



wwetb

Bord Oideachais agus Oiliúna
Phort Láirge agus Loch Garman
*Waterford and Wexford
Education and Training Board*



NZEB; The European response to climate change

Dún Laoghaire, Ireland,
November 13th – 14th 2019
Climate Action through nearly zero energy buildings

Michael O Brien
Innovation & Development Manager

NZEB

Nearly zero energy building means a building that has a very high energy performance, determined in accordance with Annex I of the European Performance of Buildings Directive and in which the nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby.

The Paris Accord

Agreement within the United Nations Framework Convention on Climate Change (UNFCCC), dealing with greenhouse gas emissions, mitigation, adaptation and finance signed in 2016.

(a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

(b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;

(c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

UNECE Framework Principles for Building Standards

- Guidelines adapted by UNECE on 27th September 2017 outlines performance guidance for energy standards for buildings that will support holistically designed and operated high performance buildings as part of an integrated sustainable energy system.

Why WWETB?

- Large involvement in training apprentices for the construction sector.
- Local awareness of NZEB, particularly in the Enniscorthy area.
- Two major conferences.
- Many people from the Wexford and Waterford area involved in the construction sector.

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5 Stage Process

- Develop the National Skills Specifications for NZEB
- Develop the training programmes
- Develop a certifying model in conjunction with City & Guilds
- Identify a delivery location and premises
- Deliver the relevant training

Develop the National Skills Specification for Trades

Trades identified as being impacted by NZEB include

- NZEB Fundamentals
- Electrical
- Plumbing
- Brick Laying
- Carpentry
- Plastering
- Site Supervisor



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Climate Action Plan Buildings

Develop the National Skills Specification for Trades

- WWETB have contracted *MOSART* to assist us in the development of the National Skills Specifications
- When written, these are presented to the *National Advisory Group* where the specifications are amended as needed. Once amended, they return to the group for final approval.

Membership of the group

Organisation	Representative	Organisation	Representative
Dept Housing, planning & Local Gov	Sean Armstrong	WWETB	John Cassidy
Dept Comm, Climate Action & Environment	Albert Jordan	WWETB	Michael O Brien
SEAI	Orla Coyle	WWETB	Shay Cummins
NSAI	Gary O Sullivan	Gas Networks Ireland	Lorcan Cooke
LIT	Liz O Brien	Wexford CC	Padraig O Gorman
IT Carlow	Pascal Quirke	ICTU	Brian Nolan
WIT	Paul Quirke	IVIA	Pat Lehane
CIF	Simon Jones	AECI	Aaron Power
		Gas Standards Tech Committee	Liam Doyle



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Progress

- Agreed National Skills Specifications for electrical, brickwork, plastering, plumbing, carpentry, site supervisor and NZEB fundamentals. The specifications were launched by Minister Murphy this morning.
- The specifications have been converted into training programmes.
- Manuals have been developed, in conjunction with Limerick Institute of Technology, for each of the training programmes.
- Each programme has been approved City & Guilds with quality assured certification and digital badge.
- Delivery of the specifications began in the WWETB pilot NZEB training centre located in Enniscorthy towards the end of November 2018.

What do the contractors and tradespersons have to say?



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<https://www.youtube.com/watch?v=-QnHZqCSHSk>

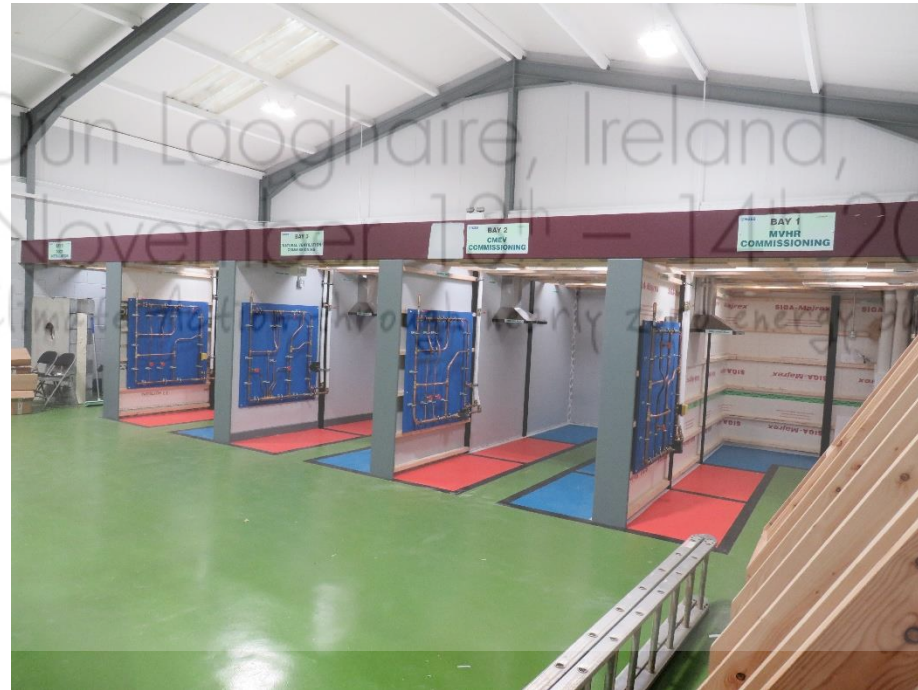
Next steps

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- The logo for the World NZEB Forum 2019 is a circular emblem. It features a central white circle containing the text "World NZEB Forum 2019" in a sans-serif font. Surrounding this central circle is a ring of stylized, light green building silhouettes of various heights and shapes, arranged in a circular pattern. The entire logo is semi-transparent and overlaid on the list items.
- Ventilation (Part F)
 - Retrofit
 - NZEB general operatives
 - FabLab

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Ventilation

- Two day course
- Examination each day
- City & Guilds assured
- Course to take place in Enniscorthy



Retrofit

- Retrofit training to take place in the Waterford Training Centre
- City & Guilds assured
- NZEB fundamentals required
- One day programme



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NZEB General Operatives

- 40 hour programme
- City & Guilds assured
- Delivered through the Waterford Training Centre



FabLab

- In conjunction with Wexford County Council (LCDC)
- Design using solidworks, autodesk –autocad, inventor and revit
- 3D printing
- Laser cutting/ CNC milling



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Network of UN International Centres of Excellence ICE

The first meeting of the International Centres of Excellence on High Performance Building took place in the BEEEX building in New York.

WWETB attended this meeting as part of the Irish delegation.



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buildings

Useful Web Sites

- www.waterfordwexford.etb.ie

- www.wwetbtraining.ie/nzeb

- www.wwetbfablab.ie

- www.fetchcourses.ie



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