

project profile



Meeting Rising Facility Costs Head-On

Energy Services Group by Honeywell is helping North Dakota State University (NDSU) achieve significant energy savings and build a road map for a more sustainable future.



by Honeywell

NDSU saves nearly \$850,000 a year in utility and operating costs from building infrastructure improvements across campus.

The Customer

- North Dakota State University (NDSU), located in Fargo, N.D., has more than 18,000 students, faculty and staff and includes more than 90 facilities.

The Problem

- NDSU faced the perfect storm of facility issues: rising energy costs, aging infrastructure and a limited budget, which led to a significant backlog of deferred maintenance.
- The university lacked the internal resources to holistically evaluate and implement the necessary building infrastructure improvements and address rising operating costs head-on.

ESG/Honeywell Solution

- NDSU entered into a 15-year energy savings performance contract with ESG/Honeywell in 2011, which enables the university to pay for building improvements through nearly \$850,000 in annual guaranteed energy and operating cost savings without relying on extra taxpayer dollars or tapping into school endowments.
- ESG/Honeywell sought to implement building infrastructure improvements that would significantly decrease university electricity and water usage as part of the energy savings performance contract.
- Under the guaranteed performance contract, ESG/Honeywell also helped the university establish appropriate classroom temperature setpoints for heating and cooling seasons to maximize energy savings while maintaining building comfort.

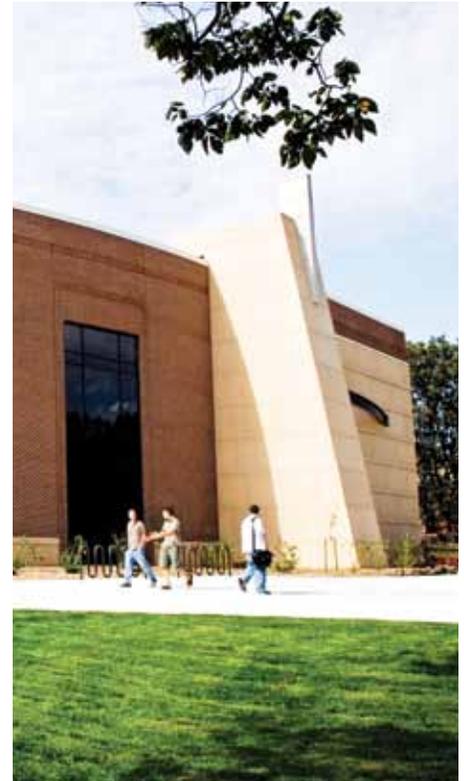
Key Technologies

- ESG/Honeywell replaced nearly 250 metal halide recessed lights with fluorescent lights that last twice as long. It also retrofitted 815 lighting fixtures with more energy efficient reflector kits and ballasts.
- ESG/Honeywell updated water fixtures in 60 buildings with more efficient showerheads, faucets and commodes.
- Retrofit work included extensive building control upgrades in 13 campus buildings; updated temperature, lighting and fume hood controls; and rebalanced air handling systems.

Guaranteed Impact

NDSU is expected to realize significant cost and environmental savings as a result of the ESG/Honeywell upgrades, including:

- Nearly \$850,000 in cost savings within the first year following project completion — 15 percent more than the original guarantee.
- Nearly 25 million gallons of water conserved in the first year, saving NDSU more than \$100,000.
- Lighting retrofits are expected to save NDSU 32 percent more in energy costs than the original guarantee.
- Total estimated reduction of nearly 6,845 tons of carbon dioxide emissions, 1.5 tons of methane emissions and 1 ton of nitrous oxide emissions — equivalent to removing 1,278 cars from the road.



“As a public institution, it’s critical that we take steps to make sustainable improvements to our campus to keep costs in check. This project makes necessary building improvements that will increase efficiency and counter rising energy costs, helping us keep our costs down.”

*— Michael Ellingson
Director of Facilities Management, NDSU*

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