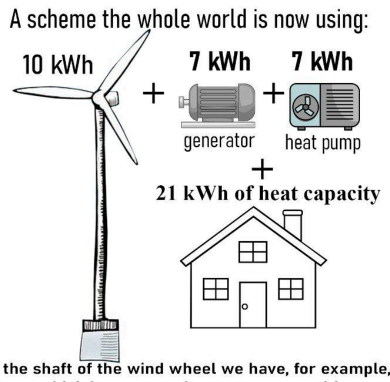
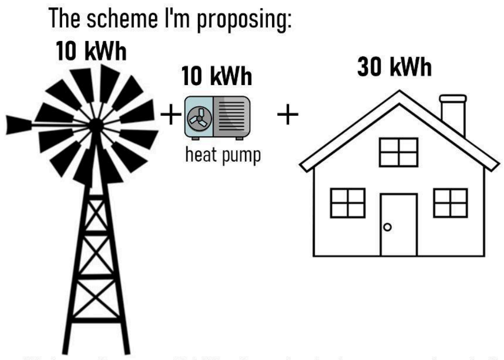
Schematic representation of the Project

In Ireland there is a constant presence of wind and wind turbines of various sizes and capacities are widely used, but no wind mechanics are used yet. According to the standards, to obtain 1 kWh of electrical power from the generator, the shaft of the wind wheel itself must have 1.5 times more mechanical power, and some manufacturers make even 2-2.5 times more. I think this is a big disadvantage because of energy losses. It is necessary to make a wind mechanic, which will produce heat directly from the wind without an intermediary in the form of electricity.





On the shaft of the wind wheel we have, for example, 10 kWh of mechanical energy, which is connected to a generator with a capacity of 7 kWh (observing an energy loss ratio of 1:1.5).With the help of the generator I, for example, plan to heat my house with a heat pump. Accordingly, in this case I will not be able to install more than 7 kWh of power on it. The heat pump, in turn, will only be able to transfer 21 kWh of thermal energy to the house (the average ratio of electrical to thermal energy transfer is 1:3).

We have the same 10 kWh of mechanical power on the wind wheel shaft, which is connected directly to a mechanical compressor or heat pump (as in a car).
Thus, we get a mechanical heat pump with a capacity of 30 kWh (average electrical to heat transfer ratio of 1:3).
As a result, we have a 42% more efficient system compared to the first option used. Plus, by removing a whole node from the design, in the form of a generator, we will increase the reliability of the entire system.
The fewer the links, the stronger the chain. This is the best scheme at the moment.

Also, I can suggest other effective ways of transferring mechanical energy into thermal energy, for example, with the help of Foucault currents or with the help of direct mechanical braking.

Profit from the Project

<u>Option One</u>

- Investors can invest in real estate, for example, by purchasing a property and renting it out. If a house costs €150,000, the estimated monthly rental income will be €1,200, excluding taxes.

Thus, the annual income will be:

12 months * €1,200 = €14,400.

The full return on investment will take 125 months or 10 years and 4 months.

- Alternatively, they can invest in purchasing a wind mechanic with a shaft power of 45 kW/h. It is directly connected to a heat pump, bypassing electricity. The average heat pump transfer coefficient is 1:3.

Thus, we get:

45 kW/h * 3 = 135 kW/h of thermal energy.

On average, such an installation will generate per year:

135 kW/h * 3,000 = 405,000 kW/year.

Assuming the cost of 1 kW of heat generated by this system is €0.11 (calculated based on the cost of 0.1 liters of oil, which produces the same amount of heat when burned), the annual revenue will be:

405,000 kW/year * €0.11 = €44,550.

The full return on investment will take 40.4 months or 3 years and 4 months.

<u>Option Two</u>

A collective purchase of a wind mechanic by households for domestic needs (heating, hot water).

The estimated cost of the wind mechanic is €150,000; on average, it will generate 405,000 kW/year of thermal energy.

A house in Ireland, during the autumn-winter heating period (from September to April), consumes an average of 120 liters of oil per month.

Converting liters into kW, we get:

1,088 kW/month * €0.11 = €119.68/month.

On average, the wind mechanic will generate per month:

405,000 kW/year ÷ 12 months = 33,750 kW/month.

Thus, it will be able to heat 31 houses:

33,750 kW/month ÷ 1,088 kW/month = 31 houses.

If the wind mechanic is purchased collectively for €150,000 ÷ 31 houses, each household will need to pay €4,838.

The return on investment will take 40.4 months or 3 years and 3 months, after which the continued use of the wind mechanic will provide free heating and hot water.

Such real estate will also be easier to sell, as homeowners will automatically receive free heating and hot water by purchasing a house where this system is implemented.

<u>Option Three</u>

This project can also be implemented by construction companies. It is an excellent solution for providing almost uninterrupted heating and hot water supply to new apartments and houses. By selling this technology to developers, they can incorporate accurate calculations for installation at the planning and approval stage of construction projects.

This ensures comfort through green energy and contributes to environmental protection and sustainability.

<u>Option Four</u>

This project will also be of interest to greenhouse farms. If such farms are located along the coastal zone, they will have a more stable supply of vegetables, flowers, and other greenhouse products nationwide, competing with the price of imported goods from other countries.

Prospects for the Development of This Project

In 2020, Irish households spent approximately €1.2 billion on petroleum products for heating (kerosene + fuel oil). Since 2022, kerosene consumption has been decreasing due to the growing popularity of heat pumps, with their share in heating increasing by 8%.

Now, in 2025, the share of heat pumps is approaching 30%, meaning:

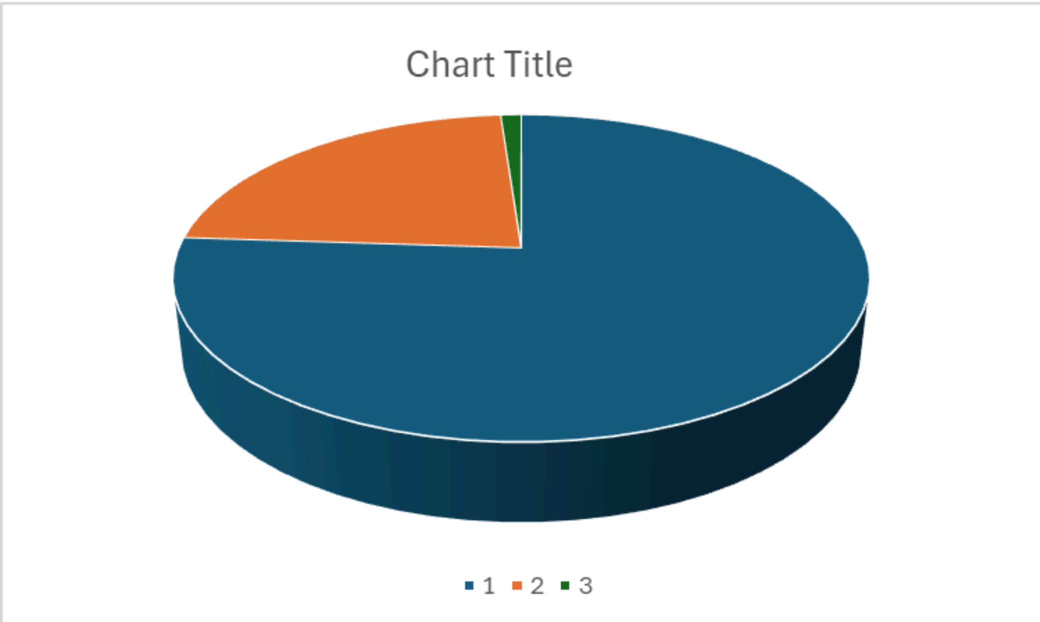
€1.2 billion – 30% = €360 million.

If we capture even 5% of the market share that standard heat pumps are taking from traditional heating methods, we get:

€360 million * 5% (Wind Mechanic) = €18 million.

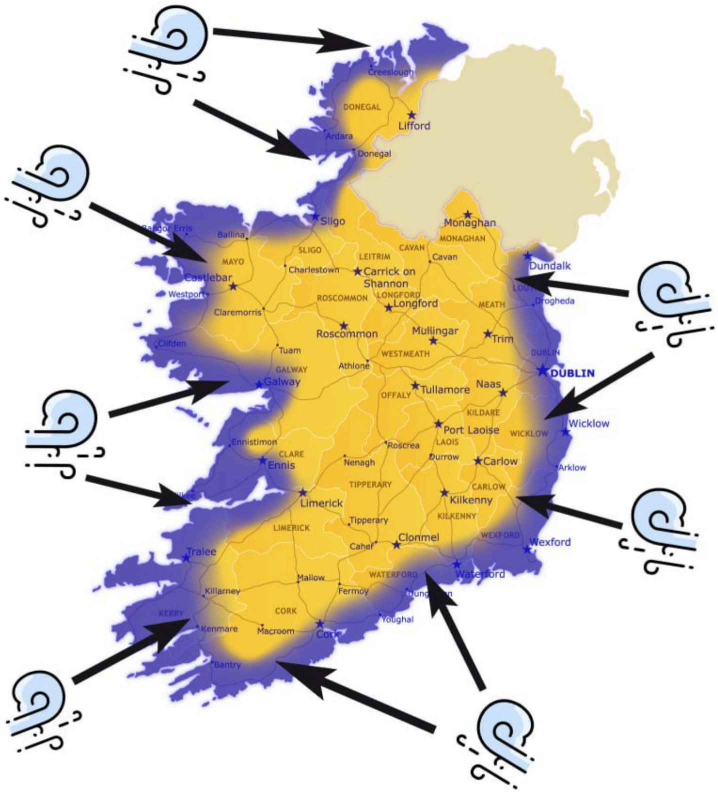
Thus, by implementing this project, it is possible to generate a profit of €18 million.

1	€1,200,000,000	100%	annual heating costs in ireland
2	€360,000,000	30%	annual costs of electric heat pumps from total annual heating costs
3	€18,000,000	5%	planned annual wind turbine costs from annual electric heat pump costs



This project aligns with Ireland's green energy transition and offers scalable, sustainable revenue streams. Let me know if you need further refinements!

Map of potential customers for plant placements



East Coast (Irish Sea)
1. Dublin - Population: ~1.3 million (with agglomeration).
- Households: ~500,000.
Location: Dublin Bay.
2. Drogheda (Drogheda) - Population: ~40,000.
- Location: Mouth of the River Boyne, which flows into the Irish Sea.
3. Skerries - Population: ~10,000.
- Feature: A seaside village with a harbor.

South Coast (Celtic Sea)
4. Cork - Population: ~210,000.
Location: The River Lee flows into the Bay of Cork.
5. Cobh - Population: ~12,000.
- Feature: An island town in the Bay of Cork.
6. Kinsale - Population: ~5,200.
- Location: Mouth of the River Bandon, out to the Atlantic

West Coast (Atlantic Ocean)
7. Galway Population: ~80,000.
Location: Galway Bay.
8. Clifden - Population: ~2,500.
- Feature: Capital of the Connemara region, surrounded by ocean.
9. Dingle Population: ~2,000. Location: Dingle Bay.

Risks and Disadvantages

No wind — no heat. This is alternative energy, which cannot fully replace traditional energy sources, but it can significantly reduce the extraction of depletable natural resources and preserve the environment.

A wind mechanic cannot be installed on a mass scale due to design features and installation regulations for such devices.

The creation of this design leads to unpredictable breakdowns because the installation will be the first of its kind. During testing, all shortcomings and malfunctions can be identified and fixed. In any case, this invention will be implemented in Ireland due to its efficiency.

Why does funding for alternative energy increase during a crisis?

Energy Security: Crises (economic, geopolitical) expose the vulnerability of dependence on fossil fuels. Alternative energy reduces the risks associated with oil/gas prices and supplies.

Long-term Savings: Renewable energy sources (RES) are becoming technologically cheaper. Solar and wind power plants pay for themselves faster than traditional energy infrastructure.

Stimulus for the Economy: Investments in "green" projects create jobs and drive innovation, which helps to emerge from the crisis (example: post-COVID-19 recovery packages).

Climate Commitments: Even in a crisis, countries adhere to agreements (e.g., the Paris Agreement) to avoid sanctions and loss of reputation. Example: In 2020–2022, the EU, as part of the "Green Deal" crisis plan, allocated €500+ billion to RES and hydrogen technologies to reduce dependence on Russian gas and accelerate the transition to carbon neutrality.