



# Ideal Impact

*Writing Success Stories, One Student At A Time.*

# Providing More Funding for Duncanville ISD

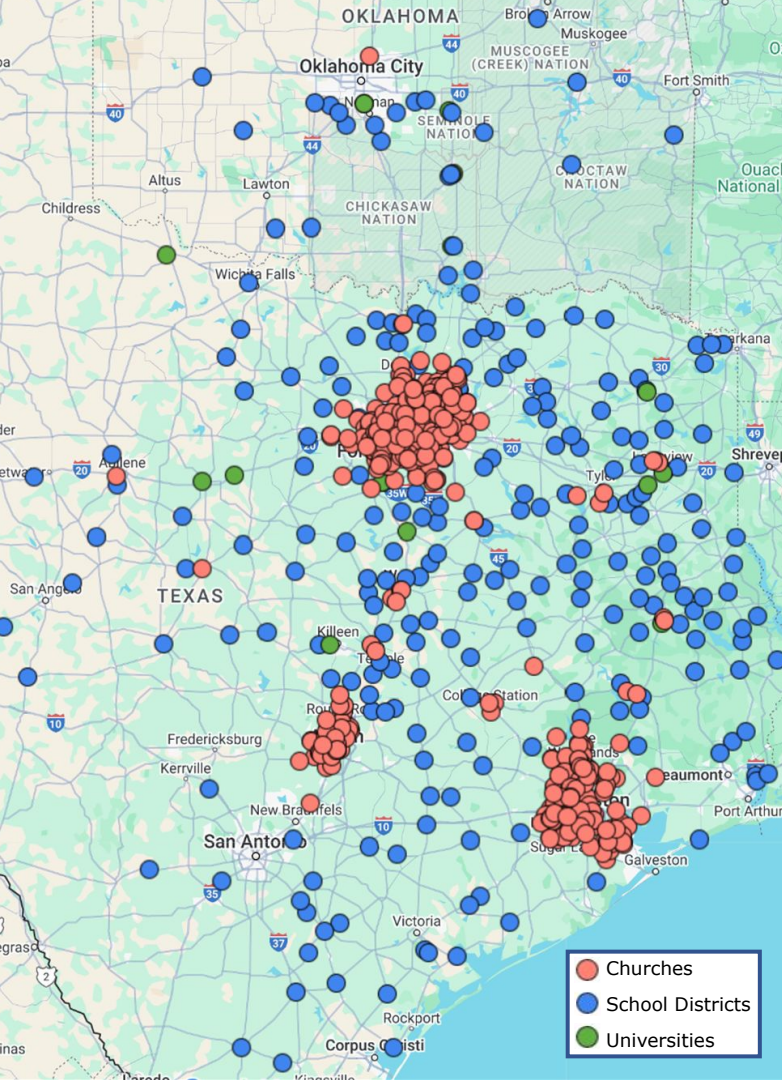
**Save  
Money**

**Conserve  
Energy**



**Impact  
Lives**





**740+ Churches**  
**250+ School Districts**  
**25+ Universities**

**\$2.2 billion**

# Billing Analysis

## Annual Energy Spend

\$2,176,718

## Demand Portion

40% of Total Bill

\$873,034

## Meter Breakdown

80% Ratchet - 100%

4CP - 40%

D0/E0 - 30%

## Energy Rates

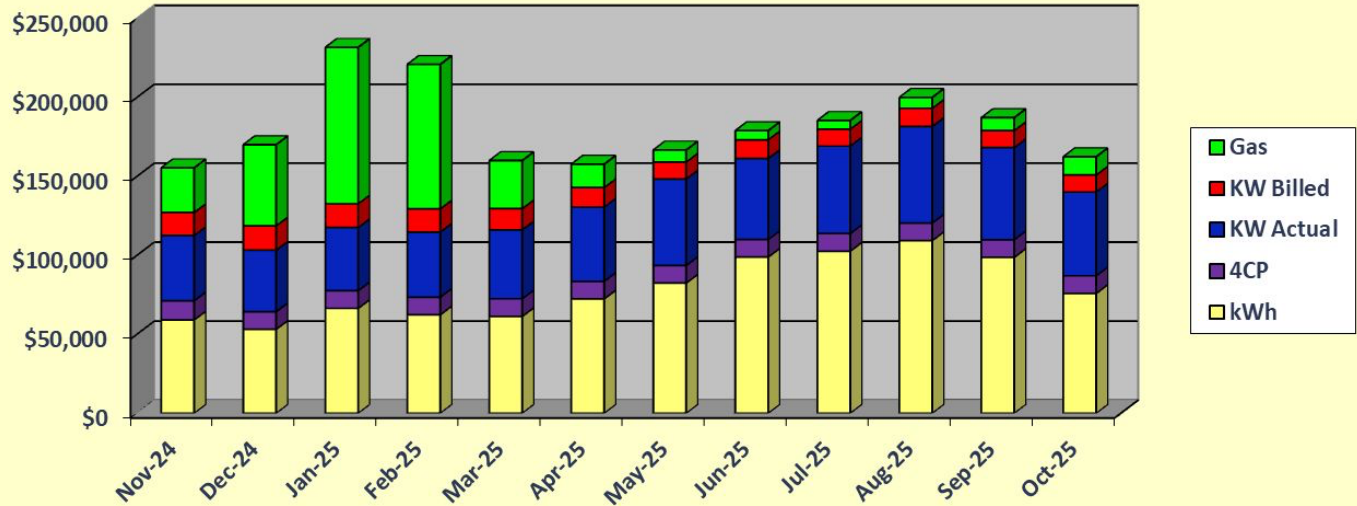
\$/kWh - \$0.048

\$/KWA - \$4.24

\$/KWB - \$8.61

\$/4CP - \$5.48

## Total Bill





# Impact on Energy Output

Louise ISD		
EUI (kBtu/sqft)	Before	After
	44.8	21.3

Calhoun County ISD		
EUI (kBtu/sqft)	Before	After
	36.8	26.3

Freer ISD		
EUI (kBtu/sqft)	Before	After
	48.5	26.9

Kennedale ISD		
EUI (kBtu/sqft)	Before	After
	32.3	20.5

Duncanville ISD		
EUI (kBtu/sqft)	Before	After
	44.8	29.8

**Virtual Endowment**

## **Duncanville ISD**

### **Active Revenue Creation**

	<b>Basic Commitment</b>	<b>Committed Steward</b>
<b>Current Energy Expenses</b>	<b>\$2,176,718</b>	<b>\$2,176,718</b>
<b>Proposed Savings</b>	<b>\$740,084</b>	<b>\$827,153</b>
<b>(%)</b>	<b>34%</b>	<b>38%</b>
<b>15 Year Savings Total*</b>	<b>\$18,597,590</b>	<b>\$20,785,542</b>
<b>Net 15 Year Savings</b>	<b>\$14,775,411</b>	<b>\$16,963,363</b>

*\*adjusted for utilities cost inflation*

**Current Annual Spend**  
**\$2,176,718**



**Committed Steward**  
**\$827,153**



**80%**  
**\$661,722**

**District Improvements**  
**\$3,822,179**



**5.77 year payoff**  
**(without rebate)**



**20%**  
**\$165,431**

**Additional Savings**  
**and Benefits**



**Net 15 year**  
**\$16,963,363**

# Optimization Highlights

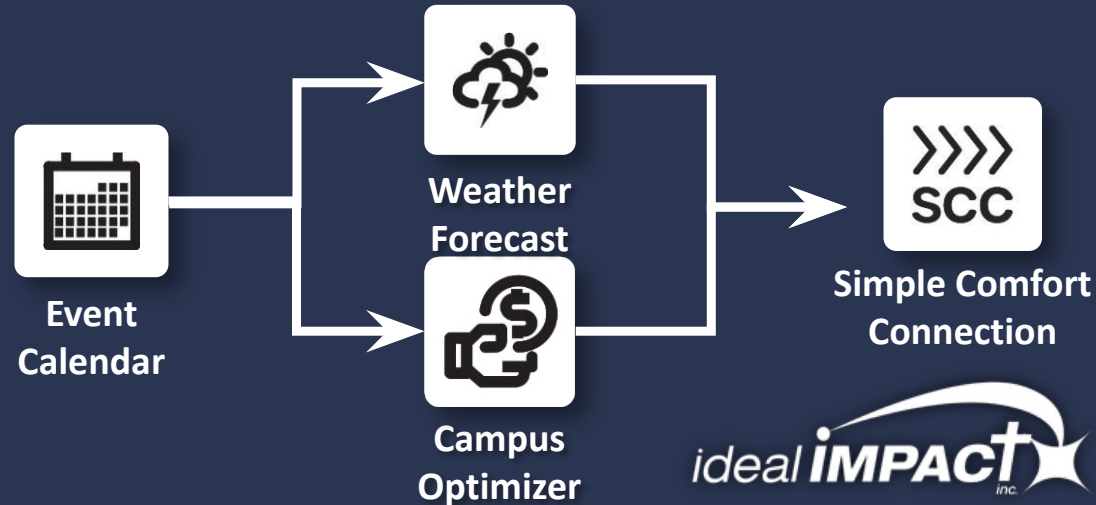
- Use our experience from saving energy and improving comfort in thousands of buildings on your campus
- Make improvements to the controls and processes at the start, new controllers on 1,405 units, major control improvements on 1,439 pieces of HVAC equipment
- Improve Relative Humidity and Indoor Air Quality
- Monitor and analyze the results
- Make improvements to HVAC (1,439 pieces of HVAC equipment), controls, zoning, weatherization, comfort issues, operating strategies, usage, and needs
- Build and tune a detailed energy plan & document it in several levels of detail for multiple individuals
- Train your personnel on how to use the plan, tools, and technology to achieve long-term savings for Duncanville ISD
- Ideal Impact available throughout term of the agreement for energy-related consulting
- Customize Ideal Impact Campus Optimizer (*Patent Approved*) for 1,439 pieces of HVAC equipment and the spaces they serve



# Campus Optimizer

(Multi-Dimensional Matrix to maximize both comfort & savings)

- 1) Temperature/Comfort
- 2) 1,439 pieces of HVAC equipment
- 3) 1600 Rooms
- 4) 1800 Events
- 5) Reduce kWh
- 6) Optimize Annual Load Factor Equation =  $\text{Annual KWH} / (\text{Annual peak} \times 8760)$
- 7) Reduce CCF
- 8) Reduce KWa (15min/month)
- 9) Reduce KWb (15 min/year)
- 10) Reduce 4CP
- 11) Improve RH%
- 12) Improve IAQ
- 13) Ramp Times
- 14) Weather
- 15) Meters (80)
- 16) Rate Schedules





# Questions?

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