Forfás Observations on DCENR Consultation on Energy Demand Reduction Target

1. Introduction

Forfás welcomes the opportunity to comment on this consultation paper and is in strong support of the goals set out in the paper.

Energy efficiency is one of the most effective tools to jointly address cost competitiveness, security of supply and environmental sustainability objectives. In the second half of 2008, Irish industrial electricity costs were the fourth highest in the EU-27 and were 35.5 percent above the Eurozone average (latest data available). At a global level, improving energy efficiency can account for a quarter of the required global CO2 emissions reduction and represents the most economical method of meeting this target[1]. It can also support the achievement of important social goals such as the reduction of fuel poverty.

Forfás welcomes the overarching goal of the Energy Demand Reduction Target (EDRT) to involve energy companies in achieving an overall demand reduction target via energy efficiency improvements and energy services. As set out in consultation paper, Forfás concurs that the energy companies are well placed to assist consumers to improve their energy performance as is the case in many other European countries.

2. Key points

This submission focuses on the competitiveness of Ireland's enterprise base and the potential to support the development of green employment in Ireland.

1. The energy demand reduction target can provide a new and direct channel between energy providers and customers. Forfás welcomes the potential to achieve further efficiency savings for households and firms, which may otherwise not be realised due to clear market failures. Energy efficiency continues to face barriers including lack of access to capital for energy efficiency investments, insufficient information, principal-agent problems and external costs that are not reflected in energy prices. Potential may exist to provide new sources of funding which may supersede Exchequer funding.

2. However, given our poor performance in terms of industrial electricity prices, we believe that a continued focus by the State is required to support Irish industry to become more efficient. Sustainable Energy Ireland initiatives, aimed at large energy users have been particularly successful and have resulted in significant cost savings for business. In 2007, it took less than half the amount of energy to generate a euro of value added than it did in 1990[2]. As energy prices have increased over the past decade, these improvements in energy efficiency have been critical to sustaining competitiveness. However, the take up of programmes by SMEs has been relatively low. In tandem with an energy demand reduction

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1 IEA, 2008, Energy Technology Perspectives; IEA, 2007, World Energy Outlook.

2 This is due to structural changes in the economy such as the closure of energy intensive businesses as well as improvements in energy efficiency. SEI, Energy in Ireland 1990-2007, December 2008.

programme, supports and technical advice that improve performance (rather than awareness) of industry should continue to be State-funded.

3. ELIGIBLE SECTORS: While the EDRT should be open to business – particularly small businesses, we believe that the focus of such schemes should be targeted primarily at the residential sector and where feasible the transport sector. Reducing peak demand can result in significant cost saving for all energy customers including industrial customers. In addition, given that the European Commission is seeking a minimum of a 20 percent cut in domestic (non-ETS) emissions for Ireland by 2020 (likely to move towards 30% if an international agreement is reached in Copenhagen in December 2009) and that a range of measures are in place to reduce industry emissions (EU ETS, IS-393, likely carbon tax).

    - There is significant potential for the proposed EDRT to be applied to the residential sector (10 percent of total GHG emissions in 2007, 15% of non-ETS emissions), where households are put off by transactions costs, high up-front financial costs, lack of information about potential savings and information asymmetries, and high discount rates for future streams of savings in energy expenditure.
    - The transport sector accounted for 21 percent of Ireland's total greenhouse gas (GHG) emissions in 2007, and 30 percent of Ireland's non-ETS emissions in the same year. Emissions from the transport sector have tripled since 1990.
    - The NEEAP target for public sector of 33% is very ambitious. It is striking that only 140GWh of the targeted 3,240 GWh is currently identified with specific actions. To achieve this ambitious target by 2020, the target needs to be translated into a concrete plan for implementation across the public sector. Targets for the public sector should be achieved with the existing budget of government department and agencies.

4. SCHEME FINANCING: Adequate financing is essential if the energy demand reduction scheme is to achieve wide scale up-take. The consultation paper sets out a range of options:

    - A percentage of the programme providers' turnover/revenue streams
    - Final customers (e.g. in the form of a general levy/kWh charge on all customers or individual bill-based repayment options based on the energy service provided to a particular address)
    - Third-party contribution (e.g. energy service providers, energy saving product retailers, local authorities etc.)
    - Funds made available by the Exchequer

Assessing the optimum funding mechanism or mix of funding streams is difficult in the absence of detailed cost benefit data. However, we would make a number of high level points:

- In general, final customers (residential, business, public or transport) should bear the costs which are related to the long term benefits they will garner from improving their energy efficiency. Many studies identify the positive long term return on investment from expenditures on energy efficiency measures. Potential exists for customers and energy providers to agree to share these gains and costs over time – i.e. energy providers may take some of the up-front costs and share in the efficiency savings over time.
- Given the number of residential units in Ireland, it may make sense from an administrative perspective to spread some basic EDRT costs (e.g. general awareness) over all residential customers. It is notable that the existence of a fixed monthly electricity/ gas charge already weakens the link between energy demand and

electricity supplier revenues. Potential exists to incorporate difficult to allocate EDRT costs into the standing charge.

- However, Forfás urges caution in the case of passing through large unallocated costs to firms given our very high industrial energy costs and the potential to damage cost competitiveness and employment further.

Given the very limited scope for any additional Exchequer funding at present and the already high industrial energy costs facing firms in Ireland, it may be advisable to introduce the EDRT as a voluntary agreement. This approach has worked very effectively for large energy users under the IS-393 programme where best international practice in energy efficiency has become the norm across much of Ireland's manufacturing base due to greater awareness of the cost savings to be realised.

While Forfás supports the option of an initial introduction of an EDRT on a voluntary basis, the following points are also relevant:

- If a levy fund is chosen with the costs to be passed through to final customers, it would be important that the charge on each sector should approximate the distance to target in terms of specific sectors achieving the goals set out in the NEEAP and the EU Climate Change Package.

- Forfás would welcome the exclusion of small energy companies from the parameters of the proposed EDRT – this derogation makes sense from a compliance costs perspective.

- The benefits and costs of white certificates require careful consideration.

5. GREEN ECONOMY JOBS[3]: The High Level Group on Green Enterprise, supported by Forfás, will be reporting to government in the near future. The Groups' report will outline the significant potential of firms who produce goods and services that support energy efficiency to create added value and employment. Based on Forfás/ ITI research, we believe that opportunities exist in the following areas:

- Eco-construction: Eco-construction involves using smart design and integrating technologies within new and existing buildings for the purposes of minimising energy loss and maximising energy efficiency and use of ambient energy sources. This sector has grown significantly over the past decade as new technologies for increasing building efficiency have been developed and stricter building regulations have been introduced. Forecasted investment levels to 2020 in retrofitting buildings to comply with Building Energy Rating (BER) standards in Ireland could be worth up to €25 billion. Given that the compliance burden of reducing greenhouse gas emissions from the built environment will be applied across the EU, relevant companies with scale will have internationalising opportunities.

- A number of companies based in Ireland are already providing products for the construction sector which increase building efficiency such as thermal heat insulation products and building integrated systems (including solar panels, geothermal and air heat pumps, under-

3 Section 2.1 'The Imperative for Energy Efficiency' It would be worth broadening the point to note that, in addition to reducing dependence on imported fossil fuels, better energy efficiency supports the competitiveness of existing businesses, and the development of 'green economy' employment.

floor heating systems, etc.) which facilitate the more efficient and sustainable use of energy in buildings.

- Given the size of the construction sector in Ireland and the adjustment that has been taking place in recent times, resulting in many unemployed construction workers, there is substantial opportunity to train/up skill workers in this sector so that they are qualified to work in eco-construction practices and techniques.

- Energy management/ efficiency services: Measuring and managing resource efficiency requires a combination of ICT hardware (e.g. sensor technologies) and software, areas of existing strength in Ireland. In energy, it is estimated that the integration of ICT could lead to €600 billion in global energy cost savings, providing significant new revenue streams for energy users and ICT service providers4.

- Rising energy costs and full roll-out of the Business Energy Rating /Energy Performance Certificate (EPC) system are expected to make this sector an area of potential high growth. Services such as the design and supply of energy saving systems for buildings across all sectors and BER/EPC verification, inspection and monitoring of buildings during construction are areas of opportunity.

- The application of energy management/ efficiency services can also improve the competitiveness of existing firms. It is notable that the multinational companies that have participated in the certified energy management schemes (e.g. IS-393) operated by SEI have been able to improve their energy efficiency significantly and are now advising other facilities within their parent companies on how to reduce energy consumption5.

We believe that these areas offer significant potential for job creation:

- A report on the construction sector estimates that meeting the energy-efficiency requirements of the residential sector could generate approximately €600 million in output per year as well as 7,000 sustainable jobs, if we are to meet the 2007 building energy efficiency regulations6.

- A forthcoming report by the Institute for International and European Affairs indicates that a national energy-efficiency retrofit programme in Ireland, to bring the entire dwelling stock up to a C1 BER, would create 23,000 – 32,000 direct new green jobs in the construction sector. The higher employment figure relates to the more ambitious programme detailed in the IIEA report, with an annual investment in retrofits of between €1 and €1.5 billion7

We support the introduction of an energy demand reduction programme. However, we believe that its rollout needs to be closely linked to other initiatives, if it is to achieve its potential. These include:

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[4] The Climate Group on behalf of the Global eSustainability Initiative (GeSI), Smart 2020: Enabling the Low Carbon Economy in the Information Age, 2008

[5] Targets have been set for 2010 including: 20% of Heat used from Renewable sources; 20% of the Electricity from renewable sources; and 40% more energy efficient within selected buildings.

[6] DKM (2009). *Economic Importance of Engineers in Ireland,* DKM: Dublin.

[7] IIEA (2009). *Greenprint for a national energy efficiency retrofit programme: jobs, growth and reduced energy costs*. IIEA: Dublin.

- Setting stricter building standards and codes with the ultimate aim of reaching passive energy houses and zero-energy buildings;

- Ensuring that training initiatives are in place to enable people to work in firms that provide energy efficiency goods and services;

- An ambitious plan to roll out smart meters; and,

- Implementing green public procurement.

3. Conclusion:

We would like to reiterate our support for the goals set out in this consultation paper and hope that the points made in this short submission are useful. Please do not hesitate to contact us if you require further detail on these points or other matters.