



**M&V Practitioner check list for M&V Report on Intelligent Boiler Load Optimisation
(e.g. M2G or similar technology)**

Participating Energy Supplier	
Project Number	
Project Start Date	
Project Completion Date	
EEOS NREC Project Title	
Energy Credits Claimed	
Report Submission Date	
Representative on Site	

1. Introduction

This document has been produced by the Sustainable Energy Authority of Ireland (SEAI) as a result of a consultation process with Energia. This document aims to provide guidance to M&V practitioners when evaluating energy savings projects which involve Advanced Boiler Load Control System technology (M2G or similar). The Energy Efficiency Obligation Scheme team in SEAI encourage obligated parties to incorporate this document as part of their quality process when submitting projects with this technology or similar. Advanced Boiler Load Control System is specifically designed to eliminate boiler nuisance activity ...

- dry cycling
- short cycling
- hydraulic short circuiting

These predictable nuisance activities occur at very low load conditions and are very wasteful of energy leading to increased fossil fuel bills, associated CO₂ emissions and un-necessary wear & tear and maintenance on expensive boiler plant.

2. Existing Installation

Please give details of the Boilers with system installed, including make and models.

Please provide the date of the boiler installation.

Please provide details regarding the existing boiler controls (pre system installation)

How does the system unit impact on existing controls?

Does system installation impact on warranty of existing system (if yes please explain)?

3. Optimiser Installation

Has a copy of the commissioning data from the system supplier been provided to the M&V practitioner demonstrating that the system is operational and was installed correctly?

What is the deadband set up on boiler? (Please explain).

(E.g. default is 8°C for flow and 3°C return)

Is there any evidence that the system is not operating as predicted? If so, please explain.


Are the boilers which have installed achieving set points for the heating and hot water requirements of the site? (If no please explain)

Does the unit measure the flow temperature of the boiler and does this correspond with original boiler controls?

(Please explain in detail)

Can you please provide the accuracy at which the unit measures the return temperature of boiler and how does this correspond with original boiler controls?

(Please explain in detail)

A large, empty rectangular box with a thin black border, intended for the user to provide a detailed explanation of the boiler's return temperature measurement accuracy and its correspondence with original controls.

How is it demonstrated that system is using deadband to prevent boiler from firing?

I.e. this is where the installer is on site and plugs into the unit so that the M&V practitioner can review the operation of the unit. Therefore this is the representative demonstrating that the unit isn't coming on when called for because the technology has added a deadband.

Please briefly explain.



4. Other Works carried out during period

Has any other energy saving initiatives been implemented or operational changes occurred during time period.

(Yes/No)

Can you please provide a brief summary of other energy saving initiatives or operational changes that have occurred in the site? (Only mention projects over the last two years).

Note if available please provide NREC ids.

5. Measurement and Verification Strategy

Can you please provide a brief summary of the M&V strategy? I.e. is the M&V strategy based on utility meters, sub meters etc. Please note that any additional energy efficiency measures should be subtracted from the savings claimed.

INSPECTION:

SEAI Inspector (to be filled in by SEAI)	
Inspection date (to be filled in by SEAI)	
Inspector's signature(to be filled in by SEAI)	
Project Representative on site <i>(required)</i>	
GEM Utility Representative on site <i>(required)</i>	
