Consultation

Implementation of the Energy Efficiency Directive in Ireland

Department of Communications,
Energy & Natural Resources
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Executive Summary

This document aims to inform stakeholders including public sector organisations, energy suppliers, industry bodies, final energy users and other interested parties of the steps Ireland is considering in order to transpose and implement the Energy Efficiency Directive (2012/27/EU) (the Directive). The consultation focuses on the key articles of the Directive, which will have a substantive impact on energy efficiency in Ireland. This document does not definitively identify Ireland’s position in respect of these articles but is intended to stimulate input and comment on what is the best implementation strategy for Ireland.

The Directive translates elements of the European Efficiency Plan into binding measures on Member States, including an annual rate of renovation for central Government buildings of 3%; an inventory of central Government buildings with a total useful floor area over certain thresholds; an obligation on public bodies to procure products, services and buildings with high energy efficient performance; obligations on industry relating to energy audits and energy management systems and a common framework for national energy savings obligation schemes equivalent to annual energy savings of 1.5% of energy sales.

This consultation should be read in conjunction with the second National Energy Efficiency Action Plan (NEEAP II), which provides a more detailed explanation of specific policy actions that are mentioned in this document. The NEEAP II also provides more detail on the national 2020 energy efficiency target and its calculation methodology.

Energy efficiency gains achieved to the end of 2012 account for over 36% (11,350GWh) of the 2020 target. Estimated reductions in CO2 emissions of 2.3 million tonnes have also been achieved. Should all measures detailed in the NEEAP II be delivered on time and reach their full potential by 2020 it is estimated that energy savings totalling over 34,060GWh per annum will have been achieved, leading to a reduction in annual emissions of over 7.7 Mt CO2. This represents a potential reduction in energy spend across all sectors of approximately €2.4 billion (€2011) as a result of the savings. Clearly, successful implementation of the Directive is a key enabling milestone in this pathway.
Introduction

**EU Policy Context**

**Energy Services Directive**

The precursor to the Energy Efficiency Directive was the Energy Services Directive (ESD)\(^1\), which was the primary legislative vehicle through which EU energy efficiency policy was delivered. The ESD sought to promote end-use energy efficiency in EU Member States through support measures and the removal of institutional, financial and legal barriers. It encompasses Government, energy suppliers and final energy users, and was intended to increase the focus on cost-effective energy efficiency measures and the development of new activities in the energy services area.

Ireland transposed the ESD through the Energy End-Use Efficiency and Energy Services Regulations 2009 (S.I. 542 of 2009)\(^2\) which provided for national energy efficiency saving targets; energy services - including the availability of energy audits to final customers; the exemplary role of the public sector and the promotion of energy efficiency by energy suppliers.

**Combined Heat and Power (CHP) Directive**

The CHP Directive was transposed into Irish law by the Energy Miscellaneous Provisions Act, 2006 which replaced the definition of CHP as set out in Directive 2004/8/EC on the promotion of cogeneration based on useful heat demand in the internal energy market. It provides for the methodology on which various forms of CHP will be calculated and for the insertion of harmonized EU ‘efficiency reference values’ on which these calculations will be based. It also provides for the appointment of a body to calculate and certify power-to-heat ratios of specific CHP units.

\(^1\) Energy Services Directive (Directive 2006/32/EC)

The recast EPBD was adopted on 19 May 2010 and came into force on 8 July 2010 across the territories of the European Union. The recast EPBD repeals and replaces the original EPBD and requires that Ireland ensure that:

- building energy ratings are included in all advertisements for the sale or lease of buildings;
- inspections of heating and air-conditioning systems are introduced and advice to consumers on the optimal use of appliances, their operation and replacement, if necessary, is provided;
- energy performance certificates and inspection reports are of good quality, prepared by suitably qualified persons acting in an independent matter and are underpinned by a robust regime of verification;
- minimum energy performance requirements (within the national building code) are established for new buildings and for existing buildings undergoing major renovation in accordance with the comparative methodology framework for calculating cost-optimal levels of minimum energy performance requirements for buildings and building elements to be developed by the Commission (i.e. the cost-optimal procedure);
- the threshold (currently at 1,000 m²), at which minimum energy efficiency levels must be achieved when existing buildings undergo major renovation, be reduced (to 250 m²) on a phased basis;
- a national plan is developed to increase the number of low or nearly zero-energy buildings with the public sector leading by example.

**Objectives of the Energy Efficiency Directive**

The new Energy Efficiency Directive was formally adopted by the Council of Ministers and European Parliament in October 2012. This Directive establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union’s 20% headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond 2020. The Directive lays down rules designed to remove barriers in the energy market and overcome market failures that
impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets for 2020. The Directive translates elements of the European Efficiency Plan into binding measures on Member States, including the following:

- Setting indicative national energy efficiency targets for 2020 (article 3);
- 3% renovation of public buildings (article 5);
- Purchasing of high energy efficiency products, services and buildings by public bodies (article 6);
- Energy efficiency obligation schemes (article 7);
- Energy audits and energy management systems (article 8);
- Metering and informative billing (articles 9-11);
- Promotion of Combined Heat & Power (CHP) and District Heating & Cooling (DHC) (article 14);
- Efficiencies in energy transmission and distribution (article 15).

The Directive is a response to the Commission’s assessment that the Union is unlikely to achieve its energy efficiency target of 20% by 2020 based on the current policy mix. A review of each Member States’ progress towards the European 20% objective is scheduled to take place in 2014.

Ireland welcomes the Commission’s initiative to put in place measures that will assist the EU in achieving the energy efficiency savings under the 20:20:20 Climate Change targets. Energy efficiency is a priority domestic policy issue and we believe the current proposal strikes an appropriate level of ambition, though there will be some cost implications for certain sectors.

**Irish Policy Context**

*National Energy Efficiency Action Plan (NEEAP II)*

The second National Energy Efficiency Action Plan (NEEAP II) was published in late 2012, and contains 97 actions and measures that will contribute to meeting Ireland’s obligations under
the Energy Efficiency Directive, as well as the national energy saving target. This consultation should be read in conjunction with the NEEAP II, which provides a more detailed explanation of specific policy actions.

**Setting the target**

The NEEAP II re-affirms the commitment to deliver 20% energy savings in 2020, along with a public sector energy saving target of 33%. The national target equates to energy savings of 31,925GWh; the calculation of which was based upon the methodology outlined in Annex 1 of the Energy Services Directive (ESD).

**Progress to Date**

*ESD 9% by 2016 target*

The indicative ESD target is calculated in accordance with the methodology outlined in Annex 1 of Directive 2006/32/EC as 13,117GWh. Statutory Instrument 542 of 2009, which transposed the ESD, sets an interim (2010) indicative target of 5,000GWh. Savings achieved to the end of 2010 amounted to 4,815GWh representing a significant achievement, but fall just short of the target. The savings have been achieved across a broad range of energy users within the public, commercial, household, transport and agriculture sectors. Large emitters of greenhouse gases covered by the EU Emissions Trading Scheme (ETS), and aviation and marine bunker fuels are excluded. Projected savings to 2016 from measures detailed in the NEEAP II are expected to exceed the 2016 ESD target.

*National 20% target*

Energy efficiency gains achieved to the end of 2012 account for over 36% (11,360GWh) of the 2020 target. This level of savings represents a reduction in energy spend of approximately €470 million per annum. Estimated reductions in CO2 emissions of 2.3 million

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3 Target is expressed in primary energy equivalent (PEE) terms. The conversion from final energy consumption to primary energy equivalent is based on a standardised factor 2.5 for electricity (Annex II, Energy Services Directive). It accounts for the conversion losses in electricity generation and makes units of different energy streams more comparable.
4 NEEAP II
5 As defined in Directive 2003/87/EC.
tonnes have also been achieved. Should all measures detailed in the NEEAP II reach their full potential by 2020 it is estimated that energy savings totalling over 34,060GWh per annum will have been achieved, leading to a reduction in annual emissions of over 7.7 Mt CO2. This represents a potential reduction in energy spend across all sectors of approximately €2.4 billion (€2011) as a result of the savings.

Consultation Questions

0.1 Are there any international policy approaches that you think we could learn from to promote energy efficiency in Ireland?

0.2 Are there any other issues you consider relevant that are not covered in this paper?
Overview of Articles

Article 1 – Scope

Summary of Energy Efficiency Directive provisions

Article 1 of the Energy Efficiency Directive sets out in broad terms the scope of the obligation to establish common measures for the promotion of energy efficiency, to ensure the achievement of the 20% energy efficiency target by 2020, and to set the groundwork for further energy efficiency improvements beyond 2020.

This Article lays down rules designed to remove barriers in the energy market and overcome market failures that impeded efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets for 2020.

Current Policy Context

Many of the obligations laid down in the Energy Efficiency Directive are already being undertaken, or plans or underway for implementation, in Ireland. However, it is important to note that Member States are not precluded by the Directive from introducing measures that go beyond those envisaged in the EED. Therefore, this Department will continue with the voluntary policy measures outlined in NEEAP II, and may also add new measures dependent on the assessment of Ireland’s progress towards our 2020 target.

Timeline

There are no timelines associated with this Article.

Steps towards implementing the Directive

This will updated as part of the National Energy Efficiency Action Plan (NEEAP).
Article 2 – Definitions

Summary of Energy Efficiency Directive provisions

Article 2 of the Directive sets out 45 definitions, of which the following are key:

- Article 2 (2) ‘Primary energy consumption’
- Article 2 (3) ‘Final energy consumption’
- Article 2 (4) ‘energy efficiency’
- Article 2 (8) ‘public bodies’
- Article 2 (9) ‘Central Government’
- Article 2 (10) ‘Total useful floor area’
- Article 2 (11) ‘Energy management system’
- Article 2 (12) ‘European Standard’
- Article 2 (13) ‘International Standard’
- Article 2 (17) ‘Implementing public authority’
- Article 2 (18) ‘Policy measure’
- Article 2 (19) ‘individual actor’
- Article 2 (26) ‘small and medium-sized enterprises’
- Article 2 (28) EED introduces the definition of ‘smart metering system’.
- Article 2 (29) ‘transmission system operator’
- Article 2 (30) ‘cogeneration’
- Article 2 (31) ‘economically justifiable demand’
- Article 2 (32) ‘useful heat’
- Article 2 (34) ‘high-efficiency cogeneration’
- Article 2 (35) ‘overall efficiency’
- Article 2 (36) ‘power-to-heat ratio’
- Article 2 (37) ‘cogeneration unit’
- Article 2 (38) ‘small-scale cogeneration unit’
- Article 2 (39) ‘micro-cogeneration unit’
- Article 2 (40) ‘plot ratio’
- Article 2 (41) ‘efficient district heating and cooling’
- Article 2 (42) ‘efficiency heating and cooling’
- Article 2 (43) ‘efficient individual heating and cooling’
- Article 2 (44) ‘substantial refurbishment’

Timeline

These definitions will be transposed into Irish law no later than 5 June 2014, or earlier where required for implementation of specific provisions of the EED.
**Article 3 – Energy efficiency targets**

**Summary of Energy Efficiency Directive provisions**

This article requires each Member State to set an indicative national energy efficiency target by 30 April 2013, expressed in both primary and final energy savings. The Commission will assess the targets in 2014 as sufficient or not to reach the overall EU target, and will thereafter consider proposing a binding target.

**Current Policy Context**

Ireland set a 20% national energy efficiency target in the energy policy framework for the economy as a whole, with a separate 33% target for the public sector in order to act as an exemplar. This target was communicated to the EU Commission as part of the National Energy Efficiency Action Plan I and II. The Department considers it appropriate to retain this target, as it represents an ambitious but achievable goal.

**Timeline**

Member States were required to provide a report by 30 April 2013, with an annual update on progress towards the target. Ireland submitted its report by the deadline, and this is available to view on the Department’s website.

**Steps towards implementing the Directive**

No significant policy adjustments are anticipated in respect of this Article, and we do not propose to alter the current national targets. We will retain the ambition of the NEEAP, although adjustments will be required to the measures initially proposed to reflect:

a) Obligations required under other Articles in the Directive, and

b) Replacement measures for those that have not been as successful as anticipated.
Article 4 – Building renovation

Summary of Energy Efficiency Directive provisions

This Article requires a long-term investment strategy to mobilise investment in the renovation of the national stock of public and private buildings. The strategy has two key elements, the first of which is the identification of the potential scale for renovation through compilation of an overview of the national building stock, identification of the cost-effective approaches to renovation and estimation of expected energy savings. The second element is the identification of appropriate policies and measures that will encourage cost-effective deep renovation, including a forward-looking perspective to guide the investment decisions of individuals, the construction industry and financial institutions.

Current Policy Context

There have been a number of attempts to develop a robust categorisation of the national building stock in recent years. Homes for the 21st Century (1999) estimated the energy performance of the existing Irish housing stock through the use of a bespoke computer model. In 2002, the Department of Environment completed the Irish National Survey of Housing Quality, which gathered detailed information on the Irish Housing Stock based on a representative sample of 40,000 householders. More recently, the Tabula project\(^6\) established a residential building typology based on 30 typical house and apartment types.

In addition to the above, the Central Statistics Office (CSO) regularly collects the most statistically representative data on dwelling types. The 2011 CSO data has been analysed and complemented by the work of the Better Energy Financing project team, who have identified the energy saving and economic potential of the residential housing stock. Based on this data the team have been able to extract the following tables that show the relationship between the depth of retrofit that is possible in each class of tenancy:

### Mortgaged

<table>
<thead>
<tr>
<th>Tenancy (Units)</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Retired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Retrofit</td>
<td>308,791</td>
<td>33,827</td>
<td>13,114</td>
</tr>
<tr>
<td>Medium Retrofit</td>
<td>370,392</td>
<td>40,575</td>
<td>15,731</td>
</tr>
<tr>
<td>Shallow Retrofit</td>
<td>480,807</td>
<td>52,670</td>
<td>20,420</td>
</tr>
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</table>

### Owned

<table>
<thead>
<tr>
<th>Tenancy (Units)</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Retired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Retrofit</td>
<td>147,899</td>
<td>24,032</td>
<td>173,612</td>
</tr>
<tr>
<td>Medium Retrofit</td>
<td>177,404</td>
<td>28,826</td>
<td>208,247</td>
</tr>
<tr>
<td>Shallow Retrofit</td>
<td>230,289</td>
<td>37,420</td>
<td>270,326</td>
</tr>
</tbody>
</table>

### Rented

<table>
<thead>
<tr>
<th>Tenancy (Units)</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Retired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Retrofit</td>
<td>189,984</td>
<td>71,355</td>
<td>27,691</td>
</tr>
<tr>
<td>Medium Retrofit</td>
<td>227,884</td>
<td>85,590</td>
<td>33,215</td>
</tr>
<tr>
<td>Shallow Retrofit</td>
<td>295,818</td>
<td>111,105</td>
<td>43,117</td>
</tr>
</tbody>
</table>

### Totals

<table>
<thead>
<tr>
<th>Tenancy (Units)</th>
<th>Totals All types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Deep Retrofit</td>
<td>990,307</td>
</tr>
<tr>
<td>Medium Retrofit</td>
<td>1,187,864</td>
</tr>
<tr>
<td>Shallow Retrofit</td>
<td>1,541,971</td>
</tr>
</tbody>
</table>
The existing distribution of BERs within the National BER database (which includes over 300,000 BER records) and 2011 Census data on national household numbers was used to develop the model to estimate the likely distribution of BERs for the national housing stock. Three types of energy saving retrofit were then calculated to provide an energy saving value for a shallow retrofit (e.g. basic energy saving measures such as insulation, lighting etc.), a medium retrofit (more advanced) and deep retrofit (e.g. a full suite of energy saving measures, including all shallow measures and boiler replacement etc.).

Based on the typical energy savings calculated for each of these levels of retrofit an estimate of ability of the National Building Stock to absorb different depths of retrofit was made. The table shows the number of households in the state that are estimated as capable of taking the typical different levels of retrofit. Based on the present estimated BER ratings c990,000 properties could avail of a deep form of retrofit, whereas a far large number c1,500,000 could absorb at least a shallow form of retrofit.

It is anticipated that this work will form the basis of compliance with the residential strand of Article 4. However, it is worth noting that there is a clear overlap between the provisions of the Article and the Energy Performance of Buildings Directive, which sets out the requirement for Member States to establish the cost-optimal framework for future investment in energy efficient measures in existing buildings. Undoubtedly, this methodology will form the basis on which cost-effective approaches to renovations will be developed.

While the residential building stock has been analysed in some detail, the non-residential sector has remained relatively unexplored as an area of study. The 2008 Demand Side Management in Ireland: Evaluating the Energy Efficiency Opportunities study7 adopted a classification system which makes it difficult to use for the purposes of Article 4 compliance.

With this mind, the SEAI has recently awarded a tender to assess the economic potential of the non-residential sector. This information will become available in the middle of 2014 and will form the basis of Ireland’s investment strategy in this area. In the meantime, the SEAI and the DCENR will use the findings from non-residential BERs to estimate the energy and economic savings that could arise from non-residential buildings.

Timeline

A first version of the strategy needs to be published by 30 April 2014, with an update to follow every three years as part of the National Energy Efficiency Action Plan.

Steps towards implementing the Directive

While much of the residential data is available that will allow the timely development of a national renovation strategy, the same cannot be said for the non-residential sector. As a result, the Department will establish a project team comprising of relevant Departments, Agencies and stakeholders to oversee and assist in the drafting of the long-term strategy for mobilising investment in the renovation of the national stock.

Consultation Questions

4.1 How should the Department organise a response to this Article?
4.2 What are the key elements or information to include in this strategy?
4.3 What organisations (retrofit/financial) can participate in formulating this strategy
Article 5- Exemplary role of public bodies' buildings

Summary of Energy Efficiency Directive provisions

This Article sets a 3% annual renovation target for public buildings owned and occupied by central government from 2014 onwards. Central government buildings are required to undergo renovation to meet at least the national minimum energy performance requirements set in the application of Article 4 of the Energy Performance of Buildings Directive (EPBD).

Current Policy Context

NEEAP 2020

Ireland’s second National Energy Efficiency Action Plan to 2020 sets out ambitious actions across the public sector. The 2020 vision set out in the document can be stated as follows: “The public sector will improve its energy efficiency by 33% and will be seen to lead by example- showing all sectors what is possible through strong, committed actions.”

EPBD

The Energy Performance of Buildings Directive establishes requirements for Ireland to set minimum energy performance standards for buildings, which must be met when a public building undergoes major renovation. Under Article 12 of the EPBD, Member States are required to issue energy performance certificates for buildings occupied by a public authority and frequently visited by the public.

OPW Actions

The OPW has been running a very successful energy conservation campaign, entitled Optimising Power @ Work, since 2008. The campaign operates in approximately 275 large buildings managed by the OPW throughout the country. Energy consumption data recorded in every building by dedicated monitoring systems. The campaign primarily involves

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8 Central Government is defined in Annex 4 of Directive 2004/18/EC on the coordination of procurements for the award of public works contracts, public supply contracts and public service contracts.
intensively working with the staff in each building to effect behavioural change with regard to energy usage and eliminating energy wastage. Minor capital works are also carried out, where small investment leads to quick payback.

Average annual energy savings of over 18% have been achieved in the participating buildings, which equates to a cost saving of approximately €4.3M (€3.3M Net of Service Costs) per annum. The target is 20% savings in current programme;

Following a Government decision in December, the OPW has been tasked with expanding the existing programme into the wider public sector. Funding of €9M over 3 years has been provided from the Carbon Levy Fund. The new programme will initially target 500 large buildings from various Public Sector organisations. OPW will lead the campaign, however the service requirement will largely be outsourced to specialist private sector companies. The annual energy saving targets are: 8% in Year 1, 13% in Year 2 and 18% in Year 3.

Energy Efficiency Directive Requirements

- The establishment of an inventory of central government buildings that will include energy performance and any other relevant energy data;
- 3% renovation requirement for buildings owned and occupied by central governments from 1 January 2014; the 3% rate shall be calculated on the total useful floor area of buildings that are over 250m² (the scope is limited to 500m² until 9 July 2015);
- Renovation of central government buildings to meet at least the national minimum energy performance requirements set in the EPBD;
- Consideration of the building as a whole when doing a comprehensive renovation (envelope, equipment, operation, etc.).
- Addressing the buildings with the worst energy performance first; and
- Alternatively, taking measures in central government buildings, including deep renovations and behavioural changes, to achieve an equivalent amount of savings to the 3% approach, with a milestone in 2020 for verifying this equivalence;
- Consideration of the building as a whole when doing a comprehensive renovation (envelope, equipment, operation, etc.).

### Timeline

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory of eligible heated and/or cooled central government buildings</td>
<td>31 December 2013</td>
</tr>
<tr>
<td>For Member States opting for alternative approach instead of renovations, notification of alternative measures</td>
<td>31 December 2013</td>
</tr>
<tr>
<td>3% of total floor area of heated/cooled buildings owned and occupied by central government is renovated each year</td>
<td>1 January 2014</td>
</tr>
<tr>
<td>Threshold for buildings to be included in public sector renovations reduced to 250m² from 500m²</td>
<td>9 July 2015</td>
</tr>
</tbody>
</table>

### ‘Default’ or ‘Alternative’ Approach

Two approaches are available to Member States to meet the obligations of Article 5.

#### 1. Default Approach

Under the ‘default’ approach, the energy performance and surface of all buildings to which Article 5 applies will need to be listed in a publicly available inventory, excluding buildings exempted on the basis of Article 5(2). Each year, 3% of buildings, calculated on the total useful floor area, are to be renovated. In this regard, Member States are afforded a degree of flexibility:

- Article 5(3) allows a Member State that has renovated more than 3% of the total floor area of central government buildings in a given year to count the excess in any of the three previous or following years;
- Article 5 (4) allows a Member State to count towards the annual renovation rate of central government buildings:
• New buildings occupied and owned as replacement for specific central government buildings demolished in any of the two previous years; or
• Buildings that have been sold, demolished or taken out of use in any of the two previous years due to more intensive use of other buildings.

2. Alternative Approach
Under the ‘alternative’ approach, the 3% target can be calculated on the basis of appropriate standard values for energy consumption – expressed in kWh or other energy units – of identified reference central government buildings before and after renovation and according to estimates of the surface of the central government stock. The 3% saving target under the alternative approach is cumulative, meaning that Member States are required to achieve the sum of annual targets over the whole period between 2014 and 2020, irrespective of the savings achieved in each individual year during that period.

While an inventory is not mandatory under the alternative approach – standard values for the energy consumption of reference government buildings can be used instead – given the relatively small number and diverse uses of central government buildings, an inventory is considered a valuable addition to assist in preparing future policy interventions.

Steps towards implementing the Directive
To successfully implement Article 5 it is essential to develop a clear overview of the extent of the existing building stock owned and occupied by the central government so that the energy saving potential can be quantified.

Public Sector organisations will be responsible for providing the necessary information with regard their buildings to create the inventory of Central Government buildings and the energy performance of each building.

The following steps have been identified for implementation:
• Identify ‘central government’ buildings.
• Where relevant, identify new replacements for buildings no longer in use.
• Develop energy performance inventory of eligible buildings.
• Decide on Option A or B based on analysis of 3% renovation rate or equivalence approach.
• Alignment with long term investment strategy required under Article 4.

Consultation Questions

5.1 In your view, what approach should be adopted for the successful implementation of this Article, and why?
Article 6 – Purchasing by public bodies

Summary of Energy Efficiency Directive provisions

Article 6 of the Energy Efficiency Directive requires Member States to ensure that central governments purchase only products, services and buildings with high energy-efficiency performance. The Directive indicates what these items are and what level of performance they must meet by referring to criteria established under a number of EU legislative measures such as the Energy Labelling Directive 2010/30/EU and the Energy Performance of Buildings Directive (2010/31/EU). This obligation is subject to a number of conditions listed in Article 6(1) and applies only to contracts with a value equal to, or greater than, the thresholds laid down in Article 7 of the Public Procurement Directive (2004/18/EC).

Article 6 of the EED recognises that the choice public authorities make when purchasing products, services and buildings is an important policy instrument to promote energy efficiency and achieve energy savings. Article 6 and Annex III of the EED function as an instrument to establish requirements for the public sector to purchase high performing energy-efficiency products, services and buildings.

Current Policy Context

Public Procurement

Public procurement may be defined as the purchase of products, services, works or buildings by a public sector organisation or body. The procedural rules that govern public procurement are set out in Directives 2004/17/EC and 2004/18/EC. Goods and services should be contracted on the basis of most economically advantageous tender (MEAT). There is no binding obligation on public procurers to consider environmental characteristics.

Exemplary role of Government

The Government is committed to achieving energy efficiency improvements of 33% by 2020 in the public sector and, with this in mind, the National Energy Efficiency Action Plan states that when procuring buildings for purchase or rent, public authorities will only be allowed to consider buildings with a BER of no less than B3 from 1 January 2012, increasing to A3 from 1 January 2015. In addition, when purchasing relevant equipment or vehicles, public
authorities will be instructed to buy only products listed on the Sustainable Energy Authority of Ireland’s (“SEAI”) Triple E register of energy efficient products, or which satisfy the SEAI’s energy efficiency criteria for the product in question.

National Procurement Service (Office of Government Procurement)

The objective of the National Procurement Service is to ensure that the public service can efficiently and effectively access the best value goods and services in a legally compliant manner thus enabling the provision of superior public services. The NPS achieve its objectives through the following strategic activities: Integrating all Government policy issues (e.g. SME’s, environment, and sustainability) in public procurement practice. The NPS is responsible for operational procurement matters, whilst the National Public Procurement Policy Unit (NPPPU) retains responsibility for procurement policy.

The NPS manages the e-tenders procurement website which displays Irish public sector procurement opportunities. It provides for the online submission of tenders. The eTenders website has been designed to be a central facility for all public sector contracting authorities to advertise procurement opportunities and award notices.

Existing Energy Efficiency Public Procurement Regulations

The European Communities (Energy Efficiency Public Procurement) Regulations 2011, which update and amend S.I. 542/2009 on Energy End Use Efficiency and Energy Service, place an obligation on public bodies relating to the procurement of energy efficient products.

The SEAI maintains a public database of energy efficient products (the Triple E Product Register) which comply with published minimum energy efficiency criteria for a range of technologies commonly used in business, industry and the public sector. It is open to all manufacturers of relevant products to have their products included on the list, provided the product meets the published criteria.

Under these regulations, where a public body is planning to purchase products within a class of technology featured on the Triple E Product Register, they are obliged to specify in their
procurement documentation that they will only procure products named on the Register or products that deliver equivalent energy efficiency performance. There is an exemption in the case of a class of products where the public body is of the opinion that there are insufficient products to ensure a competitive procurement process.

Energy Efficiency Directive Requirements

The binding measures set out in Article 6 require Member States to purchase high energy efficiency products, services and buildings. The criteria that should be considered when determining the high energy efficiency of products and services is set out in Annex III of the Directive. The procurement items covered by laws referenced in Annex III of the EED are listed below.


The Energy Labelling Directive establishes a framework for the provision of labelling and other information to be provided for new energy-using products at the point of sale. The Directive aims to ensure that consumers are provided with comparable information relating to the amount of energy and other resources a product consumes during use. The implementation of the Energy Labelling Directive is linked to the Eco Design Directive (2009/125/EC): requirements and benchmarks defined for individual product groups under the Eco Design Directive.

The scope of this obligation is extended to energy-related products, which are likely to have a direct or indirect impact on the consumption of energy and potentially of other resources during use.

Market Surveillance is ongoing to ensure that the relevant products being made available on the market or put into service for the first time meet the requirements of Energy Labelling Directive. The Department of Communications, Energy and Natural Resources is the designated market surveillance authority for the EU Directive on Energy Labelling of Energy Related Products.
2. Energy Star Agreement

The European Energy Star Programme is a voluntary energy labelling programme for office equipment. The Energy Star logo helps consumers identify office equipment products that save energy and money. Manufacturers, assemblers, exporters, importers and retailers willing to place the Energy Star label on products meeting or exceeding energy-efficiency guidelines are invited to register with the European Commission (EC). In the European Union the Energy Star was first introduced by the EU Energy Star Regulation 106/2008.

3. Regulation on the labelling of tyres (1222/2009)

On 1st November 2012, the EU regulation on labelling of tyres became applicable. The label provides information on fuel efficiency, wet grip and external rolling noise through clear pictograms. The label will allow consumers to make informed choices when buying tyres, ranked on a scale from A (best) to G (bad).


When purchasing or making new rental agreements, Member States are required to comply with the minimum energy performance requirements set out under the EPBD. Article 9 (1) of the EPBD also requires Member States to ensure that –
- new buildings occupied and owned by public authorities after 31st December 2018 are nearly zero-energy buildings; and
- all new buildings are nearly zero-energy buildings by 31st December 2020.

<table>
<thead>
<tr>
<th>Timeline</th>
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<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>Central Governments to purchase high efficiency products, services and buildings.</td>
</tr>
</tbody>
</table>

Steps towards implementing the Directive

Article 6 of the EED does not introduce a new approach to EU rules on energy efficiency procurement, but merely extends the scope of the obligation to additional items. Therefore, it is necessary to be familiar with the existing body of mandatory EU rules in the
field of energy efficiency procurement. The following steps are foreseen in implementing Article 6:

- Integrate energy efficiency requirements into the general set of rules applicable to procurement by central government bodies, as set out in the Public Procurement Directive. The minimum energy efficiency requirements should be openly available and common and they aim at minimising the life-cycle cost of the items procured by central government bodies.

- Develop a methodology for analysis and costing of products and services listed under Article 6.

- Develop a transparent, evidence-based and structural approach which permits central government bodies to derogate from the obligation set out in Article 6 and Annex III of the EED.

Consultation Question
6.1 How can we further incorporate energy efficiency principles into public procurement?
Article 7– Energy efficiency obligation schemes

Summary of Energy Efficiency Directive provisions

Article 7 of the Energy Efficiency Directive obliges each Member States to create a scheme that will deliver savings of 1.5% of annual energy sales to final consumers. This may be done in one of two ways. Option A requires Member States to set up an energy efficiency obligation scheme which would apply to energy distributors and retail energy sales companies operating in each territory at a rate of 1.5% of the annual energy sales to final customers. Option B allows Member States to count savings from alternative measures towards the 1.5% target, including financing schemes, taxes and the creation of Energy Efficiency Funds. The alternative measures may include an obligation scheme, which would not be required to fulfil the whole of the 1.5% target.

Achievement of the Article 7 energy savings target will bring with it a broad range of benefits. These include the value of energy savings, greenhouse gas emissions reduction, alleviation of energy poverty, improved comfort and health, increased business competitiveness and security of supply, amongst others. The extent of these benefits will vary depending on both the mix of shallow versus deep measures installed as well as the mix of sectors in which they are delivered i.e. residential, public or commercial.

Current Policy Context

The substance of Article 7 mirrors that of the existing energy saving targets for energy suppliers’ programme, which operates on a three-year cycle (2011 – 2013). The programme runs on a voluntary basis, with 19 energy suppliers, spread across electricity, gas, solid fuels and oil importers currently signed up to voluntary energy saving agreements. Underpinning these agreements is the Energy Miscellaneous Provisions Act 2012, which provides for the Minister to impose energy saving targets on energy suppliers.

Operation of the existing programme is delegated by Order to the SEAI by the Minister. The SEAI maintain a list of approved measures and associated energy savings. The list currently comprises of 32 measures with more added on request (from energy suppliers or third
parties) by the SEAI. All new measures, and action undertaken by energy suppliers, are subject to appropriate monitoring, verification and audit.

After two years, 81% of anticipated energy savings have been achieved by energy suppliers.

### Timeline

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Notify the Commission if adopting alternative measures</td>
<td>5 December 2013</td>
</tr>
<tr>
<td>Energy savings period commences</td>
<td>1 January 2014 (to 31 December 2020)</td>
</tr>
<tr>
<td>Notify the Commission if discounting the target by 25%</td>
<td>5 June 2014</td>
</tr>
<tr>
<td>Transposition required</td>
<td>5 June 2014</td>
</tr>
</tbody>
</table>

### Energy Efficiency Directive Requirements

The European Commission sets out the necessary steps for implementing Article 7 as follows:

1. Establish the total quantity of energy savings that has to be achieved and its spread over the obligation period;
2. Establish which sectors and individual actions are to be targeted so that the required amount of energy savings is achieved;
3. Decide whether to use energy efficiency obligation schemes or alternative policy measures;
4. Establish how energy savings from individual actions are to be calculated; and
5. Ensure control, verification, monitoring and transparency of the scheme or alternative policy measures.
Steps towards implementing the Directive

Taking the above on board, the key decision point for Ireland is whether to adopt an obligation scheme or alternative measures. The energy saving target for Ireland has been calculated as equating to 1,462GWh, which can be discounted to 1097GWh under Article 7.1.aa provisions. As this target is nearly three times the size of the annual energy saving target set for 2013, the Minister believes that the scale of ambition would impose too great a challenge and cost burden on the energy supply industry at this point.

As a result, the Minister is proposing to adopt alternative measures and impose an annual 550GWh target on energy suppliers. The savings from this programme will be complemented by other measures in order to meet the 1,097GWh target. Progress towards the target will be monitored annually and subject to appropriate revision given emerging circumstances.

A full list of proposals in respect of Article 7 compliance is as follows:

1. To meet compliance with Article 7 of the Energy Efficiency Directive via alternative measures (Option B);
2. The transition from a voluntary energy savings scheme to an obligation scheme from 2014;
3. The operation of the scheme on three-year cycles (first being 2014 – 2016);
4. The imposition of an annual target of 550GWh on energy suppliers;
5. The imposition of a sectoral target of 30% to be delivered in the residential sector, of which a minimum of 33% must be in energy poor households or meet social concerns (such as hospitals, schools etc.) for those energy suppliers not active in the residential sector;
6. The obligation to fall on relevant electricity, gas, solid fuel and oil suppliers;
7. The obligation criteria to reflect existing criteria in order to encompass all energy suppliers currently covered by a voluntary agreement;
8. The intention to legislate to allow the Minister to amend the target and impose the conditions that are deemed necessary.
**Consultation Question**

7.1 Do you agree with the approach set out for implementation of this Article? If not, please outline which changes you would make, while ensuring that the 1.5% target will be met.
Article 8 - Energy audits and energy management systems

Summary of Energy Efficiency Directive provisions

The existing conditions of a building and the opportunities to save energy can be captured by an energy audit. Annex VI of the Energy Efficiency Directive (EED) sets out minimum criteria for energy audits. On the basis of Annex VI, national minimum criteria need to make clear that energy audits must be based on up-to-date data on energy consumption and comprise a detailed review of the energy consumption profile, building whenever possible on life-cycle cost analysis. Member States are required to produce high quality energy audits. High quality energy audits will produce a proportionate and sufficiently representative review of energy use, which will permit the drawing of a reliable picture of the overall energy performance of the organisation. They should also permit detailed calculations for the proposed measures. High quality energy audits may also require a distinction to be drawn between life-cycle analysis and Simple Payback Period.

The obligation set out in Article 8 will apply to all large enterprises in Ireland. Small and medium enterprises (SME’s) are not required to participate. Member States, however, are required to develop programmes to encourage SME’s to undergo energy audits.

Current Policy Context

Energy Services Directive

The obligation to ensure the availability of high quality energy audit schemes to all final customers, which are carried out in an independent manner, was established in Article 12 of the Energy Services Directive.


Article 11 of the EPBD imposes the obligation on Member States to establish a system of certification of the energy performance of buildings. BER assessments are currently used to make it possible for owners or tenants of a building to assess its energy performance. In recognition of the wider scope of energy audits under Article 8 of the EED, a BER assessment is not regarded as equivalent to an energy audit.
Article 17 of the EPBD establishes that Member States must ensure that the energy performance of buildings is carried out in an independent manner by qualified and/or accredited experts. Experts must be accredited taking into account their competence. Article 17 also requires that Member States make available to the public information on training and accreditations, and this information should be widely disseminated to all relevant market actors.

The SEAI and Energy Management
The SEAI currently sets the standards of training and qualification for energy auditors. In line with Article 16 of the Directive, if a Member State considers that the national level of technical competence, objectivity and reliability of qualification, accreditation and certification schemes is not sufficient, then it will be required to ensure that by 31 December 2014, certification and/or accreditation schemes and/or equivalent qualification schemes, are available for the providers of energy audits.

The SEAI encourages and supports businesses to engage in energy management. The SEAI is committed to the development and maintenance of robust energy management. It facilitates large industry in Ireland in a number of ways:

1. Large Industry Energy Network (LIEN)
As part of the LIEN, the SEAI plays a facilitative role to a group of large companies that work together to share knowledge and experience of energy management and keep up to date on the best practice and new technology.

2. Energy Agreement Programme (EAP)
The EAP is a subset of LIEN. The EAP supports large industries to implement energy management systems through the ISO 50001 standard.

3. Energy Information
The SEAI provides access to energy information and reports via its website. Services for SME’s are also provided through the SME support centre, which provides advice and training for SME’s that seek to reduce energy spend.

**Energy Efficiency Directive Requirements**

(a) Promote the availability of high quality energy audits to all final customers;

(b) Ensure mandatory and regular audits for large enterprises;

(c) Establish transparent and non-discriminatory minimum criteria for energy audits, based on Annex VI;

(d) Develop programmes to encourage SME’s to undergo energy audits and the implementation of recommendations;

(e) Establish in national legislation requirements for energy auditors, and for supervision by national authorities.

**Timeline**

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Independent authority to implement and supervise high quality energy audits.</td>
<td>Technically by 5 June 2014. Logistically, will need to be earlier.</td>
</tr>
<tr>
<td>Accreditation/ quality assurance scheme for energy auditors, together with training programme to ensure sufficient auditors.</td>
<td>From 5 June 2014</td>
</tr>
<tr>
<td>Establish transparent and non-discriminatory criteria for energy audits.</td>
<td>From 5 June 2014</td>
</tr>
<tr>
<td>Establish programme to assist SMEs in undergoing energy audits.</td>
<td>From 5 June 2014</td>
</tr>
<tr>
<td>Domestic focussed programme to raise awareness of benefits of energy advice.</td>
<td>From 5 June 2014</td>
</tr>
<tr>
<td>Requirement to ensure that non-SME’s carry out energy audits, unless Energy Management Systems are in place.</td>
<td>From 5 December 2015, and at least every four years thereafter.</td>
</tr>
</tbody>
</table>
Steps towards implementing the Directive

In the first instance a robust definition of “Audit” will be required in order set clear parameters around what constitutes and energy audit. In terms of energy management systems, an audit is carried out by a professional systems auditor against set criteria to ensure that the “management system” is robust. A technical audit would be different in identifying the saving potentials and measuring the value of potential upgrade projects. The value of a technical audit will depend on the availability of data, the time spent at site, and the expertise of the auditor.

SEAI schemes around SME mentoring and support are not audits as such. The practitioners mentor the client in the implementation of an energy management system, such as EnergyMAP. As a bonus, they also use their experience to help to identify quick wins for the client.

Qualification/Accreditation of auditors

1. Auditors of energy “Management systems” such ISO50001, are already accredited by a national body, such as INAB. Their skills are related to management systems and therefore fall outside the remit of this document.

2. “Technical Auditors” would need certain skills and experience in order to be permitted to audit for the purposes of this article. A sliding scale of skills and experience related to the ability to deliver differing levels of audit might be appropriate. A domestic auditor would have certain knowledge that might not automatically make them appropriate to audit a manufacturing facility, for example. The entry requirements and career progression of auditors would need careful consideration.

The next step is to identify the governance structure around which the provision of high-quality audits takes place. In order to ensure that audits are of sufficient quality, and by extension the auditors themselves, an appropriate governance structure will need to be
established that sets the criteria against which both audits and auditors are assessed, and if necessary, capable of appropriate sanctioning authority.

Consultation Questions

8.1 What (existing) schemes can be utilised?
8.2 What gaps exist in the existing ‘auditing framework’?
8.3 Should we have a central registration body? With a wide range of skills requirements and starting qualifications, is it prudent to try to centralise registration and management of energy auditors?
8.4 What might such a structure look like?
8.5 How would existing schemes be accounted for?
8.6 What would an application process include?
   a. Contact details.
   b. Sectoral Competence (e.g. Commercial, Process, Transport, Domestic, etc)
   c. Regional preference
   d. Summary Profile
   e. Qualifications
   f. Membership of Professional bodies
   g. BER Registration details
   h. Details of relevant experience (Outline of example projects)
   i. Agree to code of practice
   j. Tax clearance
   k. Insurance details
   l. Declaration
8.7 What should the minimum qualifications required for energy auditors be?
8.8 What, if any, should be the penalties for non-compliance/poor quality work?
Articles 9 to 11 - Metering, Billing, Cost of access to metering and billing information

Summary of Energy Efficiency Directive provisions

Articles 9 through 11, along with Annex VII, of the Energy Efficiency Directive set out obligations on Member States (MS) to provide final customers with meters that accurately reflect actual energy consumption and information on actual time of use. In addition to this, and in the context of the roll out of smart meters, MS are obliged to ensure the security of smart meters and data communication along with customer privacy. Access to historical consumption, allowing final customers to make available their energy consumption to designated third parties and the provision to consumers of energy costs in an understandable format, are also key requirements. Finally, the Directive provides that energy customers receive their billing information and consumption data free of charge.

Current Policy Context

NEEAP 2020

Ireland’s second National Energy Efficiency Action Plan to 2020 outlines that “we will encourage more energy-efficient behaviour by householders through the introduction of smart meters” (Action 73), which is being driven through the implementation of the National Smart Metering Programme (NSMP) by the Commission for Energy Regulation (CER) and other key stakeholders.

Third Package Directives

The 3rd Package (Directives 2009/72/EC and 2009/73/EC) contain provisions regarding intelligent metering systems, with the aim of better informing consumers of their consumption and helping to increase awareness of energy consumption. The implementation of those metering systems may be subject to an economic assessment of all the long-term costs and benefits to the market and the individual consumer, or of which form of intelligent metering is economically reasonable and cost-effective and which timeframe is feasible for their installation.

The overriding goal under the 3rd Package is that MS must ensure at least 80% of consumers have intelligent electricity metering systems by 2020. Moreover, the Directives provide that
final customers must be properly informed of actual electricity or gas consumption and costs at a regular frequency to enable them to regulate their own consumption. While the EED therefore does not require the roll-out of smart meters as such, it does clarify the type of information from metering and billing that should be provided to final customers.

National Smart Metering Programme (NSMP)

The CER Decision on the National Rollout of Electricity and Gas Smart Metering Paper (CER/12/008, 4 July 2012) outlines the decision by CER, after taking account of responses received to its consultation on smart metering, to proceed to the next phase of the National Smart Metering Programme with the indicative timelines indicated in the graphic below.

The CER decided to proceed in a manner which:

- Includes an In-home Display device that will give customers more real-time information on both their cost and usage of electricity and gas.
- Provides customers with Smart Bills, containing detailed consumption and cost information to help customers reduce energy costs.
- Involves suppliers offering Time-of-Use Pricing for all electricity consumers, facilitating a shift in electricity consumption to cheaper times of the day and giving customers the opportunity to make further savings.
- Provides prepayment services as standard with smart metering, i.e. energy customers will be able to conveniently switch between prepay and bill pay options to suit their needs.

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9 See [www.cer.ie](http://www.cer.ie) for more details of the Smart Metering Project
The CER Decision Paper published in July 2012 also includes decisions related to the design and functionality requirements of the national Smart Meter rollout, as well as the procurement model and high-level timelines involved.

Following on from this the CER published an Information Paper on the NSMP (CER/12/213, 17 December 2012). The key strategic objectives of the Programme are to:

- Encourage energy efficiency;
- Facilitate Peak Load Management (electricity only);
- Support Renewable Energy and Micro Generation (electricity only);
- Enhance competition and improve consumer experience; and
- Improve network services.

**Energy Efficiency Directive Requirements**

- Metering systems provide customers with information on actual time of use
- The security of smart meters, data communication and privacy of consumers is ensured
- Meters can account for the electricity exported to the grid from a consumer’s premises
- If a consumer requests, data of the electricity exported to the grid from a consumer’s premises may be provided?
- Appropriate advice and information be given to consumers at the time of installation
- Meters shall enable accurate billing information be given on actual consumption
• Consumers have possibility of easy access to complementary information on historical consumption, which includes:
  - Cumulative data for at least three previous years or since supply contract if this is shorter - data should correspond with frequency of consumer’s bills
  - Detailed data according to the time of use for any day, week, month and year made available via the intranet or the meter interface for at least the previous 24 months, or since the start of the supply contract if this is shorter
• Consumer should have access to their consumption data in an appropriate way and free of charge
• Member States shall take appropriate measures to promote and facilitate an efficient use of energy by small energy customers including domestic customers
• Member States shall lay down rules on penalties applicable in case of non-compliance

**Timeline**

<table>
<thead>
<tr>
<th>Action</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>Individual meters on end-users actual consumption and time of use.</td>
<td>31 December 2014 (if in the absence of full smart meter roll-out)</td>
</tr>
<tr>
<td>Individual consumption meters in multi-apartment/ multi-purpose buildings or heat cost allocators or alternative measurement methods (as appropriate)</td>
<td>31 December 2016</td>
</tr>
<tr>
<td>Billing information to be accurate and based on actual consumption (can be self-reading).</td>
<td>31 December 2014 (31 December 2016 for multi-apartment buildings)</td>
</tr>
<tr>
<td>Access to historical consumption data</td>
<td>31 December 2014</td>
</tr>
<tr>
<td>Consumption data provided free of charge to consumers.</td>
<td>5 June 2014 (where meters already in place), 31 December 2014,</td>
</tr>
</tbody>
</table>
Steps towards implementing the Directive

Ireland will meet a number of the obligations set out in the Directive through the delivery of the NSMP and particularly through a number of work streams currently underway looking at specific elements of the smart metering programme. The current timeline for the commencement of the rollout of smart meters is 2015, following the completion of the policy and technical design, procurement, build, test and implementation phases.

In a further step towards implementing the NSMP, the CER published a Consultation Paper over the summer on The Presentation of Energy Usage Information seeking views from interested parties (CER/13/164, 29 August 2013). The consultation paper builds on the July 2012 decision paper which identified three channels for the presentation of information and specifically, what information should be regulated to be provided on these channels. The three channels referred to are:

1. A Network provided In-Home Display (MIHD)
2. Smart Billing (SB), and
3. Customer Web Interface(s) (CWI)

The CER plans to make a decision on the design of the regulatory framework to support the presentation of energy information through the above channels by the end of this year.

The applicable rules on proportionate and dissuasive penalties for failure to comply with the provisions in articles 9-11 on metering and billing will be set out in the draft Regulations to transpose this Directive.

Consultation Questions

9.1 How do we ensure that provisions of Articles 9-11 are met in a manner that maximises consumer protection, while also ensuring energy efficiency is considered?

9.2 How should heat costs be allocated in multi-apartment buildings?
| 9.3 | How should we proceed with the requirement to install heat or hot water meters where heating and cooling or hot water are supplied to a building from a district heating network or other central source? |
Article 13 – Penalties

Summary of Energy Efficiency Directive provisions

Under Article 13, Member States are required to establish penalties that will be applicable in the case of non-compliance with national legislation adopted in transposing the EED. The penalties provided must be effective, proportionate and dissuasive and shall be notified to the Commission by 5 June 2014.

Timeline

The provisions for penalties will be notified to the Commission by 5 June 2014, as part of the transposition of the Directive.

Steps for implementing the Directive

Specific provisions will need to be put in place for non-compliance with Articles 7 to 11 and Article 18(3), which will be contingent on the method selected for implementation. For Article 7, it is likely that penalties will be broadly similar to those in place under the Energy Miscellaneous Provisions Act, 2012\(^{10}\). Penalties for the remaining Articles will be decided in the context of existing legislation and the findings of this consultation document.

\(^{10}\) Energy Miscellaneous Provisions Act, 2012 (Act 3 of 2012)
Article 14 – Promotion of efficiency in heating and cooling


Member States are required to identify the potential for high-efficiency cogeneration and efficient district heating and cooling and to analyse the costs and benefits of the opportunities that may exist. If there is a cost-effective potential, Member States are then required to take measures to ensure these are developed.

Current Policy Context

HECHP and Priority Dispatch

Article 16 of the 2009 Renewable Energy Directive states that priority is to be given to electricity generated from renewable sources. Article 15 of the Energy Efficiency Directive provides that without prejudice to the Renewable Energy Directive that electricity from High Efficiency CHP (HECHP) be guaranteed transmission and distribution and be granted priority access and dispatch.

Current CHP and District Heating Policies

The Energy Whitepaper of 2007 set a target of 800MW of CHP by 2020 and by the end of 2011 the installed capacity was 326MW. The principal supports for CHP at present are feed-in tariffs for exported electricity from certified biomass HECHP, accelerated capital allowance for qualifying equipment and a carbon tax rebate for HECHP. The CHP Deployment Programme was opened in 2007 and ran until 2010. It was closed due to budgetary constraints.
Since 2009, the Commission for Energy Regulation is responsible for calculating power and heat ratios and certifying if an electricity plant qualifies as HECHP. Where plants are certified as being high efficiency, the electricity is given priority dispatch to the transmission system.

District Heating
Fifty four per cent of Ireland’s heating demand is met through oil, pointing to a need to diversify our fuel sources. However, district heating has had very limited levels of development in Ireland for a range of reasons including our population dispersal patterns, the relatively low penetration of energy intensive industrial processes, the nature of our housing stock, the temperate climate and, compared to other countries where it is developed, Ireland has low levels of forestry. The availability of natural gas also makes the economics of district heating more difficult.

Additionally, given the recession and the low levels of construction, there are limited opportunities to incorporate district heating at the development stage of projects. As a result, networks would have to be retrofitted – a much more expensive exercise, the cost of which must be borne by the end users.

Energy Efficiency Directive Requirements
- By 31 December 2015, Ireland must carry out a comprehensive assessment incorporating a cost benefit analysis of the national potential for the application of HECHP and efficient district heating and cooling and notify the European Commission. This assessment is also to describe the demand for heat and cooling and how the demand will change in the next ten years. This assessment is to be based on a country-wide cost-benefit analysis.
- Ireland must also identify the strategies that may be adopted to 2020 and 2030 in order to realise the potential for HECHP to meet demand, to develop district heating to accommodate the development of HECHP and the use of heating and cooling from waste heat and renewable energy sources. The strategies may also encourage the use of waste heat from electricity and industrial plants to be connected to district heating.
• Should the comprehensive assessment identify an excess of benefits over costs Ireland must take adequate measures for the development of efficient district heating and cooling infrastructure and/or to accommodate the development of HECHP and the use of heating and cooling from waste heat and renewable energy sources. The Directive stipulates that any support for CHP must be predicated on the efficient production of electricity and the waste heat being effectively used.

• Ireland must also adopt policies in relation to local and regional levels that encourage taking into account the potential of using efficient heating and cooling systems, including the potential the development of local and regional heat markets.

• From June 2014, Ireland must adopt authorisation or permit criteria and procedures to require installation-level cost benefit analyses for: operators of thermal electricity generation installations, industrial installations and district heating and cooling installations on the use of HECHP and/or the utilisation of waste heat and/or connection to a district heating and cooling network when they plan to build or refurbish capacities above 20 MW thermal input or when they plan a new district heating and cooling network. Installations may be exempted from the requirement to conduct a cost-benefit analysis (CBA), in the event that the CBA conducted as part of the comprehensive assessment does not show an excess of benefits over costs.

• The procedures and criteria must also lay out any conditions for exemption from this obligation to prepare a cost-benefit analysis. In an Irish context, this particularly affects those peak load plants and back-up installations which are planned to be operational fewer than 1,500 hours per annum. Thresholds for exemption may be applied to individual industrial installations and district heating and cooling installations that, due to the amount of available useful heat or the demand for heat or the distances between the industrial installations and district heating networks, cannot reasonably use cogeneration or recover waste heat.

• Ensure the origin of electricity from HECHP can be guaranteed (Guarantee of Origin (GOO)).
### Timeline

<table>
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<tr>
<th>Action</th>
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<tbody>
<tr>
<td>Exemptions re installation CBA notified to Commission</td>
<td>31 December 2013</td>
</tr>
<tr>
<td>Policies re local and regional consideration of HECHP and DH</td>
<td></td>
</tr>
<tr>
<td>Installation level CBAs to be conducted – new and refurbished</td>
<td>Post 5 June 2014</td>
</tr>
<tr>
<td>Comprehensive Assessment of HECHP and efficient district heating potential conducted and notified to Commission</td>
<td>31 December 2015</td>
</tr>
<tr>
<td>Adequate measures in place to promote development of HECHP and efficient DH&amp;C</td>
<td>Post Comprehensive Assessment</td>
</tr>
<tr>
<td>Authorisation Criteria including exemptions</td>
<td>5 June 2014/or after completion of comprehensive assessment</td>
</tr>
</tbody>
</table>

### Steps towards implementing the Directive

The first step in implementing Article 14 is the development of the comprehensive assessment, which is already underway. The comprehensive assessment will be a significant challenge and must address the following:

- Heating and cooling demand and how it will evolve over 10 years and what could be met through HECHP (and microgeneration and district heating)
- Create a heat map identifying supply and demand (including district heating)
- Identify additional HECHP and efficient district heating
- Identify and define strategies to 2020 and 2030
- Quantify benefits and Costs (CBA) based on Annex IX

The implementation will require oversight on a cross-agency basis, with input from the Department of Environment, Community and Local Government, the SEAI, the CER, Eirgrid,
and the CSO. It is anticipated that further consultation may be undertaken at a later date, dependent upon the findings of the comprehensive assessment.

Consultation Questions

14.1 Are you aware of any datasets that may assist in developing the comprehensive assessment for CHP/DHC potentials?

14.2 Without prejudice to the outcome of the comprehensive assessment on the potential for HECHP and efficient district heating, in your view what are the main technical, economic, regulatory or other barriers to the development of these technologies in Ireland?

14.3 What exemptions should be considered under Article 14 (6)?
Article 15 – Energy transformation, transmission and distribution

Summary of Energy Efficiency Directive provisions

Article 15 sets out a number of requirements intended to promote efficiency in the transformation, transmission and distribution of energy and to remove incentives in transmission and distribution tariffs that are detrimental to the overall efficiency (including energy efficiency) of network infrastructure. It also provides that, without prejudice to Article 16 of the Renewable Energy Directive (2009/28/EC), electricity from high efficiency CHP be guaranteed transmission and distribution and be granted priority access and dispatch.

The Energy Efficiency Directive and the Internal Energy Market package (the Third Energy Package) both aim to support an efficient electricity and gas network and contributing to improved security of supply. The EED however contains new requirements on energy efficiency criteria for energy network regulation and tariffs, demand response and energy efficiency in network design and operation of the gas and electricity infrastructure. It also outlines the new requirements that are included in the legislation and the new roles and duties of Member States, national regulatory authorities (NRAs) and operators.

Current Policy Context

Internal Energy Market Package/ Third Package Directives

The Third Energy Package, agreed in 2009, aimed to fully implement the EU Internal Energy Market. The objectives of the internal energy market are the achievement of better outcomes for EU citizens through contributing to economic growth, jobs, secure energy at affordable prices, and sustainability in energy use. The Third Energy Package and the associated network codes must be implemented in letter and in spirit, possibly requiring market reforms. Secondly public interventions in markets must well-organised and only provide support necessary for the functioning of the system to allow for open and fair competition in a coordinated, cost-efficient and effective manner. Thirdly consumers must be empowered to have a more prominent place in energy policy and to this end consumers require real choice, accurate consumption and billing information in tandem with market transparency.
Priority Access and Dispatch for HE CHP

Current legislation provides that CER is required to ensure that the system operator gives priority access to generating stations using high efficiency combined heat and power”. CER must also require that the system operator gives priority access to generating stations using renewable, sustainable or alternative energy sources when selecting generating stations.

Energy Efficiency Directive Requirements

In the operation and design of the gas and electricity infrastructure:

- National regulatory authorities pay due regard to energy efficiency in carrying out the regulatory tasks specified in Directives 2009/72/EC and 2009/73/EC;
- National regulatory authorities, within the framework of Directive 2009/72/EC and taking into account the costs and benefits of each measure, provide incentives for grid operators to improve energy efficiency;
- Rules relating to the ranking of the different access and dispatch priorities granted in their electricity systems are clearly explained and published;
- An assessment and improvement of energy efficiency in the design and operation of the gas and electricity infrastructure is undertaken;

As regards network tariffs and regulation:

- Incentives in transmission and distribution tariffs that are detrimental to the overall efficiency (including energy efficiency) of the electricity system or those that might hamper participation of demand response in balancing markets and ancillary services procurement are removed;
- Network regulation and tariffs fulfil the energy efficiency criteria in Annex XI, taking into account guidelines and codes developed pursuant to Regulation (EC) No 714/2009;

Concerning demand response:

- National regulatory authorities encourage demand side resources, such as demand response, to participate alongside supply in wholesale and retail markets;
• High-efficiency cogeneration operators can offer balancing services and other operational services, where technically and economically feasible and subject to the safety and reliability requirements of the grid; and
• Transmission system operators and distribution systems operators, in meeting requirements for balancing and ancillary services, treat demand response providers, including aggregators, in a non-discriminatory manner; this is subject to technical constraints inherent in managing networks.

Timeline

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Regulatory authorities to pay due regard to energy efficiency under the IEM. Incentives for grid operators to make system services available to network user (to be determined by the system operator)</td>
<td>By 30 June 2015</td>
</tr>
<tr>
<td>Energy efficiency criteria for network regulation</td>
<td></td>
</tr>
<tr>
<td>Assessment of energy efficiency potential of gas and electricity infrastructure (with timetable for introduction) including identifying measures and investment for improving efficiencies</td>
<td>By 30 June 2015</td>
</tr>
<tr>
<td>Removal of incentives detrimental to energy efficiency across Generation, Transmission, Distribution and Supply chain, and incentives for network operators improving energy efficiency networks.</td>
<td>5 June 2015</td>
</tr>
<tr>
<td>Competent national authorities to, without prejudice to RED and subject to Internal Market in Electricity, Member States shall (a) guarantee transmission and distribution of HE CHP, and (b) priority or guaranteed access to grid from HE CHP.</td>
<td></td>
</tr>
<tr>
<td>Publication of rules relating to ranking of access and priority or guaranteed access to grid from HE CHP.</td>
<td>By 5 June 2015</td>
</tr>
</tbody>
</table>
Subject to certain requirements HECHP may offer balancing services at level of TSO or DSO. TSO and DSO may be required to encourage CHP to areas of demand

Regulators to encourage demand side resources to participate alongside wholesale/retail

Steps towards implementing the Directive
The Department will engage with the CER and Eirgrid on how best to give effect to the provisions of Article 15, some of which are already in legislation. This will include the following actions:

- Agree on makeup of implementation oversight group
- Examine the interaction between the EED and other Directives (e.g. priority dispatch)
- Decide which of the discretionary provisions should be pursued in the Irish context
- Agree on sequencing of events and deadlines

Consultation Questions

15.1 While Article 15 is primarily a matter for the TSO and DSO to implement, do you have any observations to make on its implementation at this stage?
Article 16 – Availability of qualification, accreditation and certification schemes

Summary of Energy Efficiency Directive provisions

Article 16 of the Energy Efficiency Directive on availability of qualification, accreditation and certification schemes requires in the first instance an assessment of the energy services market under the following criteria: technical competence; objectivity; and reliability.

The terms of the Directive apply to the following providers of the following:

- Energy services\(^{11}\) (Article 18 also refers)
- Energy Audits
- Energy Managers
- Installers of energy related building elements\(^{12}\) as defined in Article 2(9) of Directive 2010/31/EU\(^ {13}\) and NSAI Agrément certification.

There are currently no mechanisms in place for qualification, accreditation and certification of large sections of the market. An initial attempt at capturing these service providers can be found at Annex II. This will need to be added to over time and may need to include reference to specific installers or technologies to ensure that the requirement to include installers under the EPBD definition of building elements is satisfied.

It is also required that any scheme(s) meet the following criteria:

a) Are transparent for consumers
b) Are reliable
c) Contribute to national energy efficiency objectives
d) Are publically available

\(^{11}\) ‘energy service’ means the physical benefit, utility or good derived from a combination of energy with energy-efficient technology or with action, which may include the operations, maintenance and control necessary to deliver the service, which is delivered on the basis of a contract and in normal circumstances has proven to result in verifiable and measurable or estimable energy efficiency improvement or primary energy savings;

\(^{12}\) NSAI Agrément certification is designed specifically for new building materials, products and processes that do not yet have a long history of use and for which published national standards do not yet exist. NSAI Agrément assesses, specifies testing, and where appropriate, issues Agrément certificates for such products;

\(^{13}\) ‘building element’ means a technical building system or an element of the building envelope;
e) May have recognition with schemes in other Member States

In addition to the provisions of Article 16, there is also an obligation under Article 18 to promote the energy services market by making publically available and regularly updating a list of available energy service providers\(^{14}\), or by providing an interface where energy service providers can provide this information.

Current Policy Context

There are training programmes on energy efficiency and installation of energy efficiency products available from Fás/Solas and various universities and IT’s, along with private sector training providers accredited by a variety of national and international bodies.

The Build Up Skills Initiative Ireland (BUSI) estimates the current size of the workforce employed in energy-related construction work at approximately 60,000 across all technologies and with varying levels of training.

It should be acknowledged from the outset that DCENR is unlikely to be in a position to provide funding for up-skilling and support for either training or registration bodies would need to be sourced externally or met from existing (limited) resources. The focus of Government in this regard will be in canvassing industry to identify where skills gaps exist, to evaluate what quality assurance mechanisms can be put in place and to facilitate integration with existing Government policies, schemes and legislation.

The following are examples of existing standards which are considered to be sufficient to meet the requirements of the Directive:

\(^{14}\) where an energy service provider is a natural or a legal person who delivers energy services or other energy efficiency improvement measures in a final customer’s facility or premises.
**Building Energy Rating (BER) System**

In the residential sector, the Building Energy Rating (BER) register represents a well-established accreditation system for domestic energy auditors, which is managed by the SEAI. Non-domestic BERs are also available.

A BER is a rating based upon the building fabric and building services in a building for typical occupancy patterns (to allow for objective comparison at time of purchase) with the outcome indicated in terms of energy consumption per unit area and also on a scale from A-G with A1 being the most efficient. There are currently 823 registered domestic energy assessors and a further 177 registered non-domestic assessors. The National Administration System or NAS currently holds 377,425 domestic published BERs and just over 15,404 non-domestic published BERs.

In order to become a BER Assessor, potential assessors must have a National Certificate Level 6 in construction studies or equivalent. After successful completion of a recognised BER course from a listed BER Training Provider, with a minimum 70% pass mark, the potential assessor is eligible to apply for inclusion on the BER register, provided that they have the required insurance policies, has a valid tax clearance certificate, accepted the Code of Practice, along with a number of other criteria.

**Energy Management Systems**

The Irish Energy Management Systems Standard, EN 16001:2009 (“Energy Management Systems – Requirements with Guidance for Use”) was developed by an Energy Task Force established by the National Standards Authority of Ireland (NSAI) and comprises experts from Government, national agencies and industry. It describes the principles and methodologies to be applied in order to ensure that energy management becomes integrated into organisational business structures.

Its overall aim is to put in place systems and processes to provide significant energy usage reductions resulting in an associated decline in costs and greenhouse gas emissions
achievable through the systematic management of energy. The standard is consistent with the ISO 9001 and ISO 14001 management systems presently adopted throughout Irish industry.

The technical principles of EN 16001 are critical to the successful implementation of the standard and in delivering desired energy savings. Because of this, a technical guideline was developed by a working group comprising representatives from SEI, INAB, the certification bodies and industry (IS 393 TG). It identifies technical stages and processes of an energy management system and provides a range of possible methodologies and approaches which could satisfy the requirements of the standard and ensure an effective energy management system that delivers energy usage reductions.

A Management Systems certification body must be able to demonstrate its competence to assess and certify an energy management system that conforms to EN 16001 and the associated technical guideline.

INAB accredits certification bodies to the international standard, ISO 17021 on demonstration of their competence to carry out energy management system conformity assessments related to products, processes, systems or people. INAB publishes a Schedule of Accreditation for each accredited certification body which specifies industry sector codes within which the body has demonstrated its competence.

### Timeline

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<tr>
<th>Action</th>
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<tbody>
<tr>
<td>Accreditation/qualification schemes and/or training</td>
<td>By 31 December 2014</td>
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<tr>
<td>Training programmes for providers of energy services, energy audits, energy managers and installers of energy-related building elements.</td>
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### Steps towards implementing the Directive

In order to establish whether the existing structures are sufficient, a first step for all member states is to identify all existing schemes related to qualification, accreditation and
certification of the competences of those involved with energy systems. The characteristics of the existing schemes should be examined and evaluated. Annex I of the DCENR Scoping paper provides a template for tracking the existence and quality of such schemes (See Appendix B for SEAI additions).

This section of the public consultation aims to catalogue the existing schemes, and to identify what the relevant actors consider to be appropriate mechanisms and level of oversight for new training and certification schemes for energy services. It is also an opportunity to define how a future system might best serve the needs of the energy industry and to recognise the importance of human capital in delivering on energy efficiency goals.

Proposed options for implementation

There will need to be a high degree of flexibility in approached taken, given the variances in available certification or training schemes for different market segments. The options outlined below describe varying levels of Government and industry ownership, and it is likely that a combination of these models will need to be put in place to ensure that all market sectors are appropriately regulated.

Option 1- Accreditation by the market for all groups

Under scenario 1, the standards used to determine whether or not qualification schemes and training bodies are suitable would be set by industry bodies. The industry bodies remit could include the following: quality assurance, validating training bodies and qualification schemes, monitoring and evaluating the quality of these bodies and schemes.

This option would use not only existing qualification and training standards; it would encourage industry to introduce rigorous training and qualification requirements to tackle proficiency gaps. Industry has in depth knowledge of the kinds of core competencies that are required to ensure high standard and may be aware of the areas where stricter standards should apply.
Certain areas of the energy services industry already have standards in place to a level that does not require significant further intervention from Government, for example, the Energy Management Systems Standard described above may be a suitable candidate for this model.

Under Option 1, the following administrative requirements will need to be taken into account:

<table>
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<th>Option 1- Accreditation by the market</th>
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<tr>
<td>Legislation</td>
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<tr>
<td>Cost</td>
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<tr>
<td>Promotion/Marketing</td>
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<tr>
<td>Oversight</td>
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**Option 2 - Training and Register maintained by industry groups**

Under this scenario, the SEAI would be charged with the responsibility of setting the standards for the accreditation process. The SEAI currently acts as a reliable authority for the quality of training and qualifications required to meet minimum standards for a number of market segments. Implementing reliable standards could be done more effectively by building on the fundamental requirements that the SEAI currently has in place. In addition, the SEAI would be required to produce qualification standards for those energy service suppliers not captured by existing requirements.

The accreditation process developed by the SEAI has long served as the primary vehicle for assuring and improving the quality of the installation of energy efficiency improvements.
under the grant schemes. To be accredited to the scheme, the SEAI requires that installers are qualified and certified installers in each technology that they are registered in. The SEAI could further develop accreditation standards in accordance with international standards, while also working in conjunction with domestic industry groups.

Under Option 2, the following administrative requirements will need to be taken into account:

<table>
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<tr>
<th>Option 2 - Training and Register maintained by industry groups</th>
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<tr>
<td><strong>Legislation</strong></td>
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<td><strong>Cost</strong></td>
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<tr>
<td><strong>Promotion/Marketing</strong></td>
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<tr>
<td><strong>Oversight</strong></td>
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</table>

**Option 3 - Training and Register maintained by the SEAI**

Under this option, the SEAI would be charged with the responsibility of setting the standards for the accreditation process. The accreditation process would consist of a mandatory register of the various actors involved in energy services. To be eligible for registration, energy service providers would have to meet national minimum standards of education and training. Only those energy service providers whose names are on the register will be permitted to provide energy services. A mandatory register would allow for the removal of energy service providers who are deemed to fall below specified standards.

This is the most labour intensive option and would require significant resources to develop both the training schemes, and to ensure the quality assurance of the register once it is
This option is not deliverable in the short term and it is likely that it would need to be mixed with Options 1 or 2 for specific market segments that are already operating to a sufficient standard.

<table>
<thead>
<tr>
<th>Option 3 - Training and Register maintained by the SEAI</th>
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<tbody>
<tr>
<td><strong>Legislation</strong></td>
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<tr>
<td><strong>Cost</strong></td>
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<tr>
<td><strong>Promotion/Marketing</strong></td>
</tr>
<tr>
<td><strong>Oversight</strong></td>
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</table>

**Consultation Question**

16.1 What schemes currently exist for the training and qualification of those involved within the various sectors? Please complete the Annex III template. You may wish to consider including information on schemes in any or all of the following sectors:
   a. Designers (Engineers, Architects, Specifiers) as it relates to energy
   b. Auditors and regulators
   c. Construction workers (Mechanical, Electrical, Domestic, Building fabric, Utilities, etc.) as it relates to energy products or services
   d. Suppliers of energy products or systems
   e. Energy Managers / Utility managers
Articles 12, 17 to 20 – Information and training, Energy Services, Other measures to promote energy efficiency, Energy Efficiency National Fund, Financing and Technical Support

Summary of Energy Efficiency Directive provisions

Articles 12, 17 through 20, along with Annex XIII, of the Energy Efficiency Directive set out obligations on Member States to inter alia facilitate efficient energy use by small and domestic energy customers; provide information and training on the benefits of energy efficiency; improve access for SMEs to the energy services market; support the proper functioning of the energy services market including addressing any regulatory and non-regulatory barriers; deliver an appropriate energy performance contracting market model and to establish financing facilities to stimulate energy efficiency improvement measures in different sectors.

Current Policy Context

NEEAP 2020

Ireland’s second National Energy Efficiency Action Plan to 2020 contains a number of actions (Actions 87, 88) related to the development of a national Energy Performance Contracting (EPC) process to finance energy efficiency measures in the commercial and public sectors.

We are also focused on providing access to the necessary supports for the SME sector to participate and achieve savings from energy management investment (Action 67). Moreover, we are well advanced with our work to deliver an on-bill financing model for Ireland to replace existing Exchequer supports for domestic energy efficiency upgrade measures.

National Energy Services Framework

The development of a national energy performance contracting policy framework has long been an objective of the DCENR, as such a mechanism is recommended in the Energy Services Directive and forms a central element of the recently adopted Energy Efficiency Directive. The DCENR believes that the creation of a national framework will underpin and assist in stimulating retrofit activity and investment into the energy efficiency sector and in
so doing deliver operational savings within the public sector while stimulating jobs and growth.

The Framework will provide, for public sector and commercial organisations, a standard and structured approach, supported with a suite of tools including comprehensive guidance documents, templates, model contracts, monitoring and verification requirements to support the efficient procurement and delivery of energy efficiency projects on the ground. The provision of such a standard approach will provide confidence, build the knowledge base and reduce transaction costs while building capacity in the market.

Energy Efficiency Fund
Work on a suitable vehicle for the non-domestic sector is well advanced with the Department expecting to be in a position to launch an Energy Efficiency Fund, seeded with €35 million from the Exchequer, and an Energy Performance Contracting Policy Framework in Q4 2013.

The Energy Efficiency Fund will be established with the aim of providing finance to energy efficiency projects in the public and private sectors. The aim is to attract matching funding from the private sector, such that the overall amount available for investment is ultimately greater than €70 million.

Better Energy Programme
The Programme for Government includes a commitment to move away from a grants-based system of encouraging the uptake of energy efficiency in residential buildings to a more financially sustainable and market based approach. In order to develop suitably robust proposals the Department has mobilised a team of seconded experts from industry to assist in the design of the scheme.

Existing SEAI Supports
Currently the SEAI offers a range of business supports that provide advice and training for businesses that are looking to reduce their energy spend and improve their
competitiveness. These range from the Advice and Mentoring programme to energy management training for SMEs, through their Energy Agreements Programme and networking (Large Energy Industry Network) for large energy users.\textsuperscript{15}

In relation to the Public Sector, there are a suite of supports in place for public organisations to avail of from their Partnership Agreements, tailored training and advice, energy management to monitoring and reporting tools to assist the public sector in meeting our 33% energy reduction target by 2020.\textsuperscript{16}

**Energy Efficiency Directive Requirements**

- Measures to promote and facilitate efficiency energy use by small and domestic energy customers, including behavioural change, shall be adopted and may include:
  - Fiscal incentives, access to finance or grants
  - Accessible information
  - Exemplary projects and workplace activities
- Information on available energy efficiency mechanisms should be transparent and made available to all relevant market actors.
- Market operators shall provide adequate and targeted information and advice to consumers on energy efficiency.
- Citizens should be provided with information and training on the benefits of undertaking energy efficiency improvement measures.
- Measures to promote the energy services market and access for SMEs shall include:
  - Publicising clear and accessible information on available energy service contracts which guarantee energy savings and consumer rights
  - Publishing and maintaining a list of available and suitably qualified energy service providers

\textsuperscript{15} See more at: [http://www.seai.ie/Your_Business](http://www.seai.ie/Your_Business)

\textsuperscript{16} See more at: [www.seai.ie/Your_Business/Public_Sector](www.seai.ie/Your_Business/Public_Sector)
- Supporting the public sector to take up energy services especially for building retrofit which should include the provision of model contracts for energy performance contracting, and
- A regular review of the current and future development of the energy services market

- To support the proper functioning of the energy services market it will be necessary to publicise relevant and accessible information to support the take-up of energy efficiency projects; take action to remove regulatory and non-regulatory barriers to the delivery of energy performance contracting and the possible establishment of an independent mechanism to resolve complaints and disputes that might arise in the market.

- Regarding barriers to energy efficiency among the key ones to be addressed include the so-called split of incentives between the owner and the tenant of a building and the associated costs and benefits of undertaking improvement measures.

- To support and facilitate energy efficient investments by public bodies it may be necessary to review and adapt annual budgeting and public purchasing practices particularly as it relates to energy performance contracting and utilising third-party financing mechanisms.

- With respect to financing facilities among the measures encouraged are the establishment of an Energy Efficiency Fund and/or the use of revenues under the Emissions Trading Scheme (ETS) to support national energy efficiency initiatives. The option to make contributions to the Energy Efficiency Fund in lieu of obligations required under articles 5(1) and 7(1) is permitted as appropriate.

Steps towards implementing the Directive
We will meet a number of the obligations set out in the ‘horizontal provisions’ of the directive by virtue of delivering our policy objectives in relation to the National Energy Services Framework, Energy Efficiency Fund and Better Energy Programme.

Better Energy Financing
The Department is working to transform the way in which energy efficiency upgrades are funded with the aim of making participation even more affordable for householders. The National Energy Efficiency Action Plan and the Programme for Government include a commitment to roll out a Better Energy Financing (also known as Pay-As-You-Save) retrofit scheme for domestic buildings. The Better Energy Financing (BEF) model proposes that the current suite of Exchequer-funded grants for energy efficiency measures would be replaced by a new financing scheme open to householders.

The Department has put in place a project team to design the new retrofit financing scheme under the direction of a Project Board representing key State and industry stakeholders17. The design of the scheme is currently being developed but early findings suggest that there is a clear need for additional sources of financing in order to realise the significant economic and job prospects that a successful energy efficiency programme could deliver. A public consultation process was undertaken during August. On foot of the outcome of this consultation and the recommendations of the Project Board, the Minister will have to decide on the options for the future design of the BEF programme.

Energy Efficiency Fund and Policy Framework

The Fund will be managed by an independent fund manager and operate on a fully commercial basis. The Fund is intended to increase deal flow and reduce transaction costs in the sector. These together are aimed at speeding up the rate of activity in retrofit. The call for Expressions of Interest (EoI) for the appointment of the Fund manager was advertised in August 2013 and it is expected that a preferred bidder will be selected in October.

The Fund will be underpinned by the National Energy Services Framework as well as the provision of technical support to potential energy efficiency projects in the public and commercial sectors. The aim of the Framework is to develop projects that are investment-ready for financing entities (such as the Energy Efficiency Fund). This will stimulate the

17 See www.betterenergyfinancing.ie for more details
development of an Energy Services Company (ESCO) market, thereby supporting sustainable employment in construction and professional services.

In order to ‘road test’ the principles underlining the Framework, a diverse mix of over twenty exemplar energy projects from the public and private sectors were selected and are underway which will provide demonstration value for mass market replication elsewhere in the economy.

Concerning the provision of information on available energy efficiency mechanisms that is widely disseminated, along with requirements to provide a regularly updated list of qualified energy service providers, the Department will consider and decide on the most appropriate means to meeting these obligations in conjunction with our policy response for article 16 of the directive.

Finally, in relation to the ‘split incentives’ issue (sometimes referred to as the ‘landlord-tenant’ issue) as set out in article 19, the Department is open to suggestions received through this consultation on appropriate measures to consider in order to remove regulatory and non-regulatory barriers to incentivise the undertaking of energy efficient investments.

The applicable rules on proportionate and dissuasive penalties for failure to comply with the provisions in article 18(3) on activities that may impede the demand for and delivery of energy services will be set out in the draft Regulations to transpose this Directive.

**Consultation Questions**

17.1 What do you feel would be the best/a better mechanism for disseminating information on available energy efficiency mechanism to market actors should be?

17.2 What in your view is the most appropriate way for local and regional authorities to promote awareness and information to citizens about energy efficiency improvement measures?
17.3 In addition to the policy initiatives already underway, what other mechanisms should be explored to better promote participation by, and access for, SMEs in the energy services market?

17.4 Have you any proposals to make on the split of incentives between the owner and the tenant of a building with a view to encouraging energy efficiency improvement measures especially in multi-owner properties?

17.5 Have you any proposals on how to attract and facilitate appropriate financing mechanisms to increase energy efficient investment and stimulate multiple streams of financing in different sectors?
### Consultation Questions

<table>
<thead>
<tr>
<th>Question No.</th>
<th>Article Reference</th>
<th>Consultation Question</th>
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<tbody>
<tr>
<td><strong>0.1</strong></td>
<td>General</td>
<td>Are there any international policy approaches that you think we could learn from to promote energy efficiency in Ireland?</td>
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<tr>
<td><strong>4.1</strong></td>
<td>Article 4</td>
<td>How should the Department organise a response to this Article?</td>
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<tr>
<td><strong>4.2</strong></td>
<td>Article 4</td>
<td>What are the key elements or information to include in this strategy?</td>
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<td><strong>4.3</strong></td>
<td>Article 4</td>
<td>What organisations (retrofit/financial) can participate in formulating this strategy?</td>
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<tr>
<td><strong>5.1</strong></td>
<td>Article 5</td>
<td>In your view, what approach should be adopted for the successful implementation of this Article, and why?</td>
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<tr>
<td><strong>6.1</strong></td>
<td>Article 6</td>
<td>How can we further incorporate energy efficiency principles into public procurement?</td>
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<tr>
<td><strong>7.1</strong></td>
<td>Article 7</td>
<td>Do you agree with the approach set out for implementation of this Article? If not, please outline which changes you would make, while ensuring that the 1.5% target will be met.</td>
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<tr>
<td><strong>8.1</strong></td>
<td>Article 8</td>
<td>What (existing) schemes can be utilised?</td>
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<td><strong>8.2</strong></td>
<td>Article 8</td>
<td>What gaps exist in the existing ‘auditing framework’?</td>
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<tr>
<td><strong>8.3</strong></td>
<td>Article 8</td>
<td>Should we have a central registration body? With a wide range of skills requirements and starting qualifications, is it prudent to try to centralise registration and management of energy auditors?</td>
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<td><strong>8.4</strong></td>
<td>Article 8</td>
<td>What might such a structure look like?</td>
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<td><strong>8.5</strong></td>
<td>Article 8</td>
<td>How would existing schemes be accounted for?</td>
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<td><strong>8.6</strong></td>
<td>Article 8</td>
<td>What would an application process include?</td>
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<td>a. Contact details.</td>
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<td>b. Sectoral Competence (e.g. Commercial, Process, Transport, Domestic, etc)</td>
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<td>c. Regional preference</td>
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<td>d. Summary Profile</td>
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<td>e. Qualifications</td>
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<td>f. Membership of Professional bodies</td>
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<td>g. BER Registration details</td>
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<td>h. Details of relevant experience (Outline of example projects)</td>
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<td>i. Agree to code of practice</td>
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<tr>
<td><strong>8.7</strong></td>
<td>Article 8</td>
<td>What should be the minimum qualifications required</td>
</tr>
<tr>
<td></td>
<td>Article</td>
<td>Question</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>8.8</td>
<td>Article 8</td>
<td>What, if any, should be the penalties for non-compliance/poor quality work?</td>
</tr>
<tr>
<td>9.1</td>
<td>Article</td>
<td>How do we ensure that provisions of Articles 9-11 are met in a manner that meets consumer protection, while also ensuring energy efficiency is considered?</td>
</tr>
<tr>
<td>9.2</td>
<td>Article</td>
<td>How should heat costs be allocated in multi-apartment buildings?</td>
</tr>
<tr>
<td>9.3</td>
<td>Article</td>
<td>How should we proceed with the requirement to install heat or hot water meters where heating and cooling or hot water are supplied to a building from a district heating network or other central source?</td>
</tr>
<tr>
<td>14.1</td>
<td>Article 14</td>
<td>Are you aware of any datasets that may assist in developing the comprehensive assessment for CHP/DHC potentials?</td>
</tr>
<tr>
<td>14.2</td>
<td>Article 14</td>
<td>Without prejudice to the outcome of the comprehensive assessment on the potential for HECHP and efficient district heating, in your view what are the main technical, economic, regulatory or other barriers to the development of these technologies in Ireland?</td>
</tr>
<tr>
<td>14.3</td>
<td>Article 14</td>
<td>What exemptions should be considered under Article 14 (6)?</td>
</tr>
<tr>
<td>15.1</td>
<td>Article 15</td>
<td>While Article 15 is primarily a matter for the TSO and DSO to implement, do you have any observations to make on its implementation at this stage?</td>
</tr>
</tbody>
</table>
| 16.1 | Article 16 | What schemes currently exist for the training and qualification of those involved within the various sectors? Please refer to Annex III to complete the template. You may wish to consider including information on schemes in any or all of the following sectors:  
  a. Designers (Engineers, Architects, Specifiers) as it relates to energy  
  b. Auditors and regulators  
  c. Construction workers (Mechanical, Electrical, Domestic, Building fabric, Utilities, etc.) as it relates to energy products or services  
  d. Suppliers of energy products or systems  
  e. Energy Managers / Utility managers |
| 17.1 | Article 17 | What do you feel would be the best/a better mechanism for disseminating information on available energy efficiency mechanism to market actors should be? |
| 17.2 | Article 17 | What in your view would be the most appropriate way
for local and regional authorities to promote awareness and information to citizens about energy efficiency improvement measures?

<table>
<thead>
<tr>
<th>Article</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.3</td>
<td>Article 18</td>
</tr>
<tr>
<td>17.4</td>
<td>Article 19</td>
</tr>
<tr>
<td>17.5</td>
<td>Article 20</td>
</tr>
<tr>
<td>0.2</td>
<td>General</td>
</tr>
</tbody>
</table>
Responses to Consultation

The Department invites comments on this consultation paper from interested parties to be submitted by close of business on Wednesday, 13 November 2013. Comments should be sent, preferably in electronic format to:

Email: energy.efficiency@dcenr.gov.ie

Post: Claire Collins
EED Consultation
Energy Efficiency and Affordability Division
Department of Communications, Energy and Natural Resources
29-31 Adelaide Road
Dublin 2

Contact: 01-6783211

Note: The Department intends to publish all comments received – those respondents who wish for certain section of their submission to remain confidential should submit the relevant sections in an Appendix marked confidential.

Next Steps

The Department will have a draft of the transposing regulations prepared by March 2014, and it is intended there will be a brief consultation period along with a Regulatory Impact Assessment (RIA) at that time. Both these documents will take account of the content of this document and the responses to the queries raised therein.

We may invite some respondents to provide clarity on any points raised no later than the end of December 2013. However, it should be noted that the Directive is a legal obligation and it will not be possible to amend any of the measures that are required of Ireland. Therefore, any comments should focus on the method for implementation of each provision of the Directive.
## Annex I- Key Reporting Requirements and Dates

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>By 30 April 2013</td>
<td>Notify indicative national energy efficiency target.</td>
</tr>
<tr>
<td>Annually from 30 April</td>
<td>Report on Progress towards target</td>
</tr>
<tr>
<td>5 December 2013</td>
<td>If we plan not to use an energy efficiency obligation as specified in the EED, notify the alternative approach.</td>
</tr>
<tr>
<td>5 December 2013</td>
<td>Notify their method for calculating energy savings under their energy efficiency obligation or alternative.</td>
</tr>
<tr>
<td>1 January 2014</td>
<td>If we plan to achieve energy savings in central government buildings by a method other than renovation, notify the alternative approach.</td>
</tr>
<tr>
<td>31 December 2013</td>
<td>Notify any exemptions to the rule that new/refurbished power generation and industrial installations that should be subject to a cost-benefit analysis.</td>
</tr>
<tr>
<td>5 June 2014</td>
<td>Comply with most of the requirement of the Directive; notify transposition.</td>
</tr>
<tr>
<td>3-yearly from 30 April</td>
<td>Submit National Energy Efficient Action Plans.</td>
</tr>
<tr>
<td>3-yearly from 30 April</td>
<td>Notify, then update, long-term strategy for renovation of national building stock.</td>
</tr>
<tr>
<td>Annually from 30 April</td>
<td>Submit statistical data on cogeneration and district heating.</td>
</tr>
<tr>
<td>Annually from 5 June</td>
<td>Publish the energy savings obtained under the energy efficiency obligation or alternative.</td>
</tr>
<tr>
<td>31 December 2014</td>
<td>Arrange for energy billing information that is accurate and based on actual consumption.</td>
</tr>
<tr>
<td>1 January 2015</td>
<td>Where needed, ensure that certification, accreditation or qualification schemes for energy service contractors, auditors, etc are available.</td>
</tr>
<tr>
<td>30 June 2015</td>
<td>Assess the energy efficiency potential of gas and electricity infrastructure and identify measures to improve energy efficiency.</td>
</tr>
<tr>
<td>31 December 2015</td>
<td>Notify their assessment of the potential for district heating and cogeneration; put in place adequate measures to develop this potential.</td>
</tr>
</tbody>
</table>
Annex II – Article 16 Detail of existing schemes

**Accreditation, Training and Certification of Energy Service Providers**

<table>
<thead>
<tr>
<th>Application</th>
<th>Assessment of Current Status</th>
<th>Certification/Accreditation/Qualification Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)Technical Competence</td>
<td>(b)Objectivity</td>
</tr>
<tr>
<td>1. Energy Services Provider</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>EPC Framework (no qualification in place)</td>
<td>(Report to IMPVP Standards?)</td>
<td>Required for each declared ESCO to report on staff qualifications.</td>
</tr>
<tr>
<td>2. Energy Auditors</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>BER (Residential)</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>BER (Non-Residential)</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Non-BER Audits?</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3. Energy Managers</td>
<td>ISO 50001</td>
<td>Y</td>
</tr>
<tr>
<td>Other sub-qualifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Residential</td>
<td>Not applicable?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Annex III – Article 16 Template for information on existing schemes

**Accreditation, Training and Certification of Energy Service Providers**

<table>
<thead>
<tr>
<th>Scheme Name</th>
<th>Sector</th>
<th>Administrative Organisation</th>
<th>Number of records</th>
<th>Annual Throughput</th>
<th>Legislative reference</th>
<th>General Description</th>
<th>Accreditation Process</th>
<th>Oversight responsibility</th>
<th>Marketing / Promotion activities</th>
<th>Website</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
