

Heat & Frost Insulators & Signatory Contractors

LMCST

Labor Management Cooperative Trust

DOES

**“VALUE ENGINEERING”**

*REALLY* ADD VALUE?

## Illinois Hospital Actual situation

### Uninsulated Domestic Hot Water System Details

Engineer:

Pipe Size:	Temperature	Footage
1/2" and 3/4" Copper	130 deg F	15,000 LF

	BTU/lf/yr	CO2/lbs/ft/yr	NOX/lbs/ft/yr	CE/lbs/ft/yr
Bare Pipe	235,300	36.55	0.073	9.96
w/1/2" FG	72,160	11.21	0.022	3.055
w/1" FG	54,210	8.42	0.017	2.295

<i>Numbers based on 15,000 LF</i>	BTU/yr	CO2/lbs/yr	NOX/lbs/yr	CE/lbs/yr
Bare	3,529,500,000	548,250	1,095	149,400
w/1/2" FG	1,082,150,000	168,150	330	45,825
w/1" FG	813,150,000	126,300	255	34,425

<i>At \$10.00 per million BTU's</i>	Cost per yr
Bare	\$35,295.00
w/1/2" FG	\$10,821.00
w/1" FG	\$8,131.00

**savings of \$24,474.00 per year**  
**savings of \$27,164.00 per year**

\*\*Calculations based on NAIMA 3E Plus 4.0

- UNINSULATED PIPING COST \$35,295.00 PER YEAR!!
- THE COST OVER A 20 YEAR LIFESPAN IS \$705,900.00
- THE SAVINGS PER YEAR USING 1" FG INSULATION IS  
\$27,164.00
- THE SAVINGS OVER A 20 YEAR LIFESPAN IS \$543,280.00
- THE CREDIT TO REMOVE THE INSULATION FROM THIS  
SYSTEM WAS \$75,000.00

For more information on how paying attention to Mechanical Insulation systems in commercial and industrial facilities can save your state money and decrease your states carbon footprint please contact me @

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