








Lucas County Sustainability Commission  
Sustainability and Green Purchasing

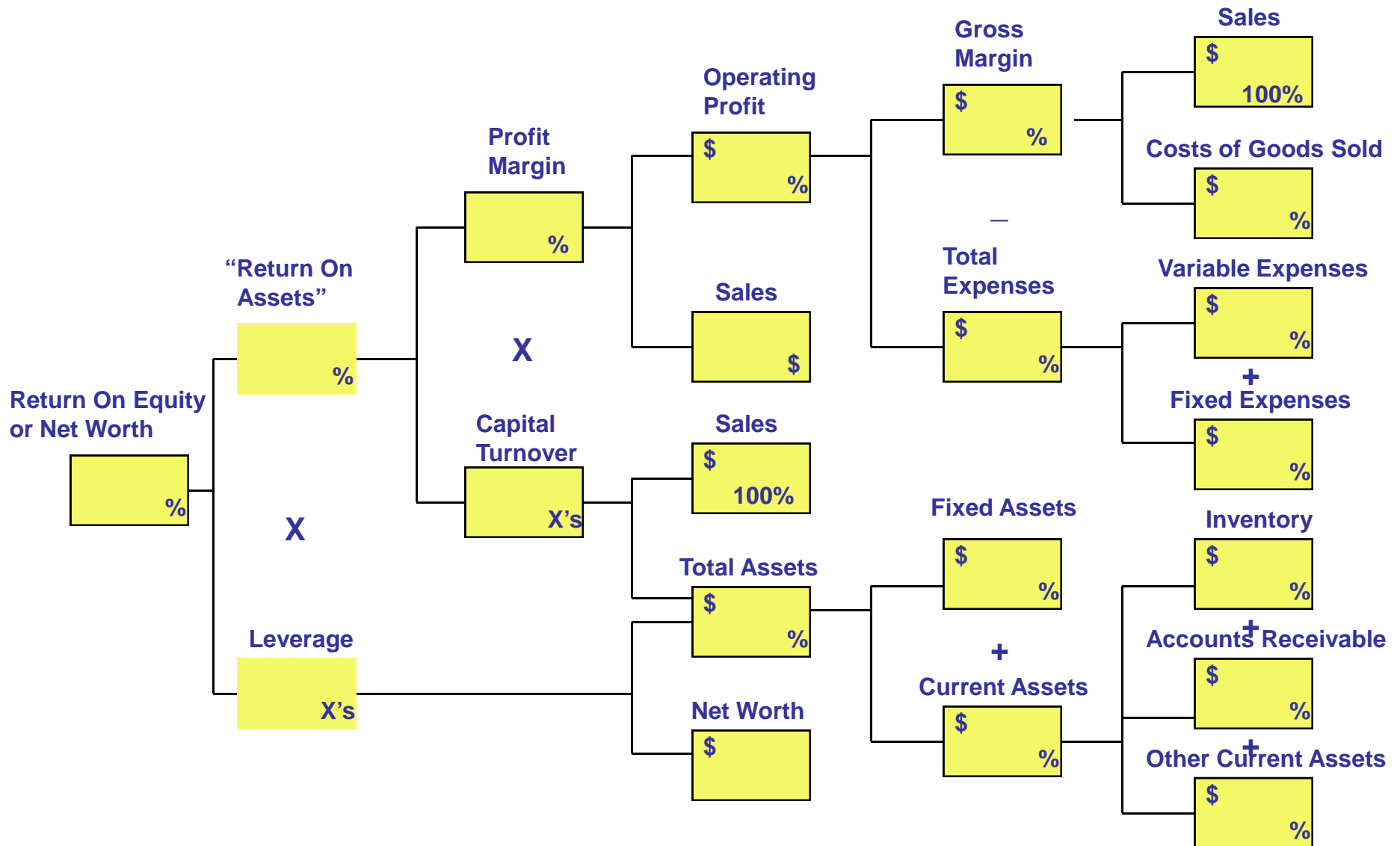
FR0I to SR0I Journey  
Parker Enterprises  
July 15, 2011

# 60-Second MBA



Price	\$100		Customer Dashboards (Lean Projects)
Variable Cost (DL, DM, OH)	<u>65</u>		VC Productivity (Lean Projects)
Contribution	35		
Base Costs	<u>20</u>		Base Productivity (Lean Projects)
Ops Margin	15		Objective (15%)
Taxes, etc.	<u>5</u>		
<i>Net Income</i>	<i>\$10</i>		Shareholder Return

# “DuPont” Formula





# Business



## Income Statement

Revenues  
- Variable Costs  
= Contribution Margin  
- Base Costs  
= Operating Margin  
± Taxes/Other Income/Interest  
= Net Income  
÷ Shares Outstanding  
= Earnings Per Share



Matching Costs With  
Associated Revenues  
to Measure Profit

## Balance Sheet

Assets  
• Cash  
• Accounts  
• Inventories  
• Property, Plant,  
Equipment  
- Liabilities  
• Short-term Debt  
• Accounts Payable  
• Long-term Debt  
• Pension Benefits  
• Deferred Taxes  
= Share Owners Equity



Detailing the Investments  
and  
Borrowings That Create  
Profit

## Cash Flow Statement

Net Income  
± Changes in Working Capital  
• Accounts Receivable  
• Accounts Payable  
• Inventories  
• Other  
± Changes in Investment  
• Plant, Property,  
Equipment  
• Acquisitions/Divestitures  
• Other  
= Cash Flow (Before  
Financing Activities)  
÷ Shares Outstanding  
= Cash Flow Per Share



Measuring Sources and  
Uses of Cash for Growth  
and Returns/

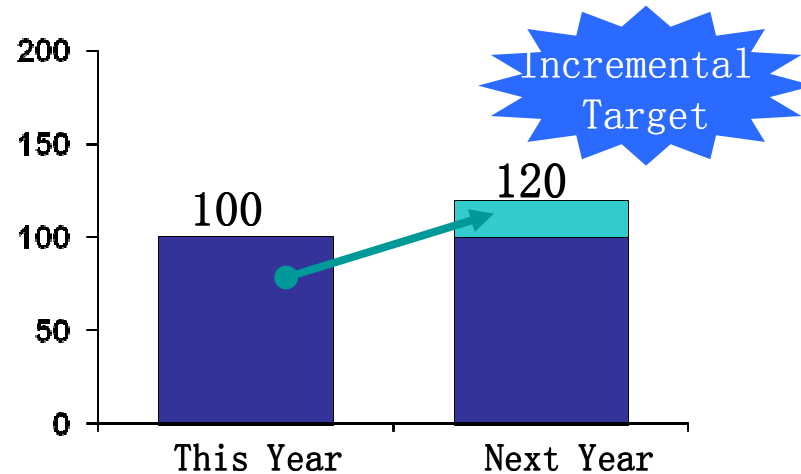
# Sustainability Leadership

Leading Beyond the New Normal

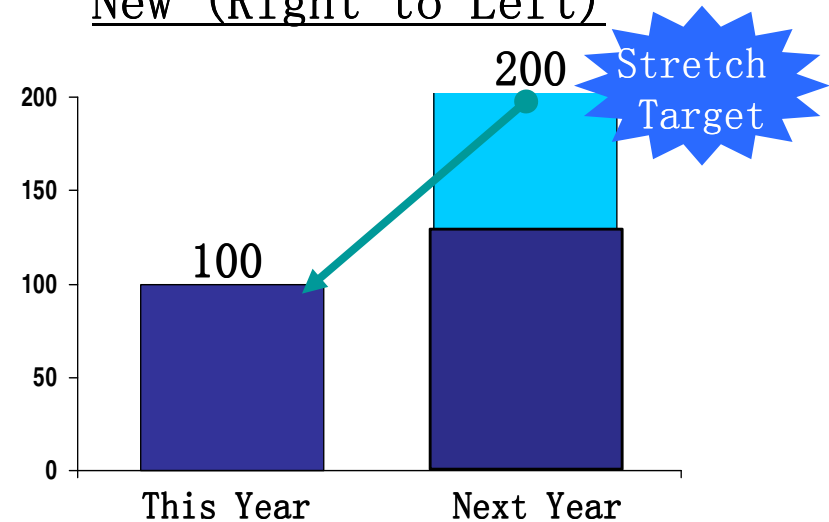
# Thinking Right To Left



Traditional (Left to Right)



New (Right to Left)



- Looks At What You Did
- Estimates How Much More You Can Do
- Uses Incremental Thinking
- Causes Little Change
- Look At Where You Want To Be
- Identify What You Must Do Differently To Get There
- Drives Innovation & Creativity
- Causes Big Changes

*Even If You Don't Reach Stretch, You'll Beat "120"*

## Definition of Sustainability:

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

The World Commission on Environment and Development, 1987 (Brundtland Commission)

# Sustainability...so what's the big deal?

- Life Today...Existence Tomorrow
- Methodology...Way of Life
- Holistic, Inclusive, Generic
- Innovation Yields Growth
- Attract, Retain & Engage Talent

# The New Normal



- No More Gatekeepers
- The End of the Middleman -Disintermediation
- Power to the People
- High Touch/High Tech – Work//Place
- Long-Range Planning – singular years vs. decade
- The Growing Importance of Intellectual Property (IP)

# Sustainability ROI Journey

- Financial Return on Investment (FROI):  
Measures cash benefits to an organization
  - E.g. lower utility bills or O & M costs
  
- Sustainable Return on Investment (SROI):  
Measures cash **and** non-cash benefits to society as a whole
  - Starts with same benefits as above but adds: lower CO<sub>2</sub> emissions, improved health & productivity, reduced waste to landfills, etc.

# Three Legged Stool



$$\text{ROI}_{\text{Sustainable}} = f(\text{Economic} + \text{Social} + \text{Environmental})$$

Return

# SROI = Calculating The Triple Bottom Line

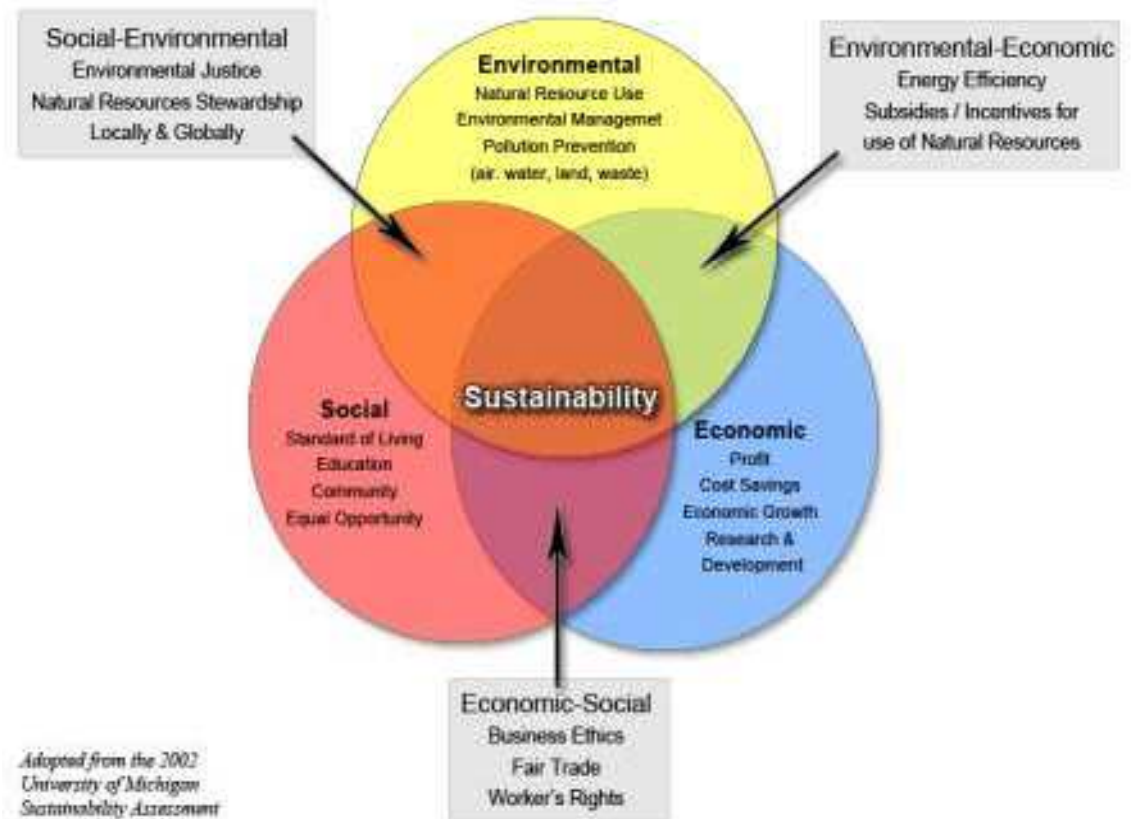


# SROI Journey

**Traditional models  
such as often fall  
short:**

- Only consider cash impacts
- Lack transparency
- Do not account for uncertainty

## *The Three Spheres of Sustainability*



# What is The SROI Process

**It's a comprehensive Cost-Benefit Analysis study over a project's entire life-cycle**

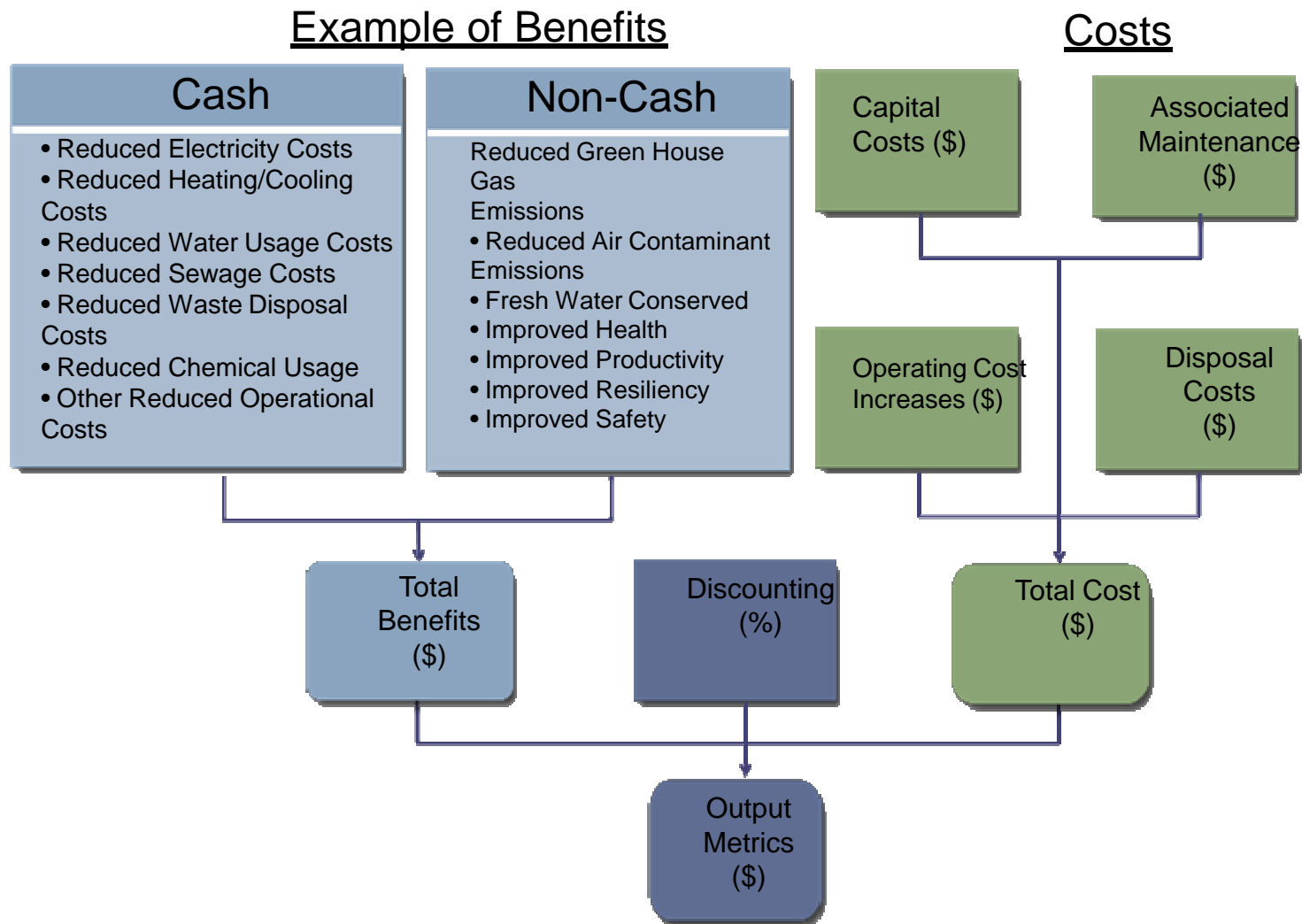
**Augmented by:**

- Accounting for uncertainty using state-of-the-art risk analysis techniques
- Engaging stakeholders directly in the process and generating transparency and consensus
- The SROI process can also incorporate Economic Impact Assessment to calculate jobs created, tax impacts, etc.

**Facilitates decision making by answering questions like:**

- What is the full true value of each alternative?
- Which alternatives are viable or have the best payoff?
- What's the probability of achieving a positive payoff?

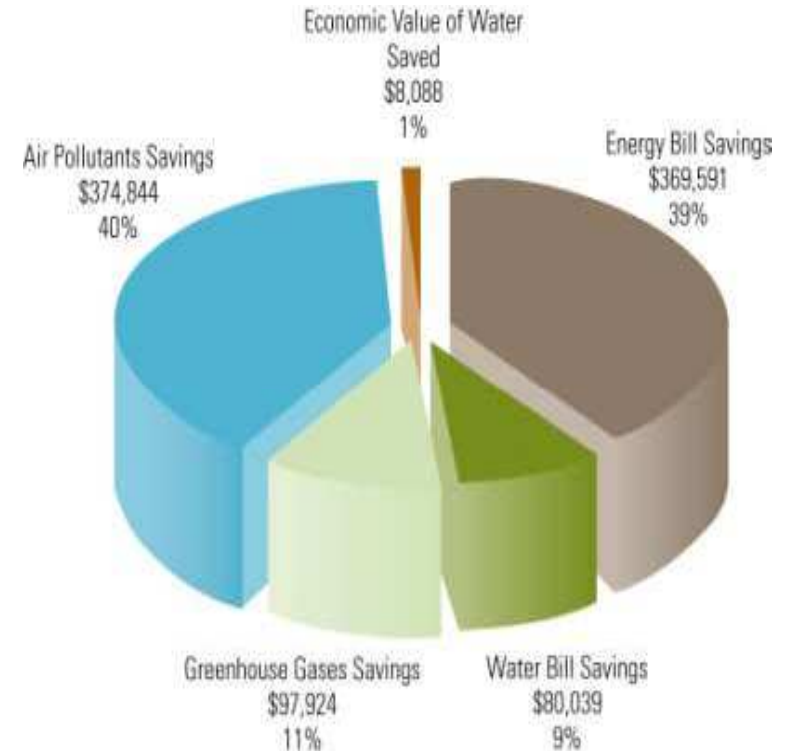
# SROI Flow Diagram



# Example of SROI Results



SROI	Alternative	Notes
Annual Value of Benefits	\$930,485	Total value of benefits in one year
<i>Energy Bill Reduction</i>	<i>369,591</i>	Cash Benefit
<i>Water Bill Reduction</i>	<i>80,039</i>	Cash Benefit
<i>Greenhouse Gases Savings</i>	<i>97,924</i>	Non-cash Benefit
<i>Air Pollutants Savings</i>	<i>374,844</i>	Non-cash Benefit
<i>Savings from Reduced Water Use</i>	<i>8,088</i>	Non-cash Benefit
Net Present Value	\$10,194	PV Benefits / PV All Costs
Return on Investment	27%	Average Rate of Return on Capital Investment
Discounted Payback Period	6	Time in years to + discounted cash flow
Internal Rate of Return (%)	23%	Discount rate making NPV = 0
Benefit to Cost Ratio	3.3	PV Benefits / PV Costs
FROI	Alternative	Notes
Annual Value of Benefits	\$449,537	Total value of benefits in first year
Net Present Value	\$2,660	PV Benefits / PV All Costs
Return on Investment	12%	Average Rate of Return on Capital Investment
Discounted Payback Period	12	Time in years to + discounted cash flow
Internal Rate of Return (%)	11%	Discount rate making NPV = 0
Benefit to Cost Ratio	1.6	PV Benefits / PV Costs



## The Risks

- Raised expectations must be met
- Breaking mental models, establishing leadership
- Flawed execution
  - “what to do 1st”
  - “not persuaded”
  - “not enough resources

## The Remedy

- Elevate, educate leadership
- Systemize methods, models, consensus & uncertainty
- Integrate management, articulate vision, project selection
- Systemize reporting & communication

## SROI Process

## The Rewards

- Economic
  - Sustainable ROI
  - Financial
  - Lifecycle O&M \$
- Social
  - # of jobs created
  - Improved reliability
- Environmental
  - GHG Reduction
  - Gals. water saved
  - Tons of waste avoided

## Where do you go from here?

- Knowledge, Skill and Ability
- Develop Roadmap / Sustainability Plan
- Cost Benefit Analysis Framework
- Execute SROI Process