



Sustaining Solutions for Facilities Infrastructure

Business Case Analysis

Laredo College Board of Trustees



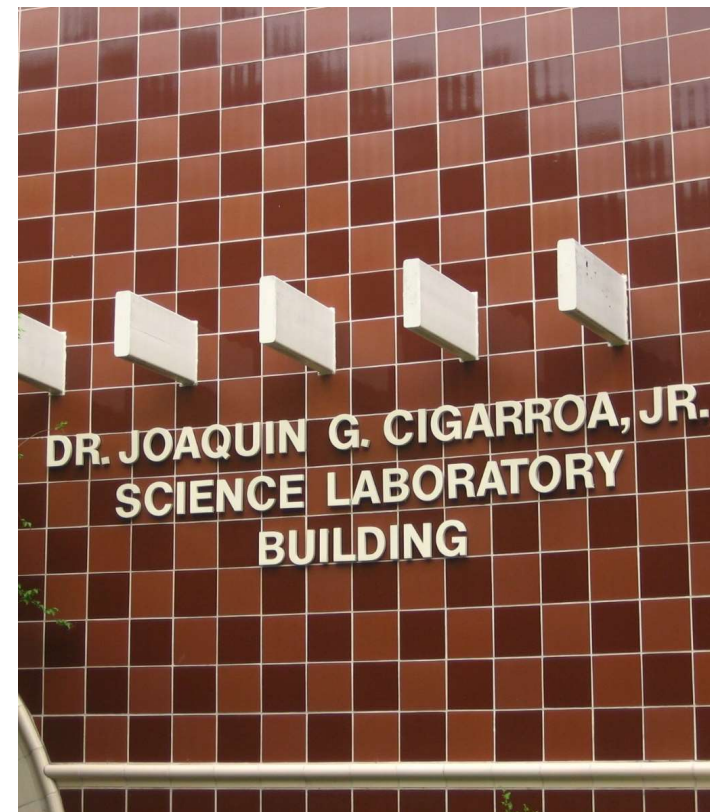
Objective

Demonstrate how Laredo College can leverage a Performance Contract to:

- Reduce overall operations & maintenance costs
- Decrease utility consumption
- Address infrastructure capital renewal needs

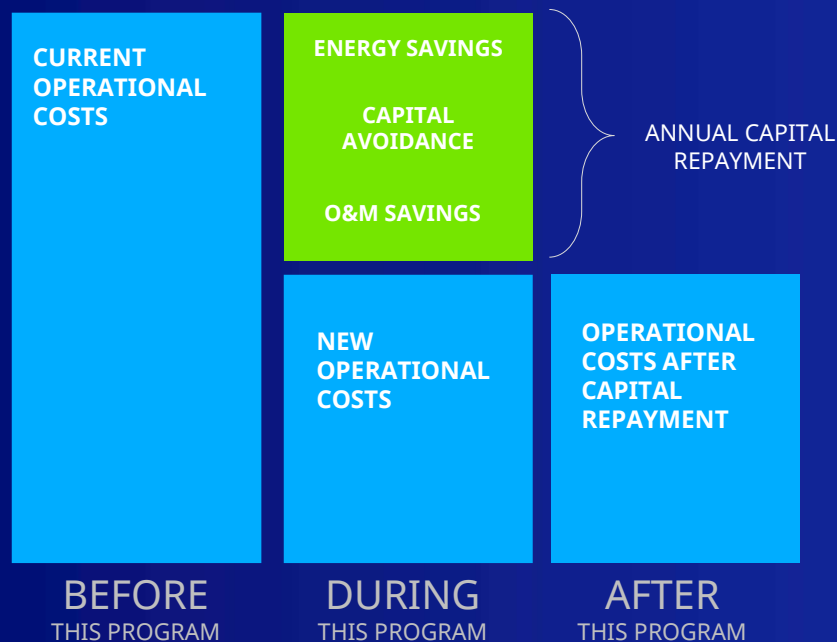
Key Concerns & Conditions

- Escalating annual cost of operations
- Aging infrastructure and building envelope issues
- Availability of capital funds to make facility improvements
- Providing safe, comfortable, and resilient environments for campus communities



How Does Performance Contracting Work?

BUDGET NEUTRAL APPROACH



- Any shortfall in energy savings is made up by Johnson Controls annually.
- Excess savings are retained by the college.

The program uses **GUARANTEED** energy savings, operational savings, and avoided capital expenditures to fund repayment of capital for building/infrastructure needs.

Utilities Analysis



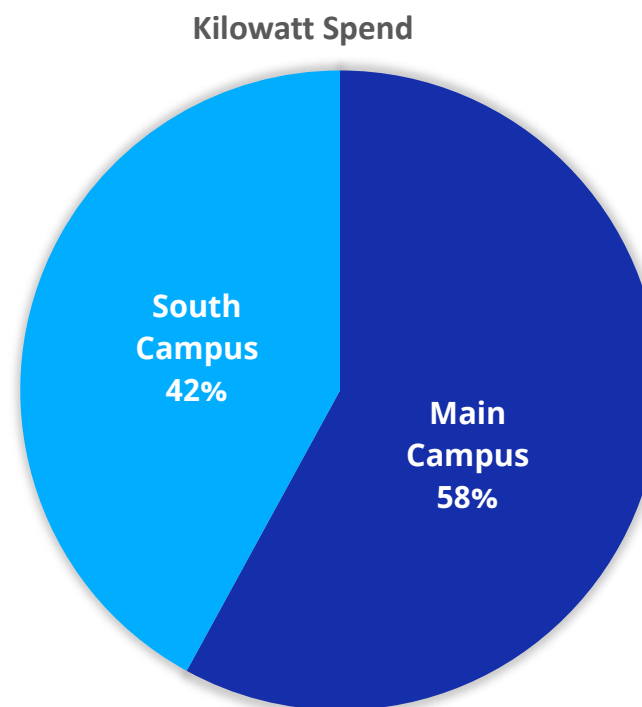
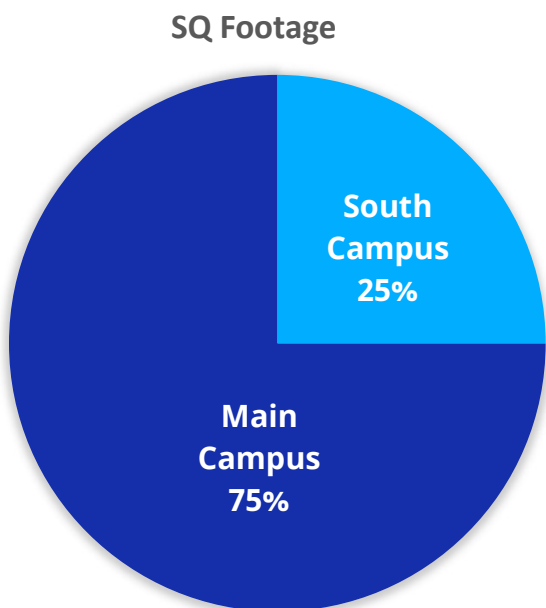
Site	kWh \$ Kilowatt Hour \$	kW \$ Kilowatt \$	Water \$	Irrigation \$	EUI Energy Utilization Index
Main Campus	\$755,888	\$369,019	\$231,349	\$93,945	72,200
South Campus	\$336,583	\$267,688	\$88,380	\$16,605	83,500
Totals	\$1,092,471	\$636,707	\$319,730	\$110,550	75,200

Increase in cost per kWh of 40% (\$0.046 to \$0.065)

Anticipated annual kWh cost increase of nearly \$500,000 to \$1,500,000

- Sewer has a 6% annual increase
- Main campus plant makeup water account has an annual sewer charge of \$47,500
- Main campus has 45 accounts being charged usage minimums. Each account costs about \$1,500 annually for total costs for minimum accounts being \$67,000

Main and South Campuses Kilowatt Utilization



Key Recommended Facility Improvement Measures



Replace Chillers for better comfort and control with lower energy consumption and O&M



Upgrade HVAC thermostats and controls to Energy Management System



Upgrade existing interior/exterior lighting system to LED technology with controls



Replace inefficient plumbing fixtures with high-efficiency fixtures

Potential Project – Enterprise-wide



Critical Needs

- Chiller Replacements
- HVAC Mechanical Upgrades
- HVAC Controls Upgrades
- Lighting Upgrades
- Water Conservation
- Recommissioning

Other Needed Improvements

- Plant Optimization
- Window Film
- Pump Upgrades
- Deferred Maintenance Items
- Roof Replacements
- Thermal Storage
- Cooling Towers
- Building Envelope Improvements
- Testing and Balancing
- Transformer Upgrades

Energy Savings, Operational Efficiencies and Cost Avoidance
Offset Potential **\$2M - \$8M Construction Event**

Energy Savings Performance Contract (ESPC)



Texas statute enabling ESPC for Public Higher Education:
Title 3, Education Code 51.927

Key points

- Up to 20 years allowed for savings payback term
- Any available money may be used to pay for an ESPC (capital), or
- An ESPC may be financed* by:
 - Tax-Exempt Lease-Purchasing (TELP) financing, LoanSTAR financing
 - Bond proceeds
 - Financing through ESPC provider
- College is not required to pay for costs solely out of the savings realized
- College may contract with provider of ESPC services to perform ancillary work
- Qualifications-based procurement (RFQ or cooperative purchasing)

*Repayment terms will vary based on financing entity

Benefits of ESPC



Shorter construction timelines through ESPC=campus improvements begin sooner



Address deferred maintenance as an operating expense



Campus improvements could be offset by energy savings and operational efficiencies



Leverage savings to help pay for improvements over time = fiscal responsibility



Mitigate \$ loss by upgrading inefficient building systems



Guaranteed price, guaranteed savings



Program process



	Step	Description	Cost
	1	Preliminary Assessment	\$0
	2	RFQ or Cooperative Purchasing	\$0
	3	Partner Selection	\$0
AGREEMENT 1	4	Program Development Agreement (PDA)	Covered Under Program
	5	Program Development	Covered Under Program
AGREEMENT 2	6	Construction Agreement	Covered Under Program
	7	Installation	Covered Under Program
	8	Guarantee	Covered Under Program

Potential Next Steps

JAN – FEB 2024

Concept Presentation

Preliminary Analysis



MARCH 2024

Selection

Execute Program
Development
Agreement (PDA)



APR - JUNE 2024

Project Development

- Project Development
- Scope Selection
- Contract Negotiations
- Contract Approval



SUMMER 2025

Implementation

- Begin Construction
- Measurement & Verification (M&V)



Thank you!

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