

WEXFORD TO CENTRE ON CURBING CARBON EMISSIONS

Wexford County Council is now in the process of developing a UN Centre for Excellence in Energy Efficiency in Enniscorthy, in collaboration with Waterford and Wexford Education and Training Board (WWETB), which is already delivering Nearly Zero Energy Buildings (NZEB) standard training at its centre in Enniscorthy. Report by Deirdre O'Flynn.

The Nearly Zero Energy Buildings (NZEB) standard, which became mandatory in Ireland on 1 November 2019, must be implemented right across the EU by the end of 2020. Its objective is to significantly reduce the energy demand and carbon emissions from buildings, whilst also harnessing renewable energy technologies: new-build and retrofit, residential and commercial.

Wexford is in lofty company as a UN Economic Commission for Europe (UNECE) Global Centre of Excellence in High Performance Buildings – the only other two global centres are based in New York (Building Energy Exchange) and Pittsburgh (Green Building Alliance). Additional centres are underway in Vancouver (Canada), Sophia, (Bulgaria) and Brussels (Belgium).

Wexford is also a co-founder of a collaborative network of International Centres of Excellence on High-Performance Buildings (ICE-



Pictured at Wexford County Council's Head Office on 23 November 2017 following the signing of the 'Letter of Intention' to establish a UNECE Centre of Excellence in Enniscorthy were (l-r): Tomás O'Leary, MD of nZebra; Wexford County Council's Chief Executive Tom Enright and Cathaoirleach Cllr John Hegarty; Eoghan Murphy TD, Minister for Housing, Planning and Local Government; and Scott Foster, UNECE Director for Sustainable Energy.

CENTRE FOR ENERGY EFFICIENCY



A delegation of world leaders in sustainable building and energy visited Wexford on 10 May 2017 to discuss plans to locate Ireland's first Nearly Zero Energy Building (NZEB) training centre near Enniscorthy. Before heading for Wexford, Tomas O'Leary and Andy Lundberg of nZEBRA, along with the rest of the delegation, met with Taoiseach Enda Kenny and other government representatives at government buildings.

HPB), organisations focused on supporting their local industry in the rapid development of next-generation buildings consistent with UN Framework Guidelines for energy efficiency standards in buildings.

The centres provide education, training and other critical resources to regional building industry practitioners, whilst also sharing these resources globally through collaboration with other network participants.

The ambition of the global network is to inspire others through providing exemplary solutions to bending the emissions curve. This can be realised through methods including policy measures, research and demonstration, case study projects and education and training.

NZEB TRAINING UNDERWAY

The ball first started rolling with the signing of a Memorandum of Understanding between the Minister for Housing, Planning and Local Government, Eoghan Murphy TD, and Scott Foster, Director of Sustainable Energy at the UN Economic Commission for Europe (UNECE), in November 2017.

"We expect that the Wexford centre will be designated as the national centre for NZEB," according to Tony Larkin, Director of

Services with Wexford County Council. At the moment, NZEB training is delivered in a bespoke training centre established by WWETB – in time, the Centre of Excellence headquarters will be located in office accommodation being built in the first phase of the new council-owned Enniscorthy Technology Park.

"We'll require funding under the Climate Action Fund for the new Centre of Excellence building with the centre moving [from its current ETB premises] to the Enniscorthy Technology Park in 2021," he added.

The new centre, which will stretch over 30,000 square feet, "will have a research and development arm and work with third-level institutions around new practices and materials," Larkin added.

"The third element will be the network, which is designed to spread best practice around the world. We're delivering best practice at the moment in terms of NZEB social housing in Wexford. And we will share that know-how into the network so that countries can benefit from that learning. In Ireland, we're at the cutting edge of this."

This project builds on the success of WWETB in developing skills specifications/learning outcomes to train people in the construction sector on NZEB. In fact, WWETB, with assistance



Pictured at the World NZEB Forum in Killiney on 14 November 2019 (l-r): Martin Murray (NZEB Ireland), Art McCormack (MosArt), John Morehead and Barry McCarron (NZEB Ireland), Scott Foster (UNECE), Shane Colclough (NZEB Ireland), Housing Minister Eoghan Murphy TD, Andrée Dargan (DLR), Jeff Colley (NZEB Ireland), DLR Cathaoirleach Shay Brennan, Paul McAlister, Tomas O'Leary and Garret Quinn (NZEB Ireland), and Patrick Durkan (DJRES Properties).

CENTRE FOR ENERGY EFFICIENCY

from Rathnew, Co. Wicklow-based architectural firm MosArt, drafted the first-in-the-world trade-specific contractor skills specifications for delivering both new-build and retrofit NZEB.

The skills specifications were developed in close consultation with a National Advisory Panel, which included representatives from Wexford County Council, the Department of Housing, Planning and Local Government, the Department of Communications, Climate Action and Environment, the Sustainable Energy Authority of Ireland, the Construction Industry Federation, Irish Congress of Trade Unions, third-level colleges and other stakeholders.

TRADE-SPECIFIC COURSES

The first trade-specific NZEB courses in Europe are already being delivered in WWETB's Training Centre in Enniscorthy. The City and Guilds-certified courses are targeted at site supervisors, bricklayers, carpenters, electricians, plasterers, and plumbing.

"We got a national



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National skills specifications have been developed by a national advisory body for those working in the construction sector, according to Michael O'Brien, WWETB's Innovation and Development Manager.

advisory body together to develop national skills specifications for anybody in construction, everyone from auctioneers to people working on a site," said Michael O'Brien, Innovation and Development Manager with the WWETB. "Then we developed the specifications for the specific trades, converted them into training programmes, and had them certified by City and Guilds."

The first courses were delivered in November 2018 and WWETB has since developed courses to equip learners with competency in NZEB ventilation systems, installation, and balancing, as required by Technical Guidance Document Part F 2019.

"We have developed 10 NZEB programmes, including the NZEB Retrofit," said O'Brien. The Retrofit programme provides the principles and practices required to effectively retrofit dwellings to reduce energy demand and carbon emissions, whilst improving comfort.

HIGH LEVEL OF GLOBAL INTEREST

The plan has attracted high-level interest from stakeholders in sustainable building, with visitors from Pittsburgh and the World Bank already visiting the WWETB Training Centre. In May 2017, a delegation who visited Wexford included representatives from the UN Economic Commission for Europe, the nearly-Zero Energy Buildings Resource Agency (nZEBRA) and leading academics in low energy building and engineering.

They also viewed Ireland's first NZEB social housing project in The Moyne, Enniscorthy. Since that visit, Wexford County Council's NZEB social housing output has been impressive, and Wexford's Director of Services Tony Larkin told the county council's January meeting that 47 housing units had been completed with 246 planned or in progress; 54 turn-key projects had been completed with a further 77 in progress.

As Irish, European, and world-leaders in sustainable building and training, the aim is that this NZEB training centre will help to develop standards that will improve energy efficiency in buildings and dramatically reduce emissions. Significantly, it is

also in keeping with the Government's 2019 Climate Action Plan and its 'Future Jobs Ireland 2019' policy document.

"We're in the process of constituting a Board for the Centre, with representatives from the Council, WWETB, and relevant government departments," said Larkin. After that, it will be all systems go as the new Enniscorthy Technology Park takes shape, ready to welcome a centre of excellence, fit for the United Nations.



**High Performance Building Alliance (HPBA):
A UN Centre of Excellence**

Enniscorthy, Co. Wexford, Ireland

Proposed roles:

- Supporting the UN Network of International Centres of Excellence (NICE)
- Advisory service to European Partners, Government Departments, Local Authorities, ETBs and other relevant stakeholders
- Training facility to provide up-skilling opportunities for those involved in the development of high performance buildings
- Research in collaboration with Irish and international third level education providers
- Awareness and dissemination of information
- Supporting the Continuous Professional Development of persons engaged in the Construction Industry