RIVERSIDE PUBLIC UTILITIES

UTILITY 2.0

THRIVING FINANCIALLY ROADMAP

JULY 29, 2015

WATER | ENERGY | LIFE

CITY OF RIVERSIDE

PUBLIC UTILITIES

RiversidePublicUtilities.com

TABLE OF CONTENTS

Critical Areas Summary

Rates

- Comparisons – how me measure up
- History
- Ratemaking Principles
- Design
- Impacts/Issues
- Rate Structure – next steps

Financial & Reserve Policies Overview

Debt

10 Year Pro Forma

- Investment Options (Roadmaps)
- Pro forma Examples

Other Finance Items

ROAD MAPS – INFRASTRUCTURE IMPROVEMENT – THRIVING FINANCIALLY – MISSION/GOALS

THRIVING FINANCIALLY

This roadmap supports the changes that are needed for our infrastructure and workforce to reach Utility 2.0.

- Creating a planning tool/model
- Establishing key financial components and targets
- Assessing issues and impacts to rates, reserve levels and bond coverage ratios
- Developing options/alternatives for future pricing models

THE PLANS

- RECYCLED WATER
- WATER INFRASTRUCTURE
- INTEGRATED WATER
- WORKFORCE DEVELOPMENT
- FACILITIES PLAN
- RPS POWER IMPLEMENTATION
- INTEGRATED POWER RESOURCES
- ELECTRIC INFRASTRUCTURE
- TRANSMISSION RELIABILITY
- FIBER BUSINESS
- TECHNOLOGY
- CONSERVATION AND EFFICIENCY
- FINANCIAL PRO FORMA - 10 YR

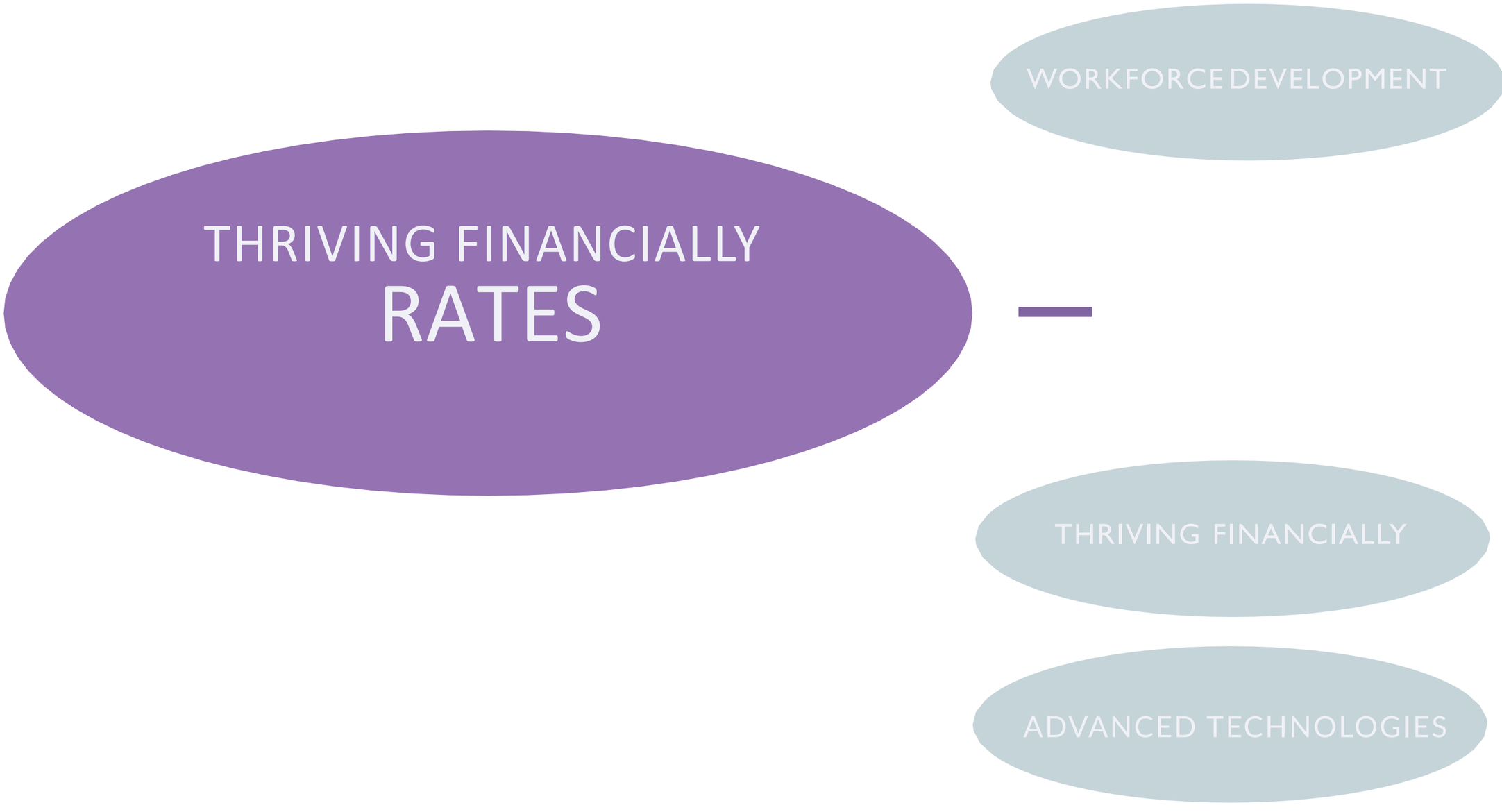
RPU Initiatives - Four Critical Areas

Replace
Aging Water and Electric Infrastructure
while balancing cost impacts.

Develop our Workforce
such that it addresses the need for changing skill sets.

Utilize
Advanced Technology
in all areas of out business to provide more efficient and better customer service, both behind and in front of the meter.

Thrive Financially
by ensuring costs are recovered and **develop a new business model to** adapt for the future.

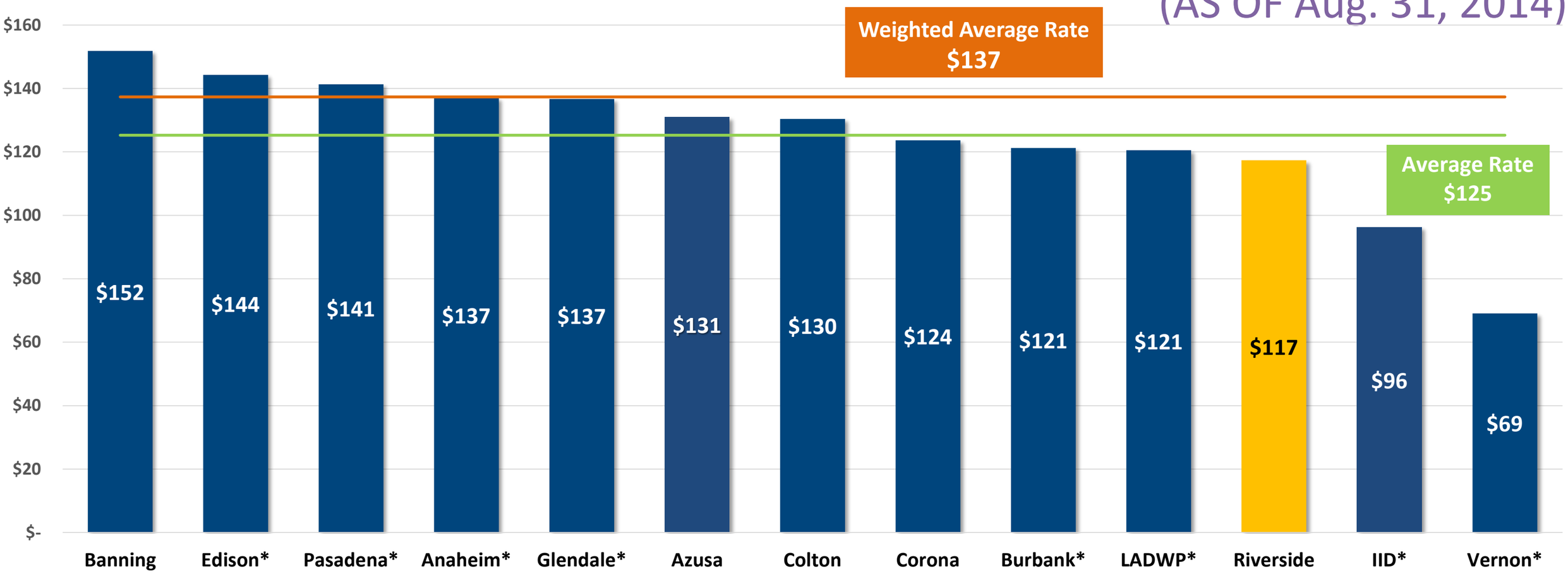

WORKFORCE DEVELOPMENT
THRIVING FINANCIALLY
RATES
–
THRIVING FINANCIALLY
ADVANCED TECHNOLOGIES

RPU Current Rates

Rate Type	Electric		Water	
	Residential	Other	Residential	Other
Residential / Domestic	X		X	
Domestic Time of Use	X			
Commercial / Industrial / Contract		X		X
Economic Development / Business Retention / Temporary Economic Development		X		
Net Energy Metering	X	X		
Feed-In Tariff		X		
Street / Outdoor Lighting		X		
Agricultural & Pumping / Wind Machines		X		
Stand-By-Service		X		
Traffic Control Service		X		
Irrigation / Grove Preservation			X	X
Riverside Water Company Irrigators / Greenbelt Irrigation				X
Special Landscape				X
Fire Protection / Fire Hydrants / Temporary Service				X
Recycled Water				X

Electric – Rate Comparison

AVERAGE RESIDENTIAL RATE FOR 750 KWH PER MONTH (AS OF Aug. 31, 2014)



* Rate increase subsequent to comparison

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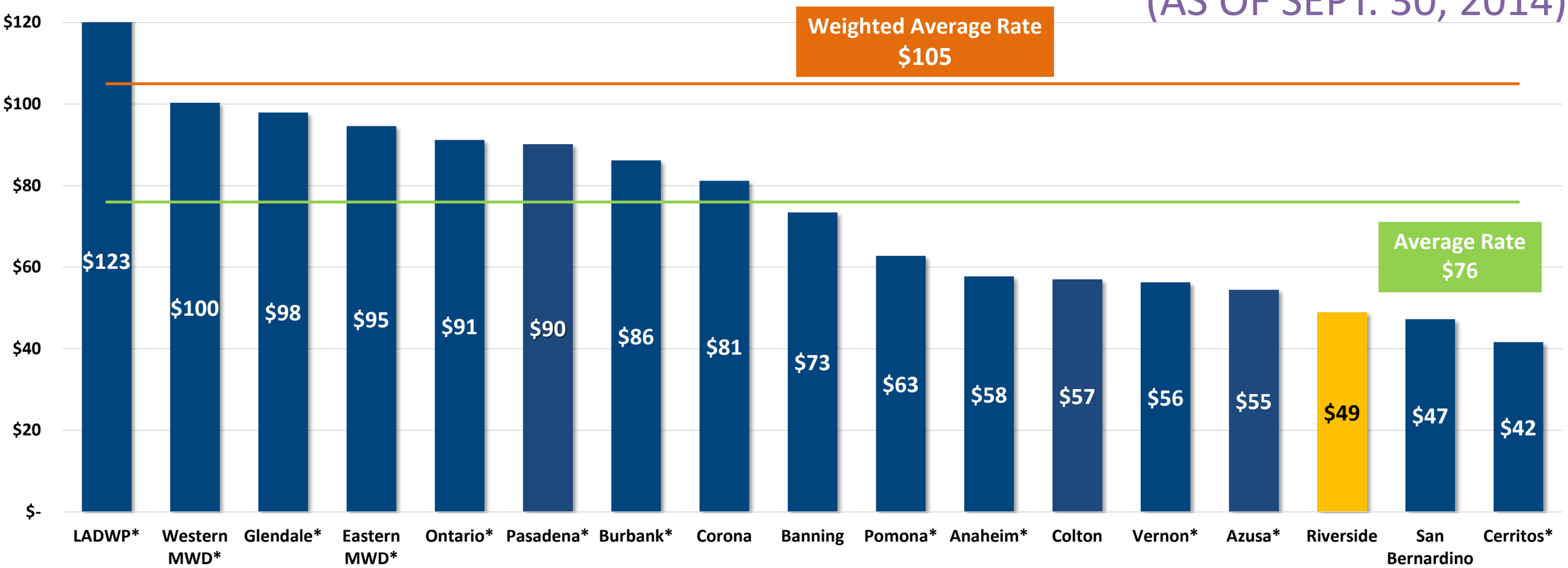
Water – Rate Comparison

AVERAGE RESIDENTIAL RATE FOR 25 CCF PER MONTH (AS OF SEPT. 30, 2014)



* Rate increase or drought rates implemented subsequent to comparison

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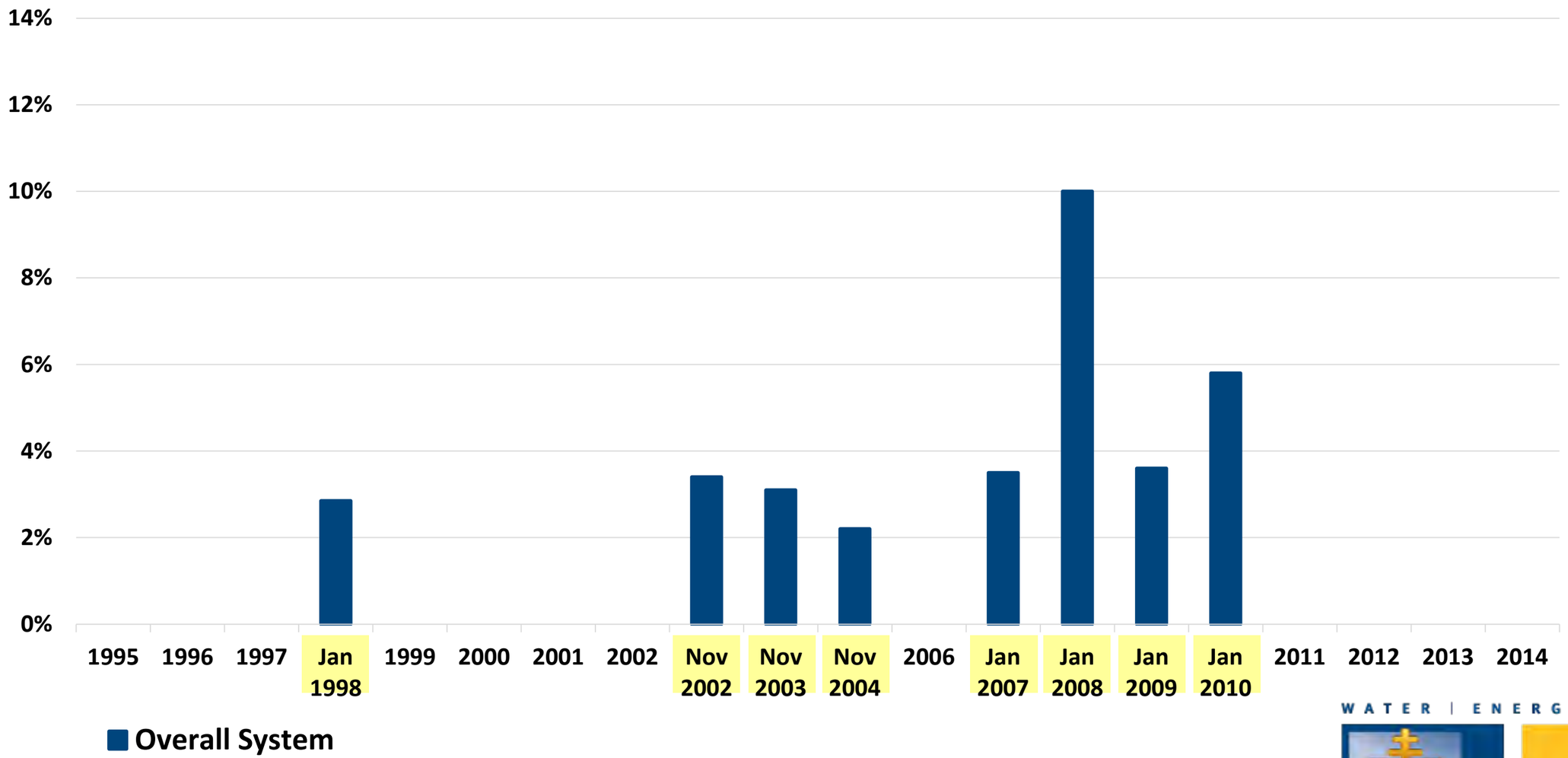
Electric Rate Increases - Last 20 Years



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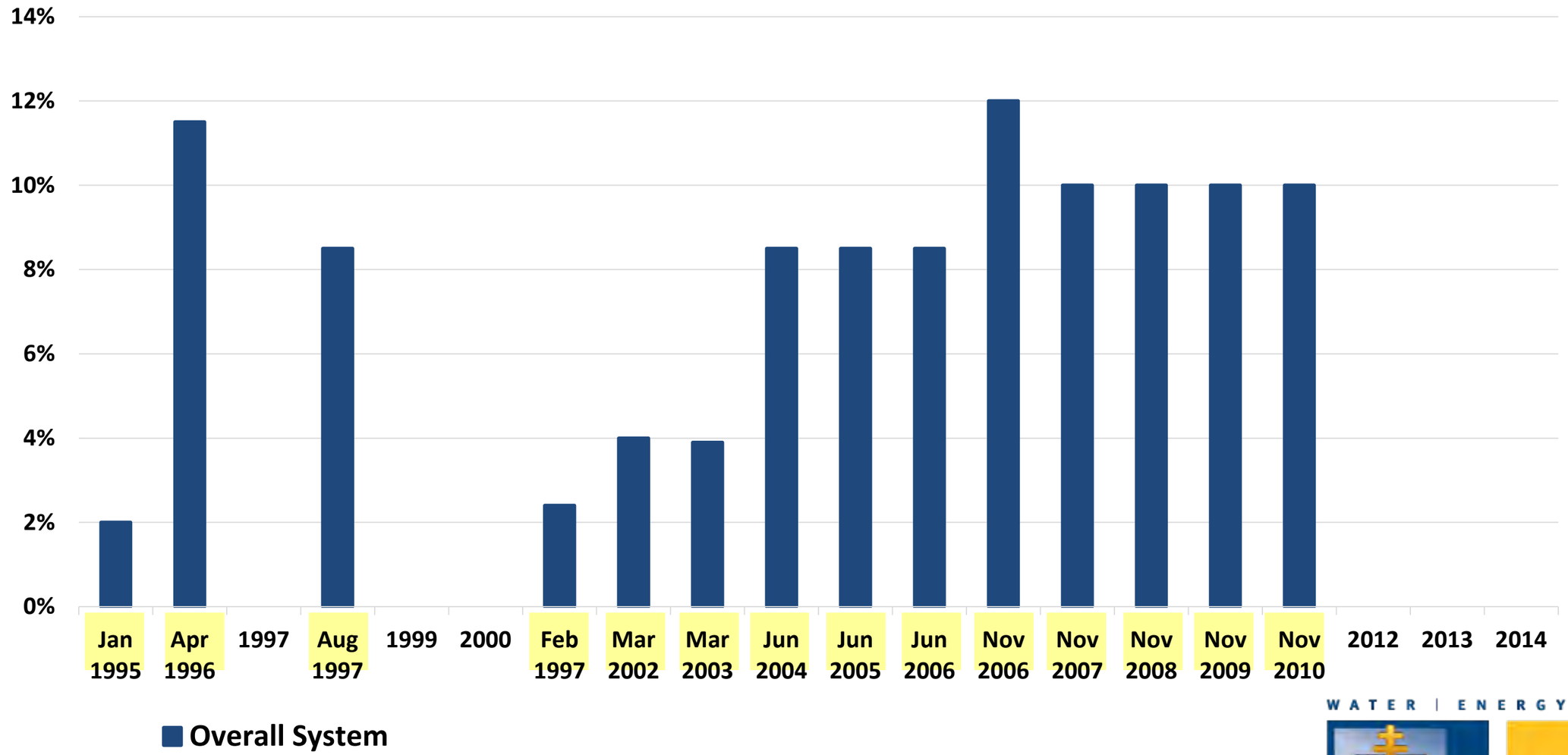
Water Rate Increases - Last 20 Years



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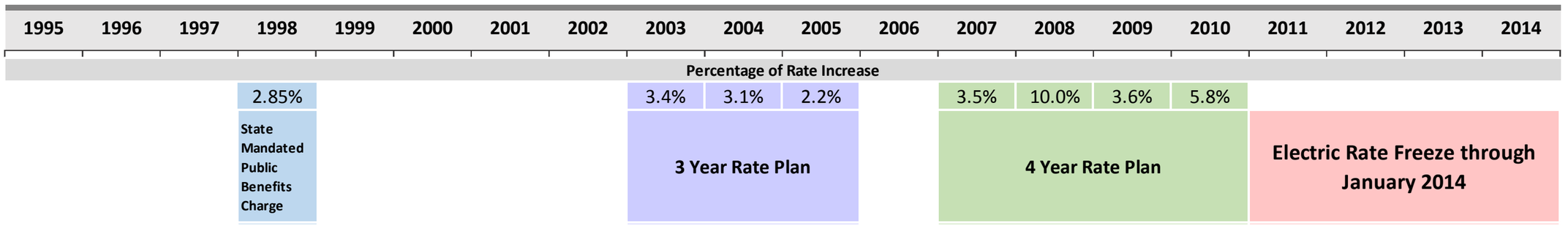
What projects that Electric Rate Plans supported in the last 20 Years



Prior Rate Plans

- SONGS Capital Improvement
- Springs Generating Plant
- Transmission Line

- SONGS Capital Improvement
- Expanded Overhead / Underground Conversion
- Cable & Structure Replacement Program
- Substation Bus & Upgrades
- Substation Power Transformers
- Major Feeders
- Major 4/12kV Conversion

- RERC 1, 2, 3 & 4
- SONGS Steam Generator Replacement
- RTRP/STP
- Clearwater
- Meter Replacement Program
- CIS Replacement
- Replacing low cost power contracts

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What project that Water Rate Plans supported in the last 20 Years

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Percentage of Rate Increase																			
2.00%	11.50%		8.50%			2.4%	4.0%	3.9%	8.5%	8.5%	8.5%	12.0%	10.0%	10.0%	10.0%	10.0%			
Water Rate Increase	Water Rate Increase		Water Rate Increase			3 Year Rate Plan			3 Year Rate Plan & Water Conservation Surcharge			5 Year Rate Plan							Water Cons. Surcharge (Renewal)

- Expanded Main Replacement

- Tilden Reservoir

- Expanded Main Replacement

- Expanded Main Replacement
- Transmission Mains
- Water Supervisory Control and Data Acquisition (SCADA) System

- Expanded Main Replacement
- Waterman Pipeline Replacement
- Mockingbird Canyon Dam

- Expanded Main Replacement
- JW North
- Street Improvements
- Transmission Mains
- Facility Rehab.
- Pump Station Replacements
- Whitegates I & II Reservoirs
- Evans Reservoir
- Seven Oaks Dam

Example Ratemaking Principles

1) Provide Adequate Revenue
   - Collect sufficient revenues to fund:
     - Current O&M & capital expenditures
     - Future infrastructure needs
     - Reserves
   - Provide revenue stability for efficient operations
   - Provide year-to-year consistency for customers
     - Gradual increases in rates
     - Advance notice of rate increase

Example Ratemaking Principles

2) Consider Equity
   - Reflect cost of service
   - Unbundle components of the revenue requirement
     - energy/production, transmission, distribution, etc.
   - Align:
     - fixed revenue covers fixed costs
     - variable revenue covers variable costs
   - Customer classes are treated fairly and equitably

Example Ratemaking Principles

3) Send Appropriate Price Signals to Customers
   - Simple to understand & administer
   - Sophisticated enough to promote certain customer behavior
     - Tiered rates to discourage waste
     - Summer and winter seasonal tiers to reflect costs
     - Time of Use when applicable
   - Unbundle fixed and variable costs to encourage customer adoption of conservation, efficiency, and distributed generation while preventing subsidies

Example Ratemaking Principles

4) Reflect Community's Social Priorities
   - Public Benefits Surcharge
     - Low income assistance, energy efficiency rebate program, solar rebates
   - Water Conservation Charge
     - Rebates for conservation and water use efficiency
   - Commercial economic development incentives
5) Strive to be Competitive
   - Lower than rates of equivalent customer classes in neighboring communities

What goes into Rate Design?

- Power Supply Costs – Electric
- Supply/Distribution Costs – Water
- Personnel Costs/Workforce Development
- Other Operating and Maintenance
- Additional Operating and Maintenance for Capital Improvement Program & Advanced Technology
- Debt Service Requirement
- General Fund Transfer

Revenue Requirement (Expenses)

Key Issues Affecting Rates

Electric & Water:

- Fixed vs. Variable Revenues & Expenses
- Conservation & Efficiency

Electric:

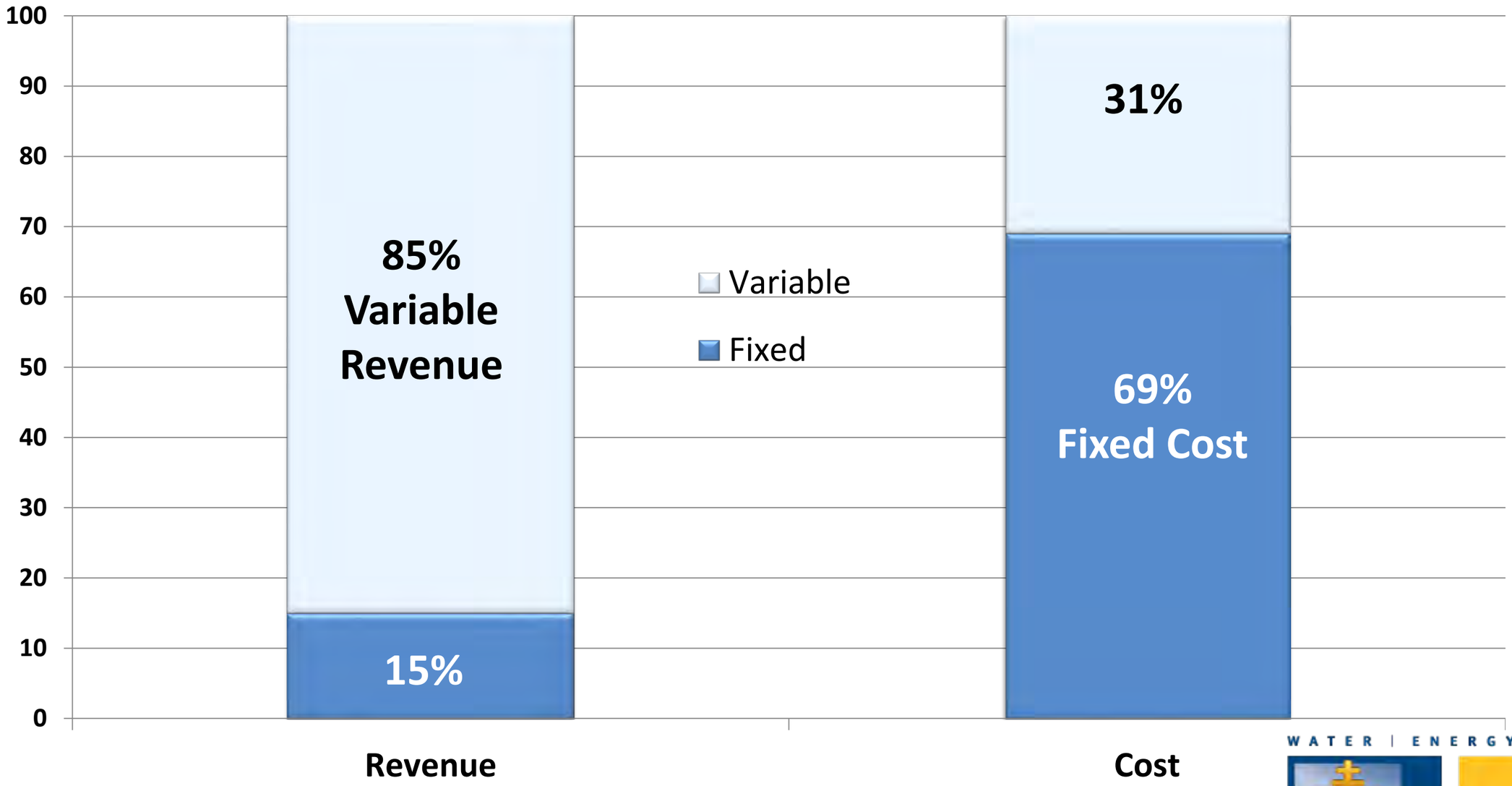
- Distributed Generation – Solar PV

Water:

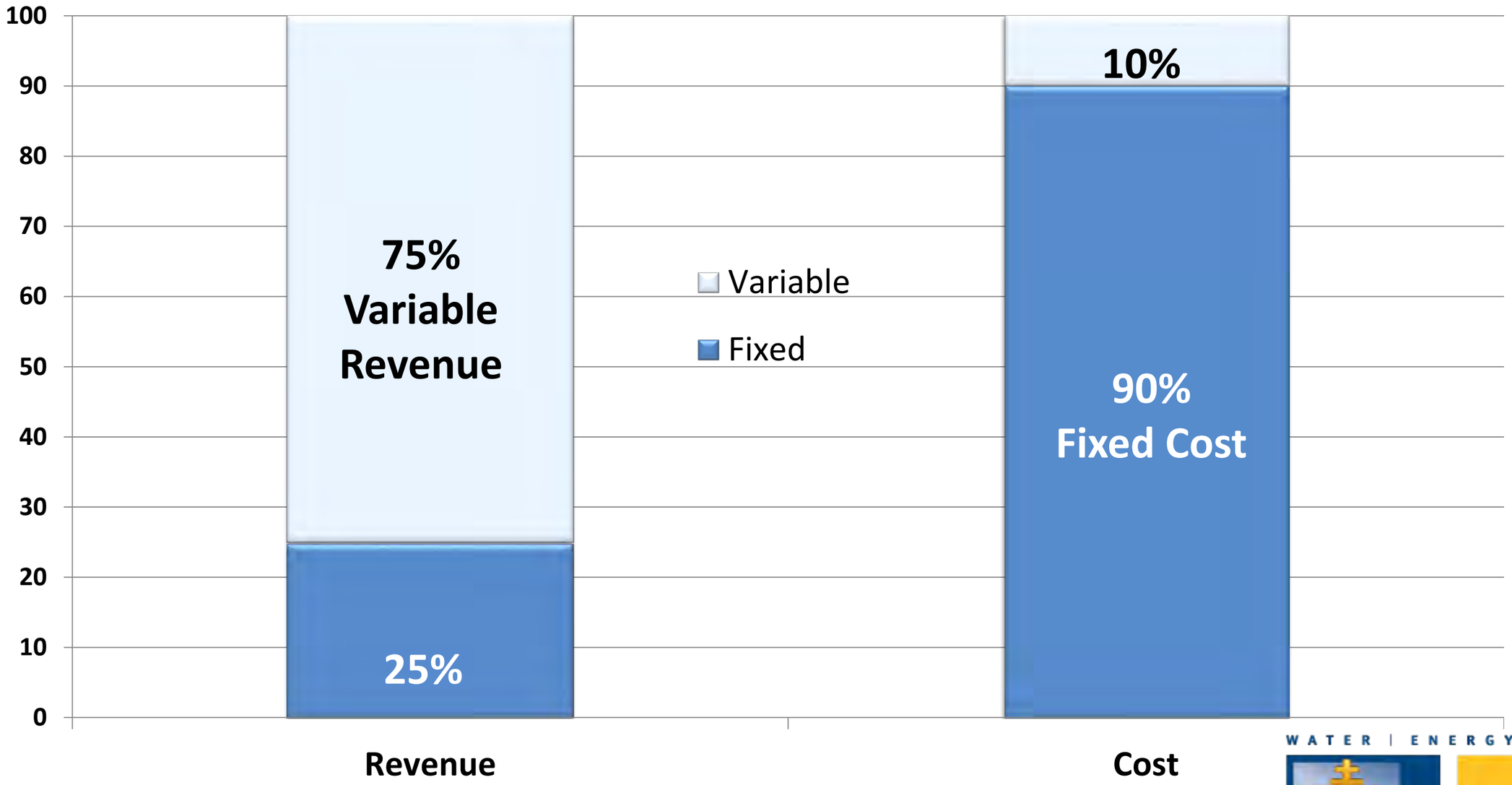
- Mandatory Drought Restrictions

Financial Security Fixed/Variable Balance

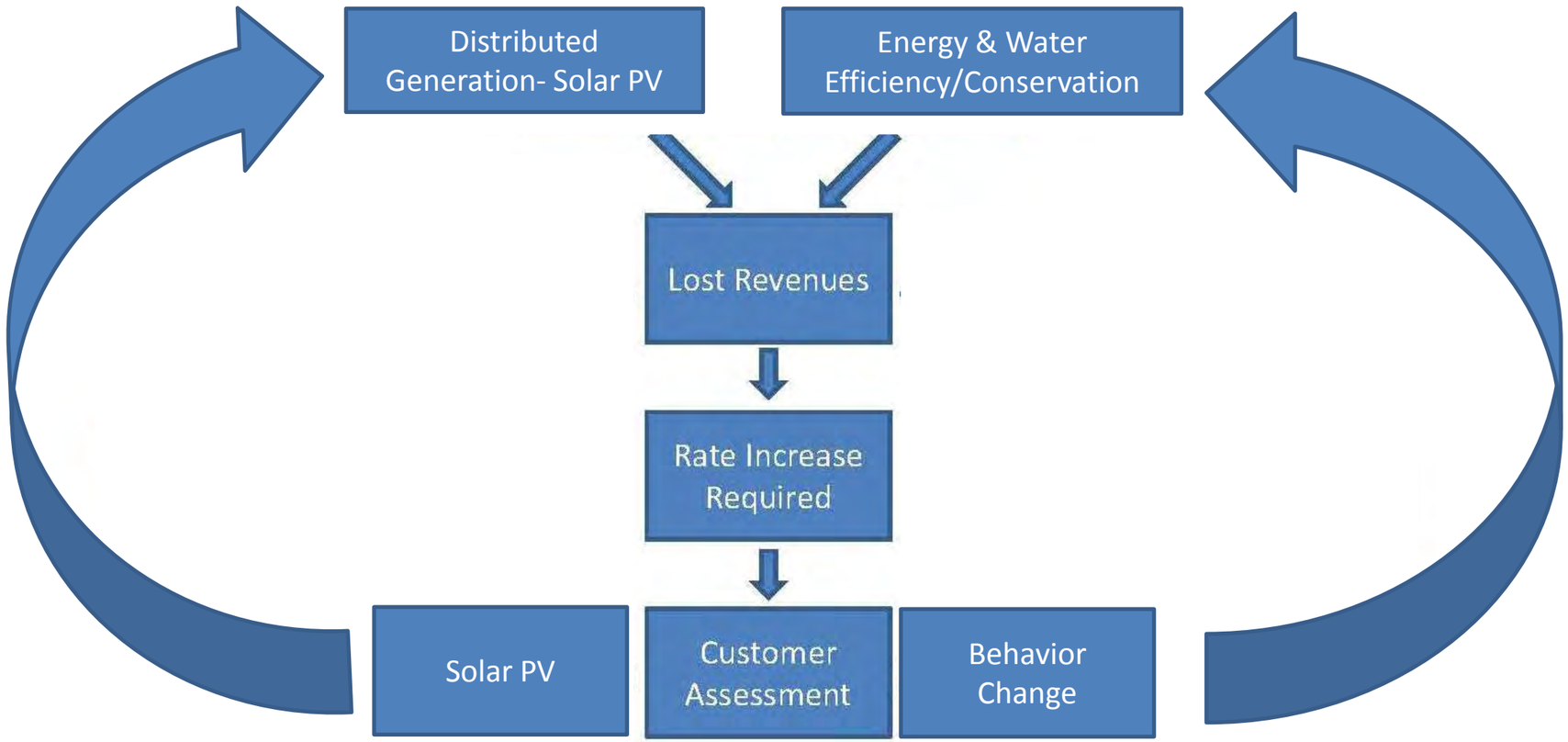
Electric Fixed vs. Variable Revenues and Expenses



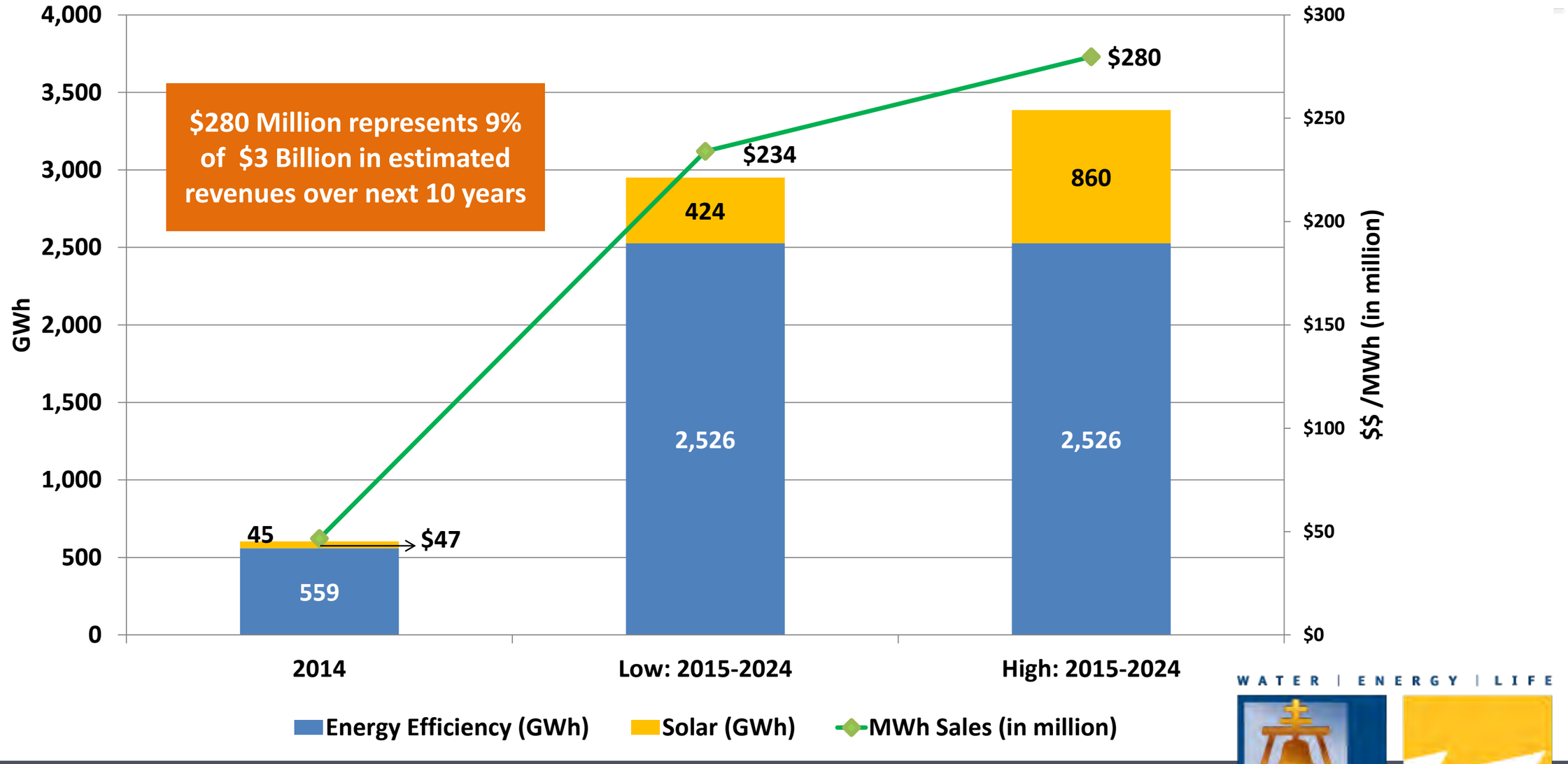
Water Fixed vs. Variable Revenues and Expenses



How RPU Loses Revenues



How rooftop solar and energy efficiency can impact revenue



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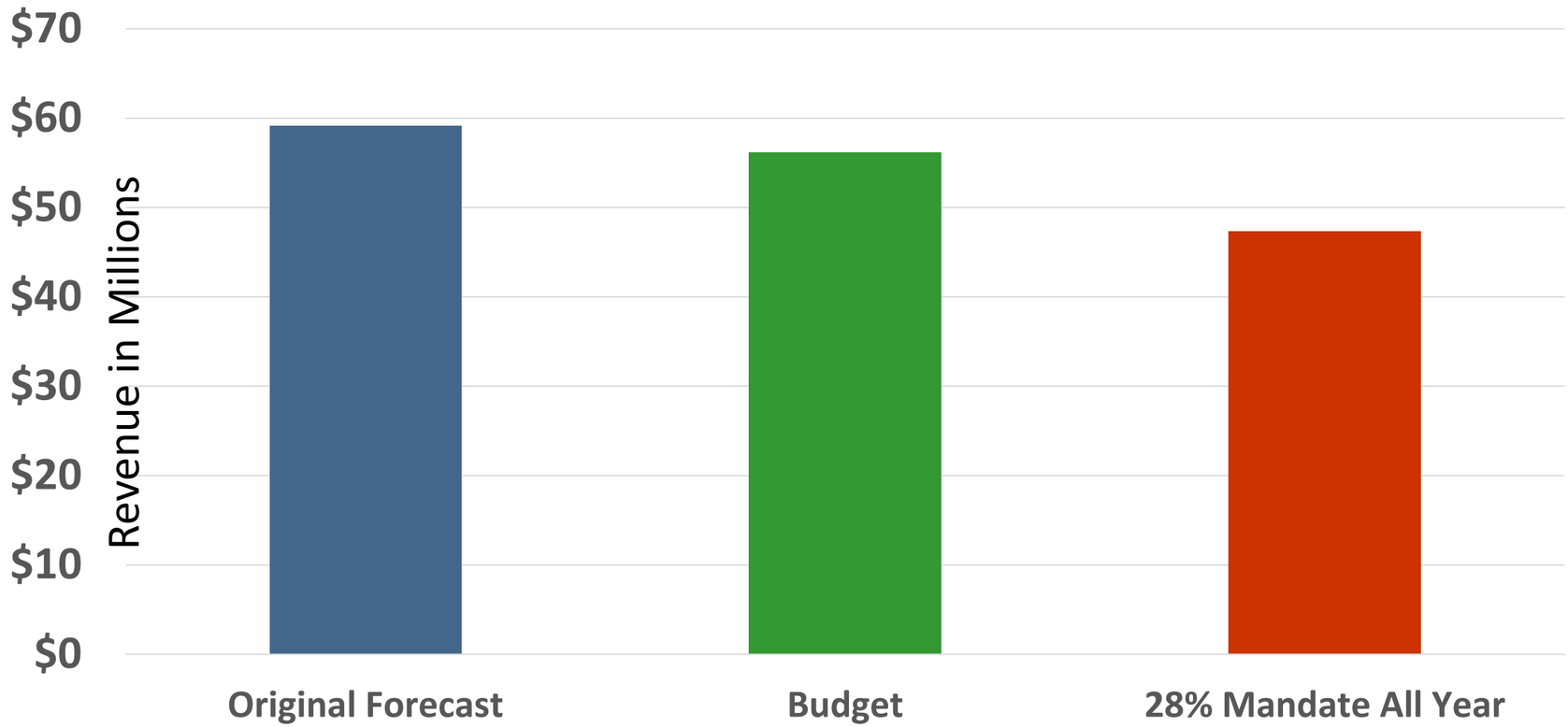
How revenue is lost due to Mandatory Drought Restrictions (current rates)

28% decrease for entire FY 2016 results in $9 M loss of Revenue



Rate Structures- Next Steps

- Complete Water and Electric Cost of Service Analysis and Unbundle Revenue Requirement
- Provide Proposed Ratemaking Principles to Board for Feedback
- Develop Rate Structures and Multi-year Rate Plans
- Board Rate Plan Workshops - January/February 2016

WORKFORCE DEVELOPMENT

THRIVING FINANCIALLY
FINANCIAL & RESERVES POLICIES

—

THRIVING FINANCIALLY

ADVANCED TECHNOLOGIES

Goals of Financial Policies

- To mitigate risk
  - Rate / Revenue instability
  - Emergency with asset failure
  - Volatility in working capital
- To achieve/maintain a certain credit rating
- To determine most opportune time to issue debt

Importance of Financial Policies

- To maintain financial solvency
  - Provide a basis for coping with fiscal emergencies (revenue short-falls, asset failure, emergency, etc.)
- To provide guidelines for sound financial management with an overall long-range perspective
- To enhance financial management transparency
  - Improve public's confidence and elected officials' credibility

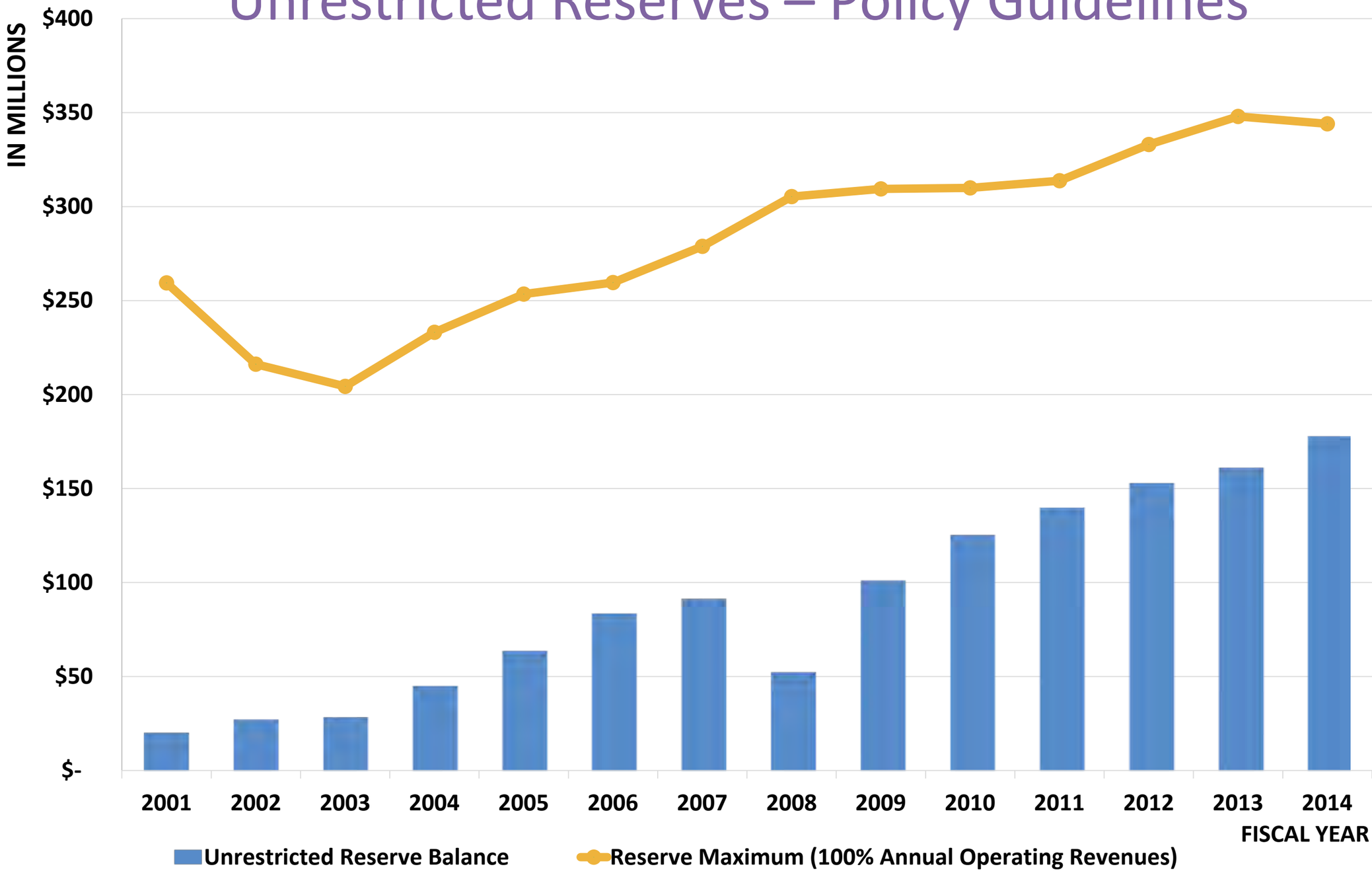
Why Do We Need Reserves?

- Nature of municipal utility system
  - Capital intensive
  - Highly fluctuating capital costs
  - Risk and liability → unknown liability costs
- Healthy reserve level → better credit ratings → lower interest rates for future debt

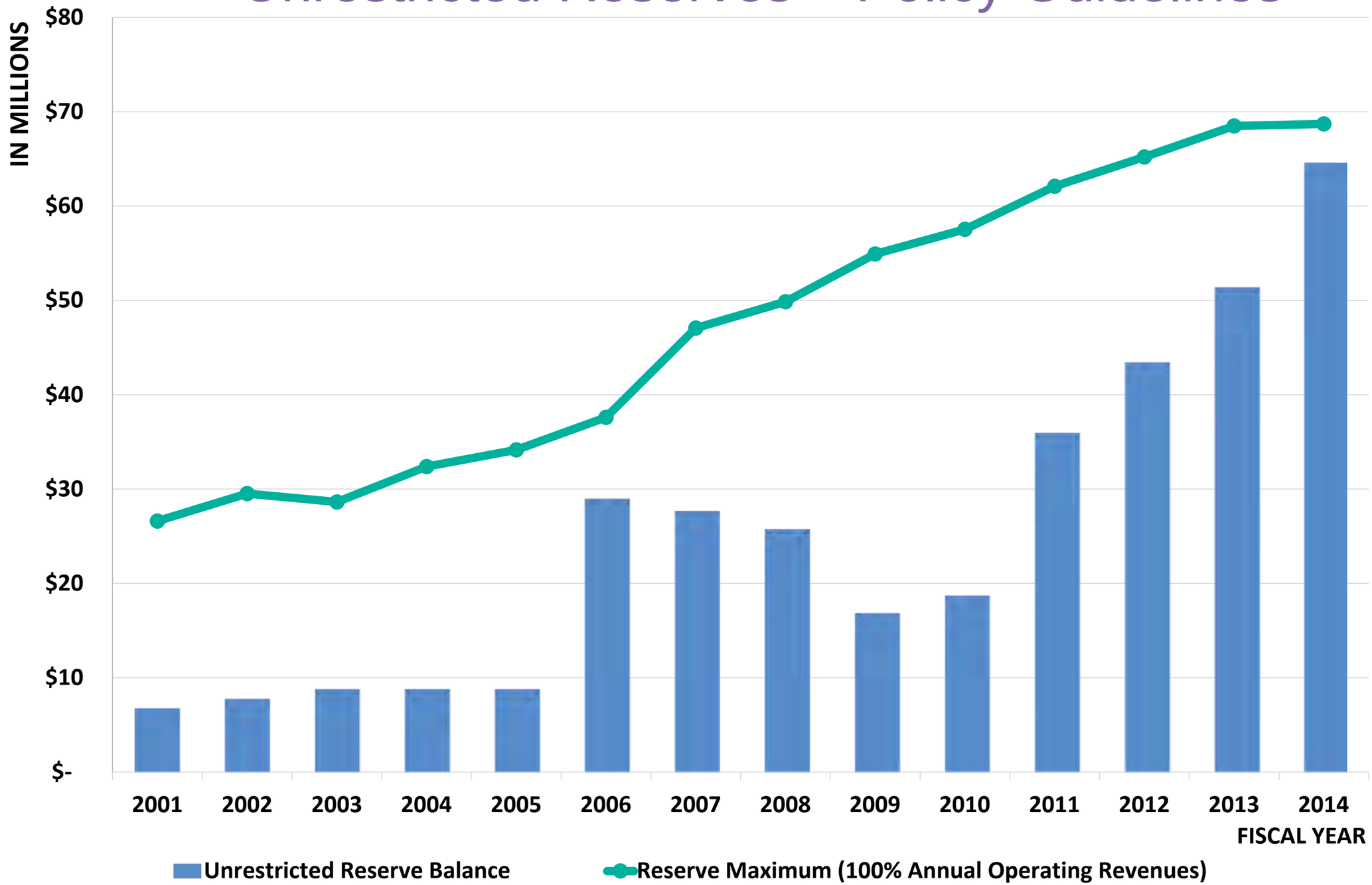
Current RPU Reserve Policy

- Approved by City Council in June 2001
  - Minimum Reserves – At least 3 months operating expenses
  - Maximum Reserves – One year of operating revenues
  - Reserve levels reviewed annually.
- In 2003 – City Council approved establishing Electric Fund internally restricted reserves: Operating, Regulatory Risk, Energy Risk Management
- In 2005 – Board of Public Utilities discussed reserving proceeds from sale of property to future purchases of property or other long-term capital assets.

Electric Fund
Unrestricted Reserves – Policy Guidelines



Water Fund
Unrestricted Reserves – Policy Guidelines

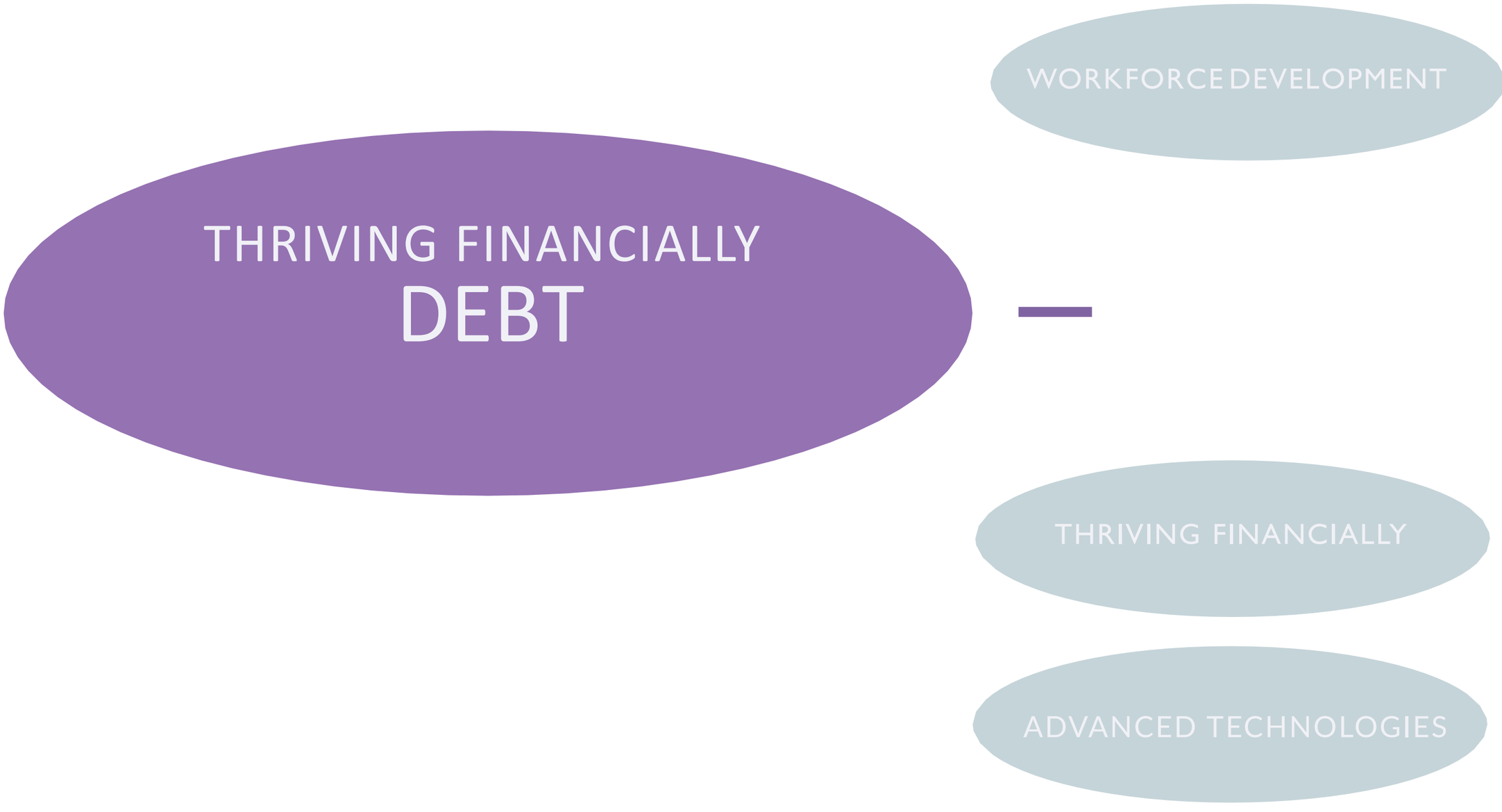


Reserve Policy – Best Practices

- Mitigate Risk – Risk Assessment
  - Predictable, unpredictable and unknown
- Risk mitigation is very entity specific
- Identify specific reserve types/needs
  - Working capital
  - Capital improvements
  - N-1 contingency
  - Emergency
  - Rate stabilization
  - Asset / liability balances
  - Market risk
  - Regulatory risk
- Determine and set minimum reserve level

Evaluation Process for New Reserve Policy – Minimum Reserves

Risk Mitigation Evaluation	Type of Reserves
Time lag between when operating expenses are incurred and revenues are received	Operating and Maintenance Reserve
Power resource cost uncertainty: Variation from load forecast; Uncertainties in transmission costs and resource adequacy; Fluctuation in market prices	Power Supply Reserve
Unexpected significant decreases in sales or increases in operating costs (drought restriction, new regulatory mandates, etc.)	Rate Stabilization
Aging capital assets and infrastructure (Springs, RERC, Clearwater, technology, utility vehicles, substations, etc.)	Capital Replacement and Refurbishment
Emergency capital needs and catastrophic events	Capital and Emergency Reserve
Carbon emissions, Water quality standards, Renewable standards, other regulatory mandates	Regulatory Reserve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DEBT
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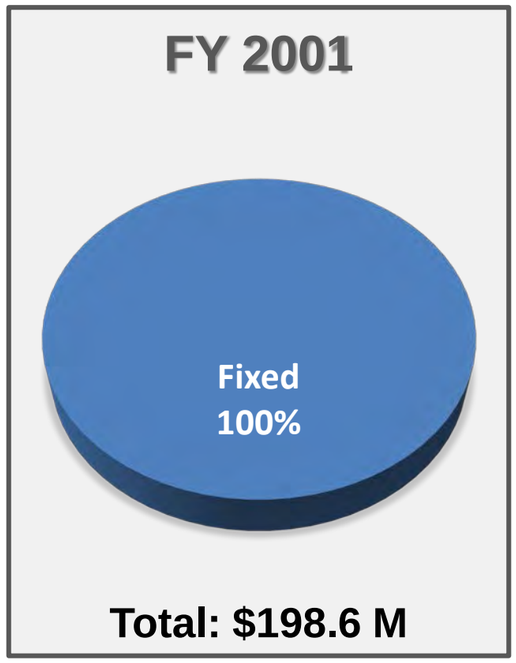
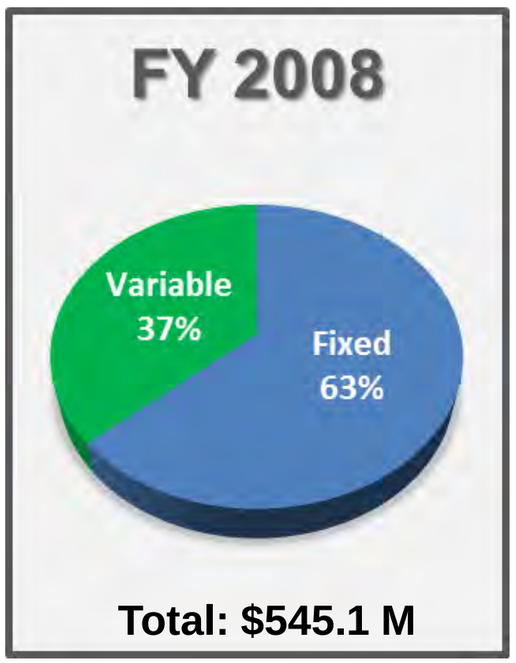
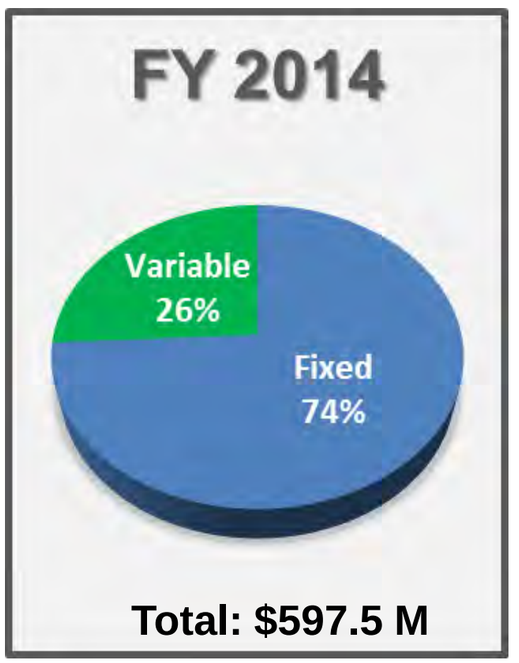
ADVANCED TECHNOLOGIES

20 Year History Electric Fund Debt







	FY 1995	FY 2001	FY 2008	FY 2014
Fixed	$ 192.6 M	$ 198.6 M	$ 346.0 M	$ 443.1 M
Variable	-	-	$ 199.1 M	$ 154.4 M

Fixed Variable

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$280M to fund 268MW in new local generation – Increased Reliability!

RIVERSIDE ENERGY RESOURCE CENTER (RERC)

A power generation plant on 16 acres, located on Acorn Street. The 192MW gas-fired power generation plant to be used to offset power shortages during peak demand.

There are four 48MW units, two came on line in 2006, and two more in 2011.

Total project cost: $113 million financed by issuing revenue bonds to be paid back over 25 years.

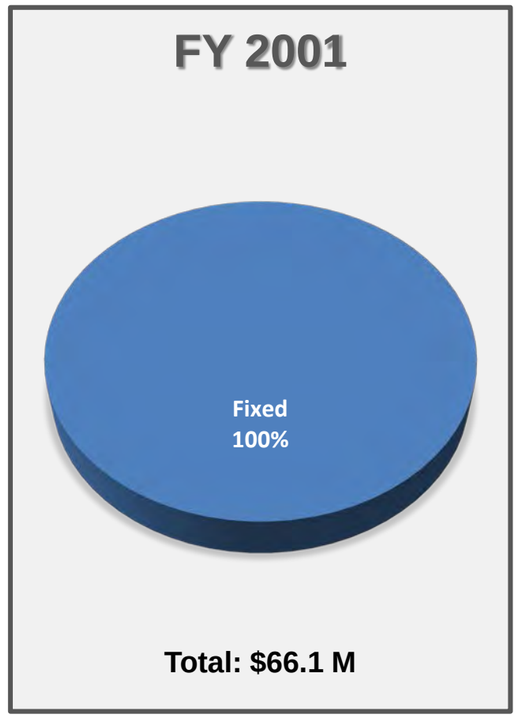
SPRINGS GENERATION PLANT

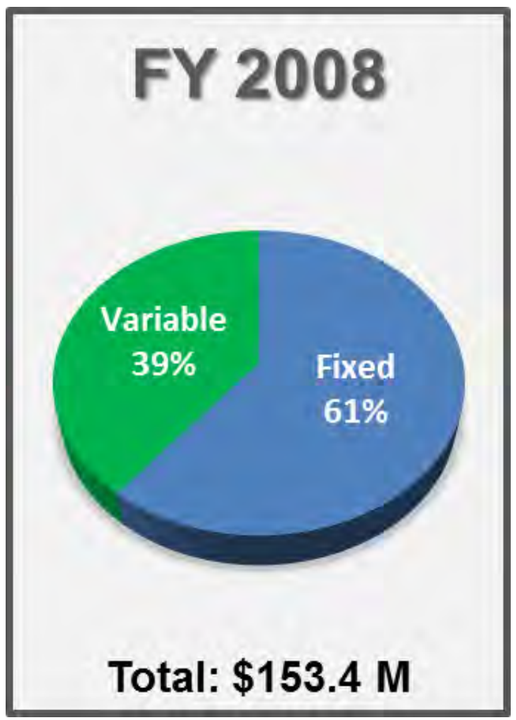
A power generation plant located in Riverside, that came on line in 2002, providing 36MW of power to be used during times when peak energy is needed, most typically the hottest days of each summer.

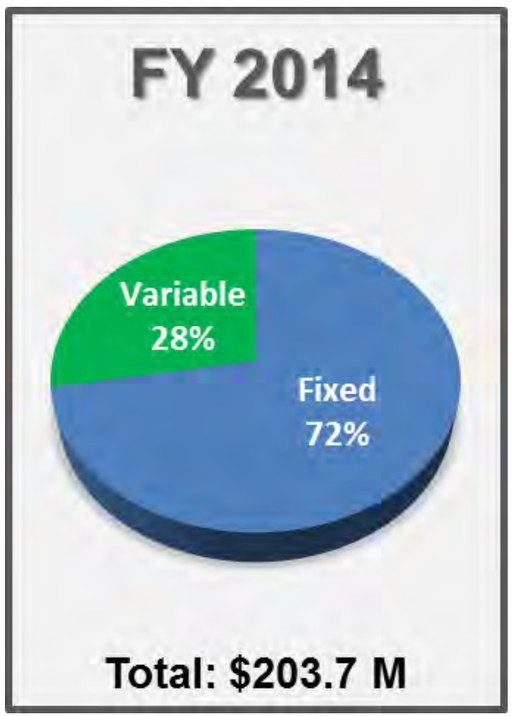
CLEARWATER CO-GENERATION PLANT

A power generation plant purchased from Corona, California that provides 38MW of gas-fired power used to offset power shortages during peak demand.

20 Year History Water Fund Debt







	FY 1995	FY 2001	FY 2008	FY 2014
Fixed	$ 68.7 M	$ 66.1 M	$ 93.1 M	$ 147.2 M
Variable	-	-	$ 60.3 M	$ 56.5 M

Fixed Variable

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EVAN'S RESERVOIR REPLACEMENT

A cast-in-place reinforced concrete reservoir with 16 million gallon capacity. Originally built in 1968 and was designated for replacement after seismic vulnerabilities were determined through engineering studies. Before replacement the reservoir was operated at lower water levels to reduce likelihood of structural failure during an earthquake.

Total Project Cost: $25 million

Water Independent!

$118M to fund

- 62 miles of new pipeline
- Improved Evans reservoir to ensure reliability
- Added 8 million gallons of reservoir capacity
- Increase potable water supply

J.W. NORTH TREATMENT PLANT

Total Project Cost: $24 million
(50% grant funded)

WATER SYSTEM - WATER SUPPLY MAINS

TRANSMISSION PIPELINES

DISTRIBUTION PIPELINES

Miles of pipeline:	954
Miles of canal:	14
Number of fire hydrants:	7,754

Total System Value: $1.562 billion

WATER SYSTEM - RESERVOIRS

Number of active reservoirs:	16
Total reservoir capacity (gallons):	108,500,000
Total System Value:	$109 million

THRIVING FINANCIALLY
10 YEAR PRO FORMA

–

WORKFORCE DEVELOPMENT

THRIVING FINANCIALLY

ADVANCED TECHNOLOGIES

New 10 Year Pro-forma

Key Financial Targets	• **Debt Service Coverage (Debt)** • **Days Cash on Hand (Reserves)**
Key Components	• **Projected Revenues** • **Revenue Requirement (Expenses)** • **Capital Improvement Program**

Source of Funding	• **Rates**
	  • Bonds
	  • Reserves
	• **Others**

How we use the Pro Forma

- Provide Infrastructure and Supply Options for Planning and Decision Making
- Evaluate Impact of Options
  - Potential Rate Increase
  - Potential Debt Issuance
  - Projected Use of Reserves
  - Projected Financial Ratios (Days Cash / Debt Service Coverage)
- Incorporate Directions from City Council and Board

Electric Infrastructure Investment Options

Additional financial investment is required to address current backlog and improve maintenance.

Option 1	Option 2	Option 3	Option 4
Status Quo Fall Behind (reactive)	Conduct Projected Repairs	Conduct Projected Repairs (proactive)	Highly Proactive
↓ ↑	↓ ↑	↓ ↑	↓ ↑
$171 – 206 million	**$317 – 381 million**	**$365 – 439 million**	**$519 – 623 million**

Water Infrastructure
Summary of Investment Options

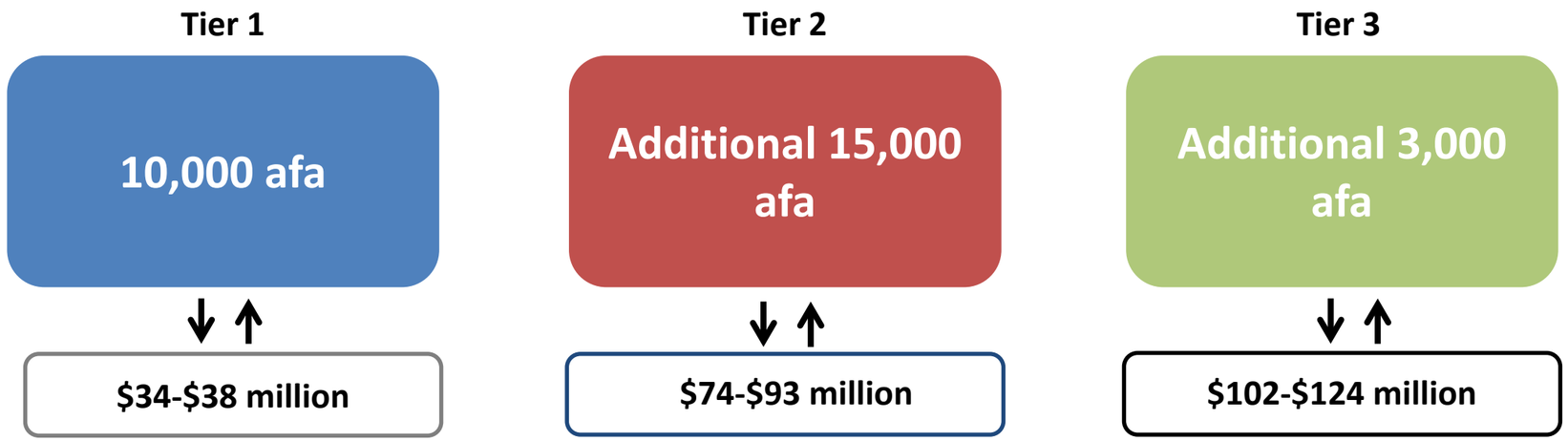
Additional financial investment is required to address current backlog and improve maintenance.

Option 1	Option 2	Option 3	Option 4
Status Quo Fall Behind	Major Deficiencies	Operational Deficiencies	Aggressive Program
↓↑	↓↑	↓↑	↓↑
$170 – 206 million	**$226 – 293 million**	**$279-357 million**	**$342-437 million**

Water Supply
Summary of Investment Options

Water Supply

- Additional financial investment is required to secure additional water supplies



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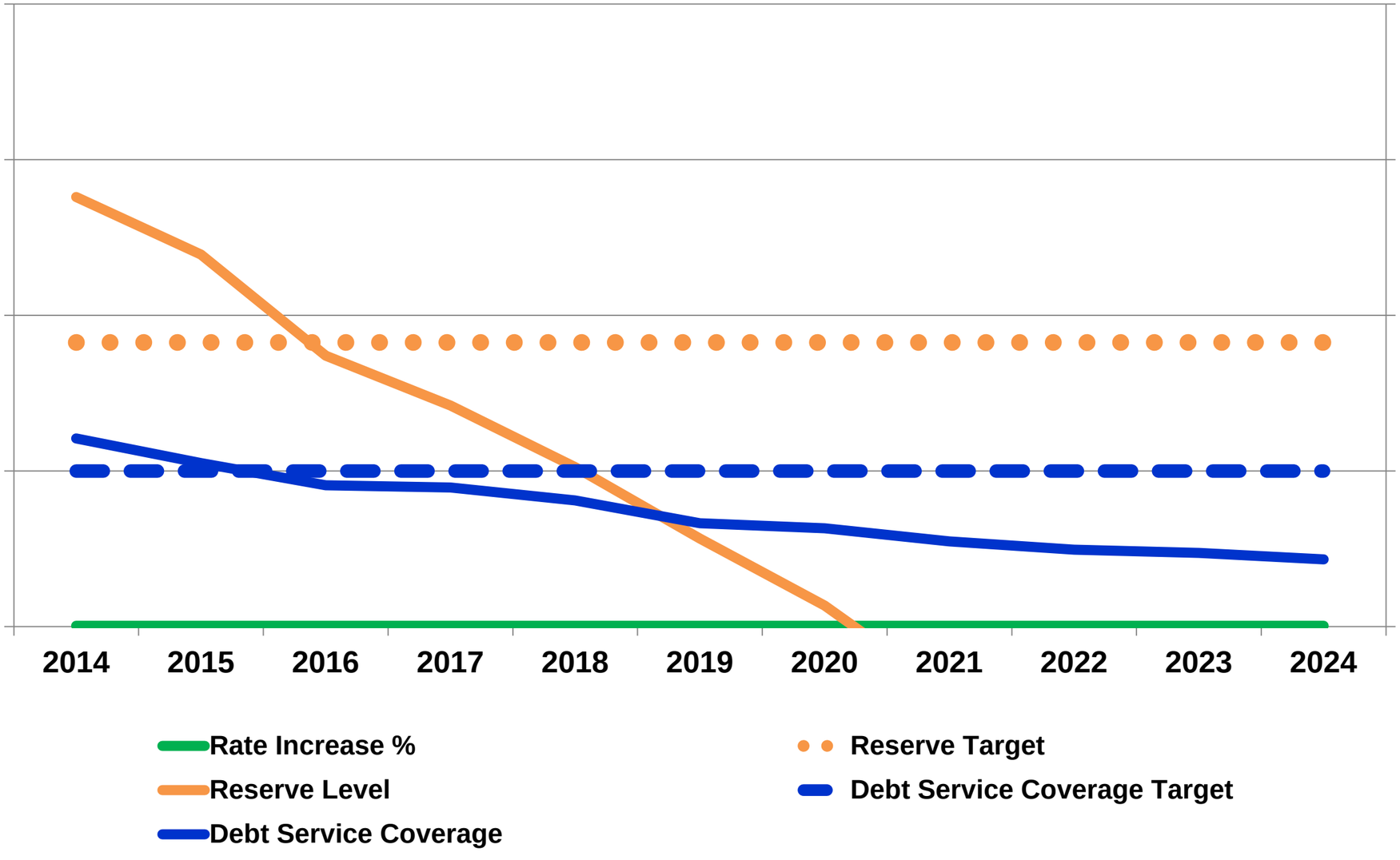
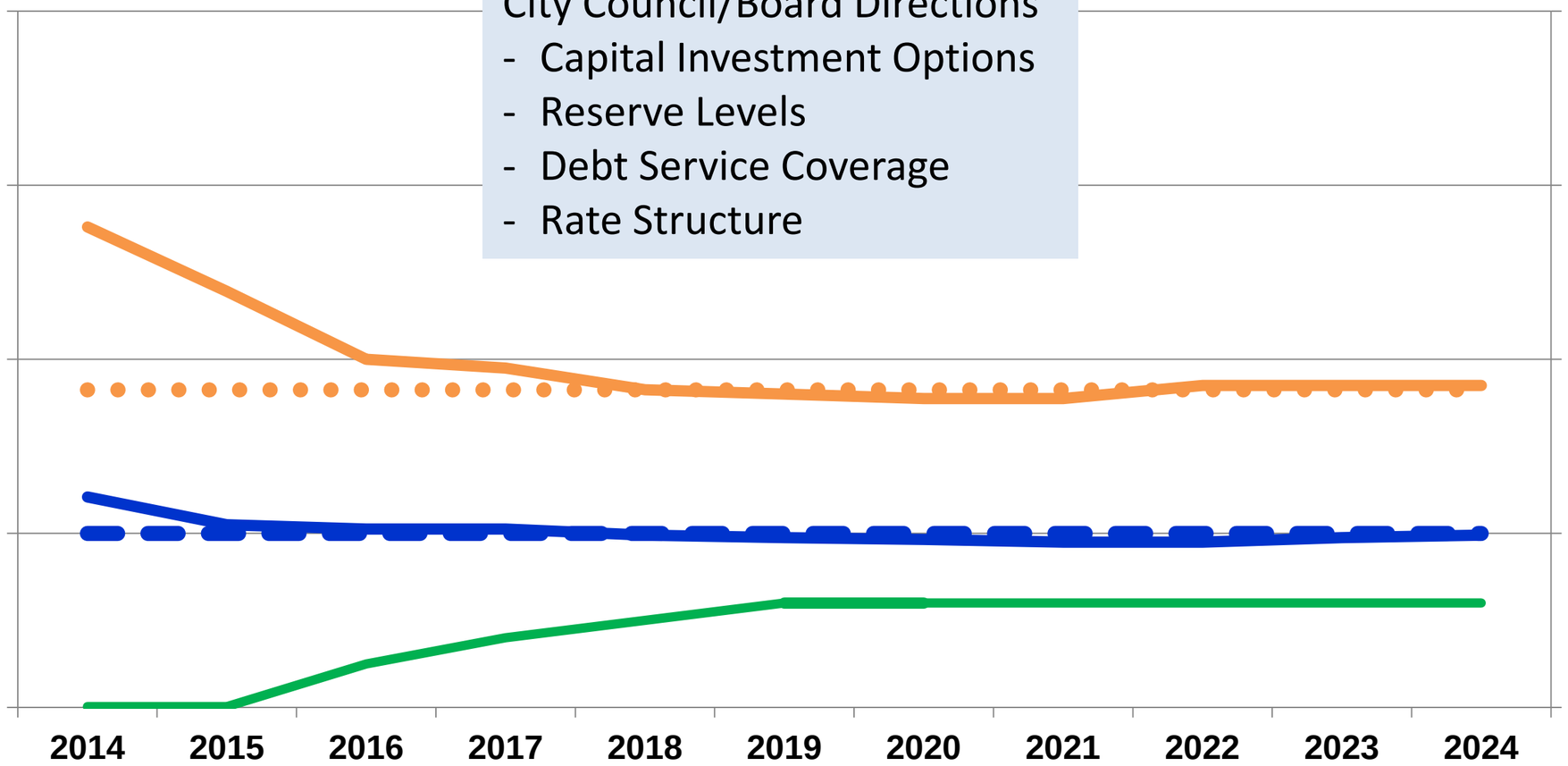
Pro-forma Results Example
Current Rate Plan



Pro-forma Results Example
Updated Rate Plan

City Council/Board Directions
- Capital Investment Options
- Reserve Levels
- Debt Service Coverage
- Rate Structure



Pro-forma and Policies - Next Steps

- Incorporate City Council/Board Directions on Roadmaps into 10 Year Pro-forma
- Update Financial Policies to Current Best Practices

ROAD MAPS – THRIVING FINANCIALLY

WORKFORCE DEVELOPMENT

OTHER
FINANCE
RELATED ITEMS
COMING

THRIVING FINANCIALLY

ADVANCED TECHNOLOGIES

RPU Audits

Baker Tilly Examination and Performance Audit

- Examination of Northside Properties, Financial Policies, Cost Allocation. Report to Board/CC (August – December 2015)

Hometown Connections Operational Audit

- Interviews with key utility personnel addressing various operational areas. Report to Board/CC (August – December 2015)

CMO Office – Deep Dive Financial & Performance Audit

- TBD – August 11th City Council Meeting (Audits will commence Jan. 2016)

City Council Workshop - RPU Finance 101

- September 1, 2015
- Topics to include:
  - Financial Policy Outline
  - Rates/Reserves
    - History of Rate Plans – what did we get?
    - What is currently impacting rates?
    - Risk Quantification for Reserves
  - Debt
  - Financial Planning

Future Outcomes

Thrive Financially

by ensuring costs are recovered and

develop a new business model to

adapt for the future.

- Cost recovery through rate structure and rate plans
- More robust financial and reserve policies
- Targeted use of reserves and debt
- Accountability through audits
- More frequent communication of financial performance