An Taisce
The National Trust for Ireland

20131220-DCENR-LCR

Low Carbon Roadmap
Department of Communications, Energy and Natural Resources,
29-31 Adelaide Road,
Dublin 2

lowcarbonroadmap@dcenr.ie

20.12.13

Re: 2050 Low Carbon Roadmap Electricity Generation Sector

Dear Sir/Madam,

It is wished to comment on the above.

We would also request that the Department make An Taisce known of any further consultation periods regarding the making of this Roadmap.

Yours sincerely,

Ian Lumley
Built Environment & Heritage Officer
builtenvironment@antaisce.org

2050 Low Carbon Roadmap
Electricity Generation Sector

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Useof "Roadmap"RatherthanLegally Binding Annual Emission Reductions

The Scoping Report lacks the scientific, legal and policy basis to address climate emissions from Electricity Generation. It is based on advice to Government from the secretariat of the National Economic and Social Council (NESC) with is scientifically deficient. It does not address the conflict between climate emission mitigation and current economic growth policies or the social and economic consequences of deferring action to a vaguely defined 2050 target date

It is not enough to state aim for a "***transition to low-carbon future by 2050***". This objective requires effective science based advice, legal force with sectoral targets, and policy integration, with immediate and progressive action including fiscal measures.

Science

The Scoping Report contains no scientific references or evaluation of the level of progressive emissions reductions required by Ireland to meet our obligation under the Copenhagen Accord. It fails even to define the tonnage of annual emissions reductions needed by 2050, compatible with scientific consensus on the safe global per capita emission levels achievable by that date.

No scientifically based targets are defined. All that appears to be envisaged at this juncture is modelling of "*sectoral road maps*" with a vague objective of a "*decarbonisation pathway through 2020 and out towards 2030"*. However, no 2030 target is indentified. There is no 2050 target proposed but instead a modelling of two significantly divergent scenarios of 80% and 95% reduction of emission compared to an unspecified "*reference scenario*" (page 10).

The report contains no reference to scientific data that at least 80% of existing global fossil fuel reserves need to be kept in the ground to stabilise atmospheric temperatures at minimum of 2 degrees above pre industrial levels, and the impact of this in restricting Ireland's carbon burning capacity (REF). Accordingly the continued role of DCENR in both prompting and licensing oil and gas exploration is not addressed

Legal Implementation

The "Introduction" of the Scoping Report shows that legal implementation relies on the provisions of the planned *Climate Action and Low Carbon Development Bill* for which heads were published in February 2013. The planned Bill mandates the development of a *"National Low Carbon Roadmap*" which will incorporate several sectoral road maps, eschew adoption of immediate and progressive annual targets or even a 2050 target, and has no independent monitoring or implementation structure, with the publication of reports of a Expert Advisory Body subject to Government approval.

This concern is reinforced by the provision in the proposed climate Bill that ministers and public bodies need only to '*have regard'* to the Roadmap in policies and actions, though in the case of ministers a reporting requirement is made. In the 2001 Smith and McEvoy V Meath County Council High Court judgement the provision "*have regard*" the Expert Advisory Body to in planning legislation was found to have no legal status in effecting compliance.

The Scoping Report acknowledges the planned Climate bill *"does not define a specific carbon reduction target for the economy or any individual sectors*" (p9)

The justification of the non target based approach underlying proposed legislation was formulated in the 2012 report by the NESC Secretariat *"Ireland and the Climate Change Challenge; Connecting"How Much" with"How To* ".

This is despite the reports endorsement in Chapter 1 of the Copenhagen Accord:

> *"In the international Copenhagen Accord of 2009 it was agreed that deep cuts in global emissions are required to hold the increase in global temperature below 2°C. The adoption of this goal reflects a judgement of the scientific evidence that the 2°C limit would avoid dangerous climate change, although significant risks also exist with lower levels of global warming. "*

And the further statement:

> *The science is unambiguously pointing towards a challenge of enormous proportions. It is also pointing to the need for immediate and sustained action. Stabilising the level of GHG concentrations in the atmosphere requires that annual emissions peak and then decline. The later the peak in emissions occurs, the higher the rate of decline in emissions after the peak or the lower (or even negative) are the emissions required in the long run in order to achieve any given temperature target with the same probability. Recent analysis, commissioned by the EU's Climate-Change Science Experts, suggests that to reach 2 degree target emissions nee to peak by 2015*

However despite this the NESC Secretariat report fails to adopt the principle of sectoral targets. In stating the principle that *"a loop is not a line* "it argues that the focus should not be on target'.

In this the NESC Secretariat Report disregarded the specific advice from the EPA which recommended sectoral targets and that they are disaggregated to direct strategic planning.

The NESC Secretariat report gave no consideration to the continuing general objective Government to promote economic growth, direct foreign inward investment, export growth and therefore resource consumption. Growth targets are adopted for specific sectors including the objectives for Agriculture under Food harvest 2020 which has already resulted in agricultural emissions increasing by 3% in 2012 over 2011 levels.

The NESC Secretariat report does not even set out an effective strategy for meeting Ireland EU 2020 targets which under current projections by the EPA will be significantly exceeded by a level of 2 to 7 mt. It provided no substantive input as to how the greater much level of reductions progressively needed after 2020 are going to be achieved.

A significant national critique of the NESC secretariat report is set out by Peadar Kirby:

http://www.ipa.ie/pdf/PolicyOptimism_PeaderKirby_AdminVol61_2.pdf

This rejection of adopting targets is contrary to the scientific basis of achieving the carbon reduction progressively required to stabilise global terrestrial and marine temperatures and ocean acidification
The advice from climate scientists globally is the need to adopt clearly defined progressive targets with immediate effect. Kevin Anderson of the Tyndall Institute has stated:

> "The problem with 2050 targets is that they conveniently give the *"The illusion that we can carry on with what we are doing and pass the problem on to future generations. A 2050 goal is convenient for policy-makers, companies and the public alike – it does not interfere with decision-making, immediate business issues or how we live our lives. Indeed, the lure of long-term targets is considerable. Unfortunately, there is no basis in science for banking on the problem being solved through technology, by someone else, in the future; disturbingly, many scientists have used this inappropriate shorthand and continue to do so."(Anderson, K. (2012).*

Climate change going beyond dangerous – Brutal numbers and tenuous hope. P. 20. Development Dialogue, September (61))"

The abandonment of targets also directly contravenes the basis UN and EU climate negotiations. The ongoing COP UN negotiations are based on the objectives of securing a legally binding instrument by the end of 2015 to come into force by 2020.

Current EU policy and Directives including the Effort Sharing for 20% reduction by 20020 0n 2005 emission levels in the non ETS sector is based on target. Any effective post 2020 action will require much more ambitious targets.

Policy and Fiscal Measures Policy

The Scoping report refers the NESC Secretariat *"Ireland and the Climate Change Challenge; Connecting"How Much" with"How To* "as "moving beyond a sole compliance approach, and refocusing on a whole of government and societal agenda

The Scoping Report is permeated with the conflict between lowering emissions and "*how we will go about delivering a low carbon future while maintaining economic competitiveness"*. (p2) Its thus fails to reconcile how continuation of the current model of economic growth and resource consumption is compatible with climate stabilisation and the maintenance of terrestrial and ocean eco systems on a planet with growing population.

The report is produced in the absence of any effective national climate and energy policy including addressing the transboundary environmental and economic impact of the 6.5 billion fossil and bio fuel imported into Ireland. The 2007 Government White Paper on Energy was inadequate at the time of publication and is now even more so.

If as stated (page 10) "*the electricity generation roadmap will be developed within the wider low-carbon framework being established by the Department of Environment, Community and Local Government, which will produce sectoral roadmaps across the transport, agriculture and built environment sectors*.", then presumably all sectoral roadmaps must add up within the national roadmap which presumably is a national emissions descent pathway to reduce emissions to 5 to 20% of 1990 levels by 2050 as implied on p.2.

The relation of the electricity generation roadmap to the other proposed roadmaps affecting energy to the DCENR proposal for a new Green Paper for energy policy in 2014 is unclear.

It is also unclear how a *"sectoral road map for the energy sector* "can be achieved if there are parallel separate "roadmaps" for buildings and transport, initiated in isolation and in advance of the national roadmap proposed in the heads of the proposed Bill. The scoping document seeks to *"define the boundaries of the energy sector roadmap and identifies those areas of energy policy that will be assessed under other sectoral roadmaps for the Transport Built Environment and Agriculture sectors "*

This raises the spectre of a plethora of overlapping non integrated or even contradictory policies roadmaps and targets from different government Departments and agencies.

Fiscal Measures

The Scoping Report follows the failure of the NESC secretariat to address the conclusions of what would now be regarded as the very conservative 2006 Stern Review on the Economics of Climate Change, the main message of which is that investment in decarbonisation needs to be immediate and progressive since the cost will be much greater in the future.

In the evaluation of the electricity roadmap against criteria for the proposed Climate Bill there is no mention of carbon budgets or of a sectoral emissions descent pathway as part of a national emissions descent pathway to reduce emissions to 5 to 20% of 1990 levels by 2050 as implied on p.2. Nor is there any mention of sustainability of the planetary climate for future generations, the very point of climate policy. (P9)

In the Evaluation of measures on pgs 10 and 11. As on p.9, criteria: provision for carbon budget and climate stability for future generations is entirely missing.

It is stated that *"energy prices are a critical component of the overall competitiveness of the Irish economy*",p.11 but as energy security in a low carbon world is will depend on a combination of significantly more efficient energy use and renewable then the investment funding in efficiency demand reduction and rapid decarbonisation of the energy supply must be provided.

The document fails to consider the fact that off-sets are often ineffective in reducing emissions Ireland should lobby to ensure that all emissions offsets are achieved domestically (Offsets abroad should be funded but separately.) Offsets are ineffective get-out clauses that allow nations to look like they are meeting targets when they are not.

Consideration of Irish Electricity Generating Sectors

The emission breakdowns for 2012 were published by the EPA in October 2013 which are referenced on page 5 of the scoping report in a overview of the current elements of the electricity generating sectors

- Fossil Fuels

There is no evidence that any viable carbon capture and storage is achievable within any reasonable timeframe.

- Coal

The cheaper cost of coal on the international market is primarily a result of a switch in the US from coal to gas power generation from fracking, which disregards the full carbon equivalent impact of the extraction process including fugitive emissions. The 5.9% increase in energy sector emissions in 2012 over 2011 is largely due to a 27 % increased use cheaper coal at Moneypoint. The ESB has no exit strategy for the phasing out of Moneypoint. The argument for continued coal use is to reduce dependence on the gas market.

- Peat

Peat produces 9% of the electricity but emits 20% of the electricity emissions. Bord na Mona has no exit strategy for ceasing peat extraction and burning and for stabilisation of carbon and restoration of carbon sink function on its landholding. The argument for continuing peat extraction is to maintain an element of national self sufficiency in base load power generation and moderate coal and gas import dependence.

- Gas

60% of electricity generating demand remains with gas. While gas has a lower emission impact per energy unit generated that peat or coal, large scale use of gas becomes progressively unviable in an annualised energy decarbonisation into the 2020 and 2030s. This would be compounded if fracking sources were to be developed either in Ireland or feeding into the European Gas grid. A November 2013 report by the US

National Academy of Sciences has stated that fugitive emissions including methane from the operation of Fracking wells in the US have been seriously underestimated

- Biomass

Page 14 states that "in *the post 2020 period we may see an increase in the use of biomass*". Biomass as with biofuels is not carbon neutral and different biomass feed sources whether nationally produced or imported has significantly different carbon emission impacts. The use of biomass in the Bord na Mona Edenderry Power station is not a suitable model since it uses imports the kernels from South east Asia destructive palm oil industry, and other import sources. The carbon and landuse efficiency and impact of cultivation of feed for mass burning of biomass for power generation is being subject to increasing scientific critique

- Biogas

Continuing investment in current wastewater and agricultural effluent management systems undermines potential of bio gas extraction, and there is no evidence of any policy change. Arguments that the German agricultural sector presents a sustainable model are not tenable. While Europe imports grain and animal feed perverse subsidies promote the use of good agricultural land for biogas crops.

- Wind Energy

Wind in the only renewable technology currently available to achieve large scale capacity, given that wave and tidal generation remain at the level of small scale prototypes with uncertainty over large scale application and environmental impact on marine life

If as stated (P 9) "*the funding required for renewable energy deployment will have to be supplied by the private sector*" then there is a strong argument for increased carbon taxes and ring-fencing the funds from electricity to renewable, as well as efficiency and demand reduction.

Ireland's national 40% wind energy generation target by 2020 is based on regional distribution of turbines, increased interconnection with UK and grid reinforcement. The pylons proposed to enhance interconnectivity and grid distribution are now a source of major conflict in the areas affected.

However even with enhanced interconnection there is a limit by which any national grid can depend on wind and there is no evidence that the viable technology for storage capacity is achievable within any foreseeable timeframe. This limits the role of wind in the post 2020 period with any additional wind capacity being exported rather than capable of contributing to national emission reductions.

Energy Efficiency and Demand Reduction

Given the limited capacity of wind to replace fossil fuel plants and the lack of any large scale renewable alternative or storage capacity in the foreseeable future a major new emphasis on demand reduction conservation and efficiency is required. This is an objective in which the deregulated power generation sector has no interest and indeed there are major vested interests including in renewable in pushing maintenance and indeed increases in primary energy demand;

An Taisce has already made a submission on Efficiency in the November consultation which is attached.
A major national priority is the residential housing stock. The current DECNR proposal for a major national Pay as You Save Scheme for households from 2014 is not in pace, There is inadequate recognition that Irish per capita heating emissions are significantly higher than the OECD average due to poorly insulated building stock and inefficient combustion sources

There is no evidence that the current NEEAP will achieve its limited goals for energy efficiency. The focus must not just lie on the residential or general building use sector. There is no consideration of demand reduction across all areas of energy use particularly for major industrial users including mining, cement, IT, pharmaceuticals and food processing.