

M2G HOSPITAL CASE STUDY

GEM-Utilities Ltd

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HSE find untapped energy savings

Following an estates meeting with GEM and subsequent site surveys, HSE Mid-Leinster installed #7 M2G advanced boiler controls in #2 acute hospital sites. The M2G controls will ensure that the boilers are not nuisance cycling. Boiler nuisance cycling is an industry-wide problem which often goes overlooked and can lead to untapped energy savings and premature aging of boiler plant.

Project Details

#7 M2G controls complete with digital sensing probes and interface units were installed on the #3 1Mw boilers at Loughlinstown Hospital and #5 Buderus & Saacke Boilers with modulating burners at Naas General Hospital. The project was completed in one day at Loughlinstown and c. #2 days at NGH without any interruption to hospital heating or hot water demand. Monthly gas consumption data was used to analyse the savings and was plotted against HDD for a base temperature of 18°C. Savings were calculated at 12% and 23% for Loughlinstown and NGH respectively to IPMVP.

The project was fully funded by Energia. Annualized savings of 1,281,734 kW (1.28MW) based on 2015 baseline were calculated translating to Co2 savings of 262,756 Kg/Co2.

Simple payback (SPB) under normal pricing regimes of just 6 months. More detail available on request at info@gem.ie.

Boiler Over Capacity

Almost all boilers have over capacity for the job in hand.

Over capacity leads to nuisance cycling during low load conditions.

Nuisance cycling engages additional purge losses and can cause premature aging of boiler plant.

M2G completely eliminates boiler nuisance cycling.

M2G comes no maintenance requirements whatsoever and a 5-year no-quibble warranty

M2G is a patented technology

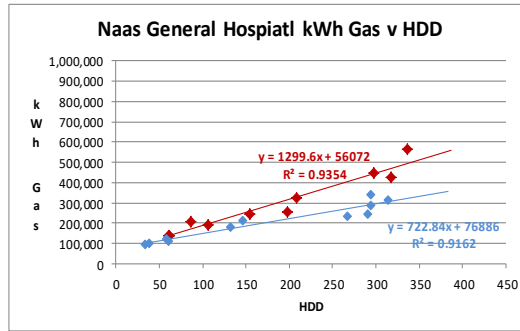
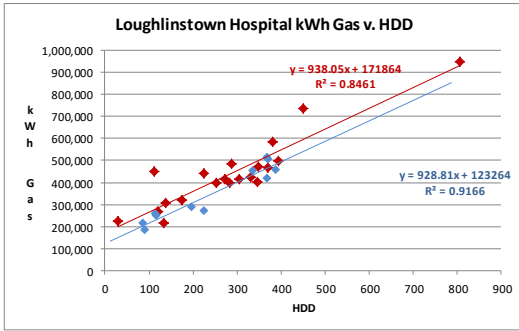


Naas General Hospital (NGH), Naas Co. Kildare.

Highlights

- 23% savings IPMVP
- EEOS full support
- Simple Retrofit
- No loss of comfort
- Same day completion
- 6 month payback
- No Changes to BMS

Savings analysis to IPMVP



 Pre M2G
 Post M2G

BMS Compatibility

M2G is fully compatible and integrates seamlessly with all BMS systems (e.g. Trend, Cylon, Siemens, and TAC). M2G takes direct operating instruction from the BMS enable /disable function and is interfaced with boiler inter-lock provided by most boiler manufacturers.

Applications

M2G is suitable for Low-Medium temperature hot water boilers **up to 125 °C** including Atmospheric, Forced Draught, Single-Stage, 2-Stage, Modulating Boilers, Modulating Burners, Condensing Boilers and Oil Fired Pressure Jet Burners. M2G is suitable for Natural Gas, Oil and LPG fired heating systems.

No steam application.



Contact Us

Visit us at www.gem.ie

Contact us at info@gem.ie

For more information about M2G or for an appointment contact

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About GEM...

GEM is the leading supplier of boiler load control technology in the ROI and has 15 years experience in delivering projects for public and private sector organizations.



Gem Utilities
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GEM-Utilities ... delivering untapped energy savings !

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