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Submission to the Irish Government, Department of Communications, Energy and Natural Resources, 1st National Energy Efficiency Action Plan for Ireland 2007- 2020 on behalf of;

climate change • anti-war • education • environment • global justice • green guides • activism • direct action •

gluaiseacht
FOR GLOBAL JUSTICE

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Introduction

The draft Irish Energy Efficiency Action Plan (EEAP) published on 21st October is ambitious. If its indicative target of a 30 % saving in PEE by 2020 is realised, final energy consumption in 2020, relative to that projected by the SEI and ESRI in Section 1.3, will be less than in 2005. This would be quite an achievement especially given the increases in population and economic growth that will undoubtedly occur over the same period.

While there is no legal imperative on the state to strive for the 30 % savings target, should the EU chose to adopt a binding target of 30 % of electricity production from renewables and/or a binding target of a 30 % reduction in Greenhouse Gasses by 2020, a serious attempt at meeting such a target would help.

The question as correctly formulated by the Minister is whether the proposed EEAP can achieve these aims. In responding to the draft action plan Gluaiseacht will not follow the format of answering the questions listed at the end of each section of the plan. Without undertaking simulation and optimisation modelling of the various initiatives listed, it is impossible to accurately know if the package of measures proposed is suitable. Furthermore the assumptions necessary to carry out such work have not been included in the draft. The same work could of course be repeated independently using relevant growth scenarios from the Central Statistics office (CSO), the ESRI, the IEA or other organisations. Gluaiseacht however does not have the resources to carry out such work.

This submission discusses issues envisaged with the achievement of savings targets in the various sectors covered. Measures which stand out as being achievable and likely to happen are also highlighted. Some technical comments on the draft itself are also included.

Key Comment

Nothwithstanding that no carbon tax is included in the total package of measures proposed, the overall hole Gluaiseacht sees in the EEAP is a lack of integrated cross sectoral spatial planning. Spatial planning is mentioned in the draft EEAP in Section 5.3.1 and again in Section 6.3.2. Sustainable Spatial Planning obviously involves

- construction of energy efficient buildings
- location of energy efficient buildings in the proximity of societal and economic services, thus reducing the need for personal travel.
- location of energy efficient buildings in a zone that minimises energy and material use for the import of fuel, food and goods to the region.

As such any discussion on spatial planning should include house design, the development of key urban nodes and energy supply in the same section. For example planning for the diffusion of biomass or CHP for home or industrial heating needs cannot occur in isolation from planning for urban nodes. In the draft EEAP CHP is mentioned in isolation in Section 7.2.2. The promisingly entitled “Delivering Homes, Sustaining Communities” government policy document mentioned in Section 5.3.1 focuses exclusively on dwelling design but not on the other aspects of sustainable spatial planning listed above. For all the consideration that is given to their strategic location the sustainable communities envisaged in the government policy document could as easily be located on Iniskea as inside one of the Spatial Strategy designated urban nodes. One gets the sinking feeling that in the context of the 600,000 dwellings that may be constructed over coming years (Irish Govt., 2006) that these and other matters will be left to the private sector to address.

Further points relevant to spatial planning are that in Section 4.3.1the Assessment of Renewable Energy Alternatives at Design Stage initiative should include an onus on building developers to justify why a wet (piped hot water) heating system should not be included in building design. This would be to ensure building compatibility with future or initial inclusion in a district heating system or for the use of biomass, solar thermal or heat pump hot water heating.

Section 5.3.1, Best Practise Design for Social Housing, lists as a guideline that design should take account of orientation among other measures. This guideline is obviously to take advantage of passive solar heating. It is doubtful however if the country's municipalities would bother to go to any lengths to ensure due consideration is taken of the orientation possibilities with social housing sites, given the plethora of other influences on the planning process such as construction costs and consumer preferences for "normal house design". As with the previous suggestion regarding the incorporation of a wet heating system, the onus on those awarded design contracts should be to specify why buildings should not be designed and arranged in such as manner as to maximise optimal levels of passive heating and cooling.

Caution should however be exercised with solar heating and window dimensions to avoid a situation such as that currently occurring in The Netherlands where the move towards larger windows in the 1970's to take advantage of passive solar heating is now leading to excess solar heating and requiring artificial cooling during summer times.

As stated in Gluaiseacht's submission to the Green Paper on Energy we would generally consider any reliance on the National Spatial Strategy in terms of sustainable planning or any planning at all for that matter to be ridiculous given the manner in which the strategy has not been adhered to by municipal government since its inception. Until evidence dictates otherwise this will remain our inauspicious position.

Public Sector

It is not clear from the draft EEAP to what extent the country's schools and hospitals are included in the public sector. We acknowledge that the health services executive is mentioned in the action plan although hospitals or schools are themselves not explicitly given as examples of where energy efficiency can improve in the public sector. Perhaps the matter is somewhat ambiguous given the role of religious orders and educational trusts in their administration? Both schools and hospitals would, as we also stated in our submission to the Green Paper on Energy, be the ideal start points for any showcase energy efficiency initiatives in buildings given the amount of time these services are visited by the population at large. They would, in our opinion, better achieve the goal of "leading by example" than an overhaul of government offices, Army or Garda Barracks.

With this in mind the requirements of the Assessment of Renewable Alternatives at Design Stage initiative named in Section 4.3.1 and the requirement to provide energy performance certificates for new buildings will be interesting in the context of the proposed co – located private hospitals.

We would also wonder what use the "communication" initiative outlined in Section 3.3.1 will be if energy management in public buildings is taken over by ESCO's?

Against these reservations the proposal to desist from the purchase of inefficient light bulbs as and from the end of 2007 should prove to be exemplary. Furthermore the purchasing power, budget and size of the public sector make the initiative focusing on procurement look very promising.

Business Sector – Commercial and Industry

Overall the initiatives listed in this section are satisfactory. The Energy Agreements Programme and the Energy MAP initiative can obviously lead to improvements in efficiencies and practises. The proposal to monitor Air Conditioning Systems is also timely although it is not clear from the proposal if the experts are to be employees of the DCENR, employees of the entities using the air conditioning or private contractors. Another matter for the private sector to solve perhaps?

Residential Sector

For the residential sector the measures listed all have merit in their own right. We question however, if taken as a package of measures, they can achieve the overall desired results. In Table 1 we list the proposed initiatives along with the semi quantitive impact assigned to them by SEI (SEI, 2006), the energy end – use each measure focuses on, and the target audience each measure is aimed at.

Table 1 Measures proposed in the Irish EEAP for the residential sector listed with a view to highlighting their target aim and audience.

Residential Sector Measure	SEI Semi Quantitive Impact	End Use covered	Target Section of Population
Power of One Campaign	Low	All	All
Spatial and Planning Policies	-	None	All
Building Energy Performance Rating	High	All	Building buyers
Building Energy Standards	High	Space Heating	Home Owners
Greener Homes Scheme	-	Space Heating	Home Owners
Boiler Efficiency Campaign	Medium	Space Heating	Home Owners
Upgrade of older Housing Stock	-	Space Heating	Home Owners
Warmer Homes Scheme	Low	Space Heating	Long term tenants
Better Practise Design Social Housing	-	Space Heating & Lighting	Long term tenants
Smart Metering	-	Appliances and Lighting	ESB Bill Payers
Energy Efficient Lighting	-	Lighting	ESB Bill Payers

An examination of Table 1 highlights some key points for us:

- No quantifiable measures focusing on consumption of sanitary hot water
- No quantifiable measures focusing on energy use for cooking.
- No quantifiable measures focusing on energy use for air conditioning.
- No quantifiable measures focusing on reducing indoor temperatures.
- Insufficient focus on short term tenants
- Insufficient focus on measures that could be adopted by the elderly.
- Insufficient focus on diffusion of A rated electrical appliances

Of course the Power of One campaign obviously focuses on many of these deficiencies we list. Such types of measures are however notoriously hard to assess. Furthermore their impact may be subject to overkill if over used.

The EPBD also focuses on some of the deficiencies mentioned. Nevertheless the degree to which building purchasers will take account of the findings and recommendations of building energy ratings is, to date, unknown. It will be some time before their impact can be assessed. One struggles to believe that energy running costs will be a larger purchasing factor for buyers than location and as such the impact of the EPBD may not be as large as hoped for. Against this the measure receives a high semi quantitive rating from SEI.

Although no detailed analysis or literature review has been carried out to assess the above measures we would question if in general there is sufficient focus on the 21 % of the dwelling stock which is occupied by tenants (Federcasa, 2006) or perhaps more specifically if an Irish solution to the split incentives issue whereby landlords have no incentive to improve energy performance of their properties has been suggested? Furthermore, there are over 1.5 Million households in Ireland (SEI, 2006) and if 21 % are tenants, the 3,000 homes covered by the warmer homes scheme amounts to less than 1 % of rented accommodation.

No mention whatsoever is made in the EEAP of passive or positive houses. Furthermore no mention of the overbearing fact that as wealth has increased so too have dwelling sizes and as such the volume of space that needs to be heated and illuminated has increased. Although this latter point has strictly speaking nothing to do with energy efficiency, neither does the much lauded smart metering. It would be foolish to not consider the fact that larger homes have a greater impact on overall energy use. Unfortunately triumphant statements such as Brian Cowans at the Fianna Fáil Ard Fheis in March of this year that his party wants to maintain a strong construction sector, prevents public discourse on this matter.

Transport Sector

Transport 21 is obviously the main strategy envisaged to bring about reductions in the consumption of transport fuels. The plan however seems to have no specific goals for Cork, Limerick, Galway or Waterford. Notwithstanding the fact that Dublin is at least ten times the size of the largest of these four cities, traffic jams occur in these cities nonetheless due to inadequate levels of public transport and excess cars for the road infrastructure in place. Savings in both energy and a reduction in congestion could obviously occur in these urban centres from modal shifts. In fact given their size it would be a far quicker option to attempt a rebalances of transport modes used in these cities than it will take in Dublin.

While waiting for Transport 21 to be rolled out in the capital we would see the other measures as lacking the necessary clout to achieve the needed reductions in transport fuel consumption. While a combination of EU and national legislation may result in a higher proportion of lower than average M.P.G. vehicles being purchased, there is nothing to state that with continued affluence the increased levels of vehicle ownership will not offset the gains made by a diffusion of vehicles with a higher fuel economy. While such a development would have nothing to do with the efficiency of the vehicles themselves, it is of course related to the overall efficiency of the system in which vehicles are used. This relates to the sustainable spatial planning we referred to in the Key Comment.

No mention of increase in the VRT rate applied to SUV’s screams out from the page.

No mention of air travel is not that surprising given that we live on an island and that it is more connected with lifestyle choices. At the same time however the impact of food miles could be significant within the country if not from imports.

In fact besides the long term Transport 21 initiative the most promising measure is the so called Demand Side Management although it seems aspirational as written in the EEAP.

Electricity Supply Sector

It would concern us as that the support for CHP makes no attempt to mention how the heat could be used. Obviously this will be left to the private sector to decide.

The so called "Energy Efficiency Obligation Scheme" mentioned does however look very promising given the onus it puts on utilities to encourage the "diffusion" of efficiency.

For good measure and seeing as the issue is touched upon in Section 7.2.2 we would like to reassert the point made in our submission on the Energy Green Paper that the fact that the government approved €368 million retrofit of Moneypoint is not connected in any shape or form to any preparation for Carbon and Sulphur Capture is obscene.

Research and Development

Without any internet presence the Irish Energy Research Council remains a phantom organisation.

Cross Sectoral and Underpinning Measures

Section 1.9 of the EEAP acknowledges the importance of price as a market barrier to the diffusion of energy efficient applications and the related role a carbon tax could play. Unfortunately this is the only mention of such a tax in the entire document. The hands of the authors are obviously tied on this matter by government procrastination. One wonders how the EU Directorate General for Transport and Energy, who will review the action plan, will view an administration that champions an information campaign (Power of One) as an effective measure over a carbon tax[*] Although the Irish Energy Management Standard (IS 393) is, according to SEI (SEI, 2006), proposed to fulfil the same role as that of a carbon tax, this of course only applies to the Industrial and Service Sectors. Price is the great leveller and is widely acknowledged in the literature and in modelling scenarios on abatement of greenhouse gasses, (not least in the Stern Review itself) as being a necessary measure to encourage the diffusion of carbon neutral energy carriers and technologies in society. The only consolation we have is the knowledge that sooner or later the state will be introducing a carbon tax. In fact if the administration can think of a better approach to encouraging sustainable consumption we want to hear it.

The Bebo website and even more so the schools programmes mentioned in Section 9.2.1 are excellent initiatives for giving students the opportunities to learn the language and some of the physics associated with energy efficiency. As the authors may be aware such a schools programme called The Bet has already been carried out across European countries whereby school students bet with their respective Ministers for Environment that they could reduced greenhouse gas emissions from their school premises faster than the state could meet it's Kyoto commitments. Gluaiseacht would be happy to meet those employed to carry through the schools programme to pass on our experiences with the Bet in Ireland.

There is a deficiency in the statistical data available for the statistical unit of SEI (EPSSU) to effectively monitor progress with individual policy and measures and overall reduction targets. For example the ODEX energy efficiency indicator for the residential sector cannot be effectively calculated due to a lack of data for space heating and other energy end – uses. This lack of data is explicitly stated on page 13 of the SEI publication "Energy Efficiency Policies

[*] We acknowledge that the programme for government addresses the issue of a carbon tax in the lines - In the context of maintaining a strong economy, investigate fiscal measures to protect and enhance the environment including the introduction of a carbon tax. This wording, however, clearly prioritises the economy and allows for a carbon tax to be **NOT** introduced given its impact on competitiveness. Thus we would have no confidence that such a tax will be introduced in the lifetime of this government.

and Measures in Ireland in 2006". In perhaps an attempt to address the data deficit, Section 8.1 of the draft EEAP states that the EPSSU works on collecting, processing and publishing energy statistics. Surely it is for the Central Statistics Office to collect relevant data under contract from the EPSSU? If the resources have not been allocated to the CSO to ensure that relevant raw energy use data is being collected this should be done to enhance the monitoring capabilities of the EPSSU. Unless this is executed the annual "Energy Efficiency in Ireland" reports proposed in Section 9.2.2 will not prove to be optimal. Furthermore, general knowledge of progress with achieving the policy goals set out by the EEAP will not be optimal either.

Perhaps the Dundalk trial is an opportunity to collect sample data for energy end uses in Irish homes. This is however not a long term solution. Such a solution must involve the CSO and an appropriate level of resourcing from central government.

Technical comments of the Draft EEAP

Purpose number two of the National Energy Efficiency Action Plan as stated in the executive summary states that member states must submit an action plan in 2007 in accordance with the ESD. The department well knows that member states were due to submit an action plan in June 2007.

Section 3.1 includes a chart depicting final energy intensity of the public sector. It is not clear to us how such a statistic could have been arrived at. What output or GDP is there from the public sector?

No agency is listed as having responsibility for lighting in Section 3.3.2.

Isn't the term Demand Side Management (DSM) as used in Section 6.3.2 usually associated with electricity load management?

Is there any reason why the Energy Efficiency Obligation Scheme outlined in Section 7.2.2 are not called "Tradeable white certificates"?

Perhaps the words "calculation of" are missing from the second sentence of Annex section A1.1.

Conclusion

The views outlined in this submission represent those of Gluaiseacht as on the 16th November 2007. As stated in the Introduction to our submission, the EEAP is ambitious and can if successful, make a significant contribution towards sustainability on the island of Ireland. A decrease in PEE by 2020, notwithstanding the increases in population and economic growth that will occur, as could happen if the aims of the 30% reduction targets are met would be extraordinary. It is our fear however that without a carbon tax and integrated spatial planning that this will be very difficult to achieve.

References

Irish Govt., (2006), Delivering Homes Sustaining Communities, Dept. of An Taoisigh website.

SEI, (2006), Energy Efficiency Policies and Measures in Ireland 2006, Odyssee Indicators project website.

Federcasa, (2006), Housing Statistics in the European Union 2005/2006, Cecodhas Website.