

EXECUTIVE SUMMARY

Section 1: Summary of Project

PROPOSED 2009 ESPC PROJECT SUMMARY

The Three Rivers School District, in collaboration with McKinstry and the Willamette ESD, has successfully implemented the 2008 Energy Savings Performance Contract (ESPC) projects. The completed projects are reducing District ongoing operation and maintenance costs and improving the learning environment for students and staff. This innovative partnership successfully leveraged the ESPC process to deliver high quality solutions in a self-funding manner.

McKinstry has completed the Phase 2 Project Development Plan (PDP) study and the table below highlights the benefits of the proposed 2009 projects:

| 2009 | Project Descriptions / Benefits | Locations |
|--|--|--|
| Phase 1 04.20.09 Board Approved | Comprehensive Lighting Upgrades & PCB Remediation <input checked="" type="checkbox"/> Electrical savings = \$14K per year <input checked="" type="checkbox"/> Operations & Maintenance savings <input checked="" type="checkbox"/> Improved Learning Environment <input checked="" type="checkbox"/> Reduced greenhouse gas emissions | Evergreen ES Illinois Valley HS Madrona ES North Valley HS |
| | Demand Control Ventilation Upgrades <input checked="" type="checkbox"/> Electrical, Oil & Natural Gas savings = \$17K per year <input checked="" type="checkbox"/> Improved Control & Learning Environment <input checked="" type="checkbox"/> Reduced greenhouse gas emissions | |
| Phase 2 07.14.09 Board Approval | New Domestic Hot Water Heater & Storage Tank <input checked="" type="checkbox"/> Natural Gas savings = \$1.6K per year <input checked="" type="checkbox"/> Operations & Maintenance savings <input checked="" type="checkbox"/> Reduced greenhouse gas emissions | North Valley HS |
| | Computer Lab HVAC Upgrades <input checked="" type="checkbox"/> Improved occupant comfort & temperature control | Illinois Valley HS North Valley HS |
| | Duct Repair Investigation & Remediation <input checked="" type="checkbox"/> Improved occupant comfort & temperature control <input checked="" type="checkbox"/> Potential for significant energy savings | Illinois Valley HS |
| Phase 3 TBD Board Approval | Retro-commission HVAC systems <input checked="" type="checkbox"/> Electrical, Oil & Natural Gas savings = \$13K per year <input checked="" type="checkbox"/> Improved Comfort & Control | Illinois Valley HS Madrona ES North Valley HS |
| | New Biomass Boiler <input checked="" type="checkbox"/> Oil savings = \$11K in 1st year, savings increase as fuel escalates <input checked="" type="checkbox"/> Reduced greenhouse gas emissions <input checked="" type="checkbox"/> Renewable Fuel Source <input checked="" type="checkbox"/> Optional Renewable Energy Curriculum | Illinois Valley HS |
| | Photovoltaic Solar Power at (6) schools <input checked="" type="checkbox"/> Electrical savings = \$5K in 1st year, increasing to \$126K in 7th year <input checked="" type="checkbox"/> Reduced greenhouse gas emissions <input checked="" type="checkbox"/> Renewable Energy Source <input checked="" type="checkbox"/> Optional Renewable Energy Curriculum | Fleming MS Lincoln Savage MS Lorna Byrne MS Illinois Valley HS Hidden Valley HS North Valley HS |

SUMMARY OF 2009 PROJECT BENEFITS

Financial

The 2009 **\$ 1.5M project** will be funded entirely through combining the guaranteed energy savings, energy incentive grants, tax credits and rebates from the proposed 2009 project. After all 2008 & 2009 project costs and finance charges, the District will accrue a **net surplus of \$ 2.2M** by fiscal year 2023-24 when the debt is retired. Highlights include:

| | | |
|--|---------------------|-----------------------------------|
| Cumulative Utility Savings | \$ 4,179,268 | (thru FY 2023-24) |
| Annual Utility Savings | \$ 142,572 | (estimated 3% annual escalation) |
| Annual O&M Savings | \$ 5,840 | (FYI – not included in cash flow) |
| SB 838 Grants | \$ 1,006,092 | (thru FY 2025-26) |
| SB 1149 Grants | \$ 364,204 | (thru FY 2011-12) |
| BETC Tax Credits | \$ 283,243 | (FY 2008-09; FY 2009-10) |
| ETO Incentives | \$ 77,795 | (FY 2008-09; FY 2009-10) |
| Avista Incentives | \$ 40,501 | (FY 2008-09; FY 2009-10) |
| TOTAL - Grants & Incentives | \$ 1,771,835 | (thru FY 2025-26) |
| Net Cumulative Cash | \$ 2,206,299 | (thru FY 2023-24 finance period) |

This Phase 2 project includes **\$ 193K in repairs to existing systems** without any deferred capital maintenance funds.

- **Illinois Valley HS** – Repair leaking HVAC ductwork (existing system is 34 years old)
- **North Valley HS** – Repair leaking HVAC ductwork (existing system is 33 years old)

Environmental

In addition to the facility improvements and energy savings, this project exerts a significant positive impact on the environment. Annual emissions reductions include greenhouse gases such as carbon dioxide (CO₂), as well as reduce other emissions that contribute to the formation of smog - nitrogen oxides (NO_x), acid rain – sulfur dioxide (SO₂), and toxic heavy metal compounds like mercury (Hg).

- **Annual CO₂ reduction = 4,606,036 pounds**
- **Annual NO_x reduction = 4,761 pounds**
- **Annual SO₂ reduction = 4,540 pounds**
- **Annual Hg reduction = 9,996 milligrams**

By implementing these efficiency improvements, annual CO₂ greenhouse gas emissions are reduced by **2,303 tons**, which is equivalent to removing **305 cars (4,606,036 vehicle miles)** from the road or planting **627 acres of trees (6,912 trees)** every year.