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**MEASURING INSTRUMENTS  
DIRECTIVE: IMPLEMENTATION  
- GAS AND ELECTRICITY  
METERS**

DTI Response to the Public  
Consultation



## The aim of this document

On 14 December 2005 DTI published a consultation document (Measuring Instruments Directive: Implementation – Gas and Electricity Meters URN 05/1930<sup>1</sup>), seeking views on draft Statutory Instruments designed to implement the Measuring Instruments Directive in relation to Gas and Electricity meters. It also considered the inclusion of volume conversion devices in the SI covering Non-UK Prescribed Instruments.

The consultation closed on 10 March 2006. This document provides an overview of the responses received, addresses the issues raised in the responses, and contains the Regulatory Impact Assessment and Statutory Instruments that will be laid in the light of the public consultation.

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<sup>1</sup> <http://www.dti.gov.uk/consultations/page15305.html>

## Introduction

The Measuring Instruments Directive (MID) covers a number of different measuring instrument types including gas and electricity meters. The Directive was agreed on 31 March 2004. The National Weights and Measures Laboratory (NWML), after MID was approved by the European and UK Parliaments, undertook a preliminary consultation<sup>2</sup>, in late 2004. This led to decisions to maintain the existing regulatory scope and to prepare separate SIs for each instrument type. The preliminary consultation was followed by the 2005 consultation<sup>3</sup> on gas and electricity meters that focussed on how these measures would be implemented in the UK. Both the 2004 NWML and 2005 DTI consultation covered implementation of MID and had no influence on the provisions of the Directive.

The MID specifies the essential requirements that a product covered by the Directive must meet before it can be placed on the market and put into use. These requirements are both general (the essential requirements that apply to all measuring instruments) and instrument specific. The Directive details a number of conformity assessment procedures that a manufacturer can follow to ensure compliance with the Directive. New meter designs submitted for pattern approval after 30 October 2006 must comply with the requirements of the Directive. However, measuring instruments that have been granted type approval under existing provisions before 30 October 2006 can be placed on the market and put into use until (at latest) 30 October 2016. Minor modifications to those meters are also permitted within this transitional period, although changes deemed to affect the existing approval will require the manufacturer to seek a new approval under MID provisions.

The primary aim of the Directive is to create a single market in measuring instruments for the benefit of manufacturers and, ultimately, consumers across Europe. Control of measuring instruments is an essential part of fair-trading and consumer protection. Annually around 115GWh of electricity and 400GWh of gas are supplied through meters in Great Britain.

Notified Bodies will be designated, across Europe, to certify that manufacturers conform to the requirements of the Directive and market surveillance will ensure that all instruments bearing conformity markings meet the requirements. The Directive deals only with the requirements meters have to meet in order to be placed on the market and put into use for the first time and does not deal with the requirements meters have to comply with thereafter. Existing high levels of consumer protection are preserved through powers for termination of approval when meter types are found not to comply. The implementing regulations also provide a link to existing Gas and Electricity Act provisions ensuring that whilst in service MID meters can only continue to be used if they continue to meet certain MID requirements, although parties, subject to exempt electricity supply, can agree to dispense with certain requirements<sup>4</sup>.

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<sup>2</sup> Measuring Instrument Directive: Consultation on the approach to implementation can be found on the NWML website: [http://www.nwml.gov.uk/Docs/Legislation/MID/MID\\_consultation\\_on%20approacht.pdf](http://www.nwml.gov.uk/Docs/Legislation/MID/MID_consultation_on%20approacht.pdf)

<sup>3</sup> <http://www.dti.gov.uk/consultations/page15305.html>

<sup>4</sup> Electricity Act 1989 Schedule 7, paragraph 2(2)

The Regulations addressing electricity meters have now been laid. However, the consultation revealed disquiet over the proposed approach in relation to the maximum permissible error limits for MID gas meters operating in-service. A revised proposal, bringing the UK approach more in line with the rest of Europe, is set out in draft Regulations enclosed here. Obligations under the Technical Standards and Regulations Directive to provide an opportunity for the Commission and other Member States to consider any potential barriers to trade from the introduction of new technical standards will result in a delay to the implementation of these Regulations.

We are committed to implementing the Directive to minimise the burdens on business whilst maintaining protection for consumers against fraud and over payment. The Partial Regulatory Impact Assessment (RIA) included in the consultation document has been reviewed in the light of responses and the Final RIA is included in this response.

The National Weights and Measures Laboratory and Department for Transport are implementing the Directive in relation to other regulated measuring instruments.

### **Transfer of Ofgem's metrological responsibilities to National Weights and Measures Laboratory**

From 3 April 2006, the National Weights and Measures Laboratory, an executive agency of the Department of Trade and Industry, agreed to act on behalf of Ofgem in respect of Ofgem's responsibilities for metering. These include design approvals, accuracy testing and performance monitoring. NWML has the role of ensuring that UK measurement is fair, accurate and legal. It has the lead responsibility for policy on measuring instruments in use for trade and is responsible for implementation of European Directives on measuring instruments. It is the focus for legal metrology in the UK. The move will ensure that the UK's technical metering policies and practices are aligned with the European Union Measuring Instruments Directive, which aims to create a single market for measuring instruments across Europe. Transfer of legal duties will require legislation.

A new directorate, Utilities Metering Directorate, has been created within NWML. Adrian Rudd is Director of Utilities Metering (on transfer from Ofgem) and David Moorhouse is undertaking the duties of Metering Manager with primary responsibility for electricity metering.

For more information about NWML please visit the website at: [www.nwml.gov.uk](http://www.nwml.gov.uk)

### **Profile of responses received**

Responses to this consultation were received from the following companies and organisations:

Actaris Gas UK	National Grid Metering
Actaris UK Electricity Metering	NIAER
BEMCA	Northern Ireland Electricity
British Gas	SBGI

Capital Meters Limited	Phoenix Natural Gas
Central Networks	Plextek Ltd
EDF energy	RWE npower
Energy Controls	Scottish and Southern Energy plc
energywatch	Siemens Energy Services Limited
ELEXON	UK Metering Forum
firmus energy	United Utilities Networks Ltd
Industry Metering Advisory Group	Wales and West Utilities
Landis + Gyr Ltd	

**Section 1** of this document provides a summary of responses to issues raised in the consultation document, and the DTI's response to these.

**Section 2** addresses other issues raised in the responses that fall outside the scope of questions asked in the consultation, and where appropriate DTI has responded.

**Section 3** includes copies of the Statutory Instruments revised in the light of the consultation.

The Measuring Instruments (Active Electrical Energy Meters) Regulations 2006 were laid on 27 June 2006. Provisions relating to the appointment of notified bodies will come into force on 31 July 2006, and the remaining provisions will come into force on 30 October 2006.

In response to comments received during consultation the draft Measuring Instruments (Gas Meters) Regulations have been amended. The relevant proposals are subject to requirements under Directive 98/34/EEC which require national authorities to notify the European Commission of any proposed changes to technical standards. Implementation of the new provisions must be postponed to provide a three-month period for receipt of comments from other Member States. The revised draft SI is enclosed.

The Measuring Instruments (Non-Prescribed Instruments) Regulations 2006 SI 2006/1270 were made on 28 April. Provisions relating to the appointment of notified bodies came into force on 30 May 2006, and the remaining provisions will come into force on 30 October 2006. Copies are available from the Office of Public Sector Information website at:  
<http://www.opsi.gov.uk/stat.htm>.

**Section 4** is the revised Regulatory Impact Assessment following the public consultation carried out December 2005 to March 2006

**Section 5** provides guidance to industry on the new requirements. Ofgem, who have statutory responsibility for meter testing will, in liaison with NWML, issue further Guidance in due course.

# Section 1: Responses to the consultation and DTI response

Consultees were invited to comment on specific aspects of the proposals. Responses to these questions are summarised and discussed in this section. As noted elsewhere in this document, Ofgem has statutory responsibility for gas and electricity meter testing. Ofgem were involved in the development of the draft implementing legislation and consultation process. The Department has worked closely with Ofgem in considering responses and in making the following conclusions and recommendations.

## 1. Defining Scope of Application

The Directive applies only to meters used for residential, commercial and/or light industrial use. With the aim of maintaining the existing regulatory scope, the consultation sought views on the proposals to exclude from the scope of the Regulations gas meters where the anticipated supply to a consumer exceeds a maximum flow rate of 1600m<sup>3</sup>/hr (at stated standard conditions). In the case of electricity meters it was proposed that the regulations apply only to electricity meters where the maximum anticipated load is below 100KWh/hr since meters above that limit are subject to different requirements under the Balancing and Settlement Code (BSC).

### *Responses*

Eleven respondents commented on this aspect of the consultation.

A manufacturers' trade association and a meter asset manager (MAM) commented that the proposal relating to gas meters did not reflect the scope of existing regulation in that it referred to the maximum flow rate rather than the design rate of flow of the meter. It was suggested that the regulations should exclude gas meters used under agreements providing for the supply of gas, which is measured by a meter designed for rates of flow which, when operating at 15°C and 1013.25mb would exceed 1600 m<sup>3</sup>/hr or the equivalent quantity in kilograms.

The intention, in relation to electricity meters, to provide separation under the present BSC provisions, for meters in the half hourly and non-half hourly markets was generally supported. However respondents commented that the described limit for electricity meters subject to the Regulations was not appropriate. The proposal was considered to be unsound and not practical and was not aligned with the BSC i.e. "100kW limit". Elexon recognised that the amendment of the Codes of Practice would be required to exclude MID approved meters from additional national requirements and that this could lead to some Half Hourly Metering Systems falling outside of the scope of the Regulations. Elexon proposed that the definition of "relevant instrument" in the Regulations should be aligned with the BSC definition of a 100kW metering System.

A multi utility had concerns that the requirements could lead to comparatively lower levels of accuracy in the higher consumption +100kW market. A manufacturer and a trade association suggested an alternative approach of

limiting the scope of the Regulations to whole current direct connected electricity meters.

A manufacturer proposed that programmable current transformer (CT) operated electricity meters (currently 1% of billing meters) should be excluded on the basis that they were not subject to existing controls.

A multi utility and a trade association questioned why the Regulations and perceived benefits were restricted to residential and light commercial applications i.e. excluding the industrial and commercial sector.

A meter supplier wanted assurances that all electricity meters used for billing purposes would be subject to MID requirements. This would remove the current gap in consumer protection where some applications, such as the landlord/tenant market, may only require meters to be approved and not certified. The consequence of this is that these meters are not subject to formal in-service controls, relevant to the certification process, that ensures long term metering accuracy is maintained.

### *Government response*

The Directive applies controls to meters for use in residential, commercial and light industrial applications. The definitions in both sets of Regulations are aimed at achieving this separation. In the case of gas meters, referring to the anticipated flow rate ensures that those responsible for meters are not influenced to avoid MID provisions by installing high maximum flow rate design (i.e. above the 1600m<sup>3</sup>/hr threshold) meters, with an inferior performance specification, into situations where quantities of gas supplied are much lower than the 1600m<sup>3</sup>/hr threshold. This approach ensures that consumers in these situations suffer no reduction in the level of consumer protection.

Conversely, those responsible for meters are not obliged to install MID meters with a lower maximum flow rate design (i.e. below the 1600 m<sup>3</sup>/hr threshold), but used at elevated pressures, where consequently quantities of gas above 1600 m<sup>3</sup>/hr are actually supplied, as this would fall outside the scope of MID regulation.

In the case of electricity meters the Regulations have been framed to exclude those meters subject to the BSC half hourly market requirements, as this constitutes usage equivalent to the heavy industrial sector. Ofgem recognises that some meters may therefore be subject to both regimes. i.e. BSC COP 5<sup>5</sup> and COP 6<sup>6</sup>.

To date, CT meters are used only in high demand applications and calculate consumption based on measurement of only part of the current, with the majority of current passing through a calibrated transformer. Ofgem considered and advised that excluding CT meters from the scope of the Regulations could have an adverse impact on consumer protection as it could lead to large numbers of meters being connected to transformers to avoid the

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<sup>5</sup> Code of Practice for the metering of energy transfers with a maximum demand of up to (and including) 1MW for settlement purposes.

<sup>6</sup> Code of Practice for the metering of energy imports via low voltage circuits fused at 100 amps or less per phase for settlement purposes.

need to comply with the provisions of the Directive.

It should also be noted that all meters for use for trade are covered by MID and, as such, relevant provisions are reflected in the implementing regulations. This is of particular relevance to exempt electricity supply situations such as the landlord/tenant market, caravan/leisure parks and marinas. Under existing Electricity Act 1989<sup>7</sup> provisions, electricity meters need not be certified in these situations if a written agreement<sup>8</sup> exists between respective parties to dispense with certification requirements. From 30 October 2006 there is no differentiation of metering requirements for placing on the market and putting into use, due to the status of the supplier. All new meter types are required to comply with MID conformity assessment procedures up until they are put into first use (where the meter is used for trade), although the ability to agree to dispense with certification requirements will still apply thereafter.

### *Conclusion*

For clarity, the scope of application of both SIs has been modified to meters used for trade. The scope therefore covers any meter that is used as the basis of a transaction between any supplier and a consumer for quantities of gas or electricity supplied. In the case of electricity meters, Ofgem has advised modified drafting of the description of a relevant instrument, following review and further consultation with Elexon (operators of the BSC). The electricity meter regulations now additionally note that meters providing measurements on a half hourly basis and above a load of 100kW are not subject to regulation.

## **2. Should Internal Volume Conversion Devices be regulated in the UK**

The Directive applies to gas meters with internal volume conversion devices. The consultation sought views on whether the UK should seek to regulate the use of such meters. Existing UK provisions do not allow for the approval of meters with internal volume conversion.

Four responses were received.

One multi utility commented on the proposal. It urged further consideration of the wider issues of regulating internal volume conversion devices as part of the debate on Smart metering technology which may impact on meter functionality.

A multi utility and a MAM pointed out that there would need to be significant changes to industry processes before internal volume conversion devices could be used for billing purposes. This would not be possible until changes to the Gas (Calculation of Thermal Energy) Regulations were made on which industry would be consulted. The multi utility went on to say there was no cost justification for changes to the existing regime.

A trade association sought clarification about whether if meters with internal volume conversion devices were not regulated in other Member States such

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<sup>7</sup> Electricity Act 1989 Schedule 7, paragraph 1(10)

<sup>8</sup> Electricity Act 1989 Schedule 7, paragraph 2(2)

meters would be able to be used legally.

### *Government Response*

Ofgem recognise the issues, however, while some research and development has taken place Ofgem are not aware that any meters fitted with internal volume conversion<sup>9</sup> devices are yet ready for market, whilst designs of mechanical meters with temperature conversion have had limited success where used outside the UK. . Additionally, as noted in the consultation document, in respect of most residential, commercial and light industrial applications, the use of temperature converted volume derived from such meters for billing purposes is prevented or not practicable<sup>10</sup>.

Relevant changes to the Gas (Calculation of Thermal Energy) Regulations 1996 are required to address this issue. A standalone change to these Regulations could move ahead if it becomes evident that the sector is ready to use meters with internal temperature conversion in all applications - irrespective of amounts of gas supplied. A possibility still remains that a review of those Regulations within the wider debate concerning the future approach to GB gas quality may move ahead. It should be noted that for either route a transparent and open process would be adopted involving industry discussion and public consultation.

There were no strong arguments or reasons presented to urge pursuit of a swifter resolution to this potential issue. Ofgem are keen to ensure that no barriers exist to the implementation of Smart Meters with this type of functionality.

### *Conclusion*

The Regulations will be implemented without change.

## **3. Should the use of Class A electricity meters be restricted to indoor applications?**

The consultation sought views on whether the use of Class A meters should be restricted to indoor applications only. This would require Class B or Class C meters to be used in environments where the likely operating temperature range would be outside the 5°C to 30°C range.

### *Responses*

Two multi utilities respondents were in favour of restricting use of Class A meters to closed installations but pointed out that in some locations a Class B meter might prove necessary for a closed installation and that the lower temperature range may not be adequate. It was noted that adopting a different standard for the UK market could place the UK at a disadvantage.

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<sup>9</sup> Pressure and temperature

<sup>10</sup> Use of these meters may require modification of the Gas (Calculation of Thermal Energy) Regulations 1996 to allow use of the register for billing purposes. This is on the basis that the Regulations currently require that where an appropriate standard temperature conversion system is connected to the meter at volumes of 2,500 therms/73,200 Kw/h and below, the converted volume of gas is calculated by multiplying the volume of gas registered by the meter by the temperature and pressure conversion factor provided for in the Regulations. However, in practice this may not be possible as such meters may not be capable of giving unconverted readings as only one register/display exists.

A multi utility, two trade associations, a metering services provider and two MAMs/Meter Operators (MOP) were not in favour of supporting two classes of meter for residential use. As well as the practical difficulties of ensuring the appropriate meter was fitted they drew attention to the financial and logistical implications of holding stocks of both meter types, and in taking both types to all site visits as records do not generally indicate where the meter is located. It was suggested that the alternative of using the higher specification Class B meter at all locations would increase costs

A manufacturers' trade association and a manufacturer proposed that residential meters should always be type tested to meet -10°C to +40°C requirements in Class A but, for verification<sup>11</sup> and in-service requirements the temperature influence considered for error assessment should be based on the 5°C to 30°C range wherever meters are located inside sheltered premises or in meter boxes or garages.

### *Government Response*

Allowing the use of Class A meters across the -10°C to +40°C range could expose some UK consumers to metering errors up to +/- 7% at times of the year when energy consumption levels are high. It is therefore appropriate to restrict the use of Class A meters to environments within the 5°C–30°C range.

It is the responsibility of the person installing the meter to ensure it is suitable for the intended application. A recent consultation by Ofgem on Innovative Metering acknowledged that the capital cost of the meter is relatively low in comparison to other costs related to meter exchange. Ofgem also point out that the difference in costs between the cost of Class A and Class B meters is small, and extensive use of Class B meters should reduce this further. Ofgem consider that the relatively small size of meters should not preclude meter installers from taking meters of both classes to site visits.

It is intended that meters will continue to be tested at ambient temperatures when subject to any in-service testing. Experience will dictate whether tests at differing temperatures would be more appropriate. This is something for the Industry Metering Advisory Group (IMAG) to consider and it is expected that a set of in-service procedures can be put in place to ensure that metering obligations, particularly accuracy, are monitored and maintained appropriately.

### *Conclusion*

Having considered responses to the consultation, there remain strong arguments to restrict the use of Class A meters.

## **4. Should these provisions extend to Northern Ireland?**

In parallel with the consultation the Department for Enterprise, Trade and Investment in Northern Ireland (DETINI) considered whether the proposed Regulations should apply in Northern Ireland or whether separate implementing Regulations should be made. In addition to the consultation

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<sup>11</sup> The process of verifying that the instrument conforms to the relevant type approval and meets performance requirements – usually undertaken at the end of the manufacturing or repair process.

document, DETINI contacted stakeholders in Northern Ireland.

### *Responses*

There were no views expressed against these Regulations extending to Northern Ireland.

A Northern Ireland gas transporter commented that, although there are currently no regulations for meter stamping<sup>12</sup> in Northern Ireland (NI), Ofgem stamped meters have been installed. It would be important therefore that stakeholders are made aware of new obligations resulting from these Regulations. An energy supplier in Northern Ireland drew attention to the on-going debate about Smart meters and the need to be mindful that the markets in NI and GB may in the future take different paths.

### *Government Response*

DETINI have agreed that the Regulations should be extended to apply UK wide. The Northern Ireland Regulator has asked Ofgem to carry out on its behalf the designation of Notified Bodies, market surveillance and enforcement.

### *Conclusion*

The gas and electricity meter regulations have been revised to reflect UK application. The Regulations also include provision for the GB regulator, Ofgem to carry out functions in Northern Ireland on behalf of the Northern Ireland Authority for Energy Regulation (NIAER). These may include the designation of Notified Bodies, market surveillance and enforcement duties. Ofgem and NIAER are developing formal arrangements to take this forward in a structured manner. As in Great Britain, it is envisaged that NWML will undertake the role of enforcement officer on behalf of Ofgem/NIAER for Northern Ireland, using the systems and procedures developed for all other instruments NWML has responsibility for under MID. Provisions for this activity were included in the development of the joint Ofgem/NWML MOU covering the transfer of metrology functions.

The approach to market surveillance and enforcement is currently being developed within Europe.

Comprehensive notes for guidance on all of the Regulations will be produced by NWML, and there will be a consultation on these in the summer of 2006. NIAER will in due course contact Northern Ireland's energy suppliers to explain the new arrangements and how they may affect them.

## **5. Measuring Instruments (Non UK Prescribed Instruments) Regulations**

Although within the scope of MID, the consultation did not propose that stand-alone volume conversion devices (VCD) should become regulated instruments within the UK market. However, to provide the opportunity for manufacturers to obtain approval and verification services from a UK designated organisation, it was proposed that provision for the designation of

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<sup>12</sup> Under Gas Act 1986 section 17 gas meter examiners either affix a stamp (seal) or authorise the affixation of a stamp (seal) to meters conforming to existing pre- MID requirements.

Notified Bodies capable of assessing the conformity of VCDs should be included in the Measuring Instruments (Non-UK Prescribed Instruments) Regulations.

### *Responses*

Two respondents commented, one suggesting additional drafting to ensure consistency with the Directive.

A multi utility commented that although stand-alone volume conversion devices are not currently regulated, it may, depending on the outcome of the wider debate on Smart Metering, become appropriate to regulate these instruments in the future.

A multi utility asked how if such meters are not regulated would the Directive's provisions be enforced.

### *Government Response*

The Directive allows Member States to regulate any of ten different instrument types. This includes stand-alone volume conversion devices which are not currently subject to regulation in UK. Volume conversion devices can therefore be put into use without any certification or approval.

UK implementation of MID should not adversely affect any Smart Metering initiative. Gas meters with internal conversion devices are permitted and regulated in the UK under MID and stand-alone conversion devices are also permitted but, while not regulated, consumer protection is maintained as the meter to which the conversion device is attached will continue to be regulated up to the 1600 m<sup>3</sup>/hr threshold.

Neither existing regulatory provisions or MID can deal with smart gas 'energy'<sup>13</sup> meters. Clearly, if the concept of technological domestic/commercial/ light industrial energy metering solutions (Smart Meters) becomes a commercial reality, an appropriate regulatory framework will need to be considered. This could be on a UK or a European basis and will be dealt with at the appropriate time.

### *Conclusion*

Where Member States regulate measuring instruments, the meters must conform to the essential requirements set out in the Directive. The Directive ensures meter manufacturers are free to place MID approved instruments anywhere in the European market. To enable UK based notified bodies to offer approval services for these meters for use in European markets, volume conversion devices have been included in the Measuring Instruments (Non-UK Prescribed Instruments) Regulations.

The Measuring Instruments (Non-Prescribed Instruments) Regulations 2006 SI 2006/1270 have been made. Provisions relating to the appointment of notified bodies will come into force on 30 May 2006, and the remaining

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<sup>13</sup> The gas energy bill consists of two fundamental parts: gas volume supplied and calorific value. Currently the gas meter measures gas volume, whilst calorific value is derived from measurements taken at entry points on the relevant part of the gas distribution system to which the consumer is connected. Smart gas 'energy' meters would be able to undertake all of these measurements at the consumer's supply point using a single measuring instrument.

provisions will come into force on 30 October 2006. Copies are available to download from the Office of Public Sector Information website at:  
<http://www.opsi.gov.uk/stat.htm>.

## **6. Regulatory Impact Assessment**

The consultation document sought comments on a partial RIA covering implementation of the Directive which had been produced<sup>14</sup> by NWML. The RIA suggested that implementation of the MID would be neutral, based on current levels of regulation in relation to consumer protection and fair trading, whilst providing single market benefits to manufacturers both in terms of wider choice of conformity assessment and a single set of technical requirements to be met.

An update to the consultation indicated the likely level of the fees payable on application for designation as a Notified Body i.e. authorised to carry out conformity testing of meters. Ofgem had indicated that these costs would be based on actual resourcing costs and expenses. No unfavourable comments were received in relation to Ofgem's proposal.

A trade association asked about a mechanism for challenging charges. The charges for designating Notified Bodies will be on a cost recovery basis and will be published annually by Ofgem and NWML. Charges by Notified Bodies will be subject to market forces, as manufacturers will have a choice of organisations to carry out conformity testing.

A manufacturer and a trade association asked about the source of funding for market surveillance. This function is the responsibility of government and, in the case of gas and electricity meters will be funded by Ofgem. Ofgem will, however, be entitled to charge fees to recover the costs of designating notified bodies and of carrying out inspections under the Regulations.

Respondents provided no further details about costs or benefits. The RIA has therefore been finalised and is attached at Section 4 of this document.

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<sup>14</sup> Measuring Instrument Directive: NWML Consultation on the Draft Regulations can be found on the NWML website  
[http://www.nwml.gov.uk/Docs/MID/MID\\_Consultation\\_Document.pdf](http://www.nwml.gov.uk/Docs/MID/MID_Consultation_Document.pdf)

## Section 2: Other issues raised by respondents

### 1. Enforcement Provisions

A number of respondents commented on and sought clarification on a range of issues related to enforcement action and powers.

A trade association and an electricity Distribution Network Operator (DNO) were concerned that the enforcement powers appeared draconian i.e. to enter premises and to seize meters liable to be forfeited, and that these went further than existing Ofgem powers. A trade association also questioned whether the removal of installed meters could be carried out safely without the knowledge or involvement of the DNO or meter owner.

A trade association and a MAM pointed out that in providing powers to the enforcement authority to require a manufacturer or his authorised representative to withdraw instruments or stop putting instruments into use, the Regulations failed to address the role of meter asset managers, meter asset providers and meter operators who are not directly linked to the meter manufacturer. A trade association, a DNO and a MOP sought clarification of who would be considered to be the principle offender in situations where suppliers employ meter asset providers and managers.

Highlighting the other side of that coin, a manufacturer and a manufacturers' trade association pointed out that manufacturers have no control over the use of some meters which could be used for applications within and outwith the scope of regulation. It was suggested that the Regulations should identify that "it is the responsibility of the person putting the meter into use to ensure that the meter is appropriate for its use."

A MAM questioned whether the offences effectively prevented scrapping of meters. A manufacturer and manufacturers' trade association pointed out that the Regulations are silent on the arrangements for enforcing sealing requirements.

A trade association and meter manufacturer were concerned that enforcement officers should not disclose proprietary manufacturing processes or commercially sensitive information.

A trade association and a DNO questioned the potential conflict where the Secretary of State is both a notified body and the enforcement authority and how this related to the role of the Gas and Electricity Markets Authority (GEMA) as the enforcement authority in relation to gas and electricity meters. A multi utility respondent suggested that enforcement should be at European level. A trade association, a meter manufacturer, a multi utility and a MAM were confused about enforcement powers in Scotland.

#### *Government Comment*

MID places significant emphasis on ensuring that measuring instruments are only placed on the market and/or put into use if they satisfy the requirements of the Directive. Placing on the market and putting into use of meters that do not conform to MID will be an offence under the relevant regulations. In

consideration of gas and electricity meters the two stages can be briefly described as:

- *Placing on the market*- the stage between completion of manufacture to just before the meter is installed. Here meters will be either located<sup>15</sup> at the site of the manufacturer, somewhere in the transportation network, or at the premises of the person responsible for installation of the instrument;
- *Putting into use* –the point when the meter is installed and used for the first time. The meter will be located at the consumer's premises.

At the point of putting into use existing in-service provisions<sup>16</sup> apply, although the applicable standards which MID meters must comply with, under existing in service provisions are modified from those applicable to meters approved under the Electricity Act and Gas Act provisions by the MID implementing Regulations.

The implementing Regulations provide that meters complying with MID are deemed to be approved and certified (electricity meters) or stamped (gas meters). This is necessary as the Electricity and Gas Acts still impose the requirement for approval and certification for electricity meters and stamping for gas meters. However, if a meter subsequently fails to comply with the accuracy standards set out in the Regulations, which are taken from the relevant MID requirements, it is no longer permitted to be used as its deemed approval and certification or stamping (as appropriate) falls away subject to exempt electricity supply where parties have agreed to different accuracy standards. The purpose of these provisions is to ensure that only meters that meet, and continue to meet those requirements remain in use.

The relevant aspects of MID were considered in parallel to existing provisions to ensure appropriate enforcement powers are in place to make certain that the obligations, which MID places upon Member States, are fully met. It has been decided, following consultation, that powers under these implementing Regulations will be confined to placing on the market and up to the point of putting into use (i.e. installation). Existing provisions will be used to control the use of non-MID compliant meters once installed, using the mechanism of deeming existing in-service provisions to MID meters. As such the intent of the MID implementing Regulations is to provide powers to:

- enforcement officers to inspect meters for MID compliance when first placed on the market but not once the instrument is put into use – i.e. installed
- remove or restrict use of any non-conforming meter up to the point of putting into use.

Where it is found, as part of the inspection, that non-compliant meters have been put into use, existing Gas and Electricity Act powers will be used to

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<sup>15</sup> Gas and electricity meters are not generally made available at sales outlets. The regulations have adequate flexibility to cover this area if the metering market changes.

<sup>16</sup> Electricity Act 1989 Schedule 7 and Gas Act 1986 Section 17. See also the Meters (Approval of Pattern or Construction and Manner of Installation) Regulations 1998 and Meters (Certification) Regulations 1998 (SI 1998/1565); the Meters (Certification) Regulations 1998 (SI 1998/1566); and the Gas (Meters) Regulations 1983 (SI 1983/684).

ensure meters are removed from service. These provisions make it an offence for energy suppliers to use meters not conforming to the requirements of existing legislation or MID (depending upon which provisions apply to the meter in question). These powers include situations of:

- meter types never being subjected to approval or verification procedures – either under existing or new MID provisions;
- meters types having been subject to approval or verification procedures that have been modified to an extent that invalidates the approval certificate – ie by the manufacturer or by external interference or fraud;
- meters types having been subject to approval or verification procedures where the performance of the instrument has degraded to such an extent that the instrument no longer conforms to legal requirements – i.e. excessive errors of accuracy

It is intended that Ofgem, until the legal transfer of metrological responsibilities to NWML, will be the Enforcement Authority for Great Britain and will also act in Northern Ireland on behalf of NIAER, using NWML to undertake the administrative and operational aspects of enforcement. This will ensure consistency of approach across the UK for all measuring instruments covered by MID. It should be noted that in Scotland, the Procurator Fiscal would bring prosecutions.

Powers of entry and inspection enable enforcement officers to enter premises such as warehouses and storage facilities where instruments may be stored prior to installation. As noted above, it is not intended that the Enforcement Authority will remove meters “off the wall” as, for the purposes of these Regulations, the scope of these removal powers is constrained to the period before meters are put into service hence issues of safety are not relevant.

Under the Directive manufacturers are responsible for ensuring that an instrument satisfies the essential requirements; demonstrating conformity to the essential requirements; and affixing the required marking, etc while the person installing the meter is responsible for ensuring the meter is appropriate for the accurate measurement of consumption that is foreseen or foreseeable. It was apparent from the consultation that meter manufacturers had concerns that they would have ongoing responsibilities under MID they could not control. Certain manufacturers argued that they would not be the party which actually installs a meter. Therefore they did not feel it appropriate that they should be liable for situations such as meters installed in climatic environments where the meter will be subject to conditions outside the scope of the instrument’s conformity assessment certificate or, as noted above, where the meter is not appropriate for the intended application/load. In response, the regulations have been clarified to place responsibilities on the appropriate groups.

Once the meter is installed those responsible for meters, either directly or through commercial relationships with MAMs and MOPs, must ensure that the meter is appropriate<sup>17</sup> for ascertaining (electricity) or registering (gas)

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<sup>17</sup> Electricity Act 1989 Schedule 17 paragraph 1(1). Gas Act 1986 Schedule 2B paragraph 2(1).

quantities under existing Gas or Electricity Act provisions. If a meter is not installed appropriately with regard to the installation conditions, consumption and in consideration of the requirements of the MID implementing regulations, the meter shall not be deemed to be approved/stamped/certified under the Gas or Electricity Acts (or supporting regulations). In such circumstances suppliers are not permitted to use that meter for ascertaining the quantity of gas or electricity supplied.

In practice Ofgem believe that the removal of instruments that do not comply with MID or those situations where inappropriate meters have been installed will be facilitated by the normal commercial relationship between manufacturers and MOPs/MAMs/MAPs under the existing Electricity and Gas Act provisions noted above. Some active compliance monitoring will be available through existing arrangements for disputed meter accuracy testing<sup>18</sup> or determination<sup>19</sup>.

Additionally, it should be noted that those persons legally responsible for meters are not guilty of an offence if MID authorised marks are altered, defaced or removed when they are disposing of meters at the end of use as the meter is no longer used for trade.

Procedures are being developed by WELMEC to ensure some level of consistency of approach to market surveillance and enforcement across Europe and appropriate communication of relevant information.

Although the Essential Requirements include 'Protection against corruption', MID makes no specific provisions for sealing requirements. Manufacturers might like to consider Ofgem's proposals that manufacturers develop voluntary industry arrangements such as a centrally held database, to ensure that all metering security measures are communicated openly to all relevant industry participants.

## **2. Market Surveillance and Notified bodies**

The Directive provides roles for government in the designation of Notified Bodies and in carrying out market surveillance. The draft Regulations assign these roles to GEMA. An update to the consultation proposed that the Regulations should provide powers to enable Ofgem to raise fees in relation to the function of approving and designating Notified Bodies i.e. organisations authorised to certify that manufacturers conform to the requirements of the Directive. Ofgem had indicated that the costs would be based on actual resourcing costs and expenses and likely to be in the region of £2500 to £5000 on application and £1000-£2000 per annum thereafter. No unfavourable comments were received in relation to Ofgem's proposal on fees in relation to applications for designation as a Notified Body.

Two manufacturers were concerned about discrepancies in the standards applied by a range of notified bodies with the potential for commercial damage where a notified body approach is more rigid. A multi utility sought assurance that Notified Bodies should be independent of industry parties and wanted to

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<sup>18</sup> Gas Act 1986 Section 17 paragraph 9(a).

<sup>19</sup> Electricity Act 1989 Schedule 17 paragraph 7(1).

understand how this would be achieved, in particular, the standards that would apply, and how Notified Bodies would be accredited and audited.

A multi utility was concerned about the transparency of fees charged by notified bodies, whether they would be published, audited and whether GEMA would be able to regulate them.

Two manufacturers and a trade association were concerned about access to timely approvals and ensuring that cost recovery was transparent when securing approval from Notified Bodies.

A manufacturer, a trade association and a MAM asked for the publication of a list of all Notified Bodies and access to details of all approved meters

### *Government Comment*

The Directive requires that national authorities carry out market surveillance. This will involve inspecting measuring instruments and related documentation to determine whether the requirements of the Directive are fully met. National authorities will assist each other e.g. through the exchange of information, under procedures being considered by WELMEC Working Group 5 (Metrological Supervision). Manufacturers will be able to obtain approval from any Notified Body across Europe. It is expected therefore that with greater choice, market forces will ensure that fees charged by Notified Bodies will be competitive.

Ofgem will be responsible for designating Notified Bodies for gas and electricity meters in GB and (on behalf of NIAER) Northern Ireland. In carrying out this role, Ofgem will work closely with NWML adopting the same approach and procedures as NWML.

The Regulations place explicit requirements on prospective Notified Bodies concerning, amongst many requirements, competence, impartiality and approaches to potential conflicts of interest. Appropriate evidence of addressing such issues will form part of the designation assessment. Details about how to submit applications are available on the NWML web site: [www.nwml.gov.uk](http://www.nwml.gov.uk).

Where the Secretary of State acts as both a Notified Body and Enforcement Authority there will be clear processes and procedures to ensure any conflict of interest is avoided. NWML has for some time had a management and operational split between its commercial testing and calibration activity and its regulatory directorates.

### **3. Transitional Arrangements**

Respondents welcomed the full use of the derogation provisions under which meters already meeting national requirements before 30 October 2006 can continue to be placed onto the market or put into use up to 2016. A range of questions and issues were raised in connection with the transitional arrangements provided by the Directive.

Two manufacturers and a trade association sought reassurance that the current arrangement under which minor modification to designs or components of meters does not trigger a requirement for re-approval would

persist. Respondents were concerned that re-approval against MID specification – to which that meter had not been designed - might require other changes incurring costs and time delay.

A trade association, a manufacturer and a MOP questioned why the regulations drew difference between new approvals made up to 30 October 2006 and renewals made before 30 April 2004. There was also confusion over whether EC type certificates could be renewed during the 10-year transition period and about the status of pre MID approved meters after 2016.

A multi utility, a DNO, a metering services provider and a MAM sought clarification that where pre-MID meters are removed from service after October 2006 and if in good working order, or following refurbishment and re-certification, they may be reinstalled for the rest of their working life. This was an important point for asset managers who had already set the depreciation life of meters on their accounting balance sheets.

A multi utility and a DNO sought clarification that pre-MID meters certified for a working life of 20 years would be allowed to remain in service until 2026 and that recertification under Schedule 7 arrangements would continue.

A manufacturers' trade association raised concerns about the absence of a certification process or plans for sampling to determine the life of MID approved meters. This would be by removing the mechanisms and reasons for routine replacement of meters, prolong the use of MID meters with the effect of inhibiting innovation, distorting the market and reducing consumer protection. The respondent proposed imposing the existing arrangements for certification and sealing on MID meters when used in the UK.

### *Government Comment*

The Directive provides a transitional provision for all instrument types during which instruments, which have received type approval before 30 October 2006 or, in respect of which an EEC pattern approval was granted before 30 October 2006, may continue to be placed on the market under the existing national legislation. The latest this can occur is October 2016 (for certificates granted before October 2006). The 30 October 2016 date is not a deadline by which all meters in use have to be subject to MID requirements. For clarity, electricity meters, certified under Electricity Act 1989 requirements and put into use before 30 October 2016, may continue to be used, provided they remain in proper order, until the end of their certification life. Whilst gas meters, stamped under Gas Act 1986, can be used until they fail to meet existing requirements<sup>20</sup>. For clarity the reference to the 30 April 2004 deadline date<sup>21</sup> for extensions to EC type approval certificates, provided under previous European provisions, has been removed from the Regulations. This was on the basis that as all certificates will have been granted before October 2006 the original draft text was unnecessary and it caused confusion.

During the transitional period measuring instruments that have been granted type approval under existing provisions are permitted to have minor modifications within this transitional period, although changes deemed to

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<sup>20</sup> The Gas (Meters) Regulations 1983(SI 1983/684) Regulation 3

<sup>21</sup> Directive 71/316/EEC Article 5 ([http://europa.eu.int/eur-lex/en/consleg/pdf/1971/en\\_1971L0316\\_do\\_001.pdf](http://europa.eu.int/eur-lex/en/consleg/pdf/1971/en_1971L0316_do_001.pdf))

affect the existing approval will require the manufacturer to seek a new approval under MID provisions. Current practice of deciding whether a modification is minor or requires re-approval will be on the basis of historical precedent. Ofgem advise that applications will continue to be dealt with on a case-by-case basis.

The Directive does not define or limit the service life of a meter. Those responsible for meters must ensure that the instrument is kept in proper order to measure the quantity of energy supplied and, provided the meter meets UK in-service accuracy tests, meters may remain in service. Similarly, once in-service, the meter will be subject to existing legislation under which refurbished meters can be put back into use when it is established that the meter meets the requirements of its original approval.

IMAG are currently developing in-service testing procedures for meters based on sample testing. Ofgem was influential in the initiation of this process and fully supports the work of the group. Ofgem anticipates that this process will deliver economic and appropriate consumer protection across the industry in a deregulatory manner. The main stimulus for the project was the effect of MID on the existing electricity metering certification process and the recent opening up of the competitive metering market.

Once agreed by industry and regulators, it is anticipated that the scheme will be governed through existing Industry Codes. If an appropriate scheme cannot be agreed, Ofgem will need to consider the implementation of more interventional control, through regulations or licence conditions, to adequately cover this critical aspect.

It should be noted that the approach to ongoing certification period for pre-MID meters might be influenced by the IMAG work.

#### **4. Same Sign Rule**

A trade association and two manufacturers questioned whether the Gas Meter Regulations correctly interpreted the Directive's intentions relating to testing accuracy of meters i.e. where errors are above 1% (i.e. values of 1 to 1.5%) the high and low volume readings must not be the same sign<sup>22</sup>.

Respondents argued that the proposal was not workable and encouraged a greater spread of results. In their view the accepted interpretation across Europe was that same sign results were acceptable and that a simple editorial change was needed i.e. to remove "All" from the text following the table. The alternative interpretation would lead to a minimal difference in the impact of overall accuracy of readings provided to consumers.

#### *Government Comment*

The Measuring Instruments (Gas Meters) Regulations reflect the text set out in the Directive at Annex MI-002.

Ofgem acknowledges industry's concerns about the text being interpreted in different ways. Ofgem have therefore raised this matter at WELMEC WG11,

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<sup>22</sup> The Measuring Instruments (Gas Meters) Regulations 2006 - text below Table 2 in Schedule 1, paragraph 13(3) of consultation draft; now paragraph 14(3).

responsible for utility metering. It is anticipated that WG11 will then provide guidance on this point.

Changes to certain requirements within the Directive can be considered by the Measuring Instruments Committee (MIC) as one of a number of functions set up under MID Articles 15 and 16. At the request of a Member State, or the European Commission itself, MIC can take any appropriate measure to amend MID instrument specific requirements related to maximum permissible errors and accuracy classes, rated operating conditions, critical change values and disturbances. Issues related to same signs would fall within this scope.

If it becomes apparent that a consensus of opinion covering problems associated with the same signs rule (i.e. unworkable, economically unjustifiable and/or delivers little or no benefit) then a case could be taken forward by NWML/Ofgem to MIC. Clearly, Ofgem and NWML would need to be sufficiently convinced on the impacts, related to this issue, to take this forward to MIC. The support of all UK manufacturers and consideration of the views and guidance of WG 11 will be essential elements in this process of gaining NWML/Ofgem support to move forward on this.

MIC has not yet convened, although a Measuring Instruments Working Group has been brought together by the European Commission to consider initial implementation issues. The group includes European Trade Associations. NWML currently represent UK interests on this group and are likely to undertake a similar role when MIC is established.

## **5. In-service specifications**

Respondents to the consultation expressed significant resistance to the approach in relation to the proposed maximum permissible error limits for MID gas meters operating in-service. Respondents were concerned that the proposed requirements would lead to higher costs in the UK as meters would need to be of a higher standard and meter populations were likely to require exchange more frequently. Disruption for consumers would have a higher impact to consumers than the savings made due to increased accuracy.

Arguing that other Member States intended to adopt the durability tolerance for in-service control, manufacturers were concerned that the UK would be out of step with the rest of Europe. Manufacturers concluded that the proposed UK approach could present a barrier to the exchange of goods across the EU.

### *Government Comment*

It was evident from the responses that, in the case of gas meters, the benefits to consumers of higher long-term meter accuracy could be significantly outweighed by the costs of maintaining such standards. Costs would be passed on to consumers through higher gas bills resulting from tighter specifications for meters and more frequent meter exchange costs.

It is also acknowledged that the proposed approach could result in increased disruption to consumers because meters were likely to need changing more frequently to ensure tighter error limits continued to be met (meter installers need access to premises to turn off appliances when exchanging meters).

With the benefit of advice from Ofgem, DTI has considered the strength of responses to this aspect of the consultation and have been persuaded that the in-service error limits for MID approved gas meters should be aligned with the durability standards required when the meters are first placed on the market. This means that for Class 1.5 gas meters the in-service MPE's would be twice the initial MPE. For Class 1.0 gas meters the durability and initial MPE are the same, hence the in-service MPE's will be identical to the initial MPE. This will align the UK approach to that of the rest of Europe.

In making this change it is recognised that consumers will benefit from some increased protection under the MID standards as the meters will be required to function to higher standards than existing Gas Act 1986 provisions when first installed.

The draft Regulations have therefore been amended to reflect the revised in-service MPE. The enclosed revised draft Regulations are effectively final in all other respects

However this change, which in effect amends the existing provisions on in-service tolerances, represents a new technical standard and as such we are required<sup>23</sup> to notify these proposed changes to the European Commission. This notification provides an opportunity for the Commission and other Member States to comment if they consider that the proposed new standard has the potential to create a technical barrier to trade. A three-month standstill period is imposed to allow opportunity for comment during which we may not implement the revised provision. The enclosed revised draft Regulations will be implemented, subject to no adverse comment being received, from the Commission or other Member States at the end of the standstill period.

No similar issues arise in the case of electricity meters since the MPE requirements for placing on the market and durability are identical. However, to evaluate the effect of the various measurands and influence quantities, MPE's are defined using the 'sum of the squares'. This method results in a theoretical expression and it is not possible to perform a simple in-service test to ensure that meters are within this MPE. To overcome this IMAG are currently developing an in-service testing regime, described above in Section 3, and it is hoped that the asset lives for individual meter types will be determined by this process.

There was much support from respondents, including consumer representatives, for the IMAG work. Ofgem encourage this group to continue this work and ensure that appropriate, defensible and justifiable measures are in place to ensure that installed meters are fit for purpose and measure to the tolerances set out in the regulations.

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<sup>23</sup> Technical Standards and Regulations Directive 98/34/EC. More information about the Directive can be found on the DTI website: <http://www.dti.gov.uk/innovation/strd/activity/page12097.html>

## **Section 3: The Statutory Instruments**

### **The Measuring Instruments (Active Electrical Energy Meters) Regulations 2006**

The Secretary of State for Trade and Industry has laid the following Statutory Instruments in parliament, to come into force on 31 July 2006.

<http://www.dti.gov.uk/files/file30891.pdf>

### **The Measuring Instruments (Gas Meters) Regulations 2006: Draft**

The following draft SI has been notified to the Commission under obligations set out in the Technical Standards Directive 98/34/EC. Implementation is therefore subject to a three-month delay to provide opportunity for comment by the Commission and other Member States.

<http://www.dti.gov.uk/files/file30893.pdf>

## **Section 4: The Regulatory Impact Assessment on the Measuring Instruments Directive – Gas and Electricity Meters**

This RIA, relating to the regulation of gas and electricity meters, is one of ten dealing with the implementation of the Measuring Instruments Directive. A full list of RIAs is attached at Annex 1.

### **The issue and objective**

1. Issue: The impact of transposing the Measuring Instruments Directive (MID), on the basis of maintaining the existing scope of regulatory control, into UK legislation.
2. Objective: To implement the MID, which aims to harmonise essential requirements on measuring instruments across the EU<sup>24</sup>. The objective of the Directive is to open markets to competition; provide opportunities to innovate and export; improve choice for consumers and remove barriers to trade, through this deregulatory measure.

### **Risk assessment**

3. The intention is to maintain the existing scope of regulatory control (status quo); that is to introduce new Regulations covering only the instruments that the UK currently regulates and not to introduce further Regulations which would act as a burden on business. The risks of pursuing this course, and alternative courses of action, are covered under the three options set out below. The initial consultation document<sup>25</sup>, issued by NWML with DTI and Ofgem input, sought information about the level of interest in deregulating some instruments. There was no great impetus for deregulation. Feedback was received about the risk to the levels of consumer protection if the number of instruments regulated were reduced.

### **Identify Options**

4. The three original options, and the risks associated with each, are set out below. These options were explored during the initial consultation. In view of the responses to the consultation, we have proceeded with option 2 below.

#### Option 1

5. Do nothing.
  - a face infraction proceedings against the UK for not implementing an agreed Directive.
  - b miss out on the benefits of a harmonised set of requirements
  - c goes against the feedback received from the initial consultation document

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<sup>24</sup> EU includes EEA and Switzerland, once the bilateral agreement is implemented.

<sup>25</sup> Measuring Instrument Directive: Consultation on the approach to implementation can be found on the NWML website: [http://www.nwml.gov.uk/Docs/Legislation/MID/MID\\_consultation\\_on%20approacht.pdf](http://www.nwml.gov.uk/Docs/Legislation/MID/MID_consultation_on%20approacht.pdf)

## Option 2

6. Implement on the basis of status quo:
  - a maintains consumer protection
  - b does not introduce further burdens on business
  - c is in line with feedback from consultation document

## Option 3

7. Change the scope of regulation:
  - a technical expertise and evidence base not in place to support the introduction of further regulations
  - b risks unintended consequences
  - c risks missing implementation deadline for whole Directive
  - d goes against feedback from initial consultation document, which did not strongly support an increase or decrease in number of instruments regulated

## Results of consultation

8. The initial consultation document issued in November 2004 was circulated to over five hundred stakeholders and was made available on the NWML website. Forty-one responses to the proposals were received, of which seventeen were from the enforcement community (Local Authority Trading Standards Departments, regional Trading Standards groups, the Local Authorities Co-ordinators of Regulatory Services (LACORS) and the Trading Standards Institute (TSI)). Responses were also received from the business community, including twelve from individual businesses and four responses from trade associations. Five government organisations responded, along with one consumer organisation, BSi and one individual. In addition, three meetings with stakeholders were carried out during the consultation period.

9. Responses were very positive overall, with a substantial majority of respondents supporting the proposed approach to implementation in principle.

10. 95% of respondents who provided an answer to the question about status quo agreed that this would be the preferable way forward. 86% of those who replied to the question about deregulation did not want any instruments deregulated.

11. 78% of respondents agreed with the proposal to produce a Statutory Instrument (SI) for each type of instrument to be regulated.

12. A second consultation on separate draft Regulations covering gas and electricity meters was published in December 2005. Four meetings with consultees were held during the consultation period. Twenty-four responses were received including from meter manufacturers, multi utilities, meter owners and asset managers and a consumer representative. All comments have been considered and, where appropriate, changes made to the legislation. A summary of responses received and conclusions drawn will be published on the DTI website<sup>26</sup>.

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<sup>26</sup> Published on the DTI website [www.dti.gov.uk](http://www.dti.gov.uk)

13. NWML received useful information about the costs and benefits of MID in response to the 2004 consultation document. Overall, we are satisfied that the costs to manufacturers of implementing the MID are not unreasonable, indeed several responses explained that there would be benefits in terms of costs and time of getting their products to market.

14. Some of the Trading Standards community expressed views that the implementation of the MID would adversely affect their levels of income. Whilst these comments touch on issues that are, strictly speaking, outside the scope of the MID implementation project, we have noted these comments and will be integrating them into our future strategies for the infrastructure of weights and measures enforcement.

### **Issue of Equity and Fairness**

15. Implementation will be equal across the whole of the industries covered, although regulation in each of the Member States for each of the instrument types may be different. The optionality clause of the Directive enables Member States to choose to regulate instruments for prescribed measurement tasks – as is currently the case, i.e. different Member States may regulate different instruments and for different purposes.

16. Existing national certificates of conformity for type approval have a transition period under the Directive, to allow certificates of conformity to last for a period of up to ten years after the date on which the MID Regulations come into force or, in the case of EC certificates, ten years, the date MID was made European law.

17. The likely burden on small businesses is not considered to be any greater than for large businesses apart from familiarisation with the new legislation, where most small businesses have less administrative capacity.

### **Identify the Benefits**

#### **Option 1**

18. The only benefit to UK manufacturers is that they would continue as at present. However, it is a disadvantage to the UK manufacturing base to remain regulated solely by UK legislation, as it is a disincentive to export to the EU marketplace, which will be closed to non-compliant measuring instruments in Member States that have opted to implement the MID. UK manufacturing would be limited to the UK marketplace although the UK would not be able to prevent meters compliant with MID from being placed on the UK market. It was clear from the responses to the December 2005 consultation, covering gas and electricity meters, that any disparity of approach to regulation in the UK to that of other Member States (i.e. durability for gas meters) could create barriers to the free movement of products across the EC.

#### **Option 2**

19. The first benefit of implementation will be the removal of technical barriers that currently exist, caused by dissimilar national regulation across the EU and the provision of a harmonised set of requirements for each of the

instrument categories. However, most Member States already comply with the Recommendations of the Organisation Internationale de Métrologie Légale (OIML) for most measuring instruments, which means that, even under current national legislation, the technical requirements are already the same, although a lesser consideration for gas and electricity meters where national requirements have tended to prevail. The new regulations also permit European approval of electronic instruments as MID allows any technological solution that meets requirements. Former EC directives covering gas and electricity meters do not recognise electronic instruments.

20. For instrument types that are subject to approval, the cost of testing and certification will be reduced, as only one type or design approval will be required for the whole of the Community. The MID should provide further reductions in cost and time to market. Exporting should be easier and will become an option for companies that have not yet explored that option.

21. Under MID there are choices for manufacturers with respect to the routes to obtaining conformity assessment (previously called type approval and verification). Options now also include self-verification and sample testing of instruments, depending on the type of instrument and the quality systems the manufacturer has employed. This enables the manufacturer to have more control over the conformity assessment of his products and the costs incurred.

22. Not only do manufacturers have choice about how to obtain conformity assessment, they also have a choice about where to obtain that assessment. This will introduce an element of competition into the marketplace and enabling manufacturers to shop around for high quality and value for money services and hence removing the potential monopoly of the individual Member State in relation to the home market.

23. A transitional period of up to ten years is provided before the Directive comes fully into force. It would therefore be possible for a manufacturer to obtain a national approval up until 29th October 2006 for a maximum period of 10 years. This exceeds product development times and is comparable with product lifetimes etc, so it is possible that, in practice, no significant non-recurring costs will be attributable to the Directive.

24. The Directive also has no impact on existing instruments already placed on the market, which will remain controlled by national legislation.

### Option 3

25. There is a possibility that consumers will receive greater benefits since they could enjoy greater protection if the number of instruments regulated increases. However, businesses could experience an increase in the burden resulting from compliance with a greater number of regulations. Their marketplace would, however, be opened up to extend to all Member States. Businesses in the UK market would have greater benefits through a reduction in the burdens resulting from compliance with regulations, but would not benefit from free access to the markets in all Member States.

26. If the number of instruments controlled through regulation was reduced, there could be corresponding reduction in the level of consumer protection. Businesses in the UK market would have greater benefits through a reduction in the burdens resulting from compliance with regulations.

## **Quantifying and Valuing Benefits**

### Option 1

27. No change - current national position prevails

### Option 2

28. In response to the initial consultation document two companies and one trade association said that post MID time to market should be reduced, in some cases significantly. One company said that they expected time to market and costs to remain almost the same, though they recognise that there would be some reduction in the paperwork relating to compliance. One trade association said that their members did not expect there to be any significant increases in Type Approval costs in the Member State where the EU type approval is obtained. One company said that there may be future benefits from the wide range of conformity assessment modules available.

### Option 3

29. If the number of instruments regulated increases, then it is likely that the benefits of increased consumer protection would increase proportionally, along with the burdens on business. Conversely, if the number of instruments regulated went down, then benefits to business will increase, as potentially consumer protection decreased.

## **Costs**

30. One of the costs of getting a new product to market is the time taken to get a product onto that market. It normally takes one to two years to take a new product from initial concept to market. Development costs, including tooling, range from £150,000 up to about £2m, depending on the complexity of the instrument. Approval time varies from about four weeks, where test results from another body support an application, to twelve weeks. Costs range from £3,500 to £15,000. Gas and electricity meter approvals are within these ranges for timescales and costs with, amounts dictated by complexity of the instrument and scope of approval.

31. There are costs attached to exporting products i.e. obtaining approvals in other Member States. Costs within the EU can amount to £80,000, based on an initial £30,000 for the costs associated with inspection, laboratory testing and administrative functions related to the type approval of the instrument, plus £2,000 per country, for such activities as technical review, additional testing (if required) generation and distribution of documentation. A trade association representing companies that export to most EU countries and many outside the EU stated that exporting within Europe is fairly straightforward, as a result of the WELMEC Type Approval Agreement (whereby test results are accepted between test houses reducing the work needed to provide approval). They also stated that the OIML Certificates of Conformity ease the type approval process outside the EU, with the notable exception of North America.

32. In response to a question in the initial consultation document about costs of gearing up for MID, three companies said that they were anticipating the gearing up costs to be zero or very small. One trade association does not

expect costs to increase significantly. They themselves are planning to provide training, but expect the costs of this training to be reasonable. It should be noted, from the responses to the December 2005 consultation covering gas and electricity meters, that a gas meter manufacturer and trade association were concerned that interpretation of one particular aspect of the essential requirements related to gas meters, the “same signs rule”, could have significant financial impact. Further consideration and potential routes to resolve issues are being investigated with WELMEC.

### **Opportunities and Threats**

33. Two trade associations and one company, who responded to the question in the initial consultation document, saw implementation of the MID as an opportunity. Respondents stated that the opportunities include savings in costs and time to market, based on the advantage that one approval ensures compliance in all EU countries.

34. Ten other respondents to this question saw implementation of the MID as both a threat and an opportunity. The perceived threat was that countries will regulate different instruments, so there will be the case whereby a manufacturer of an MID compliant product will not be able to compete equally in a country that does not regulate in line with the MID, because a non-compliant product will be cheaper and easier to make. This point was echoed by one of the trade associations, which stated that the lack of uniformity in prescription across the EU is seen as unhelpful and not in the spirit of the internal market. However, a Member State that does not regulate in accordance with the MID cannot prevent compliant instruments being placed on its market or put into use.

35. Another comment made was that, unless appropriately implemented, it could become a threat to consumer protection. In general, the trading standards organisations were concerned about how the implementation would affect the viability of their services and whether or not there would be sufficient demand to make it justifiable for Local Authorities to become Notified Bodies (NBs). Some comments were around the possibility of Local Authorities working in partnership with others to provide a regional service.

### **Conclusion on costs and benefits**

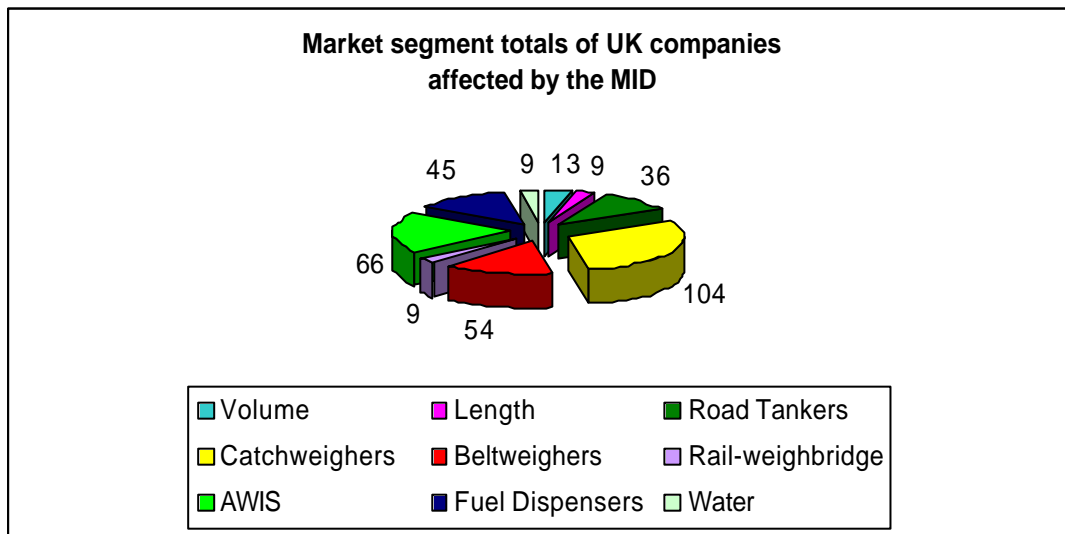
36. The comments received on the initial consultation were mixed, on whether the MID presents an opportunity or a threat. However, it is clear that there will be benefits to business of reduced regulatory burden, which would result in reduced time and costs of getting new products to the EU market. The Government accepts that prescription may not be the same across all Member States, since the optionality clause enables Member States to decide which instruments to regulate and for what purposes. However where instruments are prescribed, the requirements are identical. Where no national regulation is permitted MID compliant products are allowed to circulate freely alongside non-MID compliant products. There was concern that non-compliant instruments would be cheaper to make and therefore would ultimately cost less, thus undercutting compliant instruments. As the optionality clause is permitted this point cannot have any bearing on the

implementation of MID in the UK.

### Business sectors affected

37. 15 electricity and nine gas meter manufacturers have been active in the sector over the last year and are likely to be directly affected by MID implementation in the UK. Not all of these companies manufacture exclusively in the UK, but all have at least some operational activity in the UK.

38. Additionally, research into the number of UK companies affected by the MID regulation under the responsibility of NWML has concluded there are in excess of 260 companies affected. The following graph illustrates how the impact is spread across the MID market segments covered by NWML's regulations:



39. Following the initial research, NWML took a snap shot involving 148 of these companies to find out more about the impact the MID will have on them. NWML were able to establish that the combined turnover of the UK market is in excess of £450 million and more than 28,000 staff will be affected. The gas and electricity sector, for the 25 manufacturers, has a turnover of approximately £35 million with around 1,200 staff affected.

40. Most gas and electricity meter manufacturers are part of global enterprises, with probably only two or three able to be possibly defined as UK companies without international parent company interests. Most operations situated in the UK supply to the home market. A small number export to other European Member States.

### Small Firms Impact Test

41. After having conducted 2 consultations and held 4 stakeholder meetings, (on the advice of the Small Business Service) NWML tried to contact at least one small firm manufacturing each specific instrument in the draft Regulations. During the course of this research, NWML was unable to identify any disproportionate impact on the small firms polled as a result of the implementation of the Directive. This is representative of the gas and

electricity metering sector.

42. A small number of firms may incur a slight cost at the initial stages of the Regulations coming into force, but only in the very short term. The consensus view was that the advantages gained would outweigh these initial costs. Therefore, it is not anticipated that this implementation will have any significant or complex impact on small firms, within the sectors affected by the proposed changes. Small firms have in the past raised concerns about the current 'one size fits all' approach to fees and charges. MID may therefore deliver some cost benefit to small firms through the potential for NBs to employ more flexible charging regimes.

### **Identify any other costs**

Option 1

43. None

Options 2 and 3

44. No additional costs for the manufacturer, although, for the Member State as the designating authority, there are the additional costs, estimated at around £40,000 as a one off cost for setting up a designation and auditing programme for Notified Body activities. The costs of the actual designation and audit will be met directly by the NB themselves. The costs of setting up a market surveillance programme will need to be met by the Member State, as well as the on-going operation of programme; the on-going cost is likely to be in the order of £100,000 per year for those instruments currently regulated by NWML. Ofgem has anticipated a budget of approximately £60,000 per year to deal with Notified Body designation (this is recovered through charges), Market Surveillance and enforcement. The actual costs will be dependent on numbers of Notified Body applications and the rate at which manufacturers switch to MID conformity assessment.

### **Competition Assessment**

45. It is anticipated that manufacturers would not incur any significant additional costs as a result of the proposed Directive. It is probable that manufacturers already comply with the technical requirements of the International Recommendations of the OIML, on which the essential requirements of the Directive are based. The Directive will reduce barriers to trade by harmonising national legislative requirements at European level. It is not likely that implementation of the proposed Directive would result in any disproportionate costs or other effects between manufacturers of the same type/categories of instruments.

46. For manufacturers of products that require type approval, there is a 10-year transitional period from the date on which the proposed Directive comes into force, during which instruments may continue to be first passed as fit for use for trade under current national legislation, thereby allowing manufacturers to make full use of any type approval certificates that have been issued before 30th October 2006. A similar approach applies to existing EC approvals such that adequate transition is maintained irrespective of the

status of existing approvals except that a different deadline exists.

47. In the light of the above comments, it is not anticipated that implementation of the proposed Directive will have any (or any significant) impact on competition within any affected markets.

### **Rural Proofing**

48. See Annex 2.

### **Summary and recommendation**

49. Evidence, provided in response to the consultation document, suggests that the time and cost of getting new products to market will be reduced as a result of implementing the MID. However, there will be some costs for Government, in providing the infrastructure for Notified Bodies; Trading Standards Departments, through potential loss of income and for certain measures manufacturers, as a result of switching overnight to a new system of product approval.

50. Notwithstanding these identified costs, the responses received to the initial consultation document were very positive overall, with a substantial majority supporting the proposed approach to implementation.

51. The recommendation is, therefore, to proceed with implementation along the lines set out in the initial consultation document:

- Implementation on the basis of existing scope of regulatory control
- Produce an individual SI for each category of instrument
- Include the in-service provisions in each SI.

### **Enforcement, Sanctions, Monitoring and Review**

52. Similar activities are already carried out on gas and electricity meters currently controlled under national legislation and will equally be applied to the same instruments regulated under the MID, by the respective regulatory authorities within the UK.

53. I have read the Regulatory Impact Assessment and I am satisfied that the balance between cost and benefit is the right one in the circumstances.

Signed by the responsible Minister .....

Date.....

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## Annex 1

### **List of RIAs relating to the implementation of the MID**

In total 15 SIs will implement the Directive in relation to the range of instruments regulated in the UK. NWML have taken the lead on general approach and implementation of the majority of the other SIs with DfT taking forward Exhaust Gas Analysers and Taximeters.

1. Weighing Instruments, which covers:
  - Automatic Beltweighers
  - Automatic Catchweighers
  - Automatic Gravimetric Filling Instruments
  - Automatic Rail-weighbridges
  - Automatic Discontinuous Totalisers
2. Liquid Fuel delivered from Road Tankers
3. Liquid Fuel and Lubricants
4. Material Measures, which covers:
  - Capacity Serving Measures
  - Material Measures of Length
5. Cold-water Meters
6. Non-Prescribed Instruments
7. Exhaust Gas Analysers
8. Energy Meters, which covers:
  - Gas Meters
  - Electricity Meters
9. Taximeters

## Annex 2

### **Rural Proofing**

1. Will the policy affect the availability of public and private services?  
No
2. Is the policy to be delivered through existing service outlets, such as schools, banks and GP surgeries?  
No
3. Will the cost of delivery be higher in rural areas where clients are more widely dispersed or economies of scale are harder to achieve?  
No
4. Will the policy affect travel needs or the ease and cost of travel?  
No
5. Does the policy rely on communicating information to clients?  
Manufacturers and trade associations have been consulted at different times during the drafting of the Commission's proposal and during the negotiation phase. Further consultation is taking place now that the draft Regulations are ready. They will also be informed when the Regulations have been made and 12-week guidance leaflets will be issued at that time.
6. Is the policy to be delivered by the private sector or through a public-private partnership?  
No.
7. Does the policy rely on infrastructure (e.g. broadband ICT, main roads, utilities) for delivery?  
No
8. Will the policy impact on rural businesses, including the self-employed?  
There has been no indication of significant costs.
9. Will the policy have a particular impact on land-based industries and, therefore, on rural economies and environments?  
No
10. Will the policy affect those on low wages or in part-time or seasonal employment?  
No
11. Is the policy to be targeted at the disadvantaged?  
No
12. Will the policy rely on local institutions for delivery?  
No.
13. Does the policy depend on new buildings or development sites?  
No
14. Is the policy likely to impact on the quality and character of the natural and built rural landscape?  
No

15. Will the policy impact on people wishing to reach and use the countryside as a place for recreation and enjoyment?  
No

## **Section 5: Guidance on the policy of the Measuring Instruments legislation - Gas and Electricity Meters**

### **Why are these regulations being introduced?**

The Measuring Instruments (Active Electrical Energy Meters) Regulations 2006 and the Measuring Instruments (Gas Meters) Regulations 2006 (the Gas Meter Regulations and Electricity Meter Regulations) implement, in relation to gas and electricity meters, an European Directive which aims to create a single market for the benefit of manufacturers and, ultimately, consumers across Europe. The European Commission considers that the creation of a level playing field and single market across Europe is an economic and social necessity. The Directive applies across all Member States of the European Union, and is intended to apply to Norway, Iceland and Lichtenstein once the appropriate Decision of the EEA Committee has been adopted and published. It is also intended to apply to Switzerland and Turkey once appropriate arrangements are in place with those countries. We are required to implement the Directive by 30th October 2006.

### **Who needs to know about the Regulations?**

Companies involved in the manufacture, installation and use of regulated gas and electricity meters, including energy suppliers, meter owners and asset managers who need to be familiar with the new approval requirements for meters. In addition organisations wishing to undertake conformity testing of meters will need to be familiar with the obligations on those bodies and the arrangements for applying to be designated Notified Bodies.

### **What will happen?**

Member States have the option to regulate any of the ten different instrument types covered by the Directive. Where instruments are not regulated they can be put into use without any certification or approval.

Within the UK all gas and electricity meters, when used for the purpose of ascertaining the quantity of gas or electricity supplied (i.e. for billing purposes) and excepting those gas meters where the anticipated supply to a consumer exceeds a maximum flow rate of 1600m<sup>3</sup>/hr (at stated standard conditions) and electricity meters where maximum anticipated load is above 100KWh/hr and read on an half hourly basis (i.e. broadly the current half hourly market) will be regulated under MID. Electricity meters exceeding the maximum anticipated load i.e. above 100KWh/hr will continue to be approved under national provisions by Ofgem through the MOU with NWML. National provisions are set out in Schedule 7 of the Electricity Act 1989. Meters that are outside the scope of the new Regulations will continue to be covered by Schedule 7 of the Electricity Act 1989.

Meters, which before 30 October 2006 satisfy existing national requirements or have been type approved in respect of EEC type approval, may be placed

on the market and put into use up to 30 October 2016 (or 10 years after the EEC type approval date). After 30 October 2006, gas and electricity meters which are subject to regulation but not already approved under previous national provisions, must comply with the requirements set out in the new Gas or Electricity Meter Regulations before being placed on the market or put into use.

Under the new provisions, manufacturers have a choice of conformity assessment procedures and may choose to submit their meters to any Notified Body designated within the EU. Reflecting the status quo, stand alone volume conversion devices will not be regulated in the UK, although the UK Non-Prescribed Measuring Instruments Regulations provides for UK based assessment of instruments for use in other Member States.

A list of bodies designated by them to carry out conformity testing i.e. Notified Bodies - and their authorisations is available on the Nando Information System of the European Union: <http://europa.eu.int/>. This list will be updated to include bodies designated under the MID.

The Directive also requires that national authorities carry out market surveillance. This will involve inspecting measuring instruments and related documentation to determine whether requirements of MID are fully met. Market surveillance and any enforcement powers will be undertaken in the UK for gas and electricity meters by Ofgem, supported by NWML under the MOU between the two government bodies.

### **How to apply to become a Notified Body**

Information and details of how to apply to be authorised to carry out conformity testing is available on the NWML web site: [www.nwml.gov.uk](http://www.nwml.gov.uk).

### **Where can I find out more**

Extensive information about the Measuring Instruments Directive and implementing legislation is available on the NWML website.

Over the coming months, Ofgem and NWML will, drawing on guidance from the European Commission, WELMEC and expertise from Ofgem and NWML, develop formal guidance which will be published on NWML's web site: [www.nwml.gov.uk](http://www.nwml.gov.uk). In the meantime, specific questions can be directed to either [gas.metering@nwml.gov.uk](mailto:gas.metering@nwml.gov.uk) or [electricity.metering@nwml.gov.uk](mailto:electricity.metering@nwml.gov.uk).