

“What’s In Your Wallet?”

Janet Purchase

Energy Manager

Riverside County Economic
Development Agency



The Energy Adventure

1

Riverside County

2

Generation Expansion

3

Past Energy Efficiency Endeavors

4

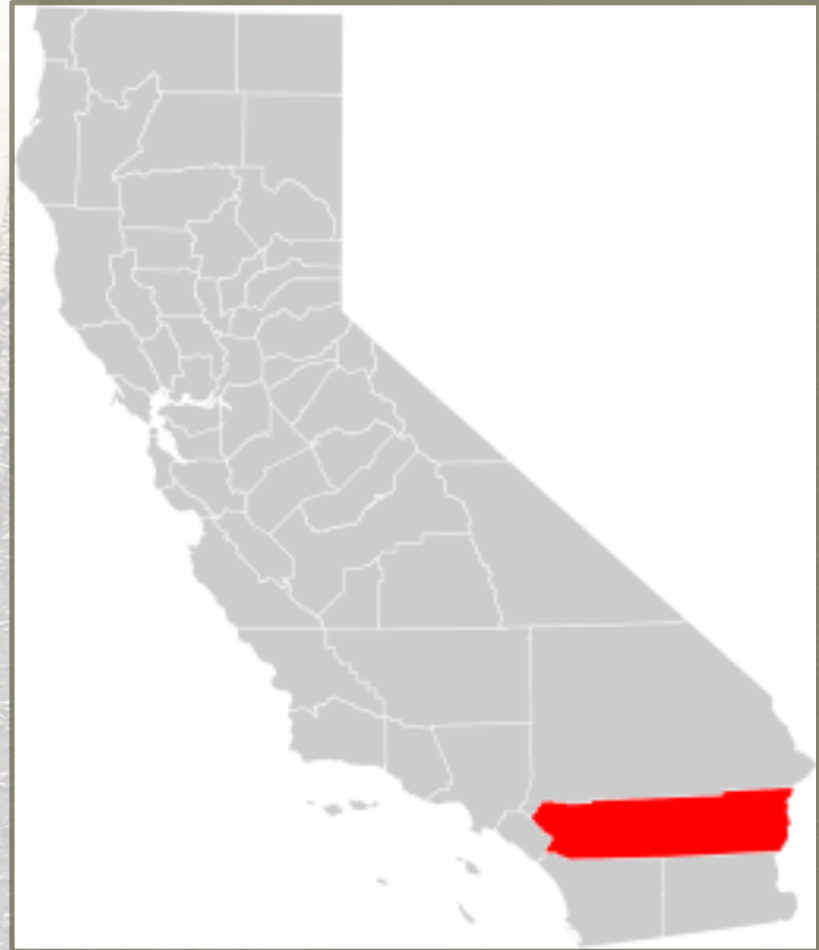
Lots of Demands

5

What's in Your Wallet?

Riverside County Background

- ❖ **10th Largest US County in Population**
 - 2.3 MILLION
- ❖ **4th Largest County in California**
 - 7,303 square miles
- ❖ **27 Cities in County**
- ❖ **Board of Supervisors**
 - 5 Districts



Riverside County Background

- ❖ **County Owned Buildings**
 - 695 facilities
- ❖ **County Leased Buildings**
 - 458 facilities
- ❖ **54 Utility Service Providers**
- ❖ **15,208,069 Square Feet**



Riverside County Challenges

- ❖ **Inland Empire Region**
 - ❖ Riverside/San Bernardino Counties
- ❖ **Poor Economy**
 - ❖ Recession
 - ❖ Unemployment
 - ❖ Decline in Tax Base
- ❖ **Recovering, Then Declining Budgets**



Riverside County Challenges

- ❖ **Public Safety**
 - ❖ Realignment of State Prisoners To County
- ❖ **County Detention Facilities**
 - ❖ New 1,636 bed jail in Indio
- ❖ **Prisoner Health Care**
 - ❖ Lawsuit Against County



Solar Expansion



OPTERRA
ENERGY SERVICES

The Opportunity—Solar Expansion



- ❖ Special Tariff Initiated by the CPUC
 - Created by PU Code 2380 (AB 2466)
 - Local Governments can generate solar on one site and transfer the credit to other existing electric accounts
- ❖ Renewable Energy Self-Generation Bill Credit Transfer Tariff

The Opportunity—Solar Expansion



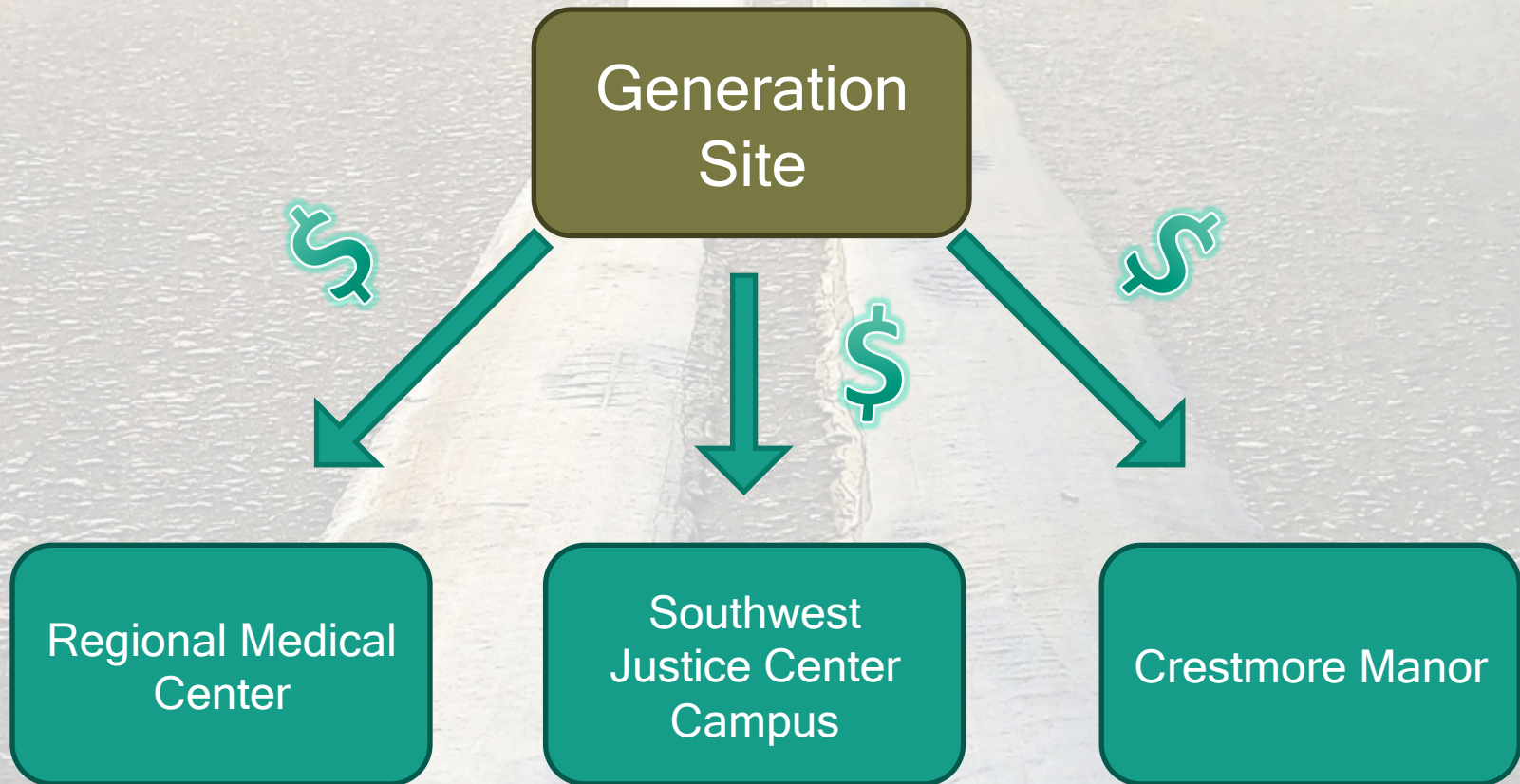
Otherwise Known As
The
Aretha Franklin

“R-E-S-B-C-T”

Tariff

The Process—Solar Expansion

Dollars are transferred—NOT kWh



The Process—Solar Expansion



- ❖ The transfer of credit generates energy cost savings
 - ❖ Project pays for itself
- PLUS**
- ❖ Guarantees an additional \$127,000 per year for 20 years

Solar Expansion—Financing



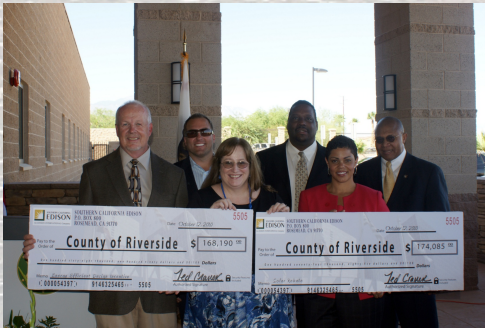
- ❖ Banc of America Public Capital Corporation
- ❖ **Solar Equipment - security for loan**
- ❖ \$54.6 million project costs
- ❖ 19.5 year term
- ❖ Competitive Interest Rate
- ❖ \$127,000 per year additional savings (more expected)
- ❖ Financing includes:
 - ❖ Solar System Maintenance
 - ❖ Weed Abatement for ground-mount sites
 - ❖ Measurement & Verification
 - ❖ \$5 million in CSI rebate reservations

Strategic Efforts

SCE/SCG
Partnership

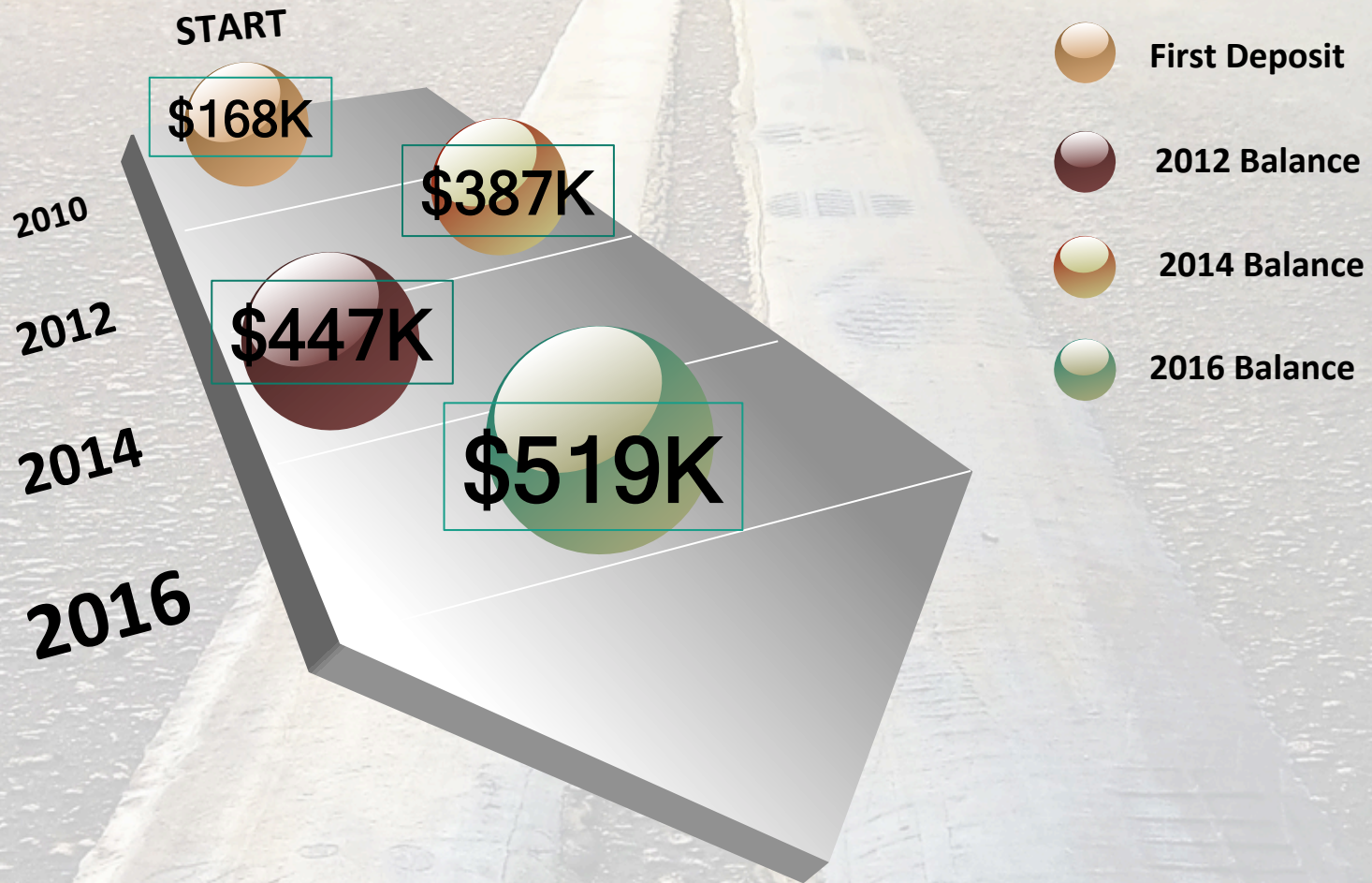
Board of
Supervisors
Policy

Energy
Conservation
Fund



Policy creating the Energy Conservation Fund
approved August 10, 2010

Energy Conservation Fund



Utility Bill Management System

Facility Manager

[New Place](#)
[New Counter](#)
[Edit Readings](#)
[Serial Number](#)
[Move](#)
[Options](#)
[Find Meter](#)
[Refresh](#)
[ENERGYSTAR](#)

Facilities
 COUNTY WATER CO [COUNTY WATER CO RECEIVERSHIP]
 RIVERSIDE COUNTY [RIVERSIDE COUNTY]
 DEPARTMENTS [DEPARTMENTS]
 AGRI_COMM [AGRI_COMM]
 AOC [AOC]
 ASSESSOR [ASSESSOR]
 AVIATION [AVIATION]
 BOS [BOS]
 CHA_PUB [Nutrition]
 CLERK_REC [CLERK_REC]
 CO_COUNSEL [CO_COUNSEL]
 COOP_EXT [Cooperative Extension]
 CREST [CREST]
 CSA_134 [CSA_134]
 CSA_152 [CSA_152]
 CSA_153 [CSA_153]
 CSA_154 [CSA_154]
 CSA_155 [CSA_155]
 CSA_156 [CSA_156]
 DA [DA]
 DAS [DAS-4200600000]
 DCSS [DCSS]
 DPSS_ADMIN [Administration]
 BA0019_DPSS_ADMIN [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 10369839_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 12573-17984_EL_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 12573-17984_REF_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 12573-17984_W_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 12937120_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 79921-10060_E_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 79921-10060_R_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 79921-10060_S_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 79921-10060_W_BS [BA0019_DPSS_ADMIN: 63 S FOURTH STREET]
 BA0030_DPSS_ADMIN [BA0030_DPSS_ADMIN: 901 RAMSEY]
 BL0014_DPSS_ADMIN [BL0014_DPSS_ADMIN: 1225 & 1267 W HOBBS]
 CC0004_DPSS_ADMIN [CC0004_DPSS_ADMIN: 68615 PEREZ RD]
 CC0007_DPSS_ADMIN [CC0007_DPSS_ADMIN: 68_615 PEREZ ROAD]
 CC0010_DPSS_ADMIN [CC0010_DPSS_ADMIN: 68_625 PEREZ RD]

Place Properties
Code DPSS_ADMIN
Display Administration
Location Facilities----> RIVERSIDE COUNTY [RIVERSIDE COUNTY]----> DEPARTMENTS [DEPARTMENTS]
Place Type Department
Total Floor Area 156695 SqFt
Contact -
[Cost Avoidance](#)

[Display Chart Data](#) [Chart Data Current as of: 1/23/2015 3:03:00 PM](#)

Fiscal Year Summary (FY Begins in Jul, Ends in Jun of Year Shown) [Click Chart for Description](#)

Total Cost Summary

Year	Total Cost
2012	2,566,843
2013	2,451,417
2014	2,937,311
2015 YTD	1,439,110

Energy Cost Percentage

Category	Percentage
Electric	87%
Water	5%
Sewer	2%
Natural Gas	3%

Daily Average

Year	Daily Average
Last Year	7,084
Current Year	8,341

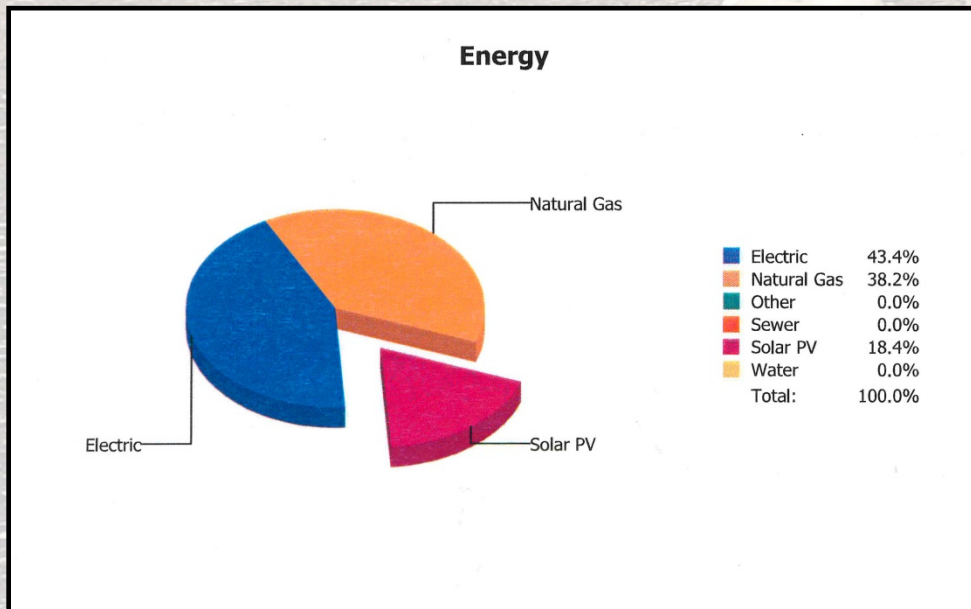
Up or Down vs. Last Year?

Metric	Value
Cost/Day	17.7%

Floor Area **Unit** **Effective Date**

[General](#) / [Commodity](#) / [Monthly](#) / [Greenhouse Gases](#) / [ENERGY STAR](#)

EnergyCAP



- ❖ Went live with system in July 2012
- ❖ Audit savings and utility incentives exceeded the initial system cost within 15 months (\$133,790)
- ❖ Total audit savings to date exceeds \$326,000
- ❖ EnergyCAP ranks buildings by performance
 - ❖ Cost/SF
 - ❖ Use/SF
- ❖ **Feeds EE project decisions**

Energy Efficiency (2009-13)



- ❖ EE Projects:
 - Boiler Upgrades (7)
 - HVAC Upgrades (3 large)
 - VFDs & Motors (2 large)
 - Lighting Upgrades (4)
 - Controls Upgrades (2 large, many small)

- ❖ Savings by Design:
 - Completed 17 projects

- ❖ All rebates and incentives deposited in Energy Conservation Fund

Energy Efficiency–PBx (2012-14)



- ❖ Persistence-Based Retrocommissioning Projects using Energy Conservation Fund (\$246K)
- ❖ Third-party program available through Edison
- ❖ Funds spent on PBx at:
 - ❖ Southwest Justice Center
 - ❖ Perris Sheriff-CHA
 - ❖ Western Riverside Animal Shelter

Energy Efficiency–PBx Results



- ❖ Energy Savings:
 - 669,828 kWh
 - 26 KW
 - 34,444 Therms

- ❖ Cost Savings:
 - \$79,752 Electric Savings
 - \$21,896 Gas Savings
 - \$101,649 Total Savings

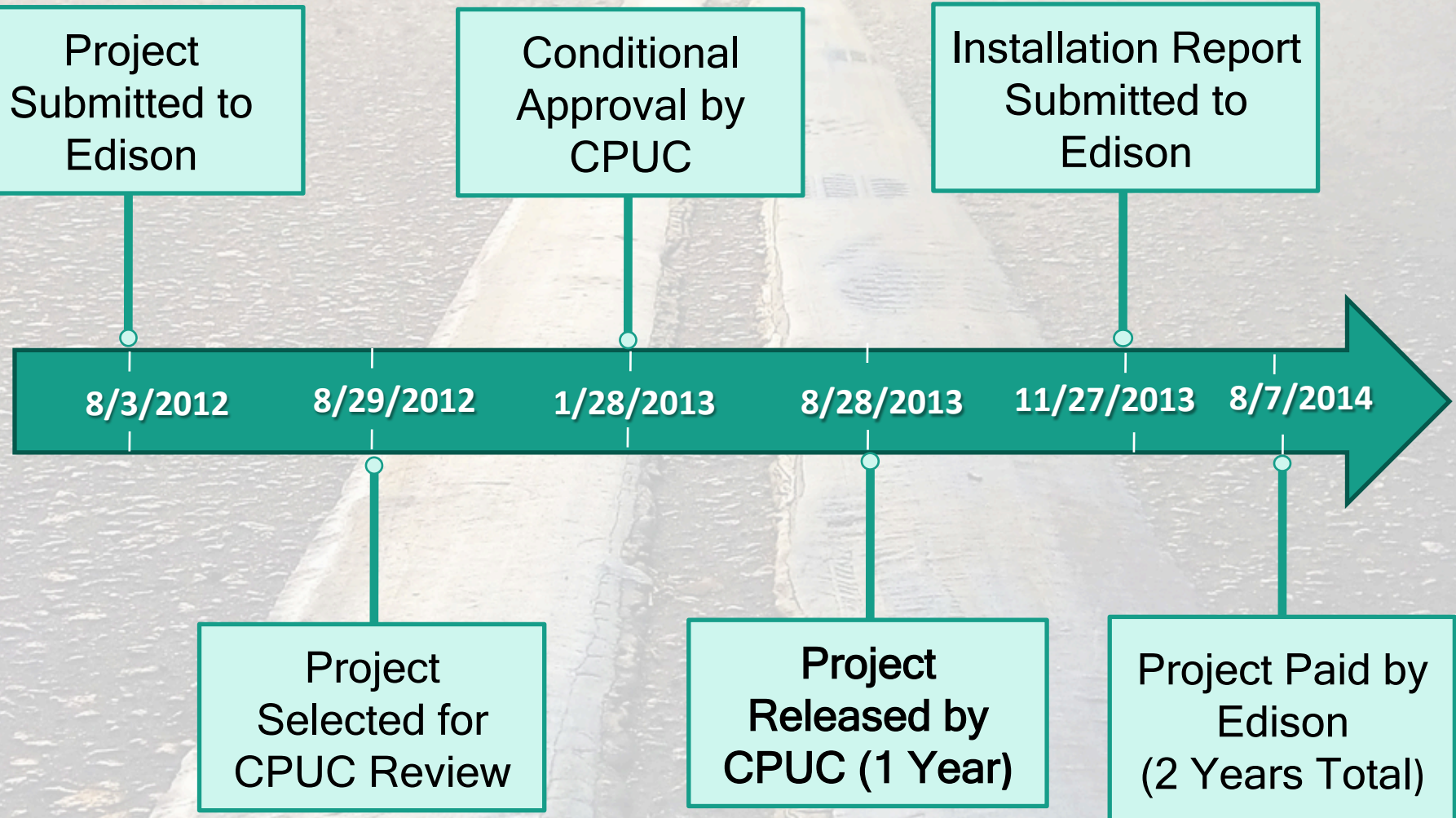
- ❖ Total SCE/SCG Incentives:
 - \$133,644

Total Project Costs: \$246,519

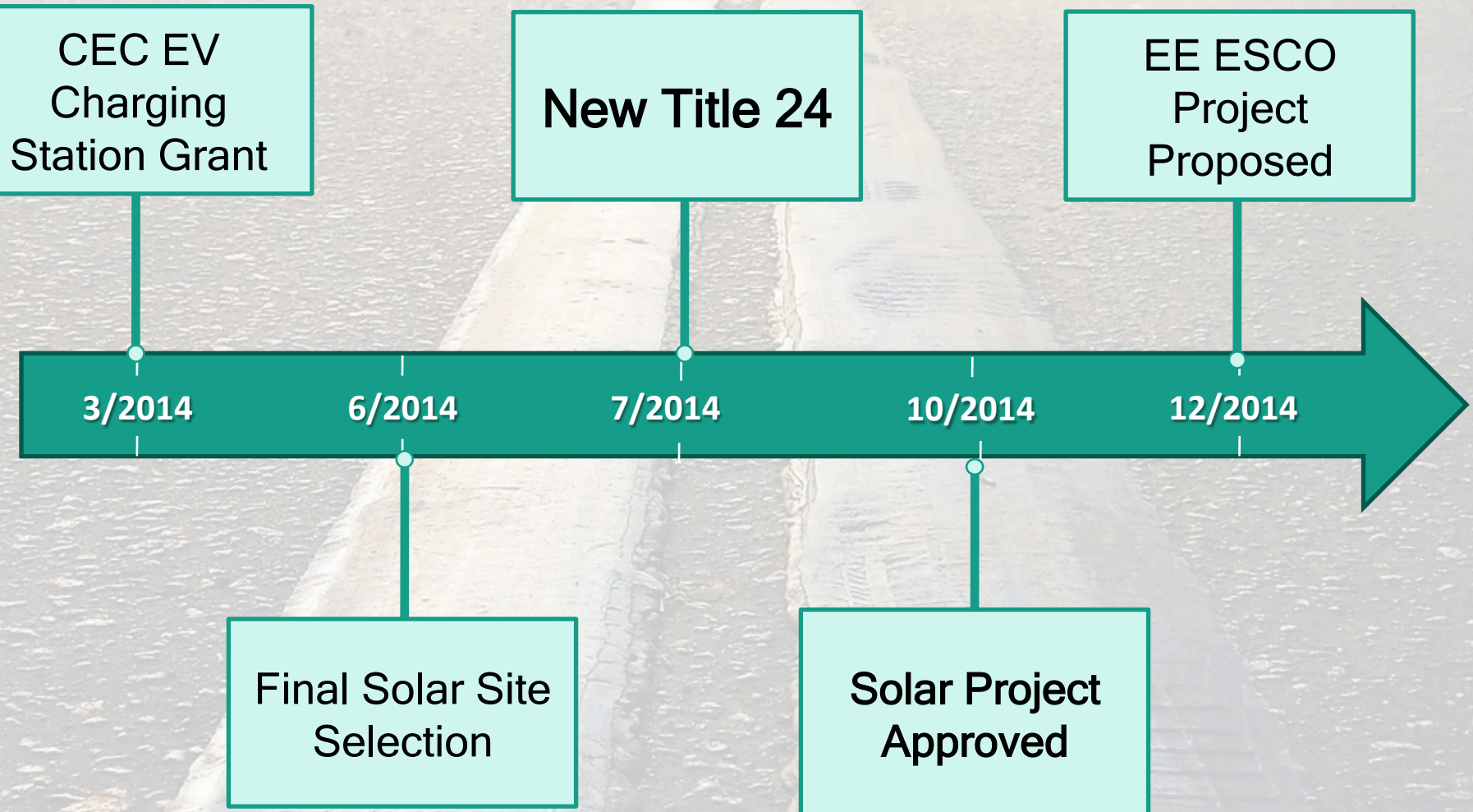
Total Project Savings: \$235,293

Changing Demands—Project Process

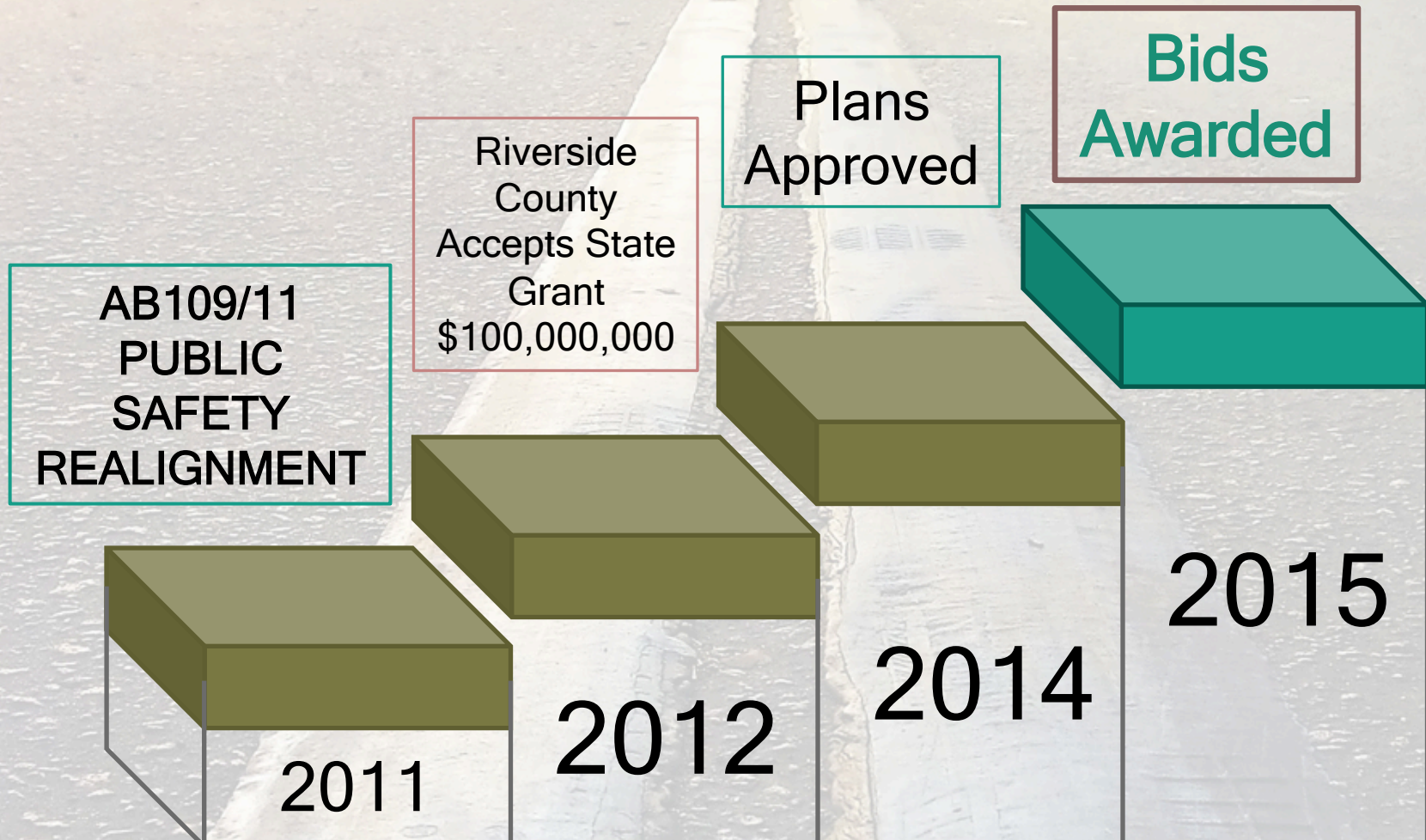
Southwest Justice Center Campus PBx Project



Competing Demands (Internal)



Controlling Demands (External)



Resources—What's in Your Wallet?



Capital One
What's in your wallet?



Cash Back Rewards—"Quick Silver"



Cash Back Rewards

Earn unlimited cash back on every purchase.

[See Cash Back Cards](#)

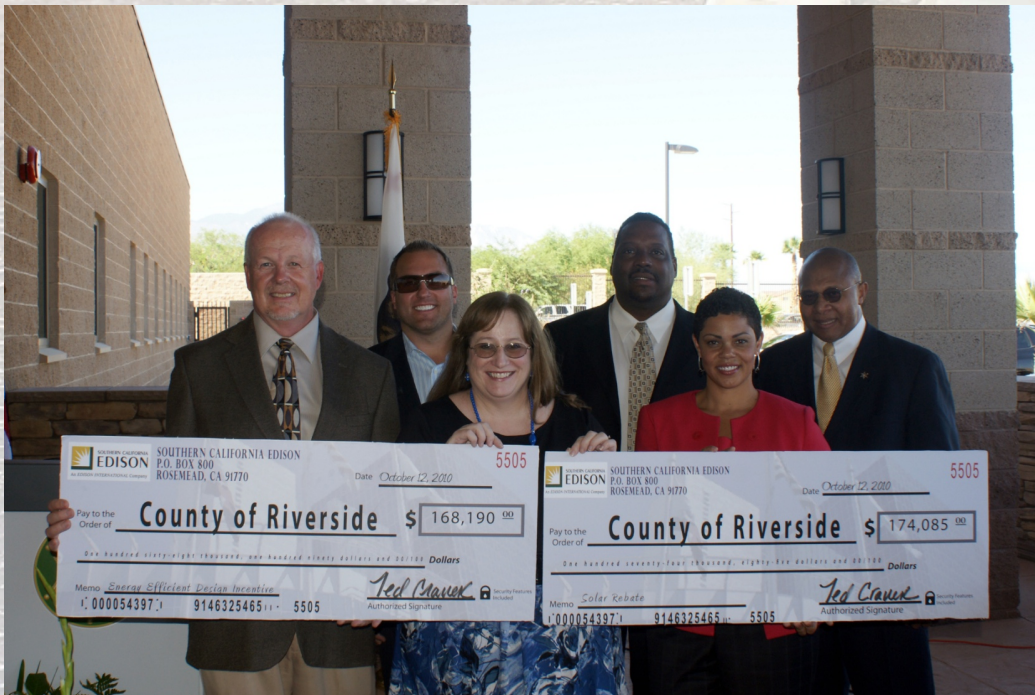
Pre-Title 24 change

- ❖ Rebates for most measures
- ❖ New Construction incentives—no building size limit
- ❖ CSI Rebates
- ❖ Minimal "to code" requirements
- ❖ Calculated rebates

Post Title 24

- ❖ Rebates are upstream & midstream
- ❖ New Construction > 25,000 square feet
- ❖ CSI Rebates--gone
- ❖ Rebates for above code only
- ❖ Calculated & Express rebates gone

Impact–IOU Partnership



- ❖ Can't get savings credit for the Partnership if there is no rebate
- ❖ Issue of many facilities that are not “to code”
- ❖ EE projects are more expensive with very few rebates = low ROI

Travel Rewards—Project Processing



Travel Rewards

No blackout dates, redeem anytime.

[See Travel Cards](#)

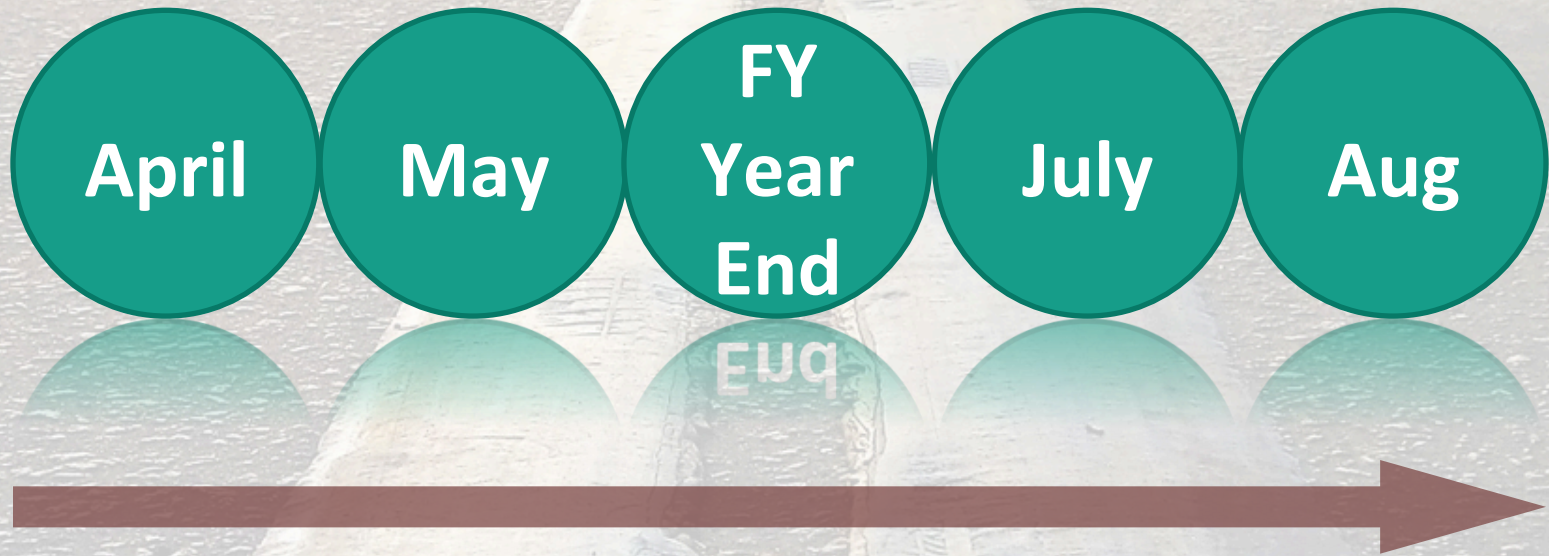
Pre-Title 24 change

- ❖ Mostly timely processing of project
- ❖ Plenty of 3rd Party programs
- ❖ No extra CPUC review
- ❖ Less 3rd party review by utility

Post Title 24

- ❖ IOU and CPUC processing is very lengthy
- ❖ 3rd party programs have ended
- ❖ CPUC can pull projects
- ❖ Heavy IOU 3rd party review

Impact—Last Minute Money



Process Prevents the Project

Average or Building Credit—Low Budget



Average or Building Credit

Cards to help you build credit with responsible use.

[See Cards Now](#)

Pre-Title 24 change

- ❖ Direct Install programs available
- ❖ Grant funding possible (EECBG)
- ❖ Good ROI on ESCO projects
- ❖ Good ROI on lighting

Post Title 24

- ❖ Direct Install limited
- ❖ Grant funding very competitive
- ❖ Lower ROI on ESCO projects
- ❖ Lower ROI on lighting

Impact–Declining Conservation Fund



- ❖ Already a declining return to fund
- ❖ Already have competition between multiple utilities for funding
- ❖ Due to county jail, reduced new construction programs in IOU territory
- ❖ No rebates coming back to fund future projects
- ❖ Fund will eventually run out of money

Popular Cards--Other Resources



Popular Cards

Cards people are raving about.

[See Popular Cards](#)

Non-EE Activities with better resources

- ❖ Solar for local government—RES-BCT program
- ❖ Electric vehicle charging station opportunities—CEC, SCAQMD, SCE
- ❖ Municipal utility programs
- ❖ Battery storage
- ❖ Micro-grids

Impact—What's in My Wallet?

Riverside Public Utilities



- ❖ Easy Process
 - ❖ No reservation
 - ❖ Quick pre-inspection
 - ❖ Simple application
 - ❖ One page
 - ❖ Before/After information
 - ❖ Cut sheets
- ❖ Rebates for most measures
- ❖ Payment in 4-6 weeks

Integration of Distributed Energy

Perris Sheriff Station



Integration of Distributed Energy

Western Riverside Animal Shelter



It's a Balancing Act

Demand

EV
Charging
Stations

Resources

CEC
Grant

SCAQMD
Rebate

SCE
Charge
Ready

Full Wallet



It's a Balancing Act

Demand

Energy
Efficiency

Resources

Lack of
rebates

Low ROI

Long
Process

Empty Wallet



Multi-task to the Max



Final Thoughts

Demand

Prioritize demands with an eye on capacity

Resources

Manage budgets and schedules with an eye on ROI

Flexibility

Expect the unexpected

Semper Gumby



Mom Said There Would Be Days Like This





**Do you have
any questions?**

