

Corca Dhuibhne Tourism and Hospitality Sustainable Energy Community

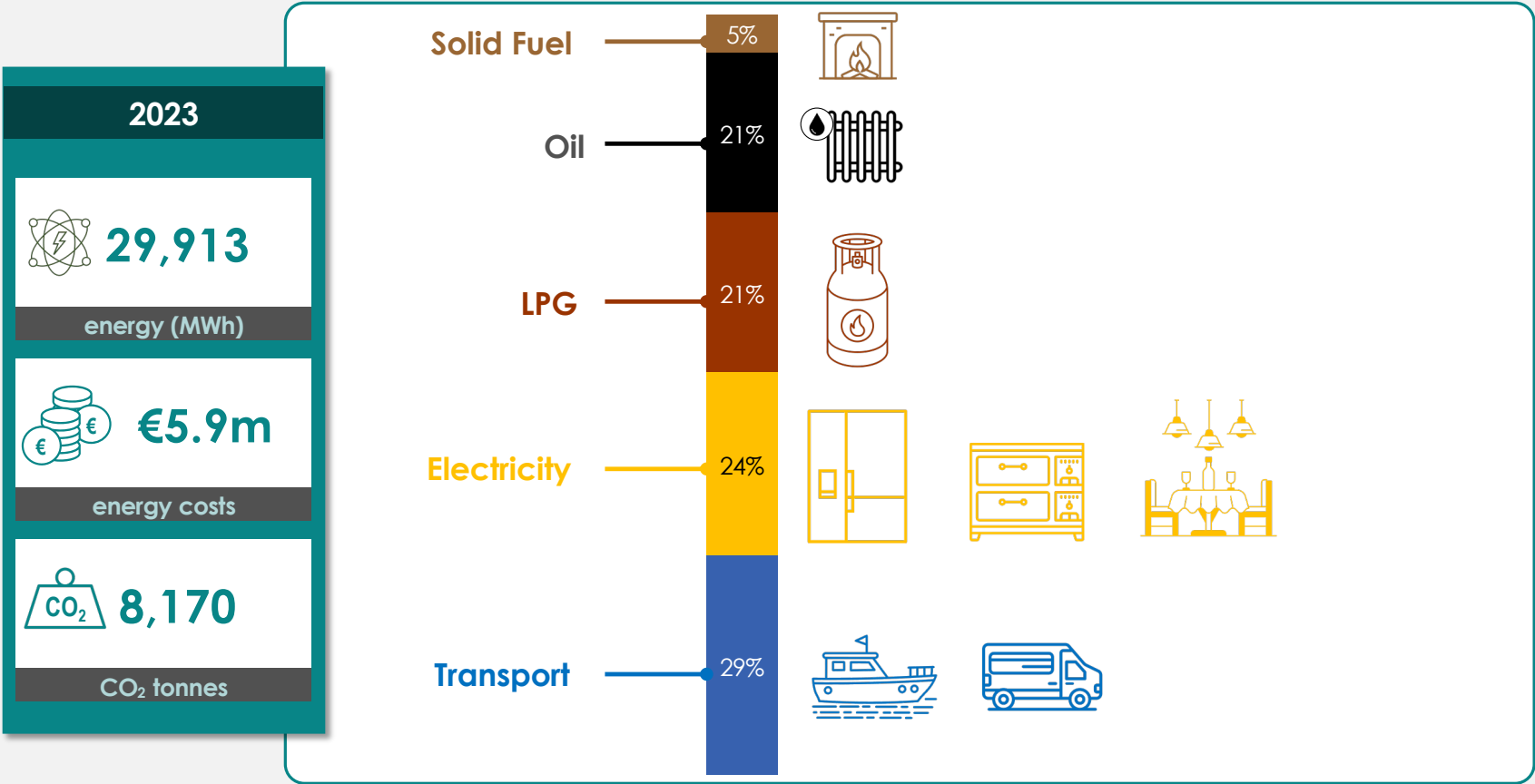


An tÚdarás Náisiúnta
Forbartha Turasóireachta
National Tourism
Development Authority



Corca Dhuibhne Tourism and Hospitality Energy Baseline

Where we are

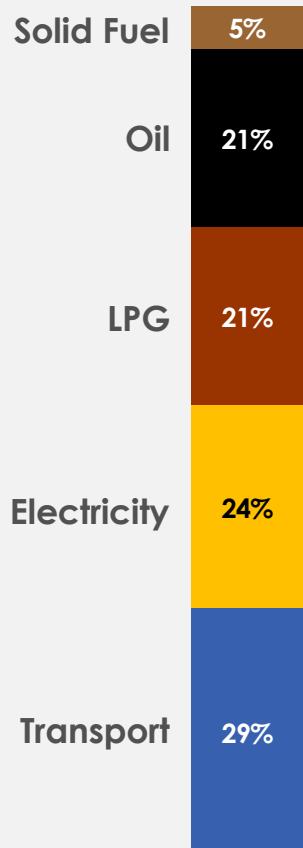
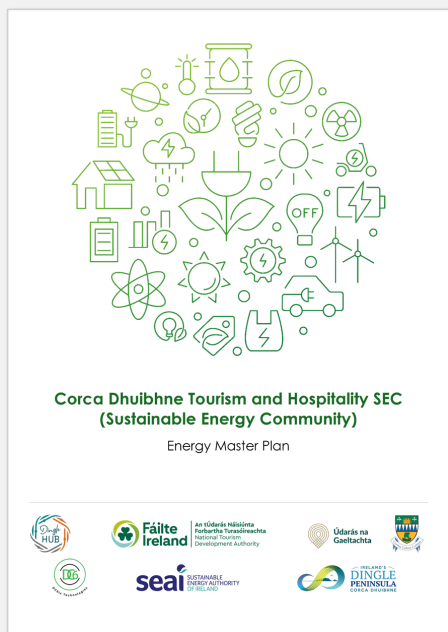


Corca Dhuibhne Tourism and Hospitality Energy Baseline

Energy Master Plan Metrics



Sustainable Energy Community in numbers



120+
Members
...& counting

21
Energy Audits
...& scaling

69
Energy
Questionnaires

400kw
Solar PV
& counting

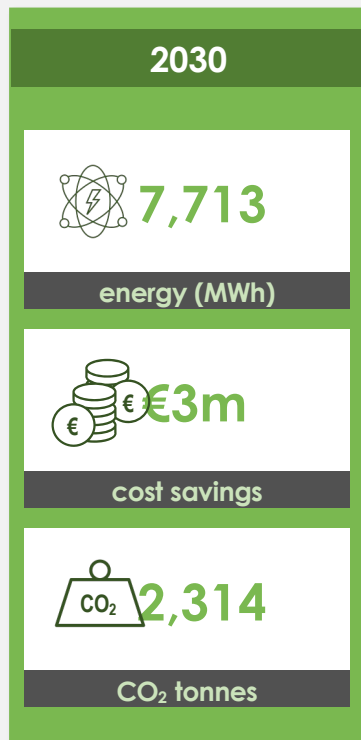
16
Businesses
Monitored

3,000
Captured
Data Points



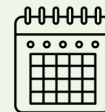
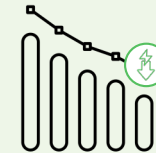
115 Energy Efficiencies identified

Targets (per annum)



Potential to reduce consumption by

75%



average payback period
of the Top 5 recommended measures

<1.5
years

Potential to reduce carbon footprint by

85%



by implementing the recommendations

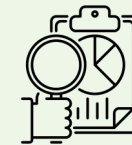
Most cost-effective and impactful measures



behavioural **change**



tariff **reviews**



audits



LED lighting **retrofits**



solar PV **installations**

Key points from EMP

What have we learned



Energy Rate



9 **Development of our own local Biogas**
Development of our own local biogas for local markets like cooking and transport.

8 **Electrification of Fleet**
29% Of current energy demand is transport fuel

7 **Heat Exchange**
Taking heat from refrigeration compressors and using it for space/water heating is suitable for bigger pubs/bars, especially if there is co-located accommodation

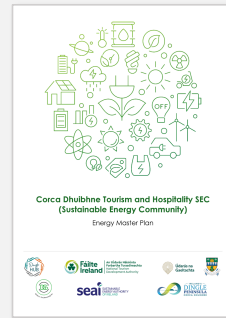
6 **Building Fabric**
Many buildings on the Dingle Peninsula are over 100 years old and need improvement

2 **Measure and Manage**
Keep track of what energy you are using

3 **Staff Training / Behavioural Change**
5% Average reduction

4 **Solar PV**
<4yrs Payback of less than 4 years
20+yrs Longevity of system

5 **Energy Efficiency**
40-60% Lights
30% Appliances





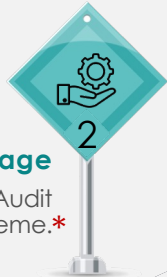
Sectoral Guidance: Hotels, Guesthouses and B&Bs



Roadmap for delivery



2023 Baseline
12,211 MWh
€2.3M
3,325t CO ₂



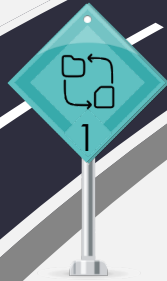
Measure & Manage
Apply for a free Energy Audit using SEAI grant scheme.*



Energy Efficiency
LED lights are 40-60% more efficient. Modern fridges, cookers, washing machines are often 30% more efficient.



Staff Training / Behavioural Change
Staff training on energy savings using the online SEAI Energy Academy.



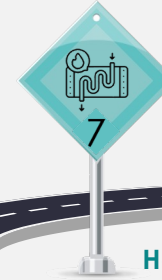
Energy Rate
Shop around for the best electricity price by using an energy broker and save 25% with one phone call.



Building Fabric
Fabric upgrades for your building – looking at windows, doors, insulation using the SEAI grant aid of 30%.



Solar PV
Renewables
Install Solar PV using SEAI grant & ACA tax relief. Average payback is less than 5 years.



Heat Exchange
Renewables:
Get a Heat pump installed using the SEAI SSRH grant aid of up to 40%.

2030
Targets per annum
3,148 MWh
€1.123 M
857t CO ₂

* If your energy spend is under €10,000 per year please apply for the LEO Green for Business



Case Study: Hotels, Guesthouses and B&Bs

Return to
roadmap



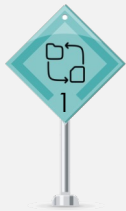
Case Study 2

Business type

A 13-bedroom guesthouse in Dingle town

Date joined SEC

March 2023



Energy Rate

ACTION
1

Using the **SEC's recommended energy broker**, they changed energy providers and **saved 30% of electricity costs** with one phone call.



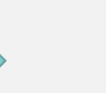
Measure & Manage

ACTION
2

As part of the project, an **energy monitor was installed** in the property. This not only allowed them to keep track of their energy consumption but also **showed that the washing machine and dryer were working inefficiently**.

In September 2024, an application was made for the LEO Energy Efficiency grant. As a SEAI Energy Audit had already been conducted, **the application for the grant could proceed immediately**.

A new A+ washing machine and dryer were bought for €14,000. **A reimbursement of €10,000 will be received via the LEO grant**. The tumble dryer and washing machine are 50% and 30% more efficient, respectively.



A new A+ washing machine and dryer were bought for €14,000. **A reimbursement of €10,000 will be received via the LEO grant**. The tumble dryer and washing machine are 50% and 30% more efficient, respectively.



Solar PV

ACTION
3

October 2023 –**signed up for the Sustainable Energy Community Solar PV Meitheal**.

8kWp of solar PV was installed in March 2024. This meets 50% of their electricity requirement with a **payback of 4 years**.



Building Fabric

ACTION
4

New triple glazing windows were installed in the bedrooms facing the road.

This has **reduced the heating bill** and the noise from the main road.



Sectoral Guidance: Restaurants & Pubs

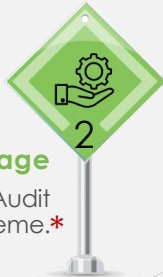


Roadmap for delivery



Case Study

Upgrade to LED bulbs with motion sensors using EEOS grant. Replace old equipment like dishwashers, fridges, compressors, walk in cold rooms, ovens with newer A+ appliances using the LEO Energy Efficiency Grant of 75%.



Measure & Manage

Apply for a free Energy Audit using SEAI grant scheme.*



Energy Rate

Shop around for the best electricity price by using an energy broker and save 25% with one phone call. Make sure you have a night meter.



Staff Training / Behavioural Change

Staff training on energy savings using the online SEAI Energy Academy.



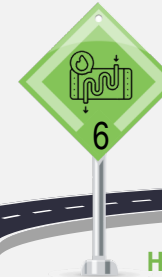
Energy Efficiency

Building Fabric
Improve the fabric of building with insulation, upgrade windows...etc. Your energy audit will guide you on this.



Solar PV

Renewables
Install Solar PV using SEAI grant & ACA tax relief. Average payback is less than 5 years.



Heat Exchange

14 businesses on the peninsula were identified for heat recovery system; heat recovered from cooling systems can be used to heat water. These are larger pubs and pubs with co-located accommodation.

2030
Targets per annum
3,247 MWh
€1.4M
991t CO₂

* If your energy spend is under €10,000 per year please apply for the LEO Green for Business



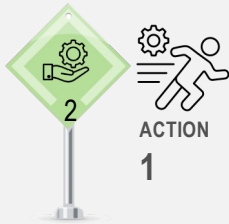
Case Study: Restaurants & Pubs



Case Study 2

Business type **Busy bar/restaurant in a rural location**

Date joined SEC **March 2023**



ACTION
1

Measure & Manage

This business **undertook an SEAI energy audit**.
This audit **revealed a clear path** to improve the building's energy efficiency.



6

Building Fabric

One of the first steps taken from the audit was to **install roof insulation**; greatly improving the fabric of the building.

This **saves the business €1,000 per year** with a **payback of 9 years** and makes place comfortable for customers.



ACTION
2

Solar PV

As part of the **SEC Solar PV Meitheal, 30 kWp of solar panels** were installed on the roof.

This solar PV meets 40% of the bar/restaurant's electricity needs.

With a **payback of less than 4 years**, the energy savings are immediate.



ACTION
3

EV Charging

They plan to **install two 11kVA EV chargers**, enabling the business to offer car charging to customer while they enjoy lunch or dinner at the bar/restaurant.

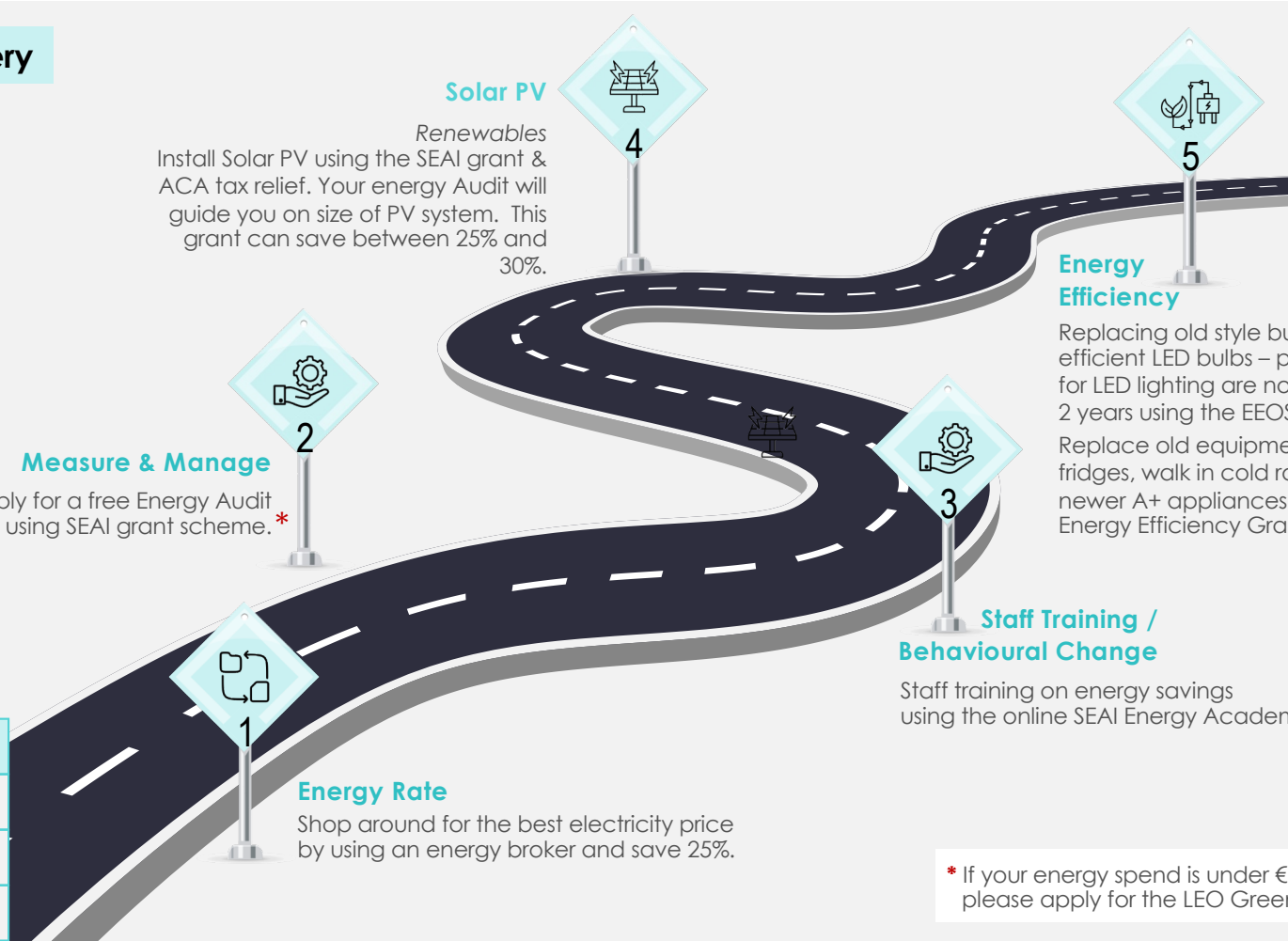
This is an **extra revenue stream** for this business.



Sectoral Guidance: **Café & coffee shop**



Roadmap for delivery



Solar PV

Renewables
Install Solar PV using the SEAI grant & ACA tax relief. Your energy Audit will guide you on size of PV system. This grant can save between 25% and 30%.

Measure & Manage

Apply for a free Energy Audit using SEAI grant scheme.*

2

4

5

Energy Efficiency

Replacing old style bulbs with energy efficient LED bulbs – payback periods for LED lighting are normally less than 2 years using the EEOS.

Replace old equipment like dishwashers, fridges, walk in cold rooms, ovens with newer A+ appliances using the LEO Energy Efficiency Grant of 75%.

Staff Training / Behavioural Change

Staff training on energy savings using the online SEAI Energy Academy.

Energy Rate

Shop around for the best electricity price by using an energy broker and save 25%.

2030

Targets per annum

288 MWh

€132K

79t CO₂

2023 Baseline

1,119 MWh

€240K

237t CO₂

* If your energy spend is under €10,000 per year please apply for the LEO Green for Business



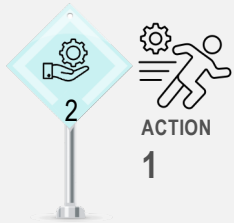
Case Study: Cafés & Coffee shops



Case Study 3

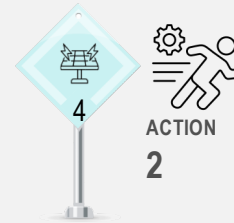
Business type **Small Café / Coffee shop**

Date joined SEC **March 2023**



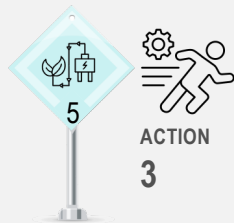
Measure & Manage

This business **undertook an SEAI energy audit**.
The audit advised that the **standalone fridges were running inefficiently**.
The audit also advised them to install Solar PV.



Solar PV

In April 2024, they installed **11kWp Solar PV** and this amounted to 33% of their energy demand and **payback of 4.5 years**.



In 2025 they plan on **upgrading the refrigeration** and will avail of the LEO Energy Efficiency grant.

The new refrigeration will be 30% more efficient. As they have completed their SEAI energy audit, they can **apply for the LEO grant straight away**.



Sectoral Guidance: **Campsite**

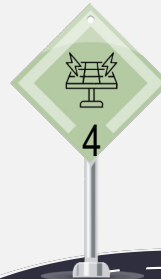


Roadmap for delivery

Solar PV

Renewables

Install Solar PV using SEAI grant & ACA tax relief. Your energy Audit will guide you on size of PV system. This grant aid will save you between 25% to 30%.



Measure & Manage

Apply for a free Energy Audit using SEAI grant scheme.*



Energy Rate

Shop around for the best electricity price by using an energy broker and save 25%.



Staff Training / Behavioural Change

Staff training on energy savings using the online SEAI Energy Academy.



Energy Efficiency

Upgrade to A+ washing machines, dryers with LEO Energy Efficiency 75% grant. Use solar LED lights for outside pathways.

2030

Targets per annum

0.036 MWh

€21K

0.01t CO₂

2023 Baseline

0.141 MWh

€35K

0.04t CO₂

* If your energy spend is under €10,000 per year please apply for the LEO Green for Business



Sectoral Guidance: **Activity Provider**



Roadmap for delivery



Energy Rate
Shop around for the best electricity price by using an energy broker and save 25%.



Measure & Manage
Apply for a free Energy Audit using SEAI grant scheme. *



Staff Training / Behavioural Change
Staff training on energy savings using the online SEAI Energy Academy.



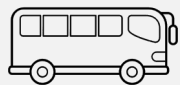
Solar PV Renewables
Install Solar PV using 25% SEAI grant, & ACA tax relief. Your energy Audit will guide you on size of PV system.



Energy Efficiency
Upgrade to LED lighting.



Building Fabric
Improve the fabric of building with insulation, replace windows, depending on age of building. Your energy audit will guide you on this in more detail.



Bio-Methane, Ethically-sourced[†] HVO or electrification of fleet



Ethically-sourced[†] HVO or Bio-Methane

* If your energy spend is under 10,000 per year please apply for the LEO Green for Business

† What is 'ethically sourced'? It's on its second use, European sourced

Opportunity for Anaerobic Digestion and co-located biorefinery – a key enabler for rural deep decarbonisation within a regenerative eco-system

KEY ENABLER

Pillar for local circular economy: short food supply chains (offal)



Municipal Industrial Waste (food)

KEY ENABLER

Immediate emissions reduction through improved management



Slurry

KEY ENABLER

Support economic viability of small farms with long-term contracts for production



Grass silage production

Scouring waste water



Digestate: Liquids and solids



High value biorefinery products: CO₂ rich microalgae



Microalgae upgrading



Biomethane use in transport vehicles provides HIGHEST CARBON REDUCTION of all renewable fuels

CHALLENGES



- Need to **develop sustainable transport** using **locally produced fuel**
- o Forecourt refuelling
 - o Dual-fuel vehicle conversion



- Need **Renewable Transport Fuel Obligation scheme involvement** to support financial viability



- Enabling** community investment

DINGLE PENINSULA ENERGY MASTERPLAN

54%

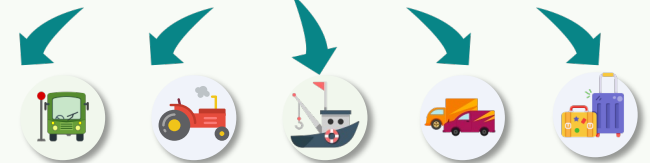
of energy use is on transport

49%

of emissions are from Agriculture



POTENTIAL MARKET:



Public transport: buses

Agri: tractors / contract machinery

Tourism: cooking and transport

Marine: tour & fishing boats

Commercial: van and truck fleets

KEY ENABLER

Replaces fossil fuels with green energy

EV Charging for businesses on the Dingle Peninsula



The Climate Action Plan target is to have

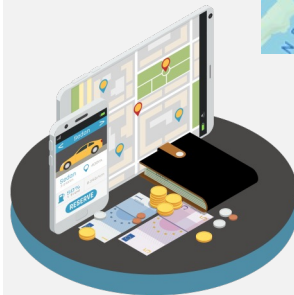
30%

of Irish private car fleet electric by 2030.

This will be a challenge for the peninsula and is important to look at innovative solutions

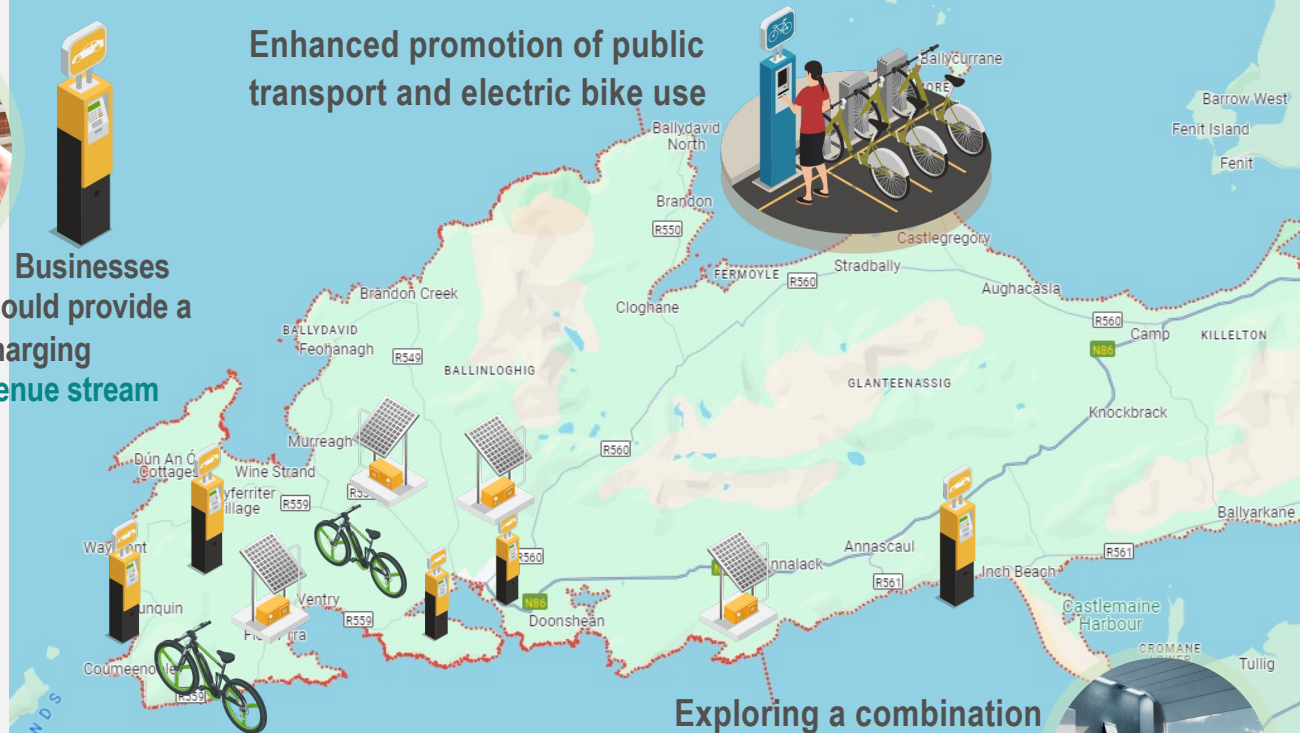


Businesses with car parks could provide a portion of EV charging – **additional revenue stream**

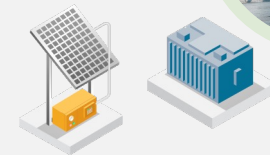


ZEVI is seeking suitable locations for a shared EV charging pilot project **similar to an Airbnb model**

Enhanced promotion of public transport and electric bike use



Exploring a combination of Solar PV and battery storage solutions



What's next to move into **ACTION** from our Energy Master Plan?



Staff Training / Behavioural Change

Collective **POWER**

20 businesses participated in Solar PV Meitheal

20% discount achieved by working together

25% SEAI grant available

4yr Payback time

SEAI expertise accessed to assess the quality of the technical specification of tenders

Extensive sales aftercare package negotiated

A new platform we want to develop with you to support you on your journey, to **save you time, money and energy.**

Today, we are launching our second Solar PV Meitheal, **everyone** who is interested can sign up today.

2-hr Winter Workshops on Food Waste and Energy

20th November – morning and afternoon session on energy

26th November – morning and afternoon session on food waste

26 Partners | 6 field pilots | 3 focus sectors: Tourism, Agriculture, Transport



Horizon Europe-funded Project

- **Objective:** to promote consumers activation and community-level aggregation, in order to increase local (and system-level) energy efficiency, while at the same time aiming at increasing local security of supply.
- Using a **social science and humanities (SSH)** approach and a suitable digital platform, **Citizen Renewable Platform (CRP)**, can assist citizens on their journey to becoming active energy citizens

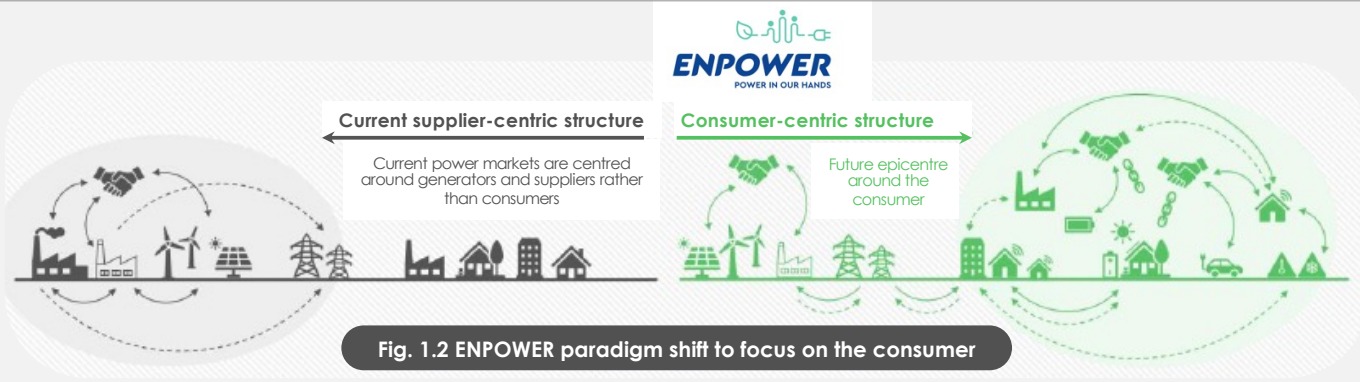


Fig. 1.2 ENPOWER paradigm shift to focus on the consumer

SME's, Communities,
Citizens

Privacy, Security
and Consent



Opportunities



Mass Tendering



Cost Saving



Continuous
improvement





Findings from the EMP

115 specific opportunities

What next

How to help

Identifying campaigns

Ref	Opportunity	Estimated Annual Savings			Category	Electrical / Thermal / Fleet	Type	Additional Information / Comments	Date Entered	Status	Cost Range	Capital Cost	Optional Opportunity Prioritisation					Overall Weighted Priority Ranking (out of 100)
		Fuel Type	[kWh]	[€]									[kgCO2]	Simple Payback	Simple Payback	Project Cost	Inconvenience	
001	Draught proof and improve insulation in attic	Oil	4,950	€588	1,350.0	Technical	Thermal	B&B	Communities grant			€4,000						
002	Replace all external doors	Oil	880	€132	240.0	Technical	Thermal	B&B				€3,000						
003	Improve heating controls with zone stats	Oil	1,650	€195	450.0	Technical	Electrical	B&B				€1,500						
004	Heat recovery System	Oil	4,125	€500	1,130.0	Technical	Electrical	B&B	Support Scheme for Renewable Heat			€6,000						
005	Lag heating pipes in hot press	Oil	700	€85	190.0	Technical	Thermal	B&B				€40						
006	Install ASHP for space and water heating	Oil	18,208	€940	4,880.0	Technical	Thermal	B&B	Support Scheme for Renewable Heat			€15,000						
007	Install biomass boiler	Oil		€1,100	0.0	Technical	Thermal	B&B	Support Scheme for Renewable Heat			€15,000						
008	Complete LED conversion with presence detection	Electricity	2,875	€1,000	930.0	Technical	Electrical	Visitor Attraction				€1,500						
009	Replace front door and windows	Electricity	960	€366	310.0	Technical	Electrical	Visitor Attraction				€10,000						
010	Insulate attic	Electricity	1,647	€247	530.0	Technical	Electrical	Visitor Attraction	Communities grant			€15,000						
011	Pump cavity	Electricity	1,630	€244	530.0	Technical	Electrical	Visitor Attraction	Communities grant			€20,000						
012	Replace storage heaters with additional bi-valent air con	Electricity	2,750	€367	890.0	Technical	Electrical	Visitor Attraction	Communities grant			€15,000						
013	Put in place an energy awareness plan model railway	Electricity	200	€70	60.0	Technical	Electrical	Visitor Attraction				€0						
014	Use existing bi-valent AC instead of storage heating	Electricity	1,607	€401	520.0	Technical	Electrical	Visitor Attraction				€0						
015	Install high temperature heat pump for hot water	Oil	62,853	€1,867	17,200.0	Technical	Thermal	BnB	Support Scheme for Renewable Heat			€18,000						
016	12 kW solar	Electricity	10,874	€3,270	3,530.0	Technical	Electrical	BnB	Microgeneration scheme			€21,600						
017	Draught proof existing wooden window frames	Oil	3,555	€426	970.0	Technical	Electrical	BnB				€1,000						
018	Turn off downlights in hall at night and use table lamps	Electricity	1,350	€445	440.0	Technical	Electrical	BnB				€0						
019	Install ASHP for space heating with improvements to glazing	Oil	58,769	€4,827	16,800.0	Technical	Electrical	BnB	Support Scheme for Renewable Heat			€80,000						
020	Centralised heating controls	Oil	71,118	€711	19,460.0	Technical	Electrical	BnB				€2,000						
021	Heat recovery from refrigeration compressors	Oil	3,240	€485	890.0	Technical	Electrical	BnB	Communities grant			€3,000						
022	Upgrade refrigeration compressors to variable speed compressors	Electricity	2,850	€670	920.0	Technical	Electrical	Pub	Communities grant			€4,000						
023	Replace oil boilers with condensing gas boiler	Oil	1,652	€323	450.0	Technical	Electrical	Pub	Accelerated Capital Allowance			€4,000						
024	Install 11kVA solar PV	Electricity	7,613	€1,915	2,470.0	Technical	Electrical	Pub	Microgeneration scheme			€22,000						
025	Dust extractor outlets to blow across AC outdoor unit	Electricity	10,247	€2,320	3,330.0	Technical	Electrical	Pub				€3,000						
026	Ensure redevelopment of kitchen meets or exceeds current building regs for fabric performance	Electricity	30,000	€4,500	9,740.0	Technical	Electrical	Pub	Accelerated Capital Allowance			€200,000						
027	Strip curtains on cold room doors	Electricity	456	€155	150.0	Technical	Electrical	Restaurant				€100						
028	change over to bulk gas	LPG	0	€962	0.0	Technical	Electrical	Restaurant				€500						
029	use Bivalent AC for heating	Electricity	610	€207	200.0	Technical	Electrical	Restaurant				€0						
030	Improve insulation in flat roof extension	Electricity	166	€77	50.0	Technical	Electrical	Restaurant	Communities grant			€15,000						
031	5kW Solar PV	Electricity	4,214	€1,267	1,370.0	Technical	Electrical	Restaurant	Microgeneration scheme			€10,000						
032	Install 5kW solar PV	Electricity	4,380	€2,000	1,420.0	Technical	Electrical	BnB	Microgeneration scheme			€9,000						
033	Install heat pump for water and space heating	LPG	94,001	€4,601	21,550.0	Technical	Thermal	BnB	Support Scheme for Renewable Heat			€30,000						
034	Pump cavity	LPG	4,121	€425	940.0	Technical	Electrical	BnB	Communities grant			€6,000						
035	Improve attic insulation	LPG	8,556	€678	1,500.0	Technical	Electrical	BnB	Communities grant			€5,000						
036	Install triple glazing	LPG	2,248	€233	520.0	Technical	Electrical	BnB	Communities grant			€40,000						
037	employ energy broker	Electricity	0	€150	0.0	Technical	Electrical	BnB				€0						
038	11kV solar PV	Electricity	5,507	€1,817	1,790.0	Technical	Electrical	Campsite	Microgeneration scheme			€20,000						
039	Install 1000L hot water storage, use excess solar to heat	LPG	4,658	€557	1,070.0	Technical	Thermal	Campsite	Communities grant			€2,000						
040	Replace open display fridge with doored fridge	Electricity	1,085	€361	360.0	Technical	Electrical	Campsite				€3,000						
041	Heat recovery for cold room compressor to hot water	LPG	3,990	€478	910.0	Technical	Thermal	Campsite				€2,000						
042	charge electrical hook ups by kWh	Electricity	3,939	€1,295	1,280.0	Technical	Electrical	Campsite				€5,500						
043	Upgrade refrigeration to cold room in upstairs storage	Electricity	18,000	€7,122	5,840.0	Technical	Electrical	Pub	Accelerated Capital Allowance			€8,000						
044	Heat recovery on upgraded refrigeration	Electricity	15,000	€1,800	4,870.0	Technical	Electrical	Pub	Accelerated Capital Allowance			€3,000						
045	Improve air flow to roads	Oil	5,000	€600	1,370.0	Technical	Electrical	Pub				€500						
046	Convert outdoor electric heaters to gas	Electricity	0	€3,328	0.0	Technical	Electrical	Pub				€2,500						
047	Install occupancy sensing for lighting in transitory areas	Electricity	430	€170	140.0	Technical	Electrical	Pub				€500						
048	5kVA solar PV	Electricity	4,353	€1,697	1,410.0	Technical	Electrical	Pub	Microgeneration scheme			€7,500						
049	Complete LED conversion	Electricity	1,056	€408	340.0	Technical	Electrical	Pub				€1,000						
050	Consolidate refrigeration	Electricity	2,095	€810	680.0	Technical	Electrical	Pub	Communities grant			€3,000						

Register of Opportunities



The Engaged platform

https://engaged...
DCSix Technologies
Register Sign In Reset
Welcome to the platform!
Use the form below to create your account.
Email Address
Password
Confirm Password
Please accept our Terms and Conditions
Sign Up

Your next steps at your fingertips:

1. Energy Audit
2. Solar Meitheal Phase 2
3. Food Waste to Gas workshops
4. Energy Rate review

Welcome To Your DCSix Portal

I want to

Save Money If cost reduction and efficiencies are your most important drivers right now, let get started and jump straight in to your options	Become Sustainable If being sustainable is the primary driver for you joining our platform, we have a selection of approaches that will allow you to leap into a certified and rewarding sustainability journey	Support a Community Communities are striving to become self sufficient and sustainable. This presents opportunities to support endeavours by nominating projects or supporting projects to collectively become more energy resilient and secure into the
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Let's get you on track for saving money

Explore various ways to cut costs and save money on daily expenses.

- SSEA Energy Audit
An energy Audit can be one of the most effective ways of understanding how to best reduce costs
- Tariff Review
I would like to see what alternatives are out there to my current Tariff
- Register for Community Solar
I would like to register my interest in the next phase of community solar
- Waste to Gas
I am interested in participating in an effort to reduce my food waste and generate renewable gas
- Register interest for LED Lighting
I am interested in getting assistance to change out multiple light fixtures and LED bulbs in my
- Commercial BER Assessment
If you plan on buying, selling, leasing or improving a building it will be necessary to conduct a BE...
- High Energy Bills
I need help reducing my energy bills
- I want help understanding my energy bill
I want help understanding my energy bill and usage
- Monitoring
I have electric issues on site and require monitoring immediately
- Historic consumption review
Larger energy users (over 50kVA) are able to request historical 30 minute and in some cases
- Accredited sustainable hospitality assessment
Innovative, travelers and your fellow travel provider clients are seeking confirmation that

Go raibh maith
agaibh

COMMUNITY DRIVEN CHANGE

BE ENGAGED

JOIN THE COMMUNITY PLATFORM

SCAN ME



An tÚdarás Náisiúnta
Forbartha Turasóireachta
National Tourism
Development Authority

