

HOSPITAL VIAMED SANTA ANGELA DE LA CRUZ SEVILLE, SPAIN

KEY PARAMETERS

- Type of Facility – Existing (EB)
- Function – Healthcare
- Area – 4-story medical facility
- Project Completed – 2011

Challenge: Energy savings in a state-of-the-art medical facility. The hospital owners charged Madrid, Spain-based energy management company Enefy, and HVAC and clean air specialists Aire Limpio S.L., with conducting a real life energy consumption comparison to measure the energy savings using Dynamic V8 Air Cleaning Systems.



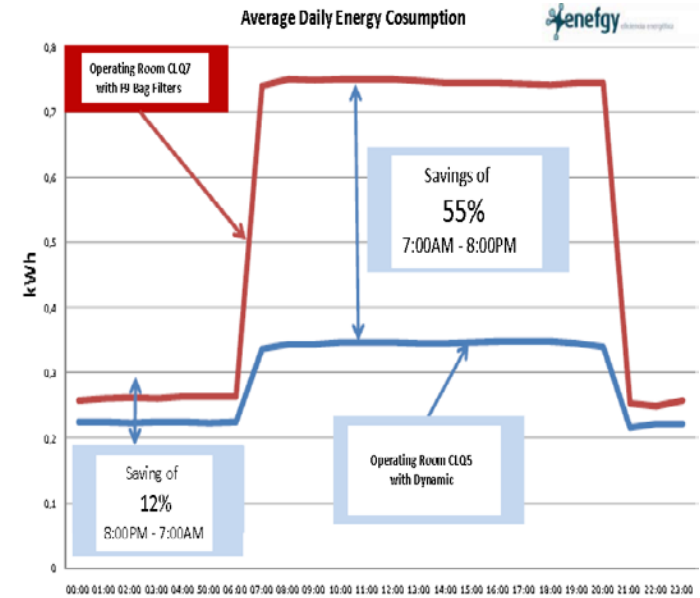
Solution: The comparative study used two identical air handling units serving two operating rooms with similar characteristics and usage for one full month in April of 2011.

Both AHUs utilized three stages of filtration: F5, F9, and H13. In AHU CLQ7, passive F9 bag filters were used. In AHU CLQ5, the passive F9



bag filters were replaced with a Dynamic V8 Air Cleaning System, also rated equivalent to F9 or better. Both systems were run at approximately 1600 m³/h (950 cfm). Energy metering devices were installed on both AHUs for continuous energy monitoring.

Results: During the 30-day period, the AHU with the Dynamic V8 Air Cleaning System consumed 21245 kWh versus 39077 kWh in the AHU using traditional F9 bag filters. Savings represented a 45.6% reduction in energy consumption or a 116 kg reduction in carbon footprint CO₂ emissions. Average daily energy consumption was 55% lower during normal operating room hours and 12% lower during non-use times.



TEAM

- Owner – Viamed Salud Group
- Engineering - Enefy
- Consultants – Aire Limpio S.L
- General Contractor – Aire Limpio S.L

MECHANICAL SYSTEMS

- HVAC – Airlan
- Energy Monitoring – Enefy

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