

# Enterprise School District

## Energy Project Overview

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# Agenda

- The Energy Projects
- The Energy Savings and Funding
- The Implementation Process
- The Fuel Supply
- The Benefits to the School District and Community

# The Energy Projects

- Four Projects
  - Biomass Boiler
  - Steam Piping
  - Digital Temperature Controls
  - Lighting Retrofits
- Total Est. Project costs \$1.519 million
- Net Est. Project costs \$1.071 million

# The Energy Projects

- Energy Incentives Estimated to be:
  - BETC's - \$448,000
  - Senate Bill 1149 - \$132,696
- Simple Payback of 14.1 years

# The Energy Savings and Funding

- Guaranteed Energy Savings are:
  - Biomass Boiler - \$76,141
  - Digital Controls - \$1,749
  - Lighting - \$6,820
- Total Guaranteed Energy Savings of \$84,710 (baseline fuel cost of \$2.27 gal)
- McKinstry is guaranteeing the energy savings on the boiler and controls at 90% and the lighting at 95%

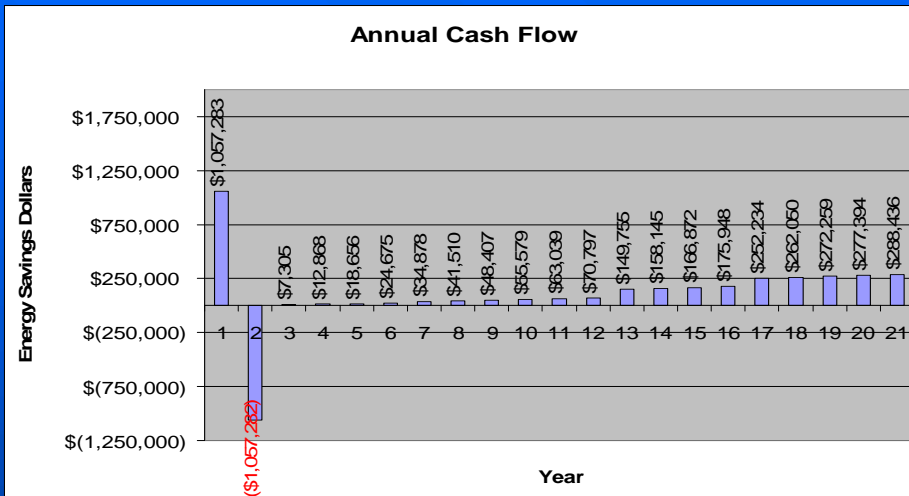
# Funding the Project

- School District is using an Energy Savings Performance Contract
  - Energy Savings are guaranteed
  - Equipment Performance is guaranteed
  - Project Cost has a guaranteed cap
  - Construction Costs are reconciled back to the district through open book pricing
- Project was reviewed by the Oregon Department of Energy

# Funding the Project

- Total Energy Savings (100%) will be \$93,723
- District is using a Qualified Zone Academy Bond at 1.43% for 16 years
- The project will be completed in Oct 2008
- As oil costs increase, the savings increase (basis of est. is \$2.27/gallon)

# Project Cash Flow

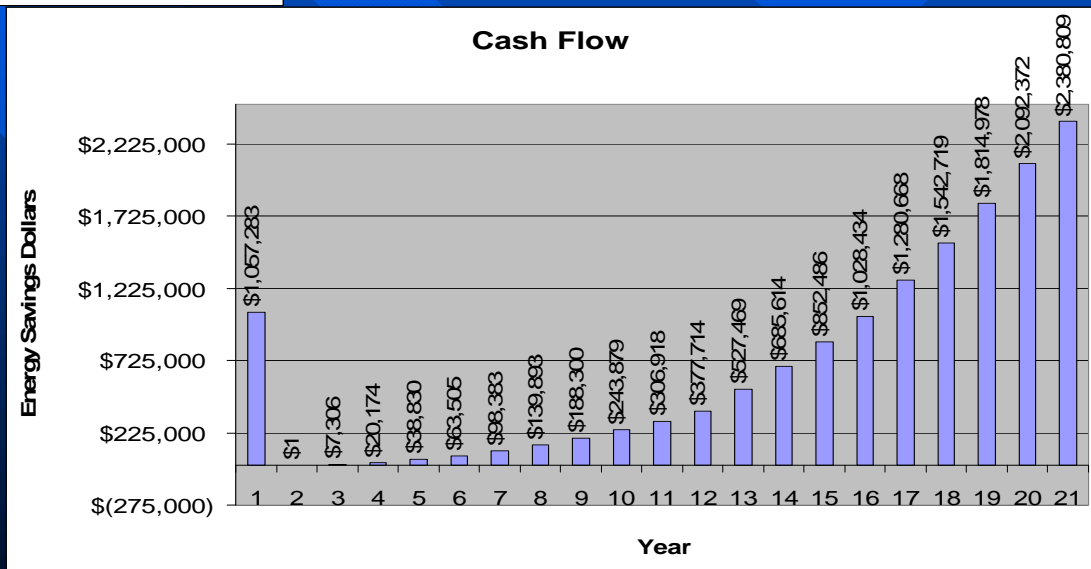


Payment in Year 2 from QZAB loan and BETC pass-through revenue. Still cash flow neutral.

Positive cash flow of \$7K (Yr 3) up to \$70K (Yr 12) when loan repaid (at \$2.27 baseline price).

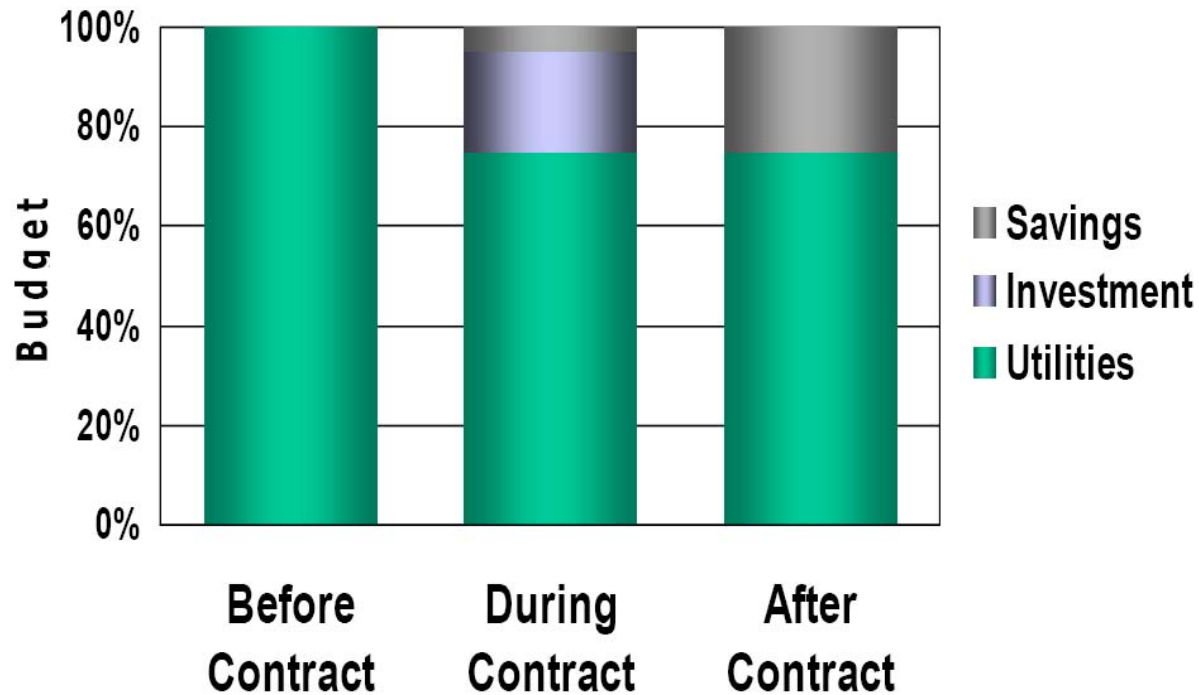
Annual cash flow benefit of \$150K plus after loan repaid.

Twenty year cumulative benefit of \$2.0 million at baseline pricing.



# The Implementation Process

## ■ Energy Savings Performance Contract



# The Fuel Supply

- Currently have fuel being supplied by Community Smallwood Solutions at \$32/ton (five year contract with built in annual inflation calculator)
- Backup fuel being supplied by private entity from La Grande for free (transportation cost of about \$10/ton)
- Boiler system is predicted to use 583 tons of wood
- Other suppliers are lined up

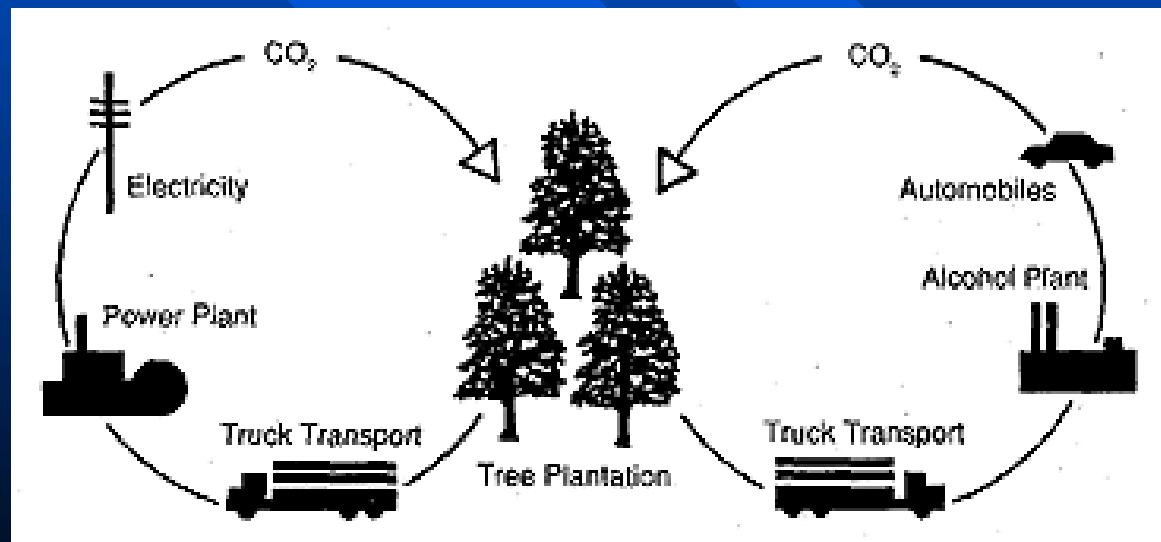
# Benefits to the District and Community

- New boiler system, controls and lighting at no expense to the tax payers
- Utility Incentives to offset costs
- Budget Neutral project and creates hedge against energy price inflation
- Keeps money in the county for fuel
- Uses local contractors for parts of the implementation
- Replaces aging equipment

# Biomass is Greenhouse Gas Neutral

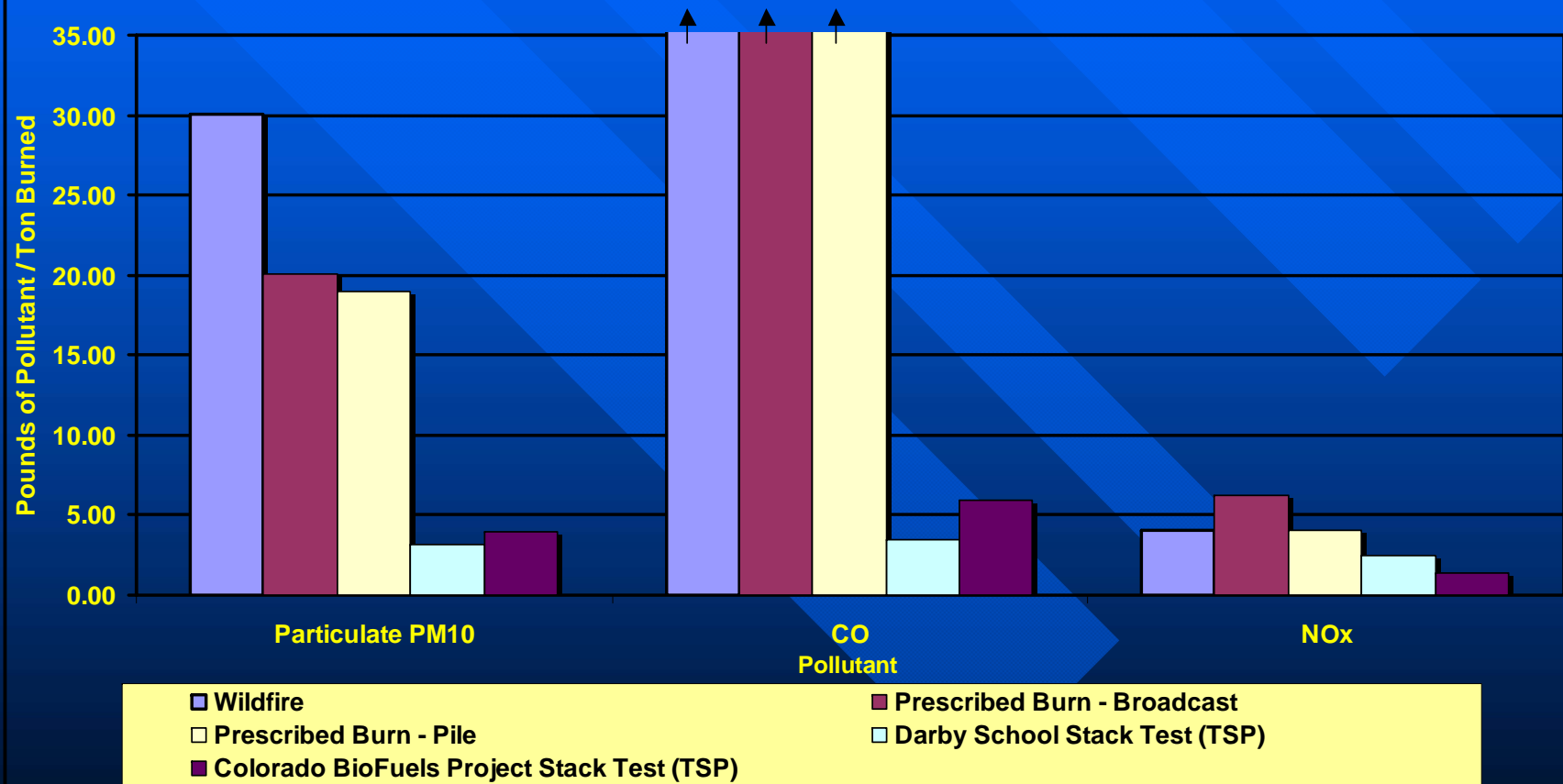
## ■ Closed-carbon loop

- CO<sub>2</sub> released when biomass burns - CO<sub>2</sub> captured when biomass grows
- When fossil fuels are burned, CO<sub>2</sub> is released that has been stored for millions of years
- Plants are able to recycle some, but not all of the CO<sub>2</sub> released when fossil fuels are burned

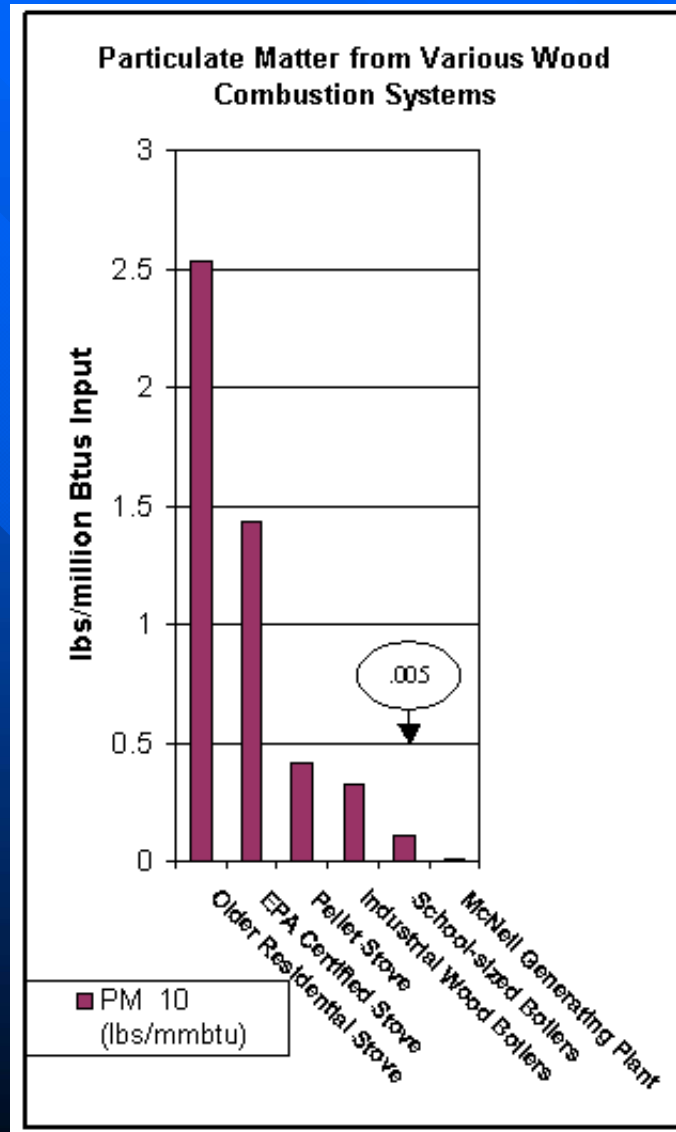


# Air Quality

## Fuel Management (Prescription Techniques) - Pollutant Emissions Comparisons



# Emissions



# The Boiler Building

