

Crosby ISD SECO LoanSTAR Project



January 21, 2025



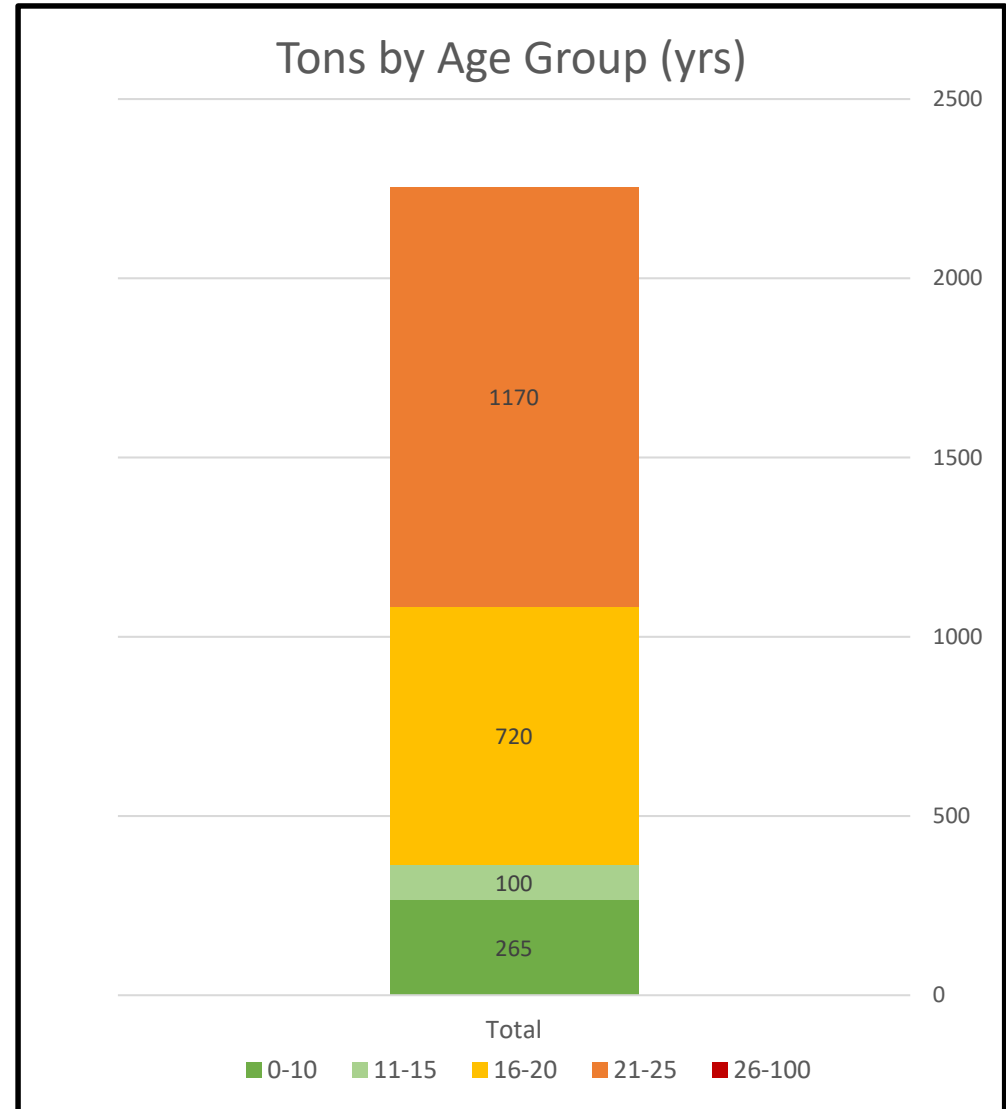
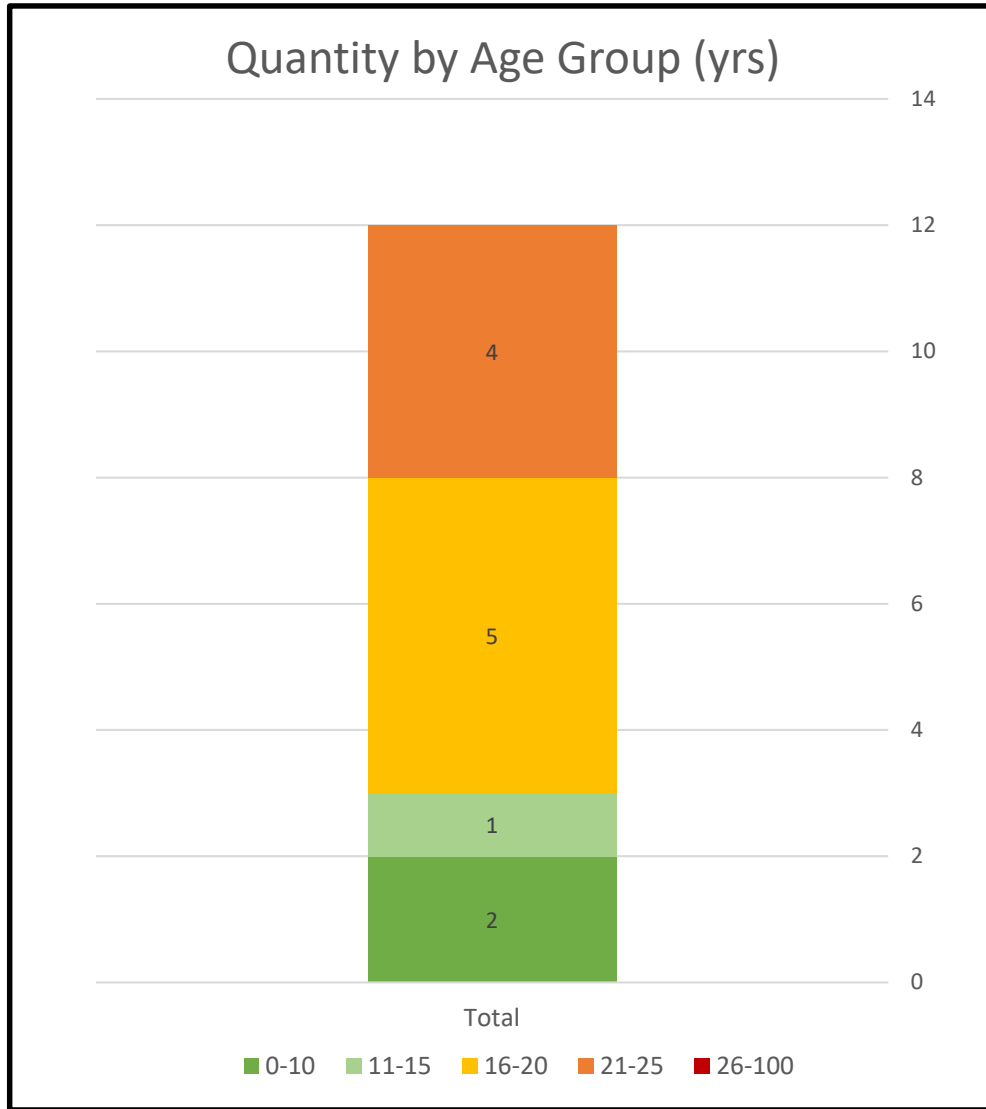
WE FOCUS OUR ENERGY

ON SAVING YOURS.



HVAC – Chillers

Crosby ISD



Financial Opportunity

State Energy Conservation Office (SECO) LoanSTAR Program:

- Loan at 1.5% fixed for up to 15 years.
- Loan must be used for energy efficiency upgrades such as lighting, control systems, and HVAC.
- The State requires the LoanSTAR loan to pay for itself, so this project should be at **least budget neutral**.
- Crosby requested \$4,412,715 in funding allocation



Executive Summary

- Replace 3 chillers and 2 DX units at Crosby Middle School
- Replace 4 pumps at Crosby Middle, 2 pumps at Crosby Elementary and VFDs
- Comprehensive LED Lighting retrofit throughout the district (High School is already LED)
- Update Building Automation System and Retro-commissioning
- Power Factor Correction
- Electrical Phase Protection
- Total Annual Savings of \$433,133

TABLE 1 – SUMMARY OF INDIVIDUAL UTILITY COST REDUCTION MEASURES

| UCRM No. | UCRM Title | Annual Savings | | | | | | | O&M Savings (\$/yr) | Total Annual Savings (\$) | UCRM Loan Cost (\$) | Payback (yrs) | Estimated UCRM Lifetime (Yrs) |
|--|-------------------------------------|--------------------------|----------------|------------------|----------------------|---------------------|-----------------|---------------|---------------------|---------------------------|---------------------|---------------|-------------------------------|
| | | Electric Energy (kWh/yr) | Demand (kW/yr) | Electric (\$/yr) | Natural Gas (MCF/yr) | Natural Gas (\$/yr) | Water (kgal/yr) | Water (\$/yr) | | | | | |
| 1.0 | LED Lighting Retrofit | 1,345,596 | 4,773 | \$143,895 | (70.3) | (\$537) | -- | -- | \$58,239 | \$201,597 | \$1,590,179 | 7.9 | 15 |
| 2.3 | HVAC and Controls Renovation | 2,268,032 | 3,987 | \$204,510 | -- | -- | -- | -- | -- | \$204,510 | \$2,530,574 | 12.4 | 15 |
| 4.1 | Power Factor Correction Improvement | -- | 2,884 | \$27,026 | -- | -- | -- | -- | -- | \$27,026 | \$120,488 | 4.5 | 10 |
| Totals | | 3,613,628 | 11,644 | \$375,431 | (70.3) | (\$537) | 0 | \$0 | \$58,239 | \$433,133 | \$4,241,241 | 9.8 | |
| Utility Assessment Report Cost | | | | | | | | | | | \$107,617 | | |
| Construction Bonding Cost | | | | | | | | | | | \$63,448 | | |
| Owner's Administration, Management, Training & Other Cost | | | | | | | | | | | \$0 | | |
| IMPLEMENTATION COST | | | | | | | | | | | \$4,412,306 | 10.2 | |



+



MORE PROJECT FOR YOUR MONEY

WE FOCUS OUR ENERGY

ON SAVING YOURS.

