



Department  
of Energy &  
Climate Change

# Metering requirements for the Renewable Heat Incentive

## GSHPA Technical Seminar

Jennifer Moore, 5<sup>th</sup> December 2013



# Renewable Heat Incentive

## Outline

- Introduction to the RHI
- Non-domestic RHI Metering
- Domestic RHI Metering
  - Metering for Payment
  - Metering and Monitoring Service Packages
  - Metering for Evaluation
- Reducing the hassle of metering



## Renewable Heat Incentive

# Introduction to the RHI

| Non-domestic RHI  | Domestic RHI  |
|---|---|
| Launched Nov 2011   | Due to be launched Spring 2014  |
| Paid over 20 years  | Paid over 7 years   |
| Supporting a range of technologies including GSHP, biomass, biomethane and solar thermal with the intention to expand the scheme to other technologies. | To support GSHP, AWHP, solar thermal and biomass boilers.   |
| Paid on eligible heat for an eligible purpose   | Paid on renewable heat  |
| Always metered  | Expected to be paid mostly on deemed heat demand with a minority to be metered for payment                |
|   | Additional incentive of £230 per year for 7 years for installing Metering and Monitoring Service Packages |



## Renewable Heat Incentive

# Non-domestic RHI Metering



- Heat metering regulations have been simplified recently:

### Updated metering requirements

- Redundant heat meters no longer required- only heat meters that will be used for payment
- Allow heat loss calculations to be used where installing meters is unduly burdensome
- Allow calculations to be used to estimate losses for external pipework
- Allow fuel input metering where appropriate as a proxy to heat metering



## Renewable Heat Incentive

# Non-domestic RHI Metering



Future metering requirements with effect from next year published in government response this week:

- These changes will not affect payments.
- Electricity consumption metering in order to monitor SPF for heating.
- For systems capable of simultaneous heating and energy recovery from cooling, monitor heat from the ground as a fraction of total heat supplied by heat pump.
  - Heat for payments can include component from recovered heat
  - Evidence collected will inform future policy for payments.



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## Renewable Heat Incentive

# Domestic RHI Metering

### Requirements for scheme launch in Spring 2014

- Broadly 90 % of RHI applicants expected to receive payments based on deeming
- Applications for second home or where a proportion of their heating demand could come from another source (e.g. bivalent system) required to be metered for payment.
- Optional Metering and Monitoring Service Packages (MMSPS)- Consumers offered financial incentive for installing detailed monitoring to help consumers and industry to understand performance.
- Where metering is installed, it needs to be put in by a certified installer (MCS or equivalent)





## Renewable Heat Incentive

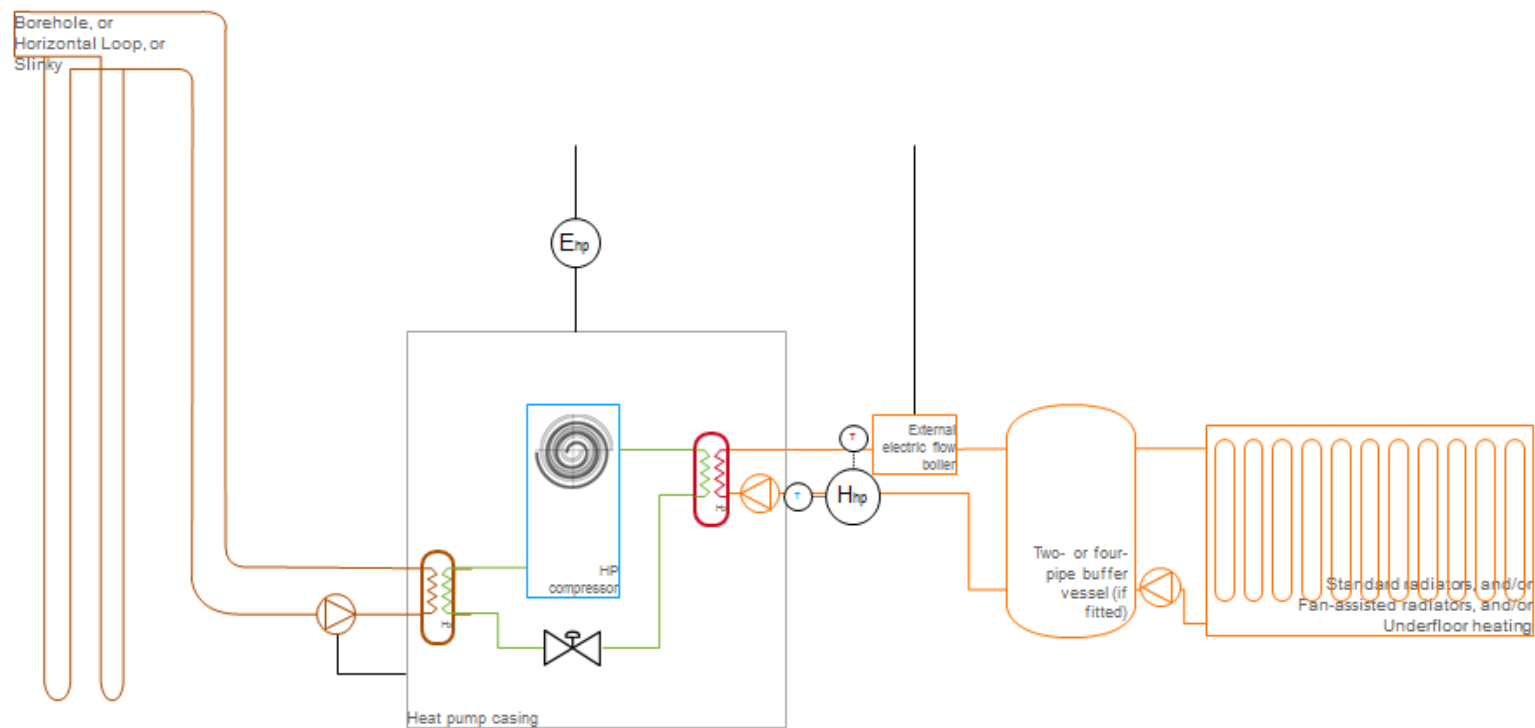
# Comparison of metering for payment in the RHI

| Non-domestic RHI   | Domestic RHI  |
|--|---|
| All systems metered for payment  | Only second homes and where proportion of heat could be supplied from another heating source              |
| Paid based on total eligible heat output for eligible purpose                      | Paid based on renewable heat output   |
| Independent Reports on Metering Arrangements required for complex/multiple systems | No equivalent to independent metering reports, and in most cases, schematics will not need to be uploaded |
| Class 2 heat meters (MID)  | Class 3 heat meters (MID) plus Class A electricity meters (MID)   |
| All information provided by applicant  | Possibility for some information to be supplied directly by installer                                     |



## Domestic RHI Metering

### Metering for Payment

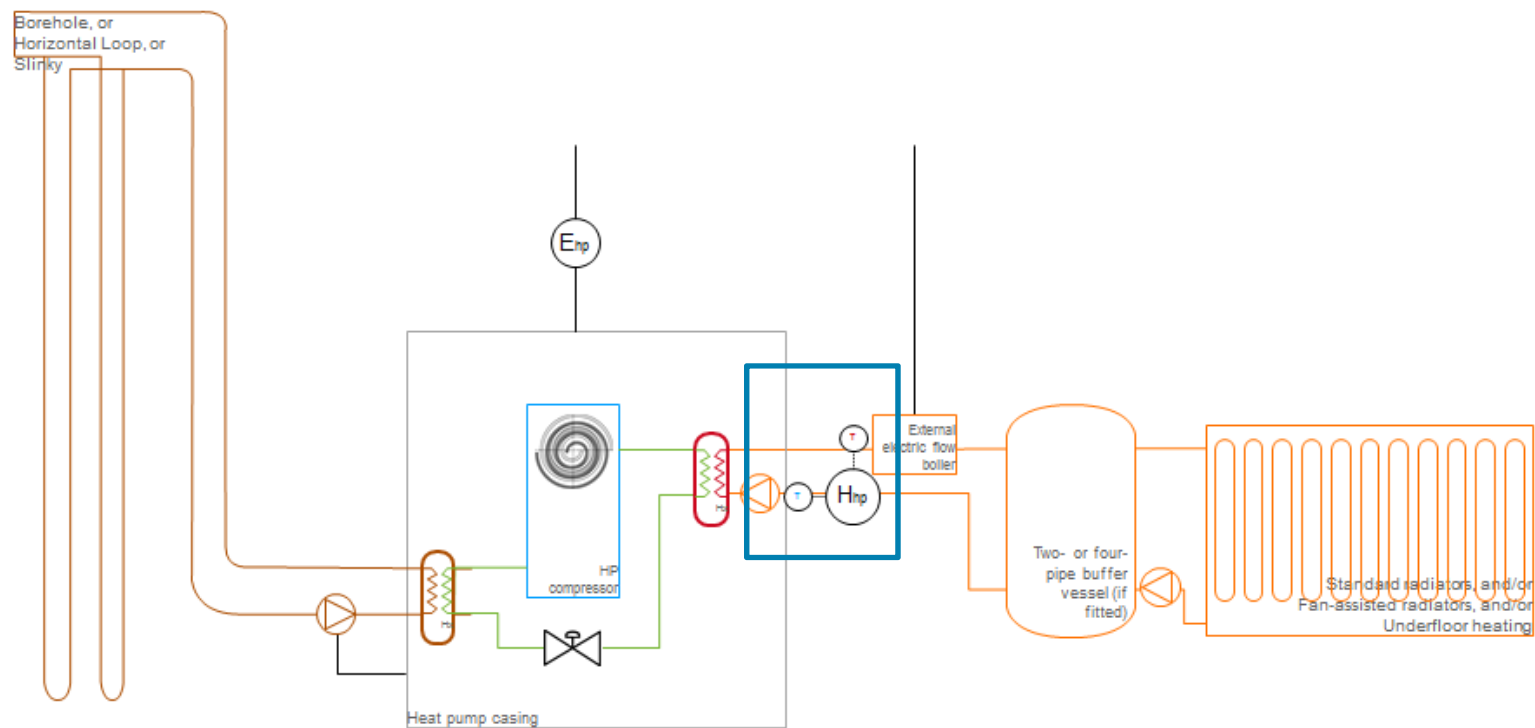






## Domestic RHI Metering

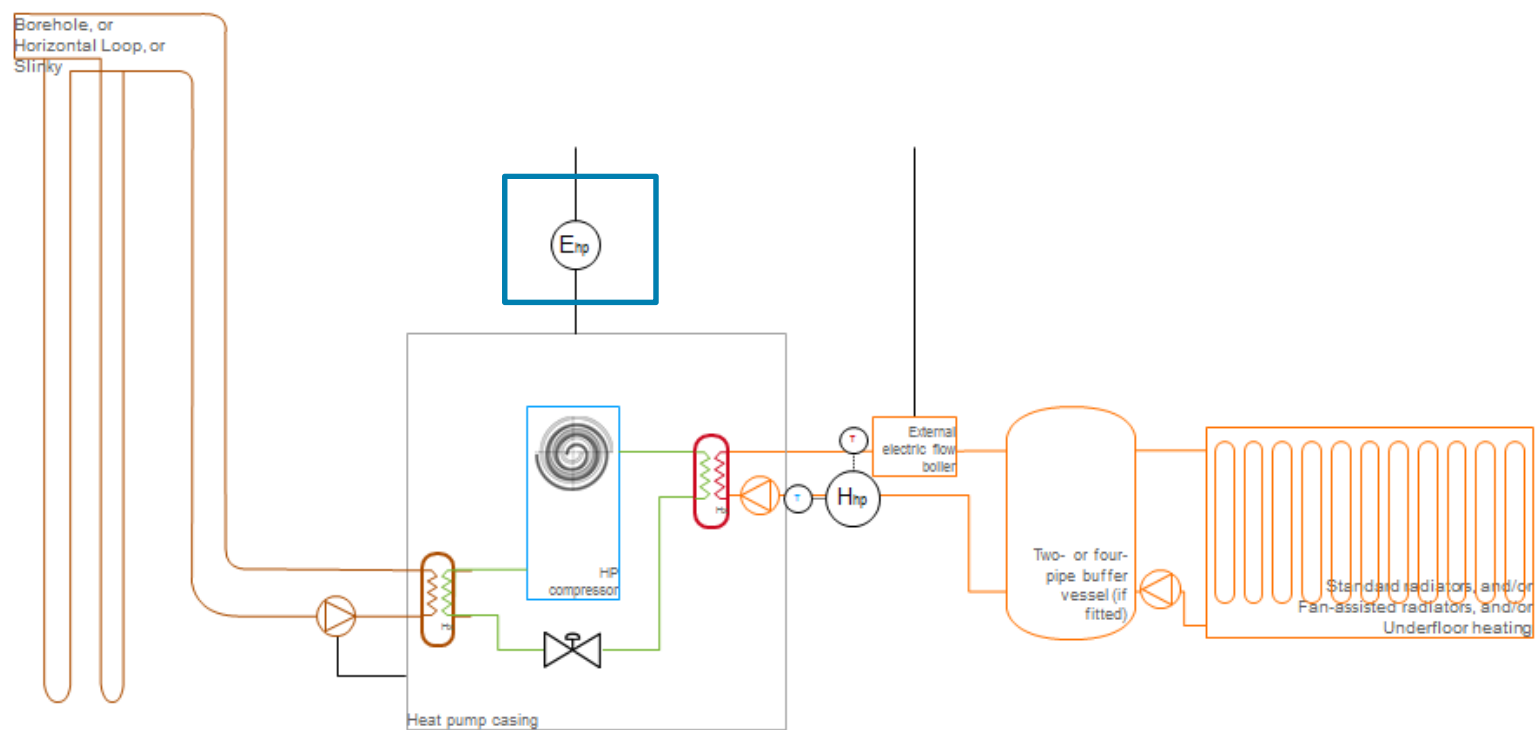
### Metering for Payment





## Domestic RHI Metering

### Metering for Payment





# Metering and Monitoring Service Packages

### What is the purpose of package?

- To help consumers and industry to understand how well heat pumps are performing and optimise their installation and operation.
- 2,500 in first year, rising substantially in second year
- £230 per year for maximum of 7 years

### Equipment requirements

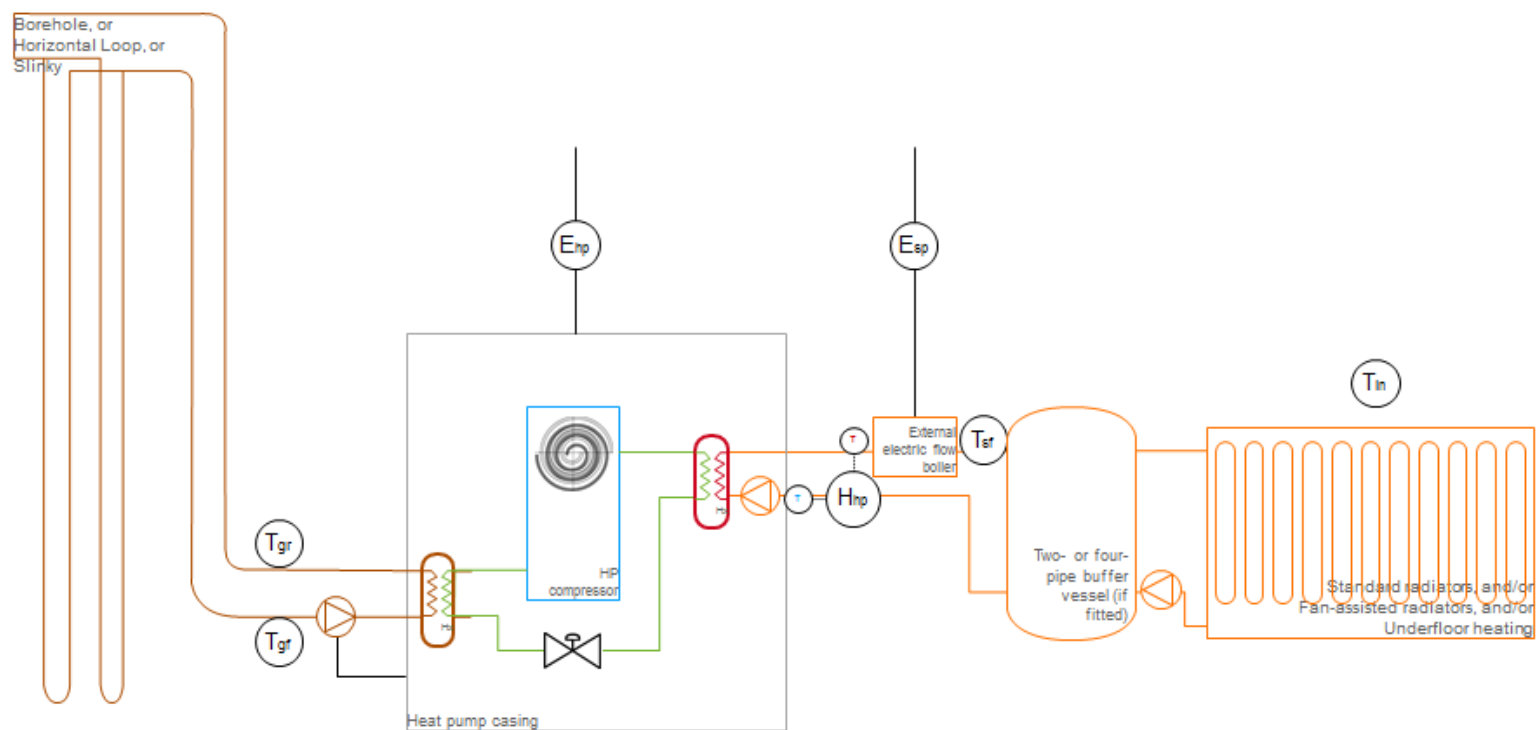
- Heat metering of heat outputs
- Metering of electricity consumption
- Temperature sensors
- Recording data at 2 minute intervals- requires high resolution sensors

### Software requirements

- Data platform to show how system is performing, accessible to applicants and industry.

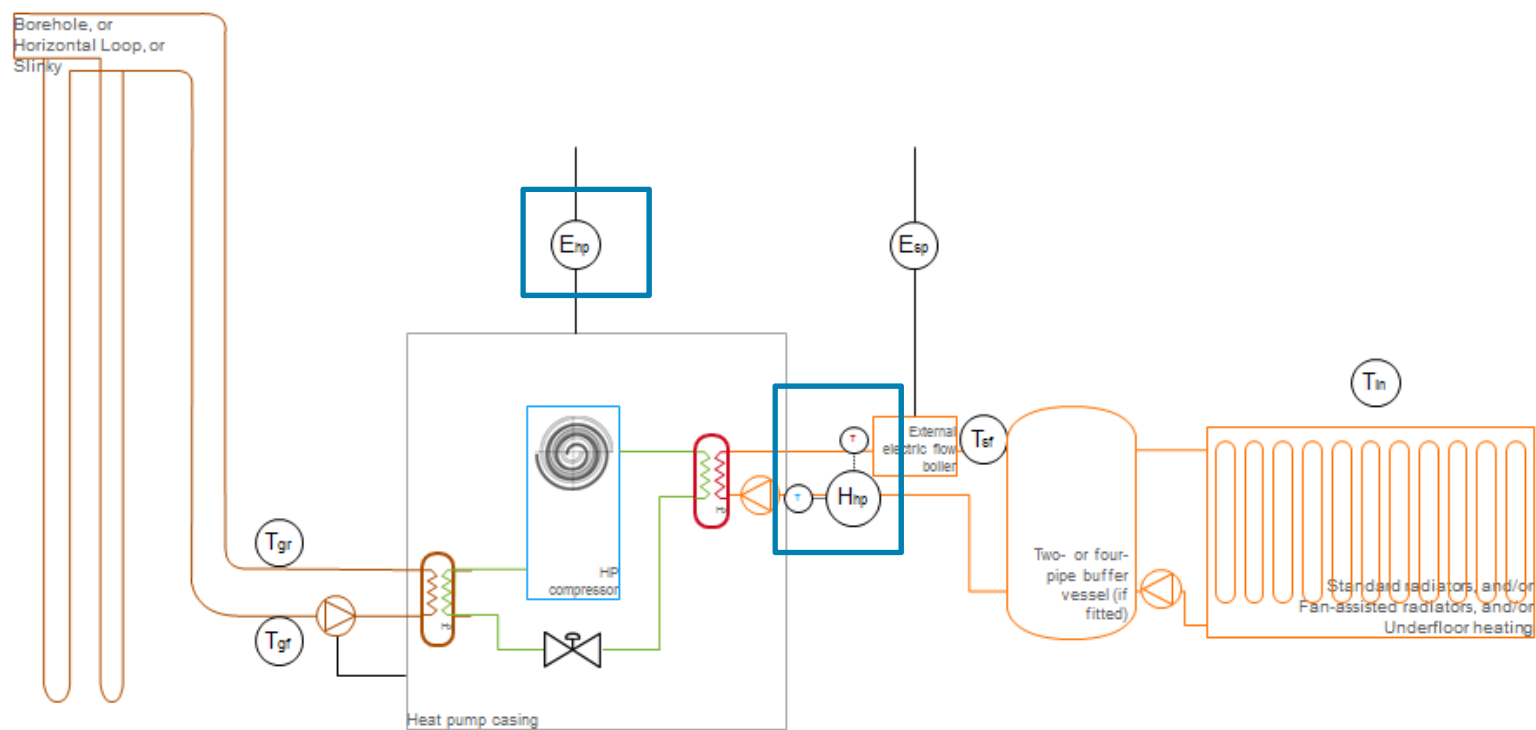


## Metering and Monitoring Service Packages



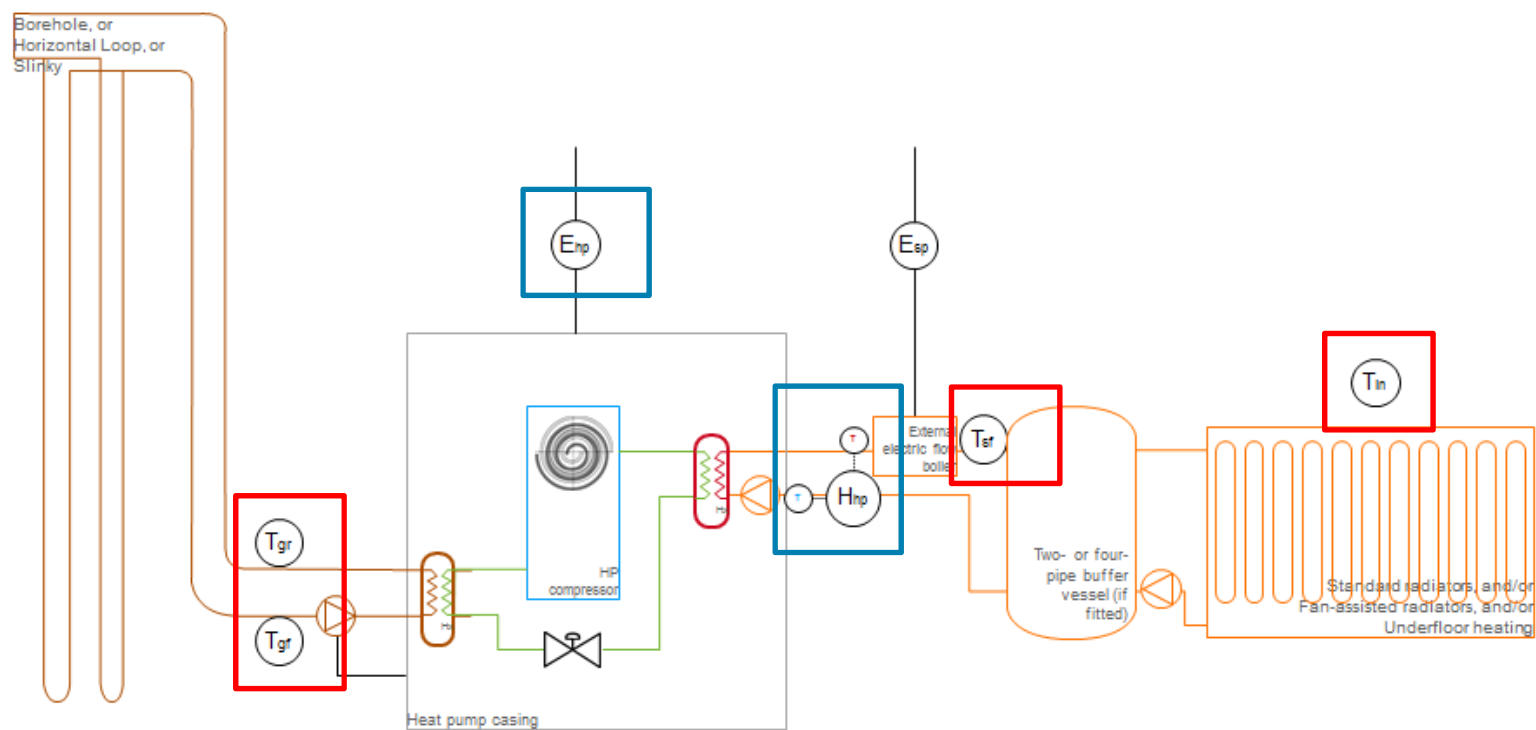


## Metering and Monitoring Service Packages

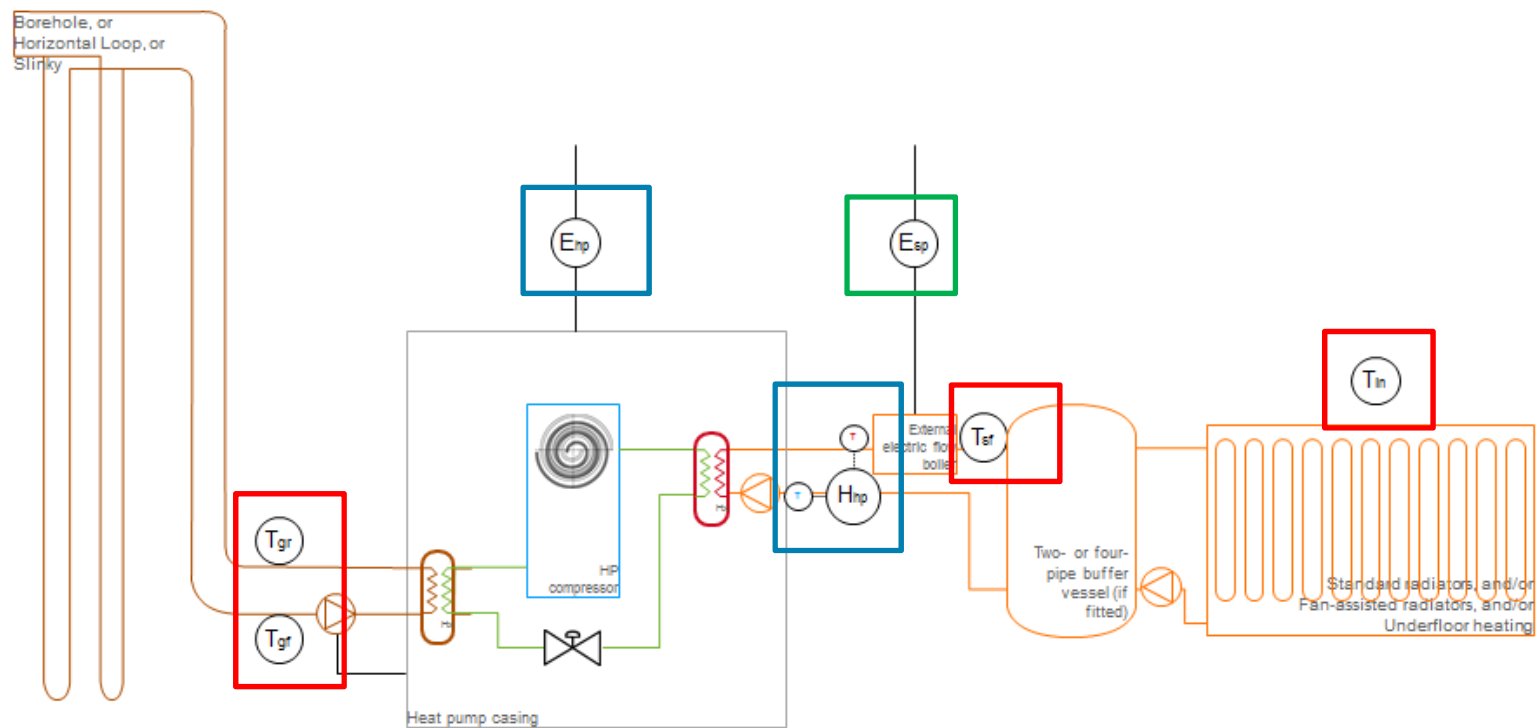




## Metering and Monitoring Service Packages



## Metering and Monitoring Service Packages





# Evaluation metering for domestic RHI

- All systems should be meter-ready where this means
  - Leaving space
  - Isolation valves
  - Accessible pipework
  - Reporting relevant information to MCS via compliance certificates and providing information to customer
- DECC intends subsequently to fit metering equipment to meter-ready sites in order to evaluate the effectiveness of the policy





## Renewable Heat Incentive

# Improving metering standards and reducing metering hassle

- Working with Ofgem to understand key reasons for heat meter installation errors in the non-domestic scheme
- MCS guidance for metering for the domestic RHI
- Working with Ofgem to develop easy-to-use interactive guidance to help installers be sure that the right meters are installed at the right locations.
- Metering is part of an RHI installation and needs to be conducted by someone with the appropriate skills.



# Renewable Heat Incentive

## Summary

- Non-domestic RHI heat metering for payment purposes has been simplified recently in a number of key ways
- Monitoring introduced for electricity consumption and simultaneous heating and cooling systems to enable recovered heat to count towards payments
- Domestic RHI Metering to include the following:
  - Metering for Payment
  - Metering and Monitoring Service Packages
  - Metering for Evaluation
- Update on the ways in which we're trying to improve metering standards



## Thank you Questions?

### Key sources of information:

- MCS guidance on Metering for the Domestic RHI- anticipated to be published this month
- Government Response to Non-Domestic RHI Consultation- Improving Support, Increasing Uptake
- Government Response to Domestic RHI Consultation- the first step towards transforming the way we heat our homes
- Ofgem guidance on the Non-Domestic RHI- Volume 1, version 3