

Sub-section 4.2.3 of the National Renewable Energy Action Plan (NREAP) template

Micro Electricity Generation Association Of Ireland (MEGA)

NREAP CONSULTATION PROCESS

Submission To Department Of Communications Energy and Natural
Resources

**Consultation by the Department of Communications, Energy &
Natural Resources on sub-section 4.2.3 of the NREAP template**

Submission, as requested by DCENR,
Submitted by email to Una Dixon at NREAP@dcenr.gov.ie

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NOTE:

Please note that all comments put forward by the Micro Electricity Generation Association Of Ireland (MEGA) are designed to be constructive and to re-inforce the current policy-forming framework which is developing the final text for Ireland's National Renewable Energy Action Plan, NREAP.

The MEGA Methodology: In this consultation process MEGA will concentrate on specific areas where MEGA members have real experience and expertise. MEGA will first quote text from the sub-section. This will help to pinpoint the issue. Second, MEGA will make a submission below in this regard. This will be followed by a proposed text change. MEGA recognises that plans, once made, generally require some amendment during implementation and arising out of new knowledge but credibility is at the core of international collaboration, in this regard. Therefore, our NREAP must not only be detailed and comprehensive – it must also be credible and amenable to assessment. Ireland's NREAP will sit together with the NREAPS (Renewable Energy Action Plans) of every single other country in the EU, available to the public and once published – final. It is of extreme importance that Ireland presents itself in this context as an intelligent, smart, forward-looking and business-like country. MEGA submission, therefore, are designed, in this context, to help achieve these ends.

Summary Of Changes Requested By MEGA – Item 1 of 2

ITEM 1 – Quote from Sub-section 4.2.3.

“**Part L of the Second Schedule of the Building Regulations 1997-2008** sets out the requirements regarding conservation of fuel and energy in buildings. ..In relation to Dwellings, Part L 3(b) requires that “**a reasonable proportion** of the energy consumption to meet the energy performance of the dwellings is provided by renewable energy sources”.

ITEM 1 MEGA PROPOSES: The following additional text.

“In light of the need to increase renewable energy integration into buildings SEAI is in place and reviewing appropriate new systems to compensate users of renewable energy systems for the external costs displaced by some form of cashback system which makes the investment in such systems affordable while reducing Ireland’s dependence on imported fossil fuels.”

Summary Of Changes Requested By MEGA – Item 2 of 2

ITEM 2 – Quote from Sub-section 4.2.3.

(i) How are energy efficient renewable energy technologies in buildings promoted?

ITEM 2 MEGA PROPOSES: The following additional text as the first item in (i).

“In light of the need to increase renewable energy integration into buildings SEAI is in place and reviewing appropriate new systems to compensate users of renewable energy systems for the external costs displaced by some form of cashback system which makes the investment in such systems affordable while reducing Ireland’s dependence on imported fossil fuels.”

MEGA Submission with reasoned argument – 2 items

ITEM 1 – Quote from Sub-section 4.2.3.

“**Part L of the Second Schedule of the Building Regulations 1997-2008** sets out the requirements regarding conservation of fuel and energy in buildings. ..In relation to Dwellings, Part L 3(b) requires that “**a reasonable proportion** of the energy consumption to meet the energy performance of the dwellings is provided by renewable energy sources”.

ITEM 1 MEGA SUBMISSION:

MEGA submits that, although, guideline levels are provided in Part L (quoted above). These regulations go nowhere near addressing the real deficit area which is RES-H or heating. The real issue here is that the real cost of energy (which to quote EU Directive 2009 28) is both internal (i.e. its cost as purchased) and external (the other

harmful costs not factored in such as security of supply in the event of, let say, an oil crisis – such external costs can arise overnight and cause crippling harm to the general population). Not factoring in such external costs means that energy sources which have much lesser external associated costs simply cannot compete. Other member states have resolved this issue by compensating renewable energy generators for the “external costs displaced” by avoiding the use of, say, fossil fuels. The recent Cash-back for Clean Energy Scheme (FIT) introduced into UK law does whats required here. The lessons learned have been clear the integration of renewable energy into housing is driven by affordability and return on investment. No such renewables can compete directly with fossil fuel because of the capital cost and ROI issue in the absence of an appropriate levelisation mechanism.

ITEM 1 MEGA PROPOSAL:

MEGA proposes the following additional text.

“In light of the need to increase renewable energy integration into buildings SEAI is in place and reviewing appropriate new systems to compensate users of renewable energy systems for the external costs displaced by some form of cashback system which makes the investment in such systems affordable while reducing Ireland’s dependence on imported fossil fuels.”

ITEM 2 – Quote from Sub-section 4.2.3.

(i) How are energy efficient renewable energy technologies in buildings? promoted?

ITEM 2 MEGA SUBMISSION:

It is only too apparent, as demonstrated by the disappointing uptake of the various schemes available in Ireland for promoting renewable energy in buildings, that the core issue is being avoided. The question is – can renewable energy systems compete with fossil fuel as the rules of the market, including support systems, remain weighted heavily against renewables. The EU Directive is not sending out a call to all people to be heroic and put their last savings at risk to save the planet. The EU is saying the following **“(26) It is desirable that energy prices reflect external costs of energy production and consumption, including, as appropriate, environmental, social and healthcare costs. and with the awareness that “(27) Public support is necessary to reach the Communitys objectives with regard to the expansion of electricity produced from renewable energy sources, in particular for as long as electricity prices in the internal market do not reflect the full environmental and social costs and benefits of energy sources used.”. In other words people who displace high external cost fuels need compensation now, and over an appropriate period of time, for displacing the high external costs of fossil fuels and other non-renewable sources of energy.**

ITEM 2 MEGA PROPOSES: The following additional text as the first item in (i).

“In light of the need to increase renewable energy integration into buildings SEAI is in place and reviewing appropriate new systems to compensate users of renewable energy systems for the external costs displaced by some form of cashback system which makes the investment in such systems affordable while reducing Ireland’s dependence on imported fossil fuels.”

See below full DCENR text

Consultation by the Department of Communications, Energy & Natural Resources on sub-section 4.2.3 of the NREAP template

Summary:

Section: 4.2.3 (buildings)

Date of circulation: 23/3/2010

Deadline for feedback: 23/4/2010

Email feedback to: nreap@dcenr.gov.ie

REDG Reps to consult those who they represent on the REDG

4.2.3. Buildings (Article 13(3) of Directive 2009/28/EC)

(a) Reference to existing national and regional legislation (if any) and summary of local legislation concerning the increase of the share of energy from renewable sources in the building sector

Part L of the Second Schedule of the Building Regulations 1997-2008 sets out the requirements regarding conservation of fuel and energy in buildings.

The latest revision to Part L requirements occurred in 2008 when the **Building Regulation (Part L Amendment) Regulations 2008** were signed into law. These are available on the Department of Environment, Heritage and Local Government website: <http://www.environ.ie/en/DevelopmentandHousing/BuildingStandards/#Building%20Regulations%201997%20-%202009>

In relation to Dwellings, Part L 3(b) requires that "**a reasonable proportion of the energy consumption to meet the energy performance of the dwellings is provided by renewable energy sources**".

The associated **Technical Guidance Document** (TGD L 2008), outlines how the regulatory requirements can be achieved in practice, specifies that a reasonable **minimum level** of energy provision from renewable energy technologies in Dwellings shall be regarded as:

- 10 kWh/m²/annum contributing to energy use for domestic hot water heating, space heating or cooling, or
- 4kWh/m²/annum of electrical energy, or

- a combination of these which would have equivalent effect.

In the interests of clarity, "renewable energy technologies" means technology, products or equipment that supply energy derived from renewable energy sources, e.g. solar thermal systems, solar photo-voltaic systems, biomass systems, systems using biofuels, heat pumps, aerogenerators and other small scale renewable systems.

In the case of high density developments e.g. apartments and mixed use developments, the use of small scale combined heat and power (CHP) systems can be used as an alternative to renewable technology sources.

There is no prescribed minimum statutory requirement for renewable energy in relation to Buildings Other Than Dwellings.

However, Part 2 of the European Communities (Energy Performance of Buildings) 2006-2008 Regulations, which transposed the EU Energy Performance of Buildings Directive (2002/91/EC) into Irish law, does require that consideration must be given before construction commences to the technical, environmental and economic feasibility of alternative energy systems whenever a building of 1,000m² or greater is commissioned.

(b) Responsible Ministry(/ies) / authority(/ies):

- The **Minister for the Environment, Heritage and Local Government**, under powers conferred on him by Sections 3 and 18 of the Building Control Act 1990 (No. 3 of 1990), makes regulations setting out the minimum performance requirements that must be achieved by new buildings. Such requirements include provisions for the conservation of fuel and energy and for the limitation of carbon dioxide emissions.
- The **Minister for Energy, Communications and Natural Resources** is responsible for determining national policy on energy matters, including regulating, promoting and developing renewable energy sources.
- The **Sustainable Energy Authority of Ireland** is a statutory agency tasked with, among other things, promoting and assisting renewable sources of energy.
- **Local Building Control Authorities** are responsible for enforcing energy performance requirements, including requirements in relation to renewables, in new buildings situated within the functional area of the local authority concerned.
- **OPW (The Office of Public Works)**[\[1\]](#) is tasked with procuring and managing a significant proportion of the stock of buildings in state ownership.

(c) Revision of rules, if any, planned by: [date]

Building Regulations Part L (Conservation of Fuel and Energy) for dwellings will be upgraded this year to provide for a 60% improvement in energy efficiency requirements and a 60% reduction in CO2 emissions relative to 2005 standards (this includes a 40% improvement in energy and carbon dioxide requirements achieved under the current 2008 regulations).

It is unlikely that the new Part L 2010 requirements will involve any change in the renewable energy sources. However, owners or developers may decide to increase the renewable energy component in order to achieve compliance with reducing energy demand / carbon emissions.

The Department of Environment is also developing a strategic framework to achieve a carbon neutral standard for dwellings by 2013. Increased use of onsite renewables will be a key element of the framework to achieve carbon neutrality.

Building Regulations Part L (Conservation of Fuel and Energy) for buildings other than dwellings are also being reviewed this year. It has not yet been determined whether a mandatory requirement for renewable energy will be included in the new Regulations proposed for buildings in this category.

(d) Summary of the existing and planned measures at regional / local levels:

As part of this consultation, the association of Irish energy agencies (<http://www.aiea.ie/home>) as well as city and county managers (via their representative on the REDG) are requested to propose input.

(Note that regional authorities and the Western Development Commission are also part of the consultation process.)

(e) Are there minimum levels for the use of renewable energy in building regulations and codes? Yes, there are minimum levels for use of renewable energy in building regulations and codes.

In which geographical areas and what are these requirements? (Please summarise)

These apply nationwide. As outlined in 4.2.3 (a) above, Dwellings, Part L 3(b) requires that "a reasonable proportion of the energy consumption to meet the energy performance of the dwellings is provided by renewable energy sources".

In particular, what measures have been built into these codes to ensure the share of renewable energy used in the building sector will increase?

Building Regulations Part L (Conservation of Fuel & Energy) are subject to ongoing review in the light of emerging trends and developments within the industry and with a particular emphasis on technological improvements.

While the mandatory provision for onsite renewable energy components is set at a relatively modest level, it is anticipated that incremental tightening of maximum permitted energy and carbon coefficients over time will lead to greater use of onsite renewables.

The mandatory renewables requirement was first introduced in 2007 and became fully effective from 1 July 2009 on the expiry of certain transition planning-related exemptions from the new regulations - as more new houses are built each year and as older houses become obsolete, the proportion of the housing stock with a renewable energy component will constantly increase over time.

In parallel the component of grid electricity derived from renewable sources is also being increased.

What are the future plans related to these requirements / measures?

Future plans are outlined in more detail at 4.2.3 (c) above. Building Regulations Part L (Conservation of Fuel and Energy) for dwellings will be upgraded this year. The Department of Environment is also developing a strategic framework to achieve a carbon neutral standard for dwellings by 2013. Increased use of onsite renewables will be a key element of the framework to achieve carbon neutrality. Building Regulations Part L (Conservation of Fuel and Energy) for buildings other than dwellings are also being reviewed this year.

(f) What is the projected increase of renewable energy use in buildings until 2020?(If possible differentiating between residential –"single-unit" and "multiple unit", commercial, public and industrial.) (To answer this question you may use a table as Table 6 below. Data could be given yearly, or for selected years. Both heating and cooling and electricity consumption from renewable energy sources should be included.)

SEAI to provide an estimate as part of the consultation.

(g) Have obligations for minimum levels of renewable energy in new and newly refurbished buildings been considered in national policy? If so, what are these levels? If not, how will the appropriateness of this policy option be explored by 2015?

Minimum levels of renewable energy in new and newly refurbished buildings been considered in national policy for new dwellings. They have been provided for as regards new buildings as described at 4.2.3 (a) above.

As regards existing dwellings, obligations for renewable energy were not extended to refurbishments or major renovations as the age of a building has a major impact on costs and benefits. Application of the proposed cost optimal methodology under the recently agreed recast Energy Performance in Buildings Directive may provide a context for addressing this in future.

As regards new and existing non-domestic buildings, renewable energy will be considered in 2010/2011 as part of current review of requirements.

If not, how will the appropriateness of this policy option be explored by 2015?

As outlined at 4.2.3 (c) above, Building Regulations Part L (Conservation of Fuel and Energy) for dwellings will be upgraded this year. The Department of Environment is also developing a strategic framework to achieve a carbon neutral standard for dwellings by 2013. Increased use of onsite renewables will be a key element of the framework to achieve carbon neutrality. Building Regulations Part L (Conservation of Fuel and Energy) for buildings other than dwellings are also being reviewed this year.

Application of cost optimal framework for upgrading energy performance requirements for buildings and building components will have a major bearing on decisions in this area.

(h) Please describe plans for ensuring the exemplary role of public buildings at national, regional and local level by using renewable energy installations or becoming zero energy buildings from 2012 onwards? (Please take into account the requirements under the EPBD).

Significant relevant activity is taking place.

The Government has committed to achieving a carbon neutral building standard for dwellings by 2013.

By convention, publicly funded housing programmes are built to the latest standards irrespective of whether transitional exemptions apply or not.

The Department of the Environment, Heritage and Local Government has approved funding for flagship low-carbon housing schemes in eight local authorities which will begin construction in Summer 2010.

The importance from a public policy perspective of developing landmark sustainable public buildings is well understood - the Department of Environment sponsors an annual prize for the development of sustainable public buildings.

OPW have also a strong policy focus towards sustainability/energy efficiency.

Since January 2009, all public sector buildings over 1000m² are required to display an energy certificate based on energy consumption in a recent 12 month period and update it at least annually. A parallel programme requires local authorities to report energy consumption. It is envisaged that this will be incorporated into the SEAI public sector programme. SEAI has previously provided grant assistance for energy efficient/renewable retrofit: see http://www.seai.ie/Your_Business/Public_Sector/Grants/

SEAI provide energy advice and mentoring services to public bodies and disseminate best practice case studies:

http://www.seai.ie/Your_Business/Public_Sector/Best_Practice/

http://www.seai.ie/Your_Business/Public_Sector/Services/

(i) How are energy efficient renewable energy technologies in buildings promoted?

- The scheme of **Accelerated Capital Allowances for Energy Efficient Equipment** was introduced in section 46 of the Finance Act 2008 and has been broadened each year since.

Companies which purchase specific energy efficient equipment (including renewable technologies) can claim their full cost against corporation tax in the year of purchase (100% capital allowance) instead of the usual 12½% over 8 years for plant and machinery.

- **Grant assistance** under schemes funded by the Department of Communications, Energy and Natural Resources and administered by the Sustainable Energy Authority of Ireland (SEAI) such as **Greener Homes** and **Houses of Tomorrow**

- **Bank Recapitalisation:** In December, 2008 the Government responded to the global / domestic financial crises with a plan to recapitalise Allied Irish Bank and Bank of Ireland. The recapitalisation provisions include a €100m fund to support environment friendly investments with a view to reducing energy usage and facilitating switching to renewable energies.

- **Social Housing Investment Programme:** Local Authorities and voluntary/co-operative housing associations have been invited by the Department of the Environment, Heritage and Local Government to submit proposals for demonstration projects to deliver sustainable energy-efficient housing developments in which homes will reach a minimum A2 Building Energy Rating; €10m has been allocated in 2009 and again in 2010 to support these demonstration projects, which will significantly advance the knowledge and experience base in the design, construction and use of high performing energy efficient housing, and promote wider awareness of the technologies involved;

- **Planning Exemptions** (exemptions for renewable technologies previously in place for residential sector were extended to industrial/commercial and agricultural) sectors in 2008

- **Annual Energy Show** sponsored by SEAI

- **Energy Audit** services by SEAI and local energy management agencies and others.

[1] <http://www.opw.ie/en/> The OPW is a service organisation. Its customers are Government, other Departments, Offices and Agencies and, ultimately, the public. Its core services are property maintenance, property management, architectural and engineering services, heritage services, project management and procurement services.