

Portlaoise Low Carbon Town (Decarbonisation Zone)

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First Steps

Starting out in this journey

Learning on the fly

Brief Background

- Portlaoise 2040 Vision Statement adopted 2017
 - Low carbon Town is a guiding principle
- Climate Action Plan 2019 sets out 183 actions
- Action 165 of CAP19 "develop Portlaoise as a low carbon Town"
- All Local Authorities will be asked to develop a decarbonisation project
- This pilot project will serve as a road map
- Covenant of Mayors
- Climate Action Charter
- Draft County Development Plan 2021 to 2027 strengthened
- Energy Performance Officer
- Climate Adaptation Team
- Management Team Agenda
- Good intentions



A VISION FOR PORTLAOISE A STRATEGY FOR A BETTER TOWN CENTRE May 2017



The Creation of a Low Carbon Town Centre

Significant reduction in carbon emissions driven by interventions at James Fintan Lalor / Lyster Square.
Re-balance the existing circa 3,600 car parking spaces.
Target 10% of all journeys by bicycle by 2020.
300-500 trees planted in the Town Centre.



Decarbonisation Zone

- ► What is a Decarbonising Zone (DZ)?
- Portlaoise decarbonisation zone
- Demonstration Town
- Lesson sharing
- Establishing a Baseline



Elements

The creation of a Low Carbon Town Centre;

The Delivery of a Walkable Town Centre;

The "Greening" of Portlaoise Town Centre;

Exposure of Cultural Heritage within Portlaoise Town Centre;

Accommodating Living in Portlaoise Town Centre;

Provision for Working in Portlaoise Town Centre

DZ - Map of town incl 5km hinterland





Portlaoise Low Carbon Town - DZ

Low Carbon Implementation Group set up in 2018, comprising of:

- ► Gas Networks Ireland
- Bord Na Mona
- ESB Networks
- ► HSE
- ► NTA
- Irish Rail
- Laois Partnership Co
- ► IT Carlow
- SEAI
- Portlaoise Town Team
- ► CARO
- Laois Co Council

We need strong partners to achieve results

How do we measure outcomes to create a baseline

- Engaged expertise to assist LCC in measuring the carbon footprint baseline for our DZ.
- Siemens Avanta were awarded the brief
- Decarbonizing Zone in Portlaoise selected using very simple criteria
 - Where > quarter of pop of county lives
 - Where most of the carbon is produced (net agri)
 - Alignment with statutory boundary of Portlaoise LAP
 - Natural follow on from Low Carbon Town
- The clock has now been set for 2020

So, what has Siemens Avanta found?



- Survey area Portlaoise taken from Local area plan 13km2
- This carbon footprint had to be capable of being recalibrated in future years
- Measure Scope 1, 2 and 3 GHG emissions
- 6 GHGs as per the Kyoto Protocol
- Provided an estimate of the renewable energy potential
- Established a register of opportunities

PORTLAOISE TOWN Carbon Footprint Study

Portlaoise Town emits around ~100,000 tons CO₂ per annum (pop 23,000 in 2019) That is around 4 tons per person per year net of agricultural emissions and travel outside the zone



SIEMENS





The study identified local solutions to reduce the town's carbon footprint





	Scope 1,2	Scope 1,2	Scope 1,2 & 3	Scope 1,2 & 3
Sector	Carbon Dioxide Emissions (tons of CO_)	Greenhouse Gas Emissions (tons of CO_e)	Carbon Dioxide Emissions (tons of CO_)	Greenhouse Gas Emissions (tons of CO_e)
Residential	32,888	32,962	35,084	36,567
Non-Residential	29,791	29,861	31,438	32,652
Passenger Transport	16,107	16,221	19,200	19,569
Freight Transport	8,490	8,536	10,158	10,371
Total	87,276	87,580	95,879	99,159

Carbon Footprint cont'd

Costs - very approx

5 Turbines = €25m

PVs = €55m

2,000 houses retrofit = €40m

Approx €150m for (34+18+19) =71% GHG savings



The scale of the Investment/New economy



The yellow line 2020 to 2030

The blue line represents the required course of action

Downward Drivers of Carbon in Portlaoise



Portlaoise - Our Carbon(GHG) Footprint



How do we manage the energy future?

- Population Growth, but Carbon Decline
- Population increase Laois 2016-2030
- Houses increase Laois 2020-2030
- Do Nothing = at what cost?
- Solutions required



Interesting Facts in Portlaoise DZ

Retrofitting of 2,500 lights in the town has yielded a saving of 750,000 kwhr per annum, or €121,000 per annum or **319 tons** of carbon

Working from home on one day per week, as a climate policy, will result in emissions avoidance of **125 tons, p.a.** of CO2 for LCC

The draft County Dev Plan 2021 to 2027 has put an enhanced emphasis on Climate Action

A recent survey by AHBs and LCC reveals 100% of tenants are very happy with new heating technology in their homes.

Laois Co Council, while acting in a local leadership role, cannot control the delivery of essential new green energy in these areas. We need energy providers in the room.

Indication of strong corporate willingness in the community.

Many communities dislike green energy infrastructure and their supporting networks.

Planning policy and over-riding public and environmental interest needs to be reset. Amongst hierarchy of environmental priorities where lies sustainable energy generation ? Consideration of Strategic Energy Zones?

Conclusion

- The climate challenge is complex
- Carbon Footprint Lessons learned
- ► Few simple solutions
- It is important that we consider all ways of addressing the climate challenge and all ways of reducing our energy use and emissions.
- Low carbon choices for the way we heat our homes.
- The challenges in transport are also significant
- More renewable electricity generation required
- retrofitting of homes
- LA's will play a strong role

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