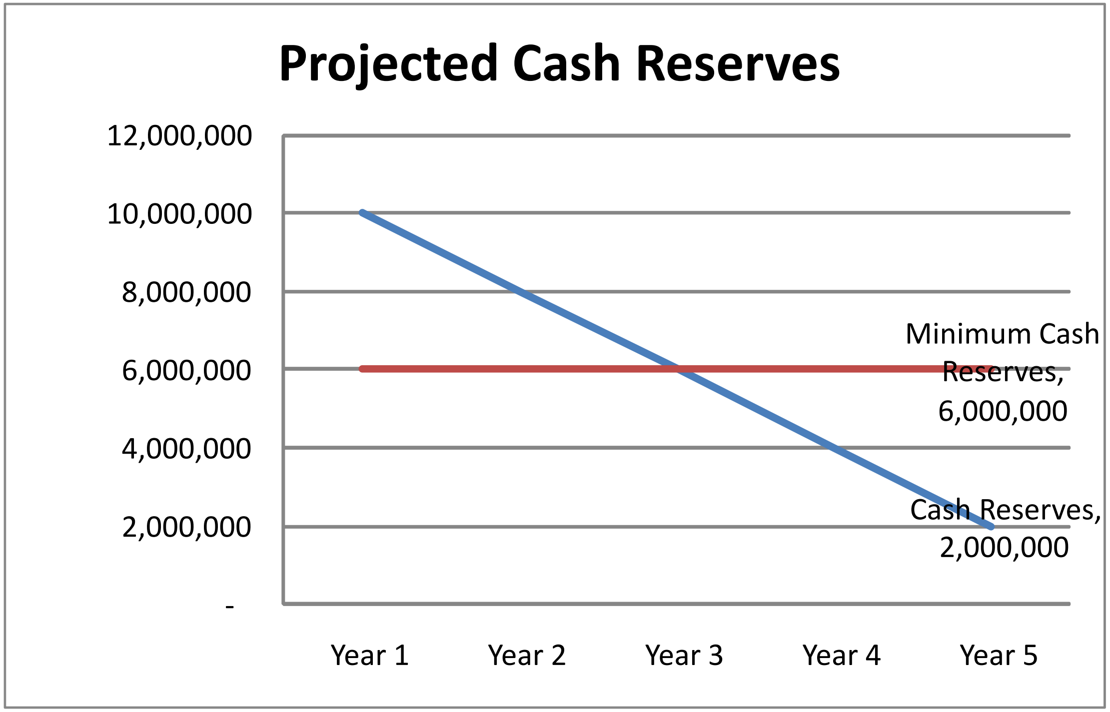
Cash Reserve Policy

Helps to:

- Justify cash reserves to customers, councils and boards
- Provides detailed description of methodology
- Maintain adequate reserve levels with changes in management, Boards and Councils
- Encourage periodic reviews of cash levels
  - Rate and borrowing needs
- Reduce chance of unexpected transfer to City

Helps Identify Bonds Issuances

- If rates set appropriately and large capital cause cash to fall below minimum = bond issuance



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Policy to Help Determine Debt Issues

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balance	Projected Bond Issue	Projected Capital Improvements	Debt Coverage Ratio
2016	7.2%	$ 8,880,192	$ 7,849,810	$ 1,030,382	$ 2,987,259	$ -	$ 2,295,000	3.2
2017	8.0%	9,630,416	8,593,957	1,036,458	140,860	-	4,500,000	4.0
2018	3.3%	9,994,509	8,862,822	1,131,687	895,866	-	900,000	4.0
2019	3.3%	10,372,486	9,134,200	1,236,285	1,973,111	-	750,000	4.3
2020	3.3%	10,764,876	9,428,300	1,336,546	2,799,178	-	1,200,000	4.8
Recommended Target in 2016				$ 1,030,129				
Recommended Target in 2020				$ 1,326,266				
MINIMUM Recommended in 2016					$ 3,640,377			1.40
MINIMUM Recommended in 2020					$ 3,865,323			1.40

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Recommended Rate Track with Bond Issue

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balance	Projected Bond Issue	Projected Capital Improvements	Debt Coverage Ratio
2016	7.0%	$ 8,863,811	$ 7,849,810	$ 1,010,001	$ 2,970,878	$ -	$ 2,295,000	3.2
2017	7.0%	9,524,555	8,593,957	930,598	3,456,671	3,500,000	4,500,000	3.5
2018	3.0%	9,856,193	8,862,822	993,371	3,968,019	-	900,000	2.8
2019	3.0%	10,199,477	9,134,200	1,065,277	4,756,558	-	750,000	3.0
2020	3.0%	10,554,816	9,428,330	1,126,487	5,244,599	-	1,200,000	3.2
Recommended Target in 2016				$ 1,030,129				
Recommended Target in 2020				$ 1,208,590				

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Cash Reserve Policies and Bond Rating

- Establishing a formal policy important factor for bond rating
  - 150+ days for higher rating (moving to 200?)
- A cash reserve policy in isolation will not necessary improve bond ratings
- Many other key indicators considered

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Bond Rating Agencies

- Why ratings are important
  - Higher rating, considered lower risk
    - Better interest rate on debt
  - Confidence doing things right
  - Pride

Cash Reserve Policy

- Policy should identify **minimum** cash reserve level
- Cash should be allowed to flow above the minimum level
- Cash reserves will fluctuate over time, usually depending on age of assets and capital improvement program

Some Utilities Identify Maximum Levels of Reserves

- Some Utilities will specify a maximum cash reserve
- Due to external pressures a maximum may be considered by the utility
- We don't recommend a maximum
  - Are you reinvesting enough in the system?
  - Move to restricted for "future XX"

Types of Cash Reserve Policies

Most Common Policy –

Number of Days of Expenses

- 90 – 180 days O&M
- 45 days operating expenses plus single proxy emergency event
- 50% of capital expenditures

Factors that Influence Cash Reserves

- Timing differences between when expenses are incurred and revenues received from customers
- Future capital improvement program
- Annual debt service payments
- Historical Asset Investment
  - Ice or Wind Storm
  - Hurricane

Operating Factors that Influence Cash Reserves

- Utilities control over rates
- Rates ability to recover fixed operating costs
  - Customer Charge
  - Demand Charges
  - Structure of Rates
- Cash Cycles (peaks and valleys in Expenses – irrigation billing)
- Other unique to your utility

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Identification of Minimum Cash Reserves
Case Example

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Determination of Minimum Cash
At Least Five Factors to Consider

Five Risk Factors to Consider	% Risk Range to Allocate	Influenced By:
O&M Expenses (Less Power Costs and Depreciation)	12-25%	Billing Cycle - timing of expenses VS Receipts
Power Costs	10-25%	Max Month converted to working capital days
Historical Investment in Assets	1-3%	Age of System, Likelihood of ice, wind, other
Annual Debt Payment	50-100%	Timing of Debt Payments
Total Five-Year Capital Plan	20%	1/5 of five-year plan - funds beginning of season
Total of These Five Items		**$X,XXX,XXX MINIMUM Recommendation**

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Operation and Maintenance Expenses

- Range 12-25% (45 to 90 days) of yearly O&M
- Working Capital Lag –
  - Timing differences exist between when expenses are incurred and revenues received
- Average Municipal 45 days or 12.3% (45/365days)
    - 15 days avg month, 5 days read/bill, 20 days due, 5 days for to receive payment

Working Capital O&M

Annual O&M (Excluding Power Supply & Depr)	$	24,000,000
Factor (45 days/365days = 12.3%)		12.3%
Working Capital	$	2,958,904
12.3% Factor = 45 Days Divided by 365 Days		

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O&M Line Item

Five Risk Factors to Consider	% Risk Range to Allocate	Influenced By:
O&M Expenses (Less Power Costs and Depreciation)	**12.30%**	**$2,958,904**
Power Costs	10-25%	Max Month converted to working capital days
Historical Investment in Assets	1-3%	Age of System, Likelihood of ice, wind, other
Annual Debt Payment	50-100%	Timing of Debt Payments
Total Five-Year Capital Plan	20%	1/5 of five-year plan - funds beginning of season
Total of These Five Items		**$X,XXX,XXX MINIMUM Recommendation**

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Power Costs

- Review peak monthly power supply costs
- Adjust for working capital lag time
- Does Utility have a PCA?

Power Costs

- Review peak monthly power supply costs

Month	Power Supply Expense
January	2,340,695
February	2,319,399
March	2,416,769
April	2,436,267
May	3,564,256
June	3,696,283
July	**3,783,388**
August	3,751,459
September	3,533,570
October	3,039,720
November	2,588,718
December	2,885,649
Total Power Supply Expense	**36,356,174**

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Working Capital Power Costs

Max Monthly Power Expense	$	3,783,388
Factor to convert 30 days into 45 days		1.5
Total Working Capital Power Supply 45 days	**$**	**5,675,082**
Total Yearly Power Costs	$	36,356,174
Percent of Total Yearly Power Costs		15.6%

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Power Costs Line Item

Five Risk Factors to Consider	% Risk Range to Allocate	Influenced By:
O&M Expenses (Less Power Costs and Depreciation)	**12.30%**	**$2,958,904**
Power Costs	**15.60%**	**5,675,082**
Historical Investment in Assets	1-3%	Age of System, Likelihood of ice, wind, other
Annual Debt Payment	50-100%	Timing of Debt Payments
Total Five-Year Capital Plan	20%	1/5 of five-year plan - funds beginning of season
Total of These Five Items		**$X,XXX,XXX MINIMUM Recommendation**

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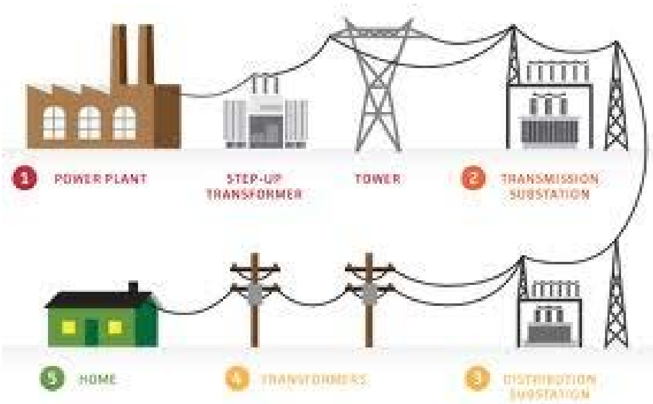
Historical Investment in system

- Capital lag used to factor in risk of catastrophic event
  - Consider Age of Assets
  - Accumulated depreciation expense divided by asset investment
- Assumptions for Base Case:
  - If less than 50% = 1%
  - Between 50% - 55% = 2%
  - Over 55% = 3%



Historical Investment

	Amount
Total Historical Investment	165,585,000
Accumulated Depreciation	87,101,683
Percent of Total	52.6%
Factor	2.0%
Cash Reserve	**$ 3,311,700**

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Historical Investment Line Item

Five Risk Factors to Consider	% Risk Range to Allocate	Influenced By:
O&M Expenses (Less Power Costs and Depreciation)	**12.3%**	**$2,958,904**
Power Costs	**15.6%**	**5,675,082**
Historical Investment in Assets	**2.0%**	**3,311,700**
Annual Debt Payment	50-100%	Timing of Debt Payments
Total Five-Year Capital Plan	20%	1/5 of five-year plan - funds beginning of season
Total of These Five Items		**$X,XXX,XXX MINIMUM Recommendation**

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Debt Service

- Debt Service payments are often made twice per year
- Cash reserve policy attempts to make sure payment is available in reserves when needed
- Often uses peak payment

Debt Service Working Capital

Date	Principal	Interest	Total
10/1/2015	$ -	$ 123,313	$ 123,313
4/1/2015	382,566	123,313	505,879
Total	$ 382,566	$ 246,626	$ 629,192
Highest Payment divided by Annual Debt Service			80.4%

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Debt Service Line Item

Five Risk Factors to Consider	% Risk Range to Allocate	Influenced By:
O&M Expenses (Less Power Costs and Depreciation)	**12.3%**	**$2,958,904**
Power Costs	**15.6%**	**5,675,082**
Historical Investment in Assets	**2.0%**	**3,311,700**
Annual Debt Payment	**80.4%**	**505,879**
Total Five-Year Capital Plan	20%	1/5 of five-year plan - funds beginning of season
Total of These Five Items		**$X,XXX,XXX MINIMUM Recommendation**

Capital Improvements

- Cash available in reserves to fund capital expenses at beginning of construction season
- Capital expenditures can fluctuate annually; smooth fluctuations by use of a five year average
- Subtract planned bond issuances from five-year plan

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Capital Improvements

	2016	2017	2018	2019	2020	Total
Capital Expenditure	2,000,000	2,500,000	4,000,000	3,500,000	3,000,000	15,000,000
Bond Proceeds						6,000,000
Five year total						**$ 9,000,000**
Cash Policy Amount						20%
Cash Reserves						**$ 1,800,000**

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Minimum Reserve Policy

Five Risk Factors to Consider	% Risk Range to Allocate	MINIMUM Reserves
O&M Expenses (Less Power Costs and Depreciation)	12.3%	$2,958,904
Power Costs	15.6%	5,675,082
Historical Investment in Assets	2.0%	3,311,700
Annual Debt Payment	80.4%	505,879
Total Five-Year Capital Plan	20.0%	1,800,000
Total of These Five Items		$14,251,565

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Reserve Policy as a Whole

- Not establishing an amount – establishing methodology
  - Formula updated each year with budget process
- Minimum cash in total not each line item
- Check for reasonableness
- Change risk percent to line up with goals

Simplification of Policy

- Once the methodology is established, can simplify policy for number of days of O&M

Policy Simplification		
Annual Expense	$	24,000,000
Power Supply		36,356,174
Total Expenses	**$**	**60,356,174**
Minimum Cash Reserve	$	14,251,556
Factor ($60,356,174/$14,251,556)		4.23
Days Cash on Hand (365/4.23)		**86.0**

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Calculate Your Days Cash on Hand

			Comments:
	Cash On Hand		
	Electric		
A	$ 33,945,391	O&M Expenses	
B	$ 5,205,300	Cash on Hand (non-restricted)	
(A/B)	6.52	Factor	
365/Factor	56	**Days Cash on Hand of Total O&M for Electric**	**LOW**

Comments:
Find this information on your balance sheet and Income statement
Establish a Cash reserve policy for each utility
Typical Range 90-120 days of O&M
High Bond Rating 150 Days

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Formal Policy Development

Just Calculating Doesn't Make it a Solid Guideline

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Development of Policy

- Helps ensure cash objections kept intact – change in management/Board
- List methodology and show calculations in policy for future consistency
- Identify time period to restore cash reserve if falls below minimum cash levels
  - Example three to five year to restore cash levels
  - Cash restored through issuance of debt, rate adjustments, reduced expenses

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Implementation

- Explain the need for maintaining appropriate levels of cash reserves
- Explain assumptions to Governing Body
- Request input on assumptions
- Develop into policy format and get formal approval

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Other Cash Considerations

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Capital Planning

- Ever cut capital to due to cash flow and keeping rates low?
- Five year capital plan?
- “Pay as you go” for regular capital
- Bonding for extra-ordinary capital
- Future reinvesting in the system (at least depreciation, can be age dependent)

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Age of System

- Accumulated deprecation/total historical investment in system
- Between 0.40 - 0.50 average range
- Over 0.50 depreciated system is aging
    - o Capital program will probably be increasing in the future and put upward pressure on cash

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Calculate Investment Analysis

Electric Yearly Depreciation				Comments:
$ 1,863,509	Depreciation			
$1,500,000	Average Capital			Acceptable

Recommendation:
Yearly Capital Expenditure ON AVERAGE should mirror Depreciation (Some years will be more, some less)
This should be looked at in conjuncion with the "Age of System" : Older may need to reinvest more than depreciation

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PILOT Payment (Contribution to the City)

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Justification for Contribution to City

- Transfers can come in many forms
  - o Annual cash - % of Revenues or NBV
  - o Aggressive allocations
  - o One time transfers
- Non-Cash
  - Free Services

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Annual Cash Transfers

- If we know transfer amount, we can prepare rates to recover the costs
- Having a fair established amount can limit “one time” transfers
- Percent of Revenues:
  - Ranges seen 0% - 33%

Consideration of Administrative Cost Sharing Between Utility Departments

- Common cost between utilities should be based on a cost allocation review
  - Human Resources
  - Information systems
  - General manager
- Electric, water, wastewater, gas and telecommunications services are all funded through rates

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Administrative Transfers

- Are allocations of shared services appropriate?

- Do not base allocation on percent of revenues
  - Tends to over allocate shared costs to Electric Department
  - Power supply drives allocation

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One-Time Transfers

- Difficult for utility to include one time transfers in financial plan – will draw down cash
- Board/City Council training to understand the utilities need to replace existing infrastructure and the need for adequate cash reserves
- Electric utility is not a “cash cow”

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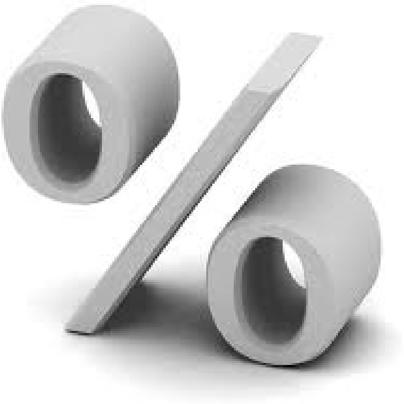
Contribution to City

- National average of cash-only contributions approximately 3.9% of Revenues
- National average including free service about 5.9% Revenues
- What we see: 7% on average



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Each Utility is a Enterprise Fund

- Each utility is a separate enterprise fund and the revenues should support the expenses
- Combined Financials?
- Combined Cash account?
- Is Electric subsidizing other utilities?
- Inter-fund borrowing?
  - Scheduled payback?

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Review

- Assess the Five Major Risk Areas
- Add utilities unique risks/goals
- Create the methodology
- Check for Reasonableness 90- 150+
- Develop a Formal Policy and get Approval
- Update Calculation Annually with Budget Process

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Questions?

Instructor:

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Vice President
Utility Financial Solutions
Traverse City, Michigan

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E: dlund@ufsweb.com

Upcoming Association Events

Webinars

Lessons from the Field: Wireless Deployment Best Practices and Issues
(*Pole Attachments Webinar Series*)
September 13

Risk-Based Disposal for PCB Remediation Waste
September 19

Electrical Diagnostic Testing of Power Transformers for Municipals
September 20

Aligning Rate Strategies to Future Trends
(*Accounting & Finance Webinar Series*)
September 25

Communications 101: Resources for Utilities and City Officials
(Raising Awareness of Public Power Webinar Series)
September 26

The Public Power Data Source: Customer Feedback and Data
September 27

Webinars typically run from 2 – 3:30 p.m. Eastern and are recorded in case you miss the live version.

Conferences and In-depth Courses

Business and Financial Conference
September 16 –19 ▪ Anaheim, CA

Fall Education Institute & Public Power Leadership Workshop
October 1-5 ▪ Orlando, FL

Featuring 16 in-depth courses including:
- Accounting
- Cost of Service & Rate Design
- Key Accounts Certificate Program
- Technical Training
- Executive Leadership

Public Power Leadership Workshop
October 3-5 ▪ Orlando, FL

Legal and Regulatory Conference
October 7-10 ▪ Charleston, SC

Customer Connections Conference
November 4-7 ▪ Orlando, FL

Visit www.PublicPower.org/Academy

ATTACHMENT #3

Power Dept Review of Resources

September 25, 2019 Council Workshop

Current Murray Portfolio Mix

- **CRSP** – Federal Hydro (Glen Canyon/Flaming Gorge)
- **WRP** – Western Resource Project (supplemental CRSP)
- **Hunter** – Coal fired plant near Price, Utah
- **San Juan** – Coal fired plant near Four Corners area
- **Little Cottonwood Hydro** – run of the river flow
- **Landfill Methane plants** – TransJordan and Salt Lake County
- **Natural gas turbines** – 4800 South in Murray
- **PX** – Power Exchange – hourly deals on-line
- **UAMPS** – Monthly and seasonal agreements
- **IPA** – Intermountain Power Agency – Coal plant near Delta, Utah
- **Power Marketers** – long term and seasonal agreements

Current and Future Murray Portfolio Mix

- **CRSP** – Federal Hydro (Glen Canyon/Flaming Gorge)
- **WRP** – Western Resource Project (supplemental CRSP)
- **Hunter** – Coal fired plant near Price, Utah
- **San Juan** – Coal fired plant near Four Corners area
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- **Natural gas turbines** – 4800 South in Murray
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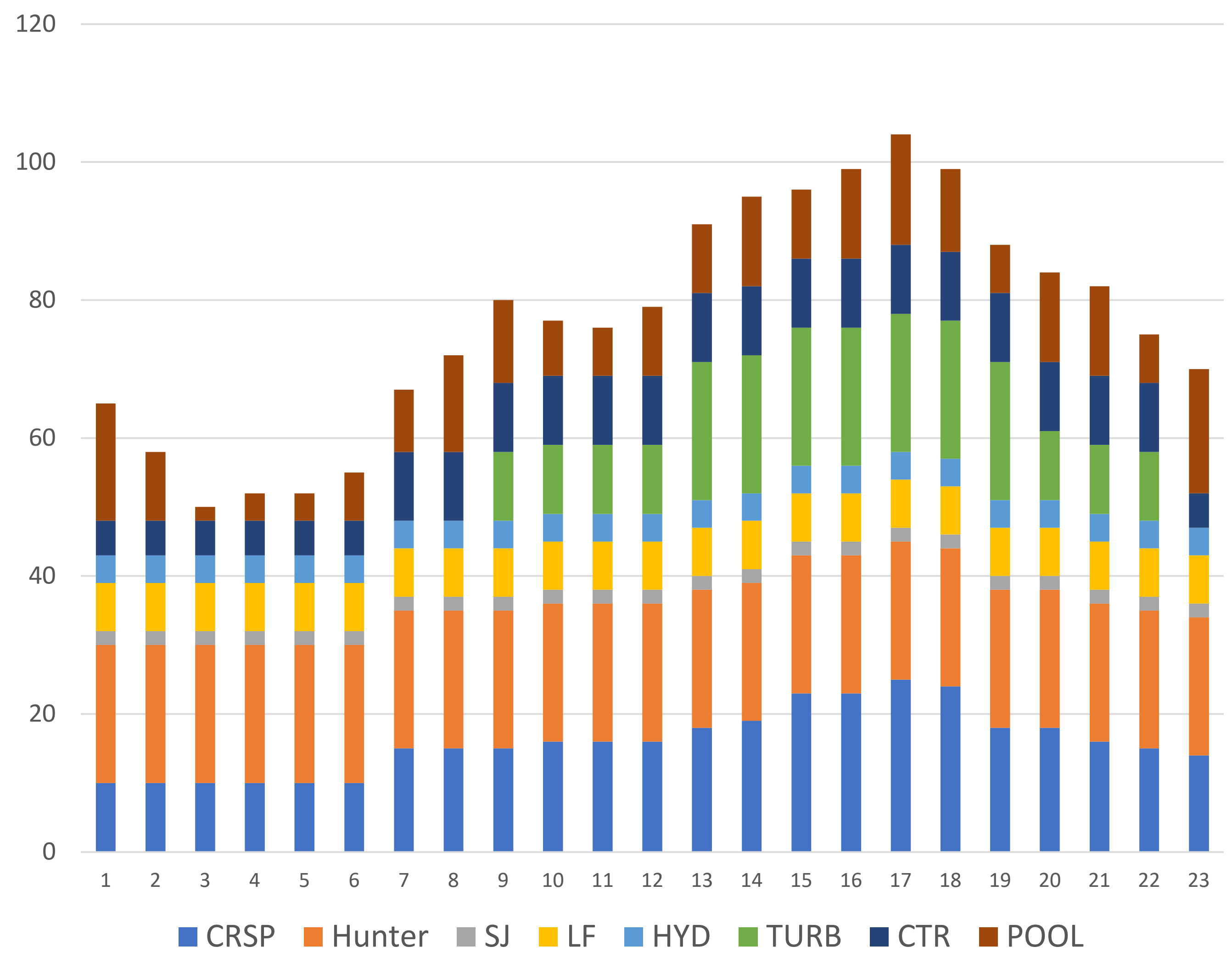
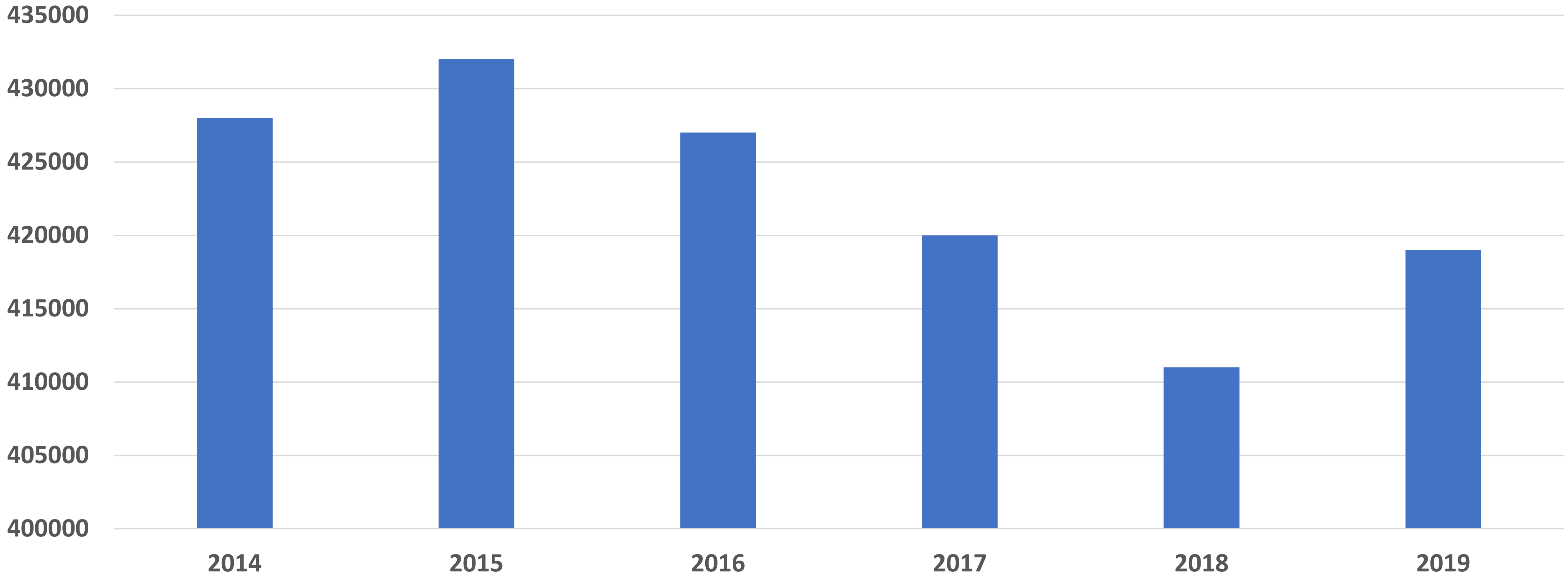
- **UAMPS** – Monthly and seasonal agreements
- **IPA** – Intermountain Power Agency – Coal plant near Delta, Utah
- **Power Marketers** – long term and seasonal agreements
- **NTUA** – large scale solar from Navajo Nation – 2022
- **SMR** – Small scale nuclear at INL Site – 2025
- **IPA**- re-fueled from coal to natural gas at Delta plant - 2025

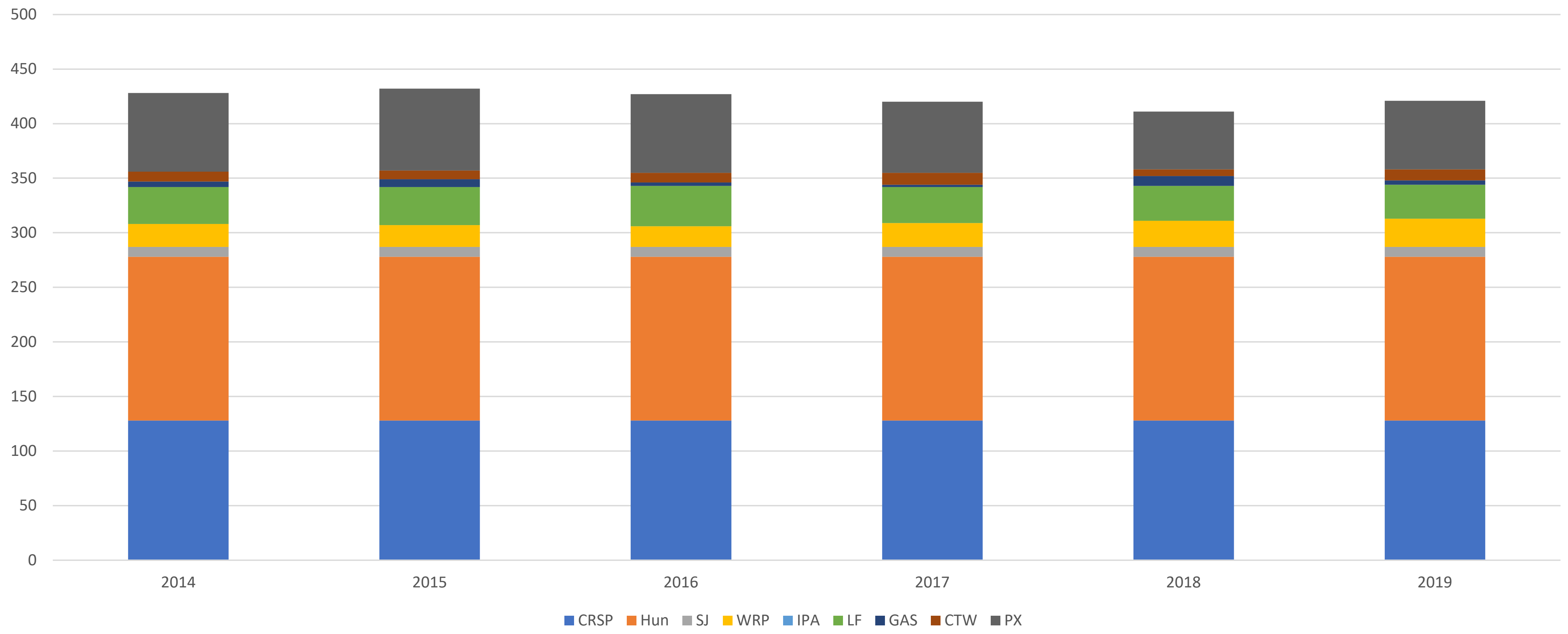
MURRAY TYPICAL SUMMER MW HOURLY LOAD



Murray City Energy Use (MWH)



Murray City Energy Needs (MHW)



Murray City Energy needs/future (mwh)