# Efficiency Leadership in Healthcare Manufacturing

*Project Profile: Comprehensive Energy Management*

## BD Medical Systems

| Facility Description |
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| BD Medical Systems in Sandy, Utah manufactures IV catheters and surgical scrub brushes and uses injection molding for manufacturing medical devices. The facility is ISO 14001 certified, and purchases renewable power through the Rocky Mountain Blue Sky program and open market renewable energy credits. BD's Sandy facility employs 1,100 individuals. The 580,000 square foot facility has completed over 30 energy efficiency projects from 2008 - 2016 and additional projects are scheduled. |
| **Project Description** |
| BD's Sandy facility started its energy projects in 2000. The first project was a compressed air dryer upgrade. Since then, they have completed over 30 projects including compressed air, lighting, existing building re-commissioning, chilled water improvements, motor upgrades, and building controls automation. In total, these projects resulted in an annual savings of over 10,000,000 kWh. BD's Sandy facility uses SkySpark to gather and store building performance data and to identify and prioritize future projects. |

| Project Quick Facts |
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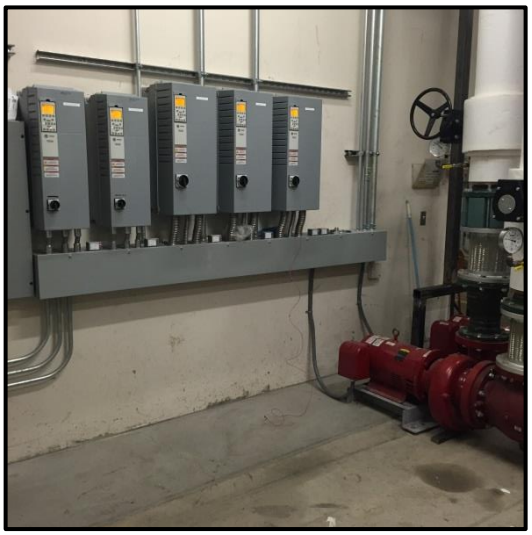
| **Location:** Sandy, Utah |
| **Market Sector:** Manufacturing |
| **Energy Efficiency Project:** Multiple projects |
| **Annual Energy Savings (kWh):** 10,000,000 |
| **Annual Electrical Cost Savings:** $875,000 |
| **Change in Energy Intensity:** 30% |
| **Total Project Cost**: $1,500,000 |
| **Utility Incentives:** Over $500,000 |
| **Return on Investment ($/year):** $875,000 |
| **Payback Period:** 8.5 months to 8 years |
| **Project Benefits:** Annual savings of over 10,000,000 kWh |

BD Medical Systems Facility in Sandy, Utah

## Project Rationale

BD's sustainability group developed targets to reduce energy, water, and waste. In pursuit of these targets, BD's Sandy facility switched to 100 percent renewable power in 2009 based on results from its annual ISO audit. The audit found that the subsequent reduction in energy usage and cost was sufficient to offset the initial cost. Every project is considered through an energy reduction lens. For example, equipment is selected based on operating costs. This approach reduces overall energy usage in the facility despite production volume growth.



VFD's and chilled water pump

## Operation Details

Of the 30 energy projects completed, the company has installed Variable Flow Drives on all HVAC and production air handling and pumping systems. Some other major projects include lighting upgrades, monitoring based commissioning using SkySpark for existing building re-commissioning, and building controls automation. The projects received incentives from Rocky Mountain Power and have paybacks ranging from 8.5 months to 8 years.

## Environmental Stewardship

By 2020, BD committed to reduce its energy consumption by 40 percent using 2008 as its baseline, transition to 50 percent renewable power, and reduce volatile organic compounds and hazardous air pollutants by 65 percent. BD produces a monthly report that captures their progress toward the 2020 goal and best practices, which is reported to management through a tracking sheet. To date, the energy group at BD's Sandy facility has achieved a 50 percent reduction of onsite electrical usage despite production increases, and the team continues to look for energy saving opportunities. In 2012 the company was recognized for its commitment to energy efficiency, under the Utah Industrial Energy Efficiency Challenge.

## For More Information

| BD MEDICAL | GOVERNOR'S OFFICE OF ENERGY DEVELOPMENT | UTAH CLEAN ENERGY |
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