



# SEEA – Sustainable Energy Communities and Home Energy

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## What is a Sustainable Energy Community?

- A Sustainable Energy Community (SEC) is a group in which everyone works together to develop a sustainable energy system for the benefit of the community.
- Aiming, as far as possible, to be energy efficient
- Using renewable energy where feasible
- Adopting smart energy solutions
- Use less Use clean Innovate





#### Hollyfort County Kilanerin Gorey School Wexford Ben Mulhall Community Seal Rescue Ire Ballycanew Ferns Youth Service **SEC Map** Marshalstown Monageer Boolavogue County Enniscorthy Wexford Ballyduff DG Ballywilliam \_ Rathgaroge -- Bree Ecomerit \_ Crossabeg Ballymurn Wexford GAA **Barntown Ballymitty Wexford Town** Grantstown VHA Legend Duncannon Wexford Southwest-Do Stage / EMP Complete AgriSec-Fethard Learn Stage Kilmore Quay CG Plan Stage



#### A Diverse Network of Skills and Interest

- To date, there are 650+ communities in the network. Who are they?
- Small Rural Towns
- Large Urban Centres
- Neighbourhoods
- Third level institutions
- Residents' Associations
- Tidy Towns Committees

- Suburban Community Organisation
  - Local environmental groups
- County Councils
  - Business groups
  - Housing Associations
  - Farm groups



## What does an Energy Community do?

- Energy community Groups come together to look at improving how energy is used, championing a sustainable, holistic way for the benefit of their community.
- They often look at projects in homes, transport, local business and farms.
- They also look at community buildings such as schools, community centres, and sports facilities.





# HOW TO CREATE A SUSTAINABLE ENERGY COMMUNITY







#### **Get the Ball Rolling**

- Build your group
- To start you need to get a group together. The more hands, heads and skills the better, but the main ingredients are enthusiasm and drive. Find out who you need to set up a Steering Committee.
- Register with SEAI
- Join the Sustainable Energy Community network. This way you can access the supports available through SEAI. Learn more about joining the Sustainable Energy Network.
- Talk to your County Mentor
- A mentor will get in contact with you to help you get the ball rolling. They
  might invite you to events or workshops so you can meet with other
  communities and learn more about what you can do.



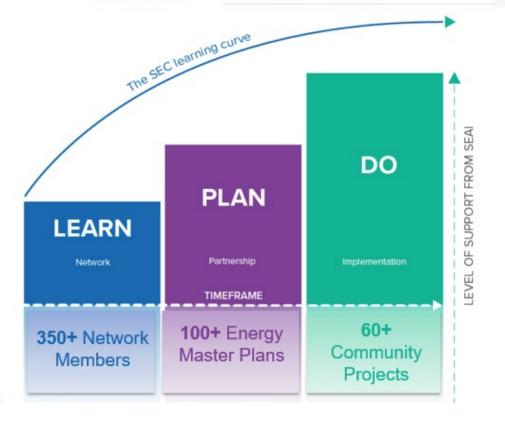


#### What next?

- LEARN: Your community joins the SEC Network, where you can learn about community energy and start thinking about what you can do on the ground.
- PLAN: If your community decides to progress, we will support you in doing a baseline Energy Master Plan. You enter a partnership with us, and we provide further supports as you progress this plan.
- DO: Once you have developed an Energy Master Plan, your community will be able to prioritise the best energy projects to start with. Then you can identify grants or supports to help achieve these projects



#### Learn - Plan - Do





#### **Energy Master Plan Report**

Baseline Energy Data for SEC

Targets for SEC

Register of Opportunities

**Action Plan** 

Existing & Potential Renewable Projects

#### Next Steps

- Project Implementation
- Grant applications
- Review of Master Plan
- Growth of SEC

# **Final Thoughts?**

- It seems obvious that this programme has possibilities for the community.
- On paper it seems to makes sense so lets work together to get it off paper and into the community
- Case studies and best practice examples needed to make theory more believable.
- <a href="https://www.seai.ie/community-energy/sustainableenergy-communities">https://www.seai.ie/community-energy/sustainableenergy-communities</a>





**Sustainable Energy Communities** 

33 SEC's

in the South East

Increase from 2020

**Energy Master** 

Progress

**Successful Community Investment Fund Projects** 

County	Successful Project	Total Funding Granted
Carlow	6	€599,583
Kilkenny	17	€1,423,253
Waterford	30	€1,415,826
Wexford	28	€1,352,163





#### Where do we Lose Energy?



35°



#### Home ages and their energy efficiency



- 1. Look at your BER or look up your BER <a href="https://ndber.seai.ie/pass/ber/search.aspx">https://ndber.seai.ie/pass/ber/search.aspx</a>
- 2. If you don't have a BER, you can estimate how energy efficient your home is by its age. If it is older than 20 years old it might have limited insulation in the roof, walls and windows.

Table 1: Indicative Building Energy Rating grades for typical homes

Oil/gas central	heating	Standard electric heating		Solid fuel central heating		
Year of construction	Typical energy rating	Year of construction	Typical energy rating	Year of construction	Typical energy rating	
2012+	A3	2012+	A3	2012+	A3	
2010-2011	B1	2010-2011	B1	2010-2011	B1	
2008-2009	B3	2008-2009	C3	2008-2009	B3	
2005-2007	C1	2005-2007	D1	2005-2007	C2	
1994-2004	C3	1994-2004	E1	1994-2004	D1	
1978-1993	D1	1978-1993	E2	1978-1993	D2	
Pre 1978	D2/E1/E2	Pre 1978	G	Pre 1978	F	

These tables indicate the typical BER rating for houses by age for various fuel types. The data reflects typical Building Regulations and practices at the time of construction.

# **Home Energy Efficiency and Costs**



Home Size / Type	BER Rating						
	А	В	С	D	E	F	G
75m <sup>2</sup> 2 Bed Apartment	€448	€912	€1,600	€2,240	€3,040	€3,840	€4,800
100m² 3 bed semi-D	€608	€1,280	€2,080	€2,960	€3,920	€5,120	€6,400
150m² 4 bed semi-D	€896	€1,760	€3,040	€4,560	€6,000	€7,520	€9,440
200m <sup>2</sup> Detached House	€1,280	€2,400	€4,160	€6,080	€8,000	€10,080	€12,640
300m² Large House	€1,760	€3,680	€6,240	€9,040	€11,920	€15,200	€19,040

#### **How do we Heat our Homes?**



#### How everyone heats their home varies from house to house

- Oil Boiler traditional central heating system that runs on oil
- Gas Boiler traditional central heating system that runs on gas
- Stove runs on solid fuel (some with back boiler for heating / hot water)
- Open Fire runs on solid fuel (some with back boiler for heating / hot water)
- Storage Heaters runs on electricity
- **Electric Heaters** runs on electricity
- Heat Pump renewable heating system runs on electricity

## Traditional oil/gas boilers vs condensing boilers

Traditional oil or gas boilers and condensing boilers are both used to heat homes and provide hot water.

• Efficiency: Condensing boilers are significantly more efficient than traditional boilers. While a traditional boiler may have an efficiency rating of 60-70%, a condensing boiler can achieve up to 98% efficiency. This is because condensing boilers have a secondary heat exchanger that captures heat from the flue gases, which would otherwise be wasted.





#### **How to Keep Your Home Warm**

# Heating Your House is one thing, but keeping the heat in is another! Radiator Checklist

- Move any furniture that's blocking radiators.
- Bleed and / or de-sludge radiators if necessary.
- Place radiator foil on the wall behind your radiators.

#### **Heating Controls**

- Ensure the timer is set to <u>only</u> heat your home / hot water when you are home.
- Upgrade your heating controls (grant available).

#### **Windows and Doors**

- Replace worn / damaged <u>rubber</u> and <u>brush</u> seals on your front and back doors.
- Have your windows serviced to repair damaged seals and opening / closing mechanism.
- Hang curtains inside your front and back doors and close them in the evening.















#### Things to check in your home:



- 1. Roof How deep is your insulation? It should be at least 30cm deep. Is it damaged? Compacted? Wet?
- 2. Walls Is it cavity or solid wall? Can sometimes be seen at the meter.
- 3. Are your windows double glazed? Is there a large amount of heat loss around? Borrow the energy kit from the library
- 4. Is your heating system over 10 years old?





#### **Housing Aid for Older People Grant**

It is aimed at people aged **66 and older**, who are living in poor housing conditions. However, in cases of genuine hardship the local authority may help people under the age of 66. Support includes:

- Repairs and modifications: The grant covers the cost of essential repairs such as; Repairing or replacing the roof, Upgrading the electrical wiring, Repairing or replacing the windows and doors and Providing central heating
- Qualifying for the grant: Eligibility is based on household income, with gross annual income assessed for all adults over 23 living in the home, as well as the registered property owner and their spouse. Certain income, such as Carer's Allowance or Child Benefit, is not considered when calculating household income, and the grant provides exemptions for households with children or relatives providing full-time care.







#### **Housing Aid for Older People Grant**

- **Funding**: The grant provides up to €8,000 or 95% of the cost of the work approved by your local authority.
- What do I need to apply: Complete the application form and provide certain evidence and supporting documents. You must provide evidence: Of your gross household income for the previous tax year, That the Local Property Tax (LPT) for your home is in order, That your tax affairs are up-to-date
- **How do I apply:** You can <u>download the application form</u> <u>from gov.ie</u> or from your local authority's website. You can also get the form from your local authority. This application form is used to apply for 3 different grants which are available to older people and people with disabilities to adapt their homes.

Maximum yearly household income	% of costs	Maximum grant
Up to €30,000	95%	€8,000
€30,000 - €35,000	85%	€6,800
€35,001 - €40,000	75%	€6,000
€40,001 - €50,000	50%	€4,000
€50,001 - €60,000	30%	€2,400
Over €60,000		No grant payable









# **Home Energy Grants**





# **Home Energy Grants Comparison**

	Free Energy Upgrade	One Stop Shop Service	Individual Energy Upgrade
Home energy assessment	<b>Ø</b>	<b>Ø</b>	
Project management			
Wall and roof insulation			<b>Ø</b>
Floor insulation			
Windows	<b>Ø</b>	<b>Ø</b>	
Heating controls			<b>Ø</b>
Heat pump systems	<b>Ø</b>	<b>Ø</b>	<b>Ø</b>
Solar water heating		<b>Ø</b>	<b>Ø</b>
Solar electricity		<b>Ø</b>	<b>Ø</b>
Ventilation	<b>Ø</b>	<b>Ø</b>	
BER assessment	<b>Ø</b>	<b>Ø</b>	<b>Ø</b>







# The SEAI Warmer Homes scheme delivers free energy upgrades to eligible homeowners who are in receipt of one of the following:

For qualifying homeowners in receipt of certain welfare benefits:



- Fuel Allowance
- Job Seekers Allowance for over six months with a child under seven
- Working Family Payment
- One-Parent Family Payment
- Domiciliary Care Allowance
- Carers Allowance
- Disability Allowance for over six months with a child under seven
- Must own and live in your own home which was built & occupied before
  2006
  <a href="https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/">https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/</a>

#### **Available energy upgrades:**

- Attic insulation
- Cavity wall insulation
- External wall insulation
- Internal wall insulation
- Other secondary measures such as lagging jackets, draught proofing & energy efficient lighting
- Occasionally, heating upgrades and/or window replacements may be recommended.

Delivered through a panel of private contractors and community-based organisations



#### **Individual Energy Grants**

#### **Grant Amounts – Private Homes**

	Private Homes			
Measures	Detached	Semi-Detached/	Mid Terrace	Apartment
* note all measures have a minimum specification		End Terrace		
Heat Pump-Air to Water		€6,500		€4,500
Heat Pump -Air to Air		€3,500	)	
Heating controls only		€700		
Ceiling Insulation	€1,500	€1,300	€1,200	€800
Rafter Insulation	€3,000	€3,000	€2,000	€1,500
Cavity Wall Insulation	€1,700	€1,200	€800	€700
External Wall Insulation	€8,000	€6,000	€3,500	€3,000
Internal Dry Lining Insulation	€4,500	€3,500	€2,000	€1,500
Solar Hot Water	€1,200			
Solar PV	0 to 2kWp €900/kWp			
	2 to 4kWp €300/kWp			



➤ Heat Pump Technical Assessment Grant: €200

➤ Post works BER Grant: €50

https://www.seai.ie/grants/home-energy-grants/individual-grants/



# One Stop Shop Energy Grants

#### Grant Amounts – Private Homes

		Private Homes			
Measures	Detached	Semi-Detached/	Mid Terrace	Apartment	
* note all measures have a minimum specification		End Terrace			
Heat Pump-Air to Water		€6,500		€4,500	
Central Heating System for a Heat Pump		€2,000		€1,000	
Heat Pump -Air to Air		€3,50	0		
Heating controls only		€700			
Ceiling Insulation	€1,500	€1,300	€1,200	€800	
Rafter Insulation	€3,000	€3,000	€2,000	€1,500	
Cavity Wall Insulation	€1,700	€1,200	€800	€700	
External Wall Insulation	€8,000	€6,000	€3,500	€3,000	
nternal Dry Lining Insulation	€4,500	€3,500	€2,000	€1,500	
Windows	€4,000	€3,000	€1,800	€1,500	
External Doors (max 2)		€800 per door			
Floor Insulation		€3,500			
Solar Hot Water		€1,20			
Solar PV		0 to 2kWp €9	900/kWp		
		2 to 4kWp €300/kWp			
Mechanical Ventilation		€1,500			
Air tightness		€1,000			
Home Energy Assessment		€350			
Project Management	€2,000	€1,600	€1,200	€800	
OSS Scheme launch bonus for B2 with a Heat Pump		€2,00	0		





## **Better Energy Grants - Homes**



- Alternative to One Stop Shop
- Bring House to B2
- Project Managed from start to finish
- Included in BEC Application being submitted in your area
- 80% Grant available for <u>1 2 bed social units only</u> at present





## Why Solar?



- Source of Free energy and Clean energy
- Good Payback period
- Government supported subsidies and grants
- Minimal maintenance costs

#### **Grants for Home Owners: Installation of Solar PVs**

There is a solar PV grant for homes and this is capped at €2,400. For more information please see the link below on the SEAI website.

- You can get €900 per kW installed up to a maximum of 2kW. So, the limit here is €1800;
- > You can get €300 per kW installed for the next 2kW if a battery is also installed, so the limit here is €600;

VAT for domestic solar installations will be cut from 13.5% VAT to 0.0% from May 1st 2023.

#### Planning Permission Exemptions for rooftop solar panels on homes and other buildings (October 2022):

- For solar panel installations on houses: which can be installed on rooftops of homes, anywhere in the country. there
  is no limit to the area of solar panels
- For solar panel installations on rooftops of all other existing classes of development (Industrial; Light Industrial
  and Business Premises; Agricultural, Apartments; educational building/ health centre or hospital/ recreational or
  sports facility/ place of worship/ community facility or centre/ library/ certain public utility sites): rooftop solar
  installations covering the entire roof are exempt from requiring planning permission.

# Micro Generation Support Scheme (MSS)

#### Who can benefit for the MSS?

The scheme is targeted at domestic (homes) and non-domestic sites generating up to 5.9kW. This equates to approx. 18 solar panels on a roof.

It is also aimed at larger, non-domestic sites, farms, business properties, community buildings, generating between 6kW and 50kW. This equates to between 18 and 150 solar panels on the roof of community buildings, or a small factory.

#### What supports are available?

For applicants generating up to 5.9kW the available supports are threefold:

Payment per kWh for surplus electricity exported to the grid — this is known as the Clean Export Guarantee (CEG);

Home-owners will continue to be able to apply to the SEAI for a grant towards the cost of installing equipment.

Businesses and community buildings will be eligible for an SEAI grants up to €2,400 at the same levels as domestic customers.

**For larger non-domestic sites,** generating between 6kW and 50kW, there will be a set payment per kWh for surplus electricity exported to the grid paid by suppliers for a set period of 15 years — this is known as the **Clean Export Premium (CEP).** 



#### **Transport Grants**

**EV Grant:** A grant of up to €5,000 for private EV buyers or up to €3,800 for commercial EV buyers to offset the purchase cost of a new electric car.

Approved EVs with a full price of more than €60,000 and less than €14,000 will not receive a grant.

\*Note: The maximum grant for a private M1 (passenger car) will change to €3,500 from the 1st July 2023.

**EV Home Charger Grant:** A grant of up to €600 towards the installation cost of an electric vehicle home charger for private EV owners.

The grant is now open to homeowners to apply for a grant, whether they own an electric vehicle or not. This charge point can also be used for visitor use or at rented accommodation.



#### **Community Energy Grants**

Communities and businesses	Households	Schools
SEAI's Community Energy Grant	Warmer Homes Scheme	Department of Education – Summer Works Scheme
LEADER	One Stop Shop	Pathfinder
Community Climate Action Fund Strand 1	Individual Grants	
Support Scheme for Energy Audits (SSEA)	Community Energy Grant - Homes	
Rural regeneration and development fund		
Town and Village Renewal Fund		
Community Centres Investment Fund		

SEAI's Community Energy Grant. Coordinated by South East Energy in the Southeast. Businesses and Community buildings can receive 30 to 50% of the costs of energy efficiency works



#### **Other Programmes/ Funding**

Programme/ Funding	Administering Body	Area		
Accenture Sustainable Community Challenge in Ireland	Accenture (ChangeX)	Environmental connection, awareness & Protection; Food & Waste; Circular economy		
Biodiversity Grant	Community Foundation for Ireland in partnership with the National Parks and Wildlife Service	Environmental connection, awareness & Protection		
Community Centres Investment Fund		Community centre upgrades - energy, safety, access etc.		
Community Recognition Fund	Department of Rural and Community Development	Community travel; Upgrades for structural and natural amenities; Community gardens; Environmental awareness & connection [Tied to supporting and hosting Ukrainians and other arrivals]		
Community Heritage Grant Scheme	Heritage Council	Heritage; Conservation; Environmental assessment & protection; Biodiversity		
Shared Island Sports Club EV Charging Scheme	Pobal	Travel		
Community Grant Programme (Better Energy Community)				
Renewable Energy Support Scheme (RESS)	SEAI	Energy		
Sustainable Energy Communities	1			
Community Support Fund		Grounds upkeep and maintenance; Environmental connection; Social and community facilities		
Town and Village Renewal Fund		Enterprise; Tourism		
Clár	County Council	Developing Community Facilities & Amenities; Mobility & care transport		
Local Litter Awareness & Anti-graffiti Grant		Waste		
Waster Prevention Grant		Waste		
Community Environment Action Fund		Environmental connection, awareness & protection; Waste		
LEADER	Leader Partnership	Social inclusion and economic development in rural areas.		

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