

CASE STUDY: GOVERNMENT BUILDING

Location: Hennepin County, Minneapolis, MN
Installing Contractor: Jaytech
Equipment Supplier: SVL
Performance Verifier: CenterPoint Energy

Highlights:

- The utilities measured 34.8% efficiency improvement after installation of Hydromx's Nanofluid.
- The addition of Hydromx to the run-around loop qualified for both gas and electric rebates with a 0.8 year project payback.



Background: The Hennepin County Crime Lab is one of six accredited crime labs in the state and provides forensic DNA, firearm examination, fingerprint database and crime scene processing services, along with other forensic services. Due to the various chemicals in the building and services provided, the building is heated and cooled with 100% outside air. Normally, this is an extremely costly way to condition a building.

Challenge: The heat recovery loop inside of Hennepin County's Forensic Science Building was installed in early 2018. The building runs 24/7, has 14,000 CFM of OA and 11,000CFM of exhaust air through the heat recovery coils. After learning of Hydromx's efficiency gain over glycol, Hennepin County decided to switch from glycol to Hydromx to improve the energy recovery performance.

Solution: The utilities measured 34.8% efficiency improvement after installation of Hydromx's Nanofluid. The cooling savings resulted in a \$514 rebate from Xcel Energy, the electric utility. The heating rebate should have been \$1,213; however, it was "clipped" to \$321 due to CenterPointe Energy's, the natural gas utility, limit of a minimum 1-year pay pack for natural gas savings.



End Result: CenterPoint Energy reviewed the performance of Hydromx at the end of the analysis period. Energy engineers calculated the effectiveness of the heat recovery coils during both heating and cooling season. After Hydromx was installed the effectiveness of the heat recovery coils improved by 34.8% in heat recovery. The increase in performance has been reviewed by CenterPoint and Xcel Energy and the addition of Hydromx to the run-around loop qualified for both gas and electric rebates with a project payback of 0.8 years.

For more information, visit www.hydromx.com

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