

Newmatic Engineering

DELIVERING VALUE AND INNOVATIVE SOLUTIONS
WHERE ENVIRONMENTAL QUALITY IS VITAL

In partnership with:



ENERGY INCENTIVE PROGRAM

Laboratory Airflow & Fume Hood Controls System Re-Commissioning Program

for

Optimized Energy Efficiency in Laboratory Facilities

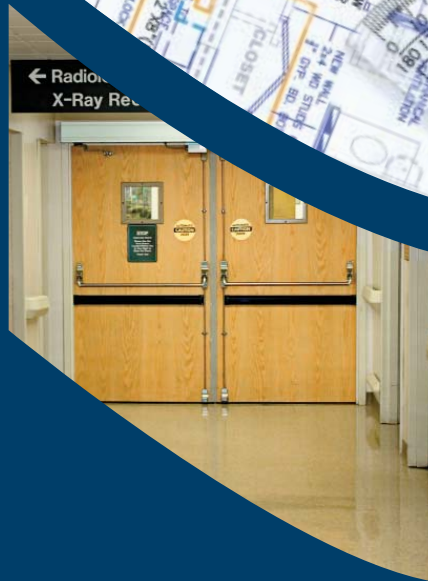
Newmatic Engineering provides engineered solutions to improve the performance of laboratory and fume hood control systems. PG&E provides incentives to help pay for the programs.

**BIOTECH AND
PHARMACEUTICAL FIRMS**

**GOVERNMENT AND
MUNICIPAL LABORATORIES**

COLLEGES AND UNIVERSITIES

MEDICAL FACILITIES



PROVIDING ENERGY-EFFICIENT SOLUTIONS

WHY LABORATORY AIRFLOW CONTROLS SYSTEM OPTIMIZATION?

Labs are expensive to operate. A typical lab facility has 5 to 10 times the operating cost of a similarly-sized commercial building and most of that cost is attributed to ventilation:

1. Labs require 100% single-pass outside air 24-hours a day every day for ventilation (no recirculation), and
2. Labs have fume hoods that require significant amounts of make-up air. A typical fume hood costs over \$5000 per year to operate. Many labs have multiple fume hoods.

Newmatic Engineering has developed a comprehensive suite of laboratory airflow controls optimization programs aimed at:

- Lowering energy costs in labs
- Maximizing safety
- Reducing downtime
- Enhancing comfort
- Reducing noise
- Protecting capital investment

Labs use large amounts of heating and cooling energy to maintain appropriate space conditions. Furthermore, if the system is operating improperly or is out of calibration, actual air volumes can be higher than required, resulting in wasted energy. Some systems we have optimized are shown in the table below:

	Total Annual Savings	kWh Saved Per Year	Therms Saved Per Year
Santa Monica Community College	\$37,108	337,342 kWh	18,407 therms
University of California at San Diego, Center for Molecular Medicine East	\$330,000	2,557,000 kWh	118,400 therms
Cal Poly Pomona, Building 4	\$89,823	561,394 kWh	24,951 therms

For detailed case studies visit our website at www.newmatic.net

THE LABORATORY AIRFLOW & FUME HOOD CONTROLS SYSTEM RE-COMMISSIONING PROGRAM addresses the issue of wasted energy in labs through a multi-step process:

Newmatic Engineering's Lab-RCx Program was developed to save money in laboratories. Engineering solutions are coupled with industry-leading equipment and comprehensive commissioning protocols to make labs more energy efficient, safe, comfortable and quiet. Utility-provided incentives from Pacific Gas & Electric are available for optimization projects. Optimization projects include:

- Laboratory airflow controls systems re-commissioning
- Laboratory control retrofits (upgrades to more energy-efficient systems)
- Usage based controls upgrades (adding occupancy sensors to fume hoods)
- Air change rate reduction
- Building airflow reduction and rebalance
- Static pressure set point reduction



CONTACT INFORMATION

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