

Society of Chartered Surveyors Ireland

Submission to the Strategic Energy Policy Division

Ireland's National Energy &
Climate Plan (NECP) 2021–2030

February 2019

Draft NECP 2021-2030 Consultation,
Strategic Energy Policy Division,
Department of Communications,
Climate Action & Environment,
29-31 Adelaide Road,
Dublin 2,
DO2 X285

Sent to: energy.consultation@dccae.gov.ie

22nd February 2019

Re: Ireland's National Energy & Climate Plan (NECP) 2021 – 2030

Dear sir/madam,

We are writing to you in response to the stakeholder consultation Ireland's National Energy & Climate Plan 2021- 2030.

As the leading body for property and construction professionals in Ireland, the SCSi supports appropriate measures to reduce carbon emissions in Ireland in the built environment.

1. Training and education/upskilling professionals:

Many of the proposed measures outlined in the NECP will require professionals with the appropriate level of skills, knowledge and education to implement, manage and promote the necessary changes required to reduce our carbon footprint. This applies to construction, management and occupation of new and existing buildings.

Given the significant changes that have and will continue to occur in the construction industry, particularly in reference to changes in renewable technologies and regulations, upskilling of professionals is a necessity. However, the Society is concerned that at present, many professionals and their firms are operating at full capacity, and there is a likelihood that this may impact on numbers applying for further training and upskilling. We believe that this hurdle must be overcome so that the long terms goals of maximising the performance and sustainability of our sector is reached. This could be overcome by developing mandatory CPD type accreditation courses to permit entry onto state funded retrofit projects.

The Society would also like to see all 3rd level education and courses adjusted to allow sufficient time on the curriculum, so that entrants to the profession have the necessary deep knowledge and understanding of Sustainability. We further support appropriate education in the broader sector in second level education.

2. Circularity in construction and facilities management

Nearly half of all materials going into the global economy – 42.4 billion tonnes a year — are used in the construction and maintenance of houses, offices, roads and infrastructure, according to Circular Economy report.ⁱ

Some European countries have achieved far better results in these areas than that achieved in Ireland. For example, in the Netherlands, approximately 90% of construction and demolition waste is recycled. (Sforza, 2018). There is enormous scope to reduce greenhouse gas emissions by applying circular principles – re-use, re-manufacturing and re-cycling – to key sectors such as the built environment.

There is excellent work being done across Europe and elsewhere, including EPD's (Environmental Product Declarations), cradle to cradle products, Buildings as Material Banks, Materials Passports and reversible building techniques. In order to introduce these principles across the construction industry in Ireland, significant and accelerated research needs to be commissioned and completed to ensure that industry professionals have a suite of tools, such as materials passports for material re-use, to allow them to implement circularity and achieve compliance with existing rigorous statutory standards and regulations. Excellent work on this is already being undertaken across Europe (see BAMB – Buildings as Material Banks - <https://www.bamb2020.eu/>). SCSi would welcome research and investment in this field.

As residential construction increases, we would strongly promote the development of circular architecture in respect of public housing provision. BRIC (Building Reversible in Construction) is being tested for implementation across Europe and offers interesting lessons for the Irish Construction industry. <https://www.bamb2020.eu/topics/pilot-cases-in-bamb/bric/>.

The Netherlands has set itself the target of becoming 50% circular by 2030 and 100% by 2050. We would strongly recommend that Ireland sets ambitious targets for circularity, particularly in the construction industry, and that adequate research resources are supported by government to make this feasible.

Excellent work is already being undertaken in Norway on methodologies for implementing circularity principles into BREEAM (<https://www.circularnorway.no/wp-content/uploads/2018/11/A-Framework-For-Circular-Buildings-BREEAM-report-20181007-1.pdf>). This type of research is essential to ally proposed moves towards circularity to existing frameworks, whether Building Regulations, voluntary certification standards such as BREEAM, LEED, WELL etc.

Some measures for consideration to support circularity include:

- Abolishment of financial incentives which encourage overuse of natural resources, such as subsidies for fossil fuel exploration, extraction and consumption;
- Lowering of taxes on particular aspects of labour to encourage labour-intensive parts of a circular economy such as take-back schemes and recycling.

3. Waste generated in refurbishment/refitting/fit out markets.

At the present time, there is no statutory control over the refitting/refurbishment/fit-out markets, worth many millions each year. Extensive volumes of waste are generated each year in these sectors. There is generally no value attributed to the materials stripped out of existing buildings, even though many of these materials may be less than ten years old. This sector should be examined, with a view to driving change with a combination of incentives and controls, to reduce the volume of new materials used and the amount of waste going to landfill. This point in the lifecycle of buildings also offers an excellent incentive to encourage occupiers to look at how to implement energy efficiency measures into the refit, which is usually driven by commercial and aesthetic factors rather than any question of sustainability.

4. Green Procurement

Green procurement is recognised across Europe as a strong stimulus for eco-innovation. SCSi strongly support the implementation of green procurement across all public construction and property related contracts. SCSi would also welcome incentives to encourage private sector green procurement.

5. **Healthy ‘Green’ Buildings increase occupier productivity and future proof both commercial and residential property**

Commercial Sector:

‘Green buildings’ have now been shown to increase productivity within those buildings when companies implement health, wellbeing and productivity features in the property. It’s obvious that making energy efficiency improvements will reduce operating costs, but arguably an even greater impact of green improvements are those felt by the people who spend their working lives in these spaces. Greener workspaces are healthier, more enjoyable places to work, and this has a tangible impact on productivity, employee health and the business bottom line.

Many building managers with a green agenda focus on energy conservation with little or no efficiency considerations. Both are intrinsically linked however conservation is about cutting back, a behavioural activity i.e. changing the setpoint or reducing the hours of operation whereas energy efficiency involves maintaining the same output for less energy input and typically requires financial support. The latter can offer much more in terms of life cycle benefits. Good practice is to rationalise the process initially and then implement energy efficiency measures.

Sustainable buildings often deliver along the triple bottom line: they are not only better for the natural environment, they also improve employees’ wellbeing, and bring economic benefits by doing so. Building green simply makes business sense – socially, economically and environmentally. Doing Right by Planet and People: The Business Case for Health and Wellbeing in Green Building (WGBC) examined case studies of 11 facilities around the globe in 2017/2018 that have one or more green certifications including LEED, Green Star and BREEAM. The report evaluates health and wellbeing features that were integrated into the facilities, such as:

enhanced fresh air ventilation, acoustic privacy, increase of daylight penetration and use of biophilic design elements such as green walls and extensive indoor plants. After adding health and wellbeing features into green-certified buildings, companies found that:

- employee absenteeism was reduced
- operating costs were minimised
- employees felt more productive and healthier.

Examples worldwide of such measures include:

- The **Akron Children’s Hospital project by HKS in Ohio** achieved over US\$900,000 in annual energy savings, and family satisfaction with the space increased by 67%.
- **Cundall’s UK office’s** absenteeism dropped by more than four days per person per year, a 58% reduction. Staff turnover reduced by 27%. Taken together, these two outcomes provided a £200,000 saving per year.
- **Sherwin-William’s Centro-America headquarters in El Salvador** saw a 68% reduction in reported respiratory problems and a 64% reduction in reported allergy problems. Additionally, since moving to the new building, absenteeism reduced by 44%. Sherwin-Williams has calculated a total annual saving of US\$85,000 per year.
- **Plantronics’ office in The Netherlands** saved the developer €624,000 in financing costs when the client elected to purchase the building. Increased employee productivity to Plantronics has been estimated at €2.1 million per year.
- **American Society of Interior Designers’ new HQ in Washington D.C.** saw an increase in employee productivity and reduction of absenteeism, which is expected to pay for its investment within the first five years.
- **Henderson Land Development in Hong Kong** has created a highly desirable mixed-use community and is realising 40% higher property values compared to nearby equivalent properties.

The SCSl agree that future proofing our building stock in this way is beneficial for all stakeholders, and support the continued transition in this sector. However, the financial cost of either demolishing/rebuilding, or retrofitting older building stock can be very costly and difficult to implement, especially outside our main cities. Whilst new buildings will all be built to NZEB standards within the timeframe of this report, Ireland has a relatively unsophisticated existing commercial buildings stock,

especially in less high value locations, and a high incidence of buildings in which even relatively basic upgrades could lead to significant energy savings (SEAI Extensive survey of the commercial buildings stock in the Republic of Ireland 2015) This report outlines the following salient points:-

- In around half of the retail and restaurant/public house buildings surveyed, the windows are single-glazed. This suggests that there remains significant potential for energy savings through double/triple glazing
- 27% of all buildings are fitted with less than 20% low-energy lighting. This suggests that there remains significant potential for energy savings in this area
- Centralised time controls for heating were relatively common, being present in nearly half of the buildings surveyed. In contrast, room-by-room time and temperature controls were much less common, being present respectively in only 9% and 15% of surveyed buildings.

Residential Sector:

- In 2015, the average Irish dwelling emitted 58% more energy-related CO₂ than the average EU dwelling (SEAI). Arguably, up to 1 million homes require a deep retrofit in Ireland in order to meet our carbon reduction targets. Deep retrofits offers the complete overhaul of the energy efficiency of a house, which is often easier to the householder and arguably better value over piecemeal changes to a house over time. Whilst the benefits of owning and occupying a 'green' home are obvious, the costs of deep retrofitting a property can simply be out of reach for many home owners. In the same manner that a supportive healthy commercial building increases occupiers wellbeing, a healthy low carbon and well insulated residential property supports and enhances the home occupiers experience, with obvious health benefits.

We are available to meet with you and your department during this consultation period if you wish to discuss any of the points raised in further detail.

Your sincerely,

Edward McAuley

Head of Practice & Policy