

Case Study

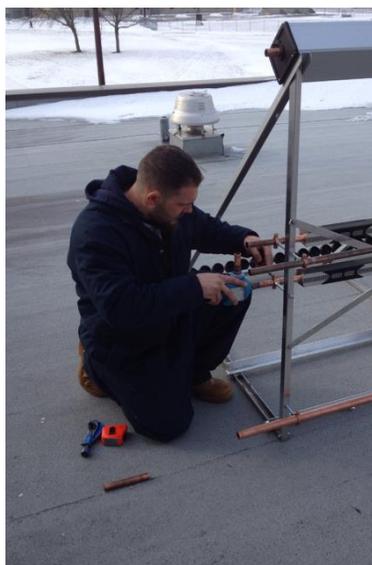
Ross Correctional Institution Chillicothe, Ohio

Opened and commissioned in 1987, Ross Correctional Institution is a men's state prison in Chillicothe, Ohio operated by the Ohio Department of Rehabilitation and Correction, **with 8 cell houses and an average daily population of 1,900 offenders**. Large-quantity domestic hot water and space heat needs produced yearly expenditures for natural gas of approximately \$500,000. Additionally, the ODRC wanted to expand its vocational training opportunities for offenders to include a green/sustainable focus, and provide a better chance for reducing recitivism through meaningful employment upon release from custody.

THE CHALLENGE: Feeling downward pressure on budgets, Ross began looking for ways to reduce operating expenses. When ODRC management was introduced to the concept of correctional sustainability it was determined that a solar hot water boiler pre-heat project combined with an installation program for offenders, would provide the best ROI and job preparation opportunity.

THE SOLUTION: **A 400-panel Solar Thermal System** to heat incoming water to each of 32 total hot water boilers (4 in each of 8 cell houses) while training a select crew of offenders on the solar thermal installation process.

THE RESULT: Natural gas savings at the rate of **20% per year** while reducing emissions at a rate equal to taking 348 cars and light truck off the road each year. Additionally, seven offenders graduated from the installation program, with a \$25 per hour job offered to a soon to be released program graduate.



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