Daly

Daly Renewables | Renewable Energy Guide for Self Builds

BUILD A GREENER FUTURE
WITH CONFIDENCE

Renewable Energy Solutions for New Builds
Ideal for Homes & Budgets of All Sizes

WELCOME TO DALY RENEWABLES

> A home that is comfortable and easy to heat will take priority for most of us

Whether you're an architect designing a new build or a self-builder embarking on a new project, we want to thank you for considering Daly Renewables to be a part of your journey.

At Daly, we are passionate about both educating self-builders and helping them achieve their dreams of a cost-effective and efficient home.

When it comes to your dream property, a home that is comfortable and easy to heat will take priority for most of us.

Our goal is to provide you with comprehensive information and support to ensure your dream of a sustainable, energy-efficient home becomes a reality.

We are dedicated to offering scalable and affordable renewable energy solutions tailored to your home's size and budget.

Our packages are designed to maximise efficiency and minimise running costs, helping you create a home that is both comfortable and cost-effective to run.

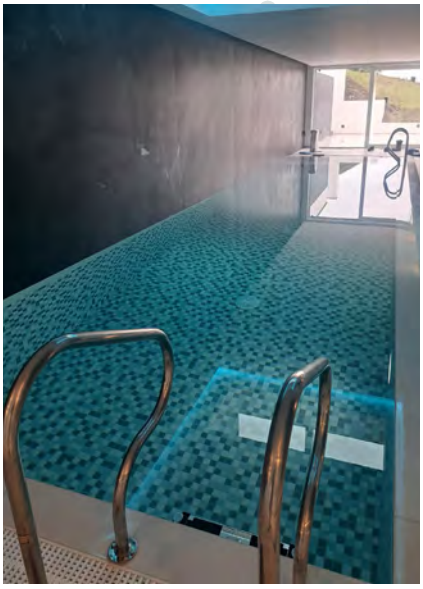
Our three-tiered Renewable Energy Packages offer a typical cost breakdown based on the size of your home and your budget.

We understand that one size does not fit all. That's why we pride ourselves on offering customised solutions that cater to your specific needs and requirements.

Ryan Daly, MD, Daly Renewables

Why Daly Renewables is the right Partner for You

We hope this guide provides an initial understanding of renewable technology options and associated budgets. When we meet with you we will discuss the "Daly System" and our detailed approach to project managing your self build, together with costings, which will form the basis of a personalised quote tailored to your project.



Renewable Energy Solutions

We specialise in comprehensive renewable energy integration, working closely with homeowners, architects, builders, and electricians to deliver a fully optimised, future-proof system. Having one point of contact for all the mechanical/ renewable systems on your project will alleviate the stress that can come with a self build.

Engineer-Led Specialists

Our team consists entirely of dedicated engineers. For each project, we provide customised calculations, drawings and specifications, integrating technologies from top-quality European suppliers to showcase our engineering expertise.

Service 365

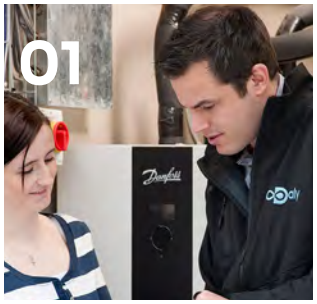
We are passionate about offering an end-to-end service for our clients. We provide a comprehensive handover pack on completion which details our warranties and 24-48 hour response time if you encounter an urgent problem. Our handover pack will outline our ongoing aftersales support in the form of a maintenance contract when the installation is complete.

Our Process

At Daly Renewables, we take great pride in our role as renewable energy experts.

For over 15 years, our clients have consistently valued our technical and professional advice, which have been key to boosting energy efficiency and lowering costs in hundreds of self-build and retrofit projects.

OUR TEAM OF ENGINEERING EXPERTS ARE HERE TO HELP



Design Consultation

In this phase, our engineering design team will arrange an initial consultation with you and your architect to fully understand your goals for integrating renewable solutions into your new build. This is a valuable opportunity for us to collaborate, ensuring that your house design and material choices are optimised for renewable energy integration.

Full Mechanical Design (Pre-construction)

We offer this as a stand-alone service, but for clients who choose Daly Renewables as their installation partner, this phase is included in our installation package.

Project Costing and Grants

Once the brief is agreed, we then prepare a detailed proposal and quote. Once accepted, we require a small deposit and will provide you with a contract detailing stage payments, warranties, and other important information. We can also assist with grant funding applications, if applicable.

Bespoke Design

Our team of qualified engineers design a bespoke system tailored to your specific needs, considering your site, plans, budget, and lifestyle aspirations. Each component is sized to meet your output requirements. Our calculations, schematic drawings, and design plans are handled by qualified Environmental Building Services Engineers, and we carry relevant PI Insurance to ensure the integrity of our system designs.

On-site Co-ordination with other trades

At Daly, we go above and beyond to assist other trades to help optimise your home from the ground up and future-proof your property for years to come. We offer expert guidance on installation, air tightness, and thermal bridging to ensure your home achieves maximum efficiency and return on investment from your renewable solutions.

Installation

Our team of experienced plumbers and electricians take care of the entire installation, ensuring it's ready for our engineers to commission. With a skilled installation team on board, the commissioning process is seamless. We've trained extensively with all our partnered manufacturers and have in-depth knowledge of their products. We'll maintain regular communication with you throughout the build and be on-site whenever you need us.

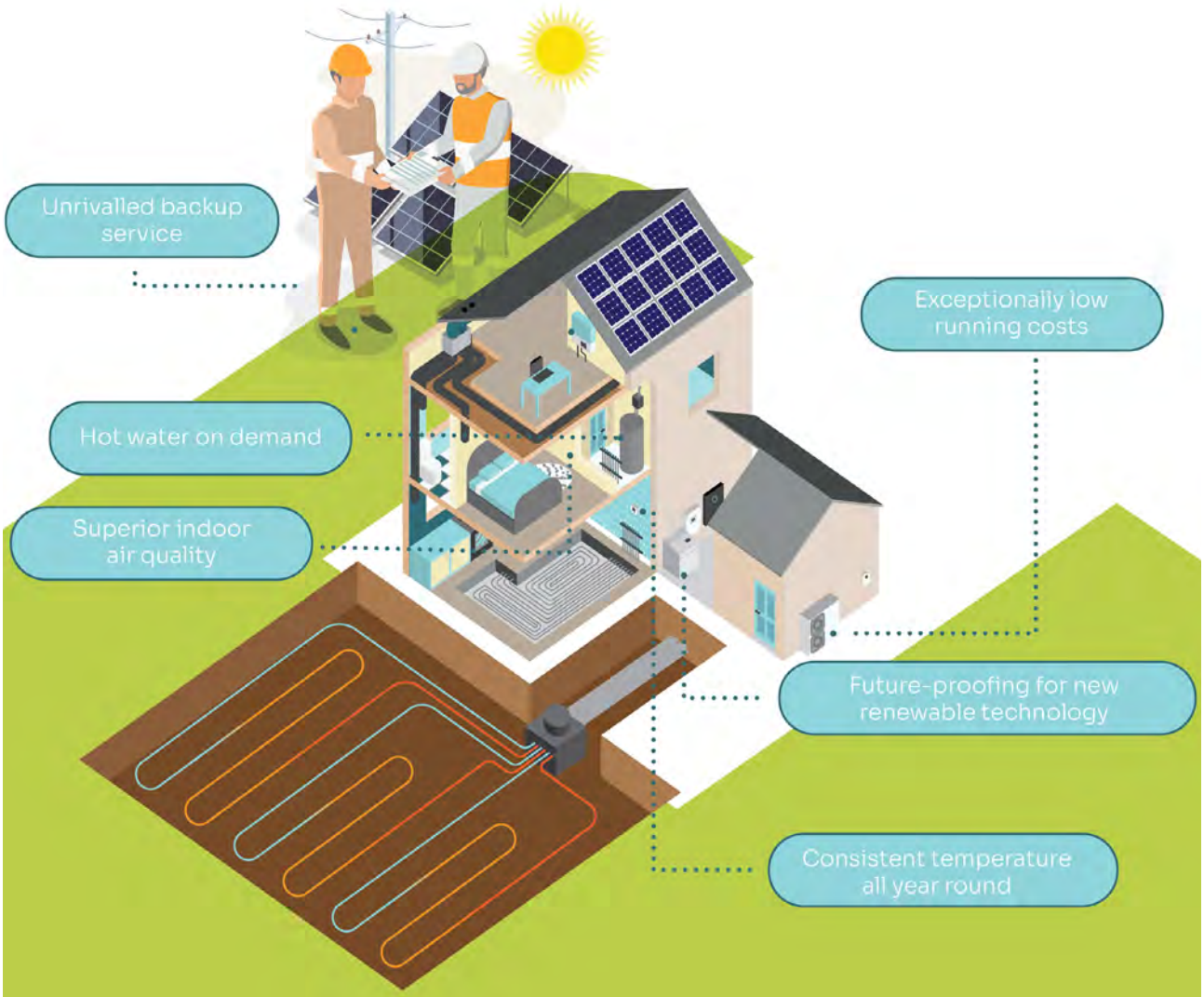
Commissioning

Daly engineers conduct site visits during the installation process to ensure all systems are thoroughly checked before commissioning. Commissioning is a crucial part of the project. At Daly, we fine-tune systems meticulously, ensuring our clients receive a system that is highly effective, efficient, easy to operate, and requires minimal maintenance.

System Demonstrations / Handover / Lifetime Maintenance

We provide lifetime maintenance for all our systems, although they are relatively low maintenance anyhow. Our Service 365 means you never have to worry about downtime. We strive to be on site within 24-48 hours should you encounter an urgent problem.

The Outcome of Daly Projects

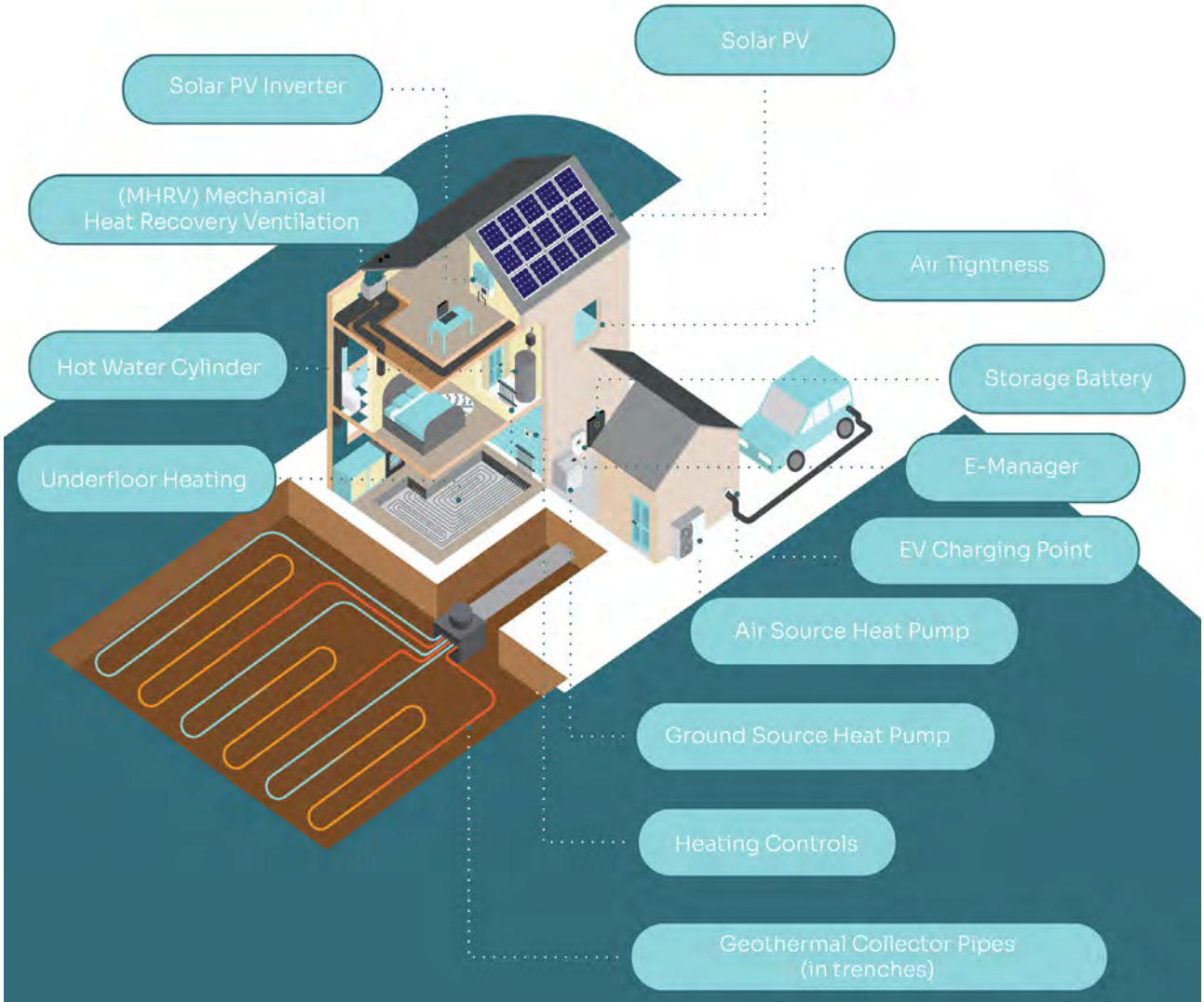


Ready To Start Saving on your Energy Bills?

Info@dalyrenewables.com

028 9266 7745 | (00 353) 766026466

Technologies We Offer



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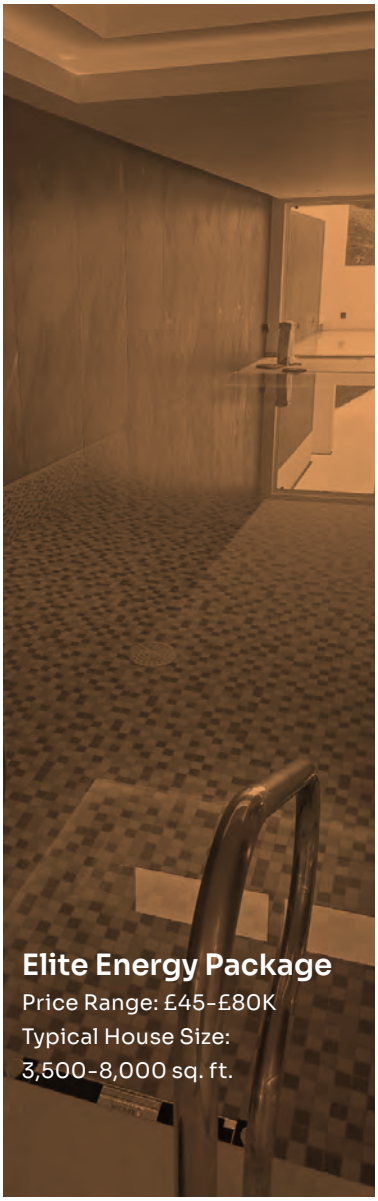
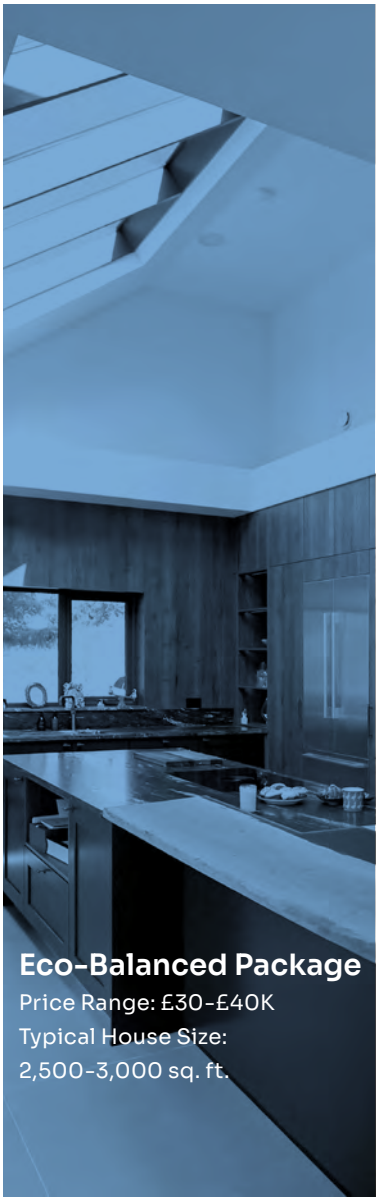
OUR PACKAGES



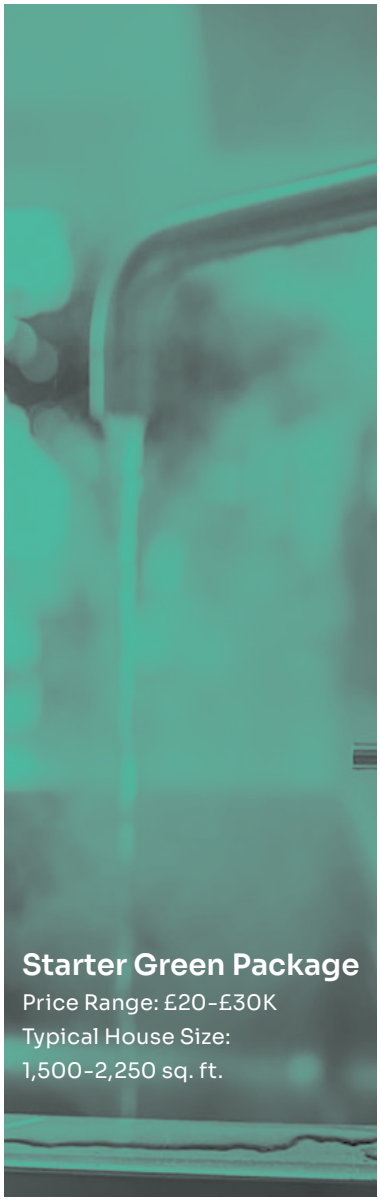
Elite Energy Package
Price Range: £45-£80K
Typical House Size:
3,500-8,000 sq. ft.

For large homes with a generous budget, this package offers maximum energy efficiency, sustainability, and future-proof technology.



Eco-Balanced Package
Price Range: £30-£40K
Typical House Size:
2,500-3,000 sq. ft.

A balanced, efficient option for mid-sized homes. This option is ideal for eco-conscious customers wanting to invest in renewable energy.



Starter Green Package
Price Range: £20-£30K
Typical House Size:
1,500-2,250 sq. ft.

For families building a new home where budget is critical, our Starter Green Package offers budget-friendly, energy-efficient solutions for modest homes.

Elite Energy Package

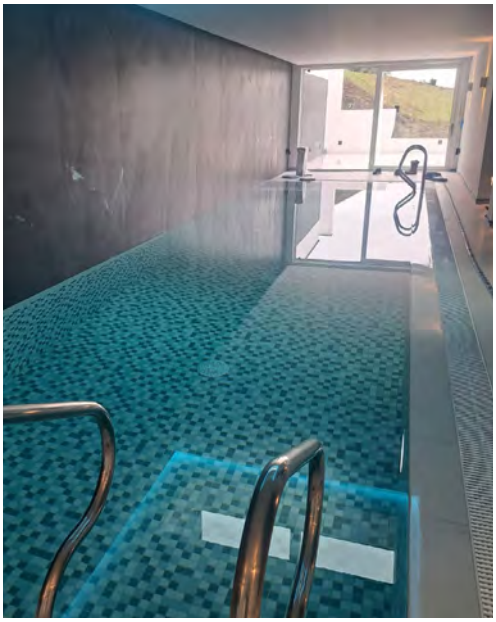
Typical House Size: 3,500-8,000 sq. ft.
Price Range: £45-£80K
Typical Annual Running Costs: £950.00

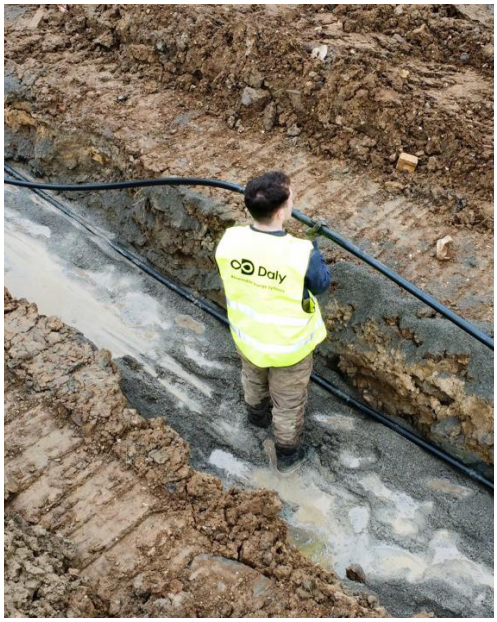
Traditional Oil Burner System:£35-£70K
Typical Annual Running Costs: £2,400.00

For large homes with a generous budget, this package offers maximum energy efficiency, sustainability, and future-proof technology.

Heating, Cooling & Hot Water for Luxury Home

PORTAFERRY, ARDS PENINSULA, CO. DOWN





Daly Renewables successfully designed, engineered, and installed a comprehensive renewable energy solution for a 5,000-square-foot new build on the Ards Peninsula, Co. Down.

The all-in-one system provides heating, cooling, and hot water for the home, integrating state-of-the-art renewable technologies to maximise efficiency and sustainability. The project involved close collaboration with key stakeholders, including the architect and main contractors to deliver a high-performance, eco-friendly living space.

Key Features
The bespoke system includes a suite of advanced technologies designed to meet the home's energy needs:

- 10kwh Battery Storage Solution
- Swimming Pool Heating by GSHP
- Ecoforest 5-22kW Ground Source Heat Pump
- Geothermal Horizontal Collector Pipe
- ROTH UK LIMITED Underfloor Heating
- Daly MHRV System
- 13kW Solar PV Array
- Ecoforest Energy Manager

One standout feature of this installation is the ability to simultaneously cool the home and heat the swimming pool at no additional operational cost. This unique solution guarantees year-round comfort while enhancing energy efficiency and reducing running costs.

Results & Benefits
The 5,000-square-foot new build on the Ards Peninsula stands as a model of sustainable living. The integration of advanced renewable technologies has led to remarkable outcomes for this project:

- **Energy Efficiency:** The combination of the ground source heat pump and 13kW solar PV array ensures minimal running costs and reduced reliance on non-renewable energy sources.
- **Sustainability:** By harnessing geothermal and solar power, the home significantly lowers its carbon footprint while maintaining high comfort levels.
- **Year-Round Comfort:** The system provides consistent heating and cooling, with additional benefits like pool heating without increasing energy consumption.

Renewable Energy Transformation for Modern Living in Saintfield

SAINTFIELD, CO. DOWN

Originally designed for conventional heating, halfway through their construction, the homeowners recognised their opportunity to create a low-energy, sustainable home.

Daly Renewables designed and installed a fully integrated renewable energy system, transforming their home into an eco-friendly, cost-effective space.

Key Features

- 10kW Ground Source Heat Pump (GSHP) for core heating
- 2.5 km Underfloor Heating upstairs and downstairs
- Heated towel rails in bathrooms
- Solar Hot Water System
- MHRV – Mechanical Heat Recovery Ventilation System
- Central Vacuum System
- 4kW Solar PV System to generate electricity
- Electrical Storage Heater in garage

Results and Benefits

The homeowners can now heat their home and charge two electric vehicles for around £1,200 per year—less than half of what they spent in their previous property.

- **Cost Efficiency:** The switch to renewable energy technologies has halved their energy costs.
- **Energy Independence:** The home's solar PV system and ground source heat pump reduce reliance on external energy sources.
- **Comfort:** The integrated underfloor heating system provides consistent warmth, while the MHRV system improves indoor air quality.
- **Sustainability:** The use of solar power and ground source heat contributes to a lower carbon footprint.

Eco-friendly, Sustainable Family Home

LISBURN, CO. DOWN

This 3,500 sq. ft. family home in Lisburn, Northern Ireland, highlights the remarkable savings achievable through a smart combination of advanced renewable technologies.

Daly Renewables expertly integrated an Ecoforest Ground-Source Heat Pump, Roth underfloor heating, a Solar PV system, and an energy management system to provide year-round heating, cooling, and hot water. The result is a beautifully efficient home designed to meet both immediate and future energy needs.

The homeowners aimed to reduce their environmental impact while securing long-term savings on energy bills. Daly Renewables was involved from the early design stage, ensuring the home was optimised for renewable energy solutions to minimise annual running costs for heating, hot water, and overall energy consumption.

Additionally, the home was future-proofed, allowing for easy integration of further renewable technologies as the homeowners' needs evolve.

The system also leaves room for future pool and hot-tub heating, helping to future-proof the home.

Key Features

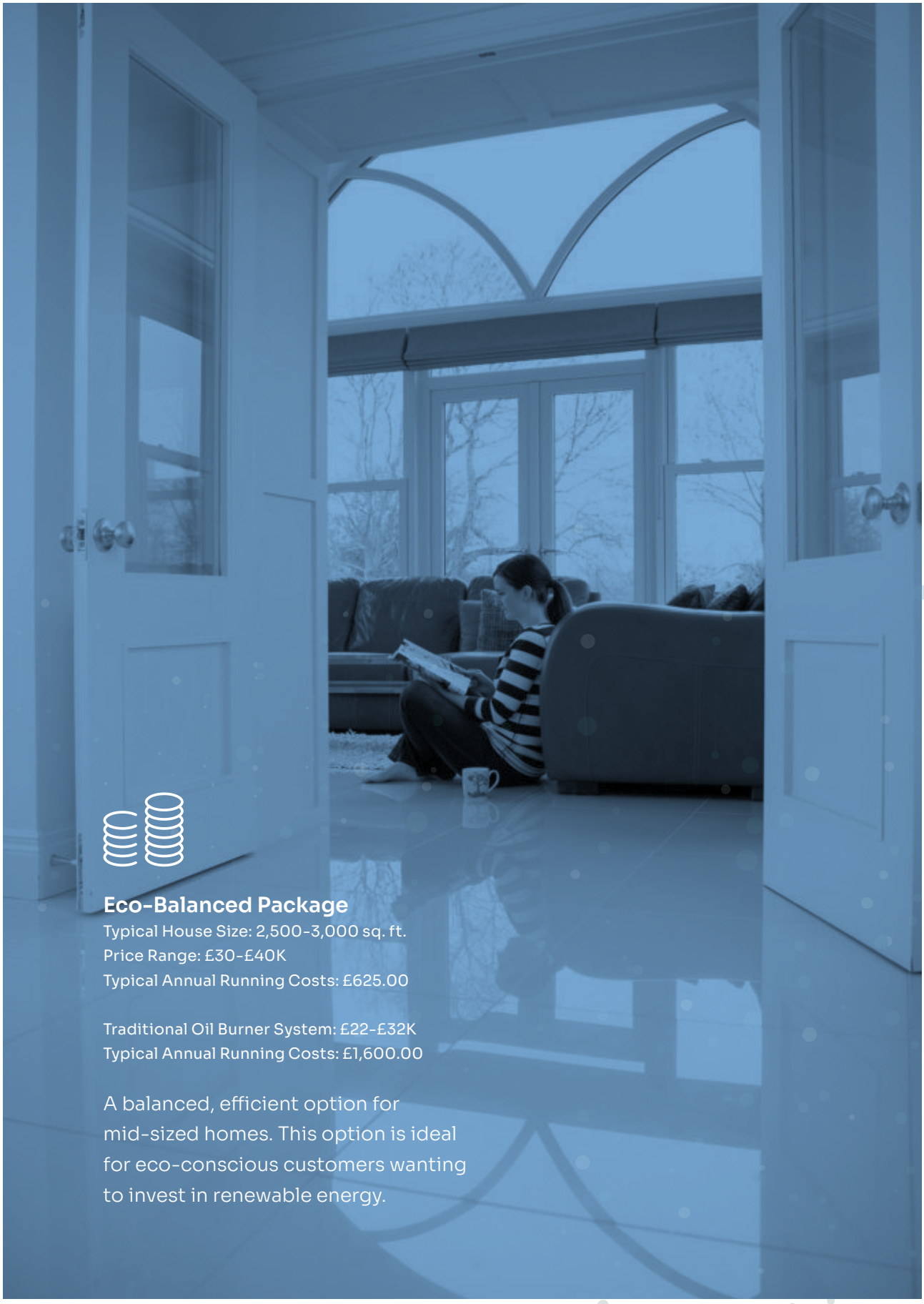
- Geothermal System: EcoForest 5-22kW Ground Source Heat Pump
- ROTH Underfloor Heating:
- 5.67kw DC/ 3.68kw AC Solar PV System
- Ecoforest E Manager
- Oversight of design and overall building airtightness
- Commissioning and aftercare Service 365
- Free cooling via GSHP collector pipework
- Daly MHRV System
- Retractable Central Vacuum System
- 10kwh Solar PV Battery Storage

Results and Benefits

This family of six enjoys total annual energy costs of just **£360 (€430) - which is less than £1 per day!**

This installation highlights the effectiveness of combining solar energy with ground-source heating to deliver year-round comfort and significant energy savings.
It's designed to efficiently heat, cool, and provide hot water for both the main house and the adjacent garage and home office.

The low running costs have been achieved by the client applying insulation and air tightness measures over and above what most contractors do on new build projects.



Eco-Balanced Package

Typical House Size: 2,500-3,000 sq. ft.
Price Range: £30-£40K
Typical Annual Running Costs: £625.00

Traditional Oil Burner System: £22-£32K
Typical Annual Running Costs: £1,600.00

A balanced, efficient option for mid-sized homes. This option is ideal for eco-conscious customers wanting to invest in renewable energy.

Renewable Energy Solution for a Rural New Build

By reducing heating bills to just £425 per year, the highly efficient home showcases the long-term savings and sustainability that come with investing in renewable energy solutions.

This project highlights the success of a well-designed renewable energy system, resulting in an eco-friendly home with low running costs.

With a young family and experience with oil-fired central heating in their previous home, the homeowners wanted a heating system for their new build that would provide a dependable supply of hot water and consistently maintain a comfortable living environment.

Key Features

After a thorough design consultation, Daly Renewables installed the following renewable technologies:

- Ground Source Heat Pump (GSHP)
- 300L Pressurised Hot Water Cylinder
- Roth 2.5km Underfloor Heating
- Mechanical Heat Recovery Ventilation System
- Central Vacuum System
- Airtightness Tapes and Membrane

Daly Renewables' expertise and willingness to provide clear, tangible data on expected energy savings gave the family confidence they required.

The combination of the GSHP with underfloor heating and mechanical heat recovery ensured that the system was optimised for the family's lifestyle.

Results & Benefits

- **Energy Savings:** Annual heating and hot water costs of £425.
- **System Efficiency:** Daly Renewables designed a system that required minimal intervention. Once installed, the family rarely had to adjust the settings.
- **Comfort:** The homeowners are delighted with the consistent temperature in the house all year round and the fact that they now have unlimited hot water due to the ability of the heat pump to reheat the water as soon as it is used.
- **Healthier Living Environment:** noted the healthier air quality within their home, a benefit of the mechanical heat recovery system.

The family's initial concerns about consistency in heating and hot water were alleviated by Daly Renewables' comprehensive approach, meticulous planning, and commitment to ensuring the system met their specific needs.

GILFORD, CO. ARMAGH

Ballycastle New Build Achieves **50%** Cost and Energy Savings

Daly Renewables provided expert guidance throughout every stage, from design to installation. The ongoing support and aftercare are exceptional. We are proud to have a sustainable, future-proof home.

Ryan and Joanne Donnelly,
Ballycastle Project

BALLYCASTLE, CO. ANTRIM

Daly Renewables designed and installed a comprehensive renewable energy solution for this beautiful new build in County Antrim.

The homeowners wanted a sustainable and energy-efficient system to reduce running costs and future-proof their home. Daly Renewables delivered an integrated solution that has significantly reduced both energy consumption and costs.

Key Features
Following a detailed pre-construction design survey, our team of renewables experts installed an advanced renewable energy system, comprising the following:

- Ecoforest EcoAir Pro 3-12kw Air Source Heat Pump
- Ecoforest Energy Manager
- 500L Joule Hot Water Cylinder
- Roth Underfloor Heating
- Solar PV System
- Mechanical Heat Recovery Ventilation (MHRV) System

The design focused on maximising energy efficiency and reducing the environmental footprint of the home. Each component was carefully selected for its performance and reliability, ensuring a cohesive system that works together seamlessly.

The installation process was executed with precision and coordination, causing no disruption to other trades working on the build. Daly Renewables' team worked efficiently to integrate the various systems, ensuring they operated in harmony.

The result was a fully automated system that requires minimal input from the homeowners. The heating, hot water, and energy management systems work together effortlessly, offering full control through smart technology.

Results and Benefits
The investment in a renewable heating system has led to immediate and long-term benefits for the Ballycastle homeowners:

- **Cost Efficiency:** Heating and hot water costs are projected to be less than £400 annually, representing a 55% saving compared to traditional oil boiler systems.
- **Energy Savings:** The Daly System where the Solar PV and heat pump are effectively the one system ensures that the majority of the electricity used to provide heating and hot water for the home is generated from solar, all for free!
- **Seamless Operation:** The entire system is automated, offering the homeowners a hassle-free experience with little need for manual adjustments.
- **Sustainability:** The home is now equipped with a future-proof, environmentally friendly heating solution.

Starter Green Package

Typical House Size: 1,500-2,250 sq. ft.
Price Range: £20-£30K
Typical Annual Running Costs: £440.00

Traditional Oil Burner System: £16-£26K
Typical Annual Running Costs: £1,000.00

For families building a new home where budget is critical, our Starter Green Package offers budget-friendly, energy-efficient solutions for modest homes.

Seamless Renewables Integration for New Build

HOLYWOOD, CO. DOWN

In collaboration with Micah Jones Architect and JDS Builders, Daly Renewables designed and installed an advanced renewable energy solution for this modern new build home.

The client wanted a comprehensive energy solution to reduce environmental impact and energy costs. It was essential to seamlessly incorporate a renewable energy package without compromising the home's design or functionality.

Key Features
The renewable energy package for this new build includes:

- 12 JA435W solar panels
- Sunsynk hybrid inverter
- Hitachi Yutaki-M 7.5kw Air Source Heat Pump
- Roth underfloor heating
- Daly MHRV system
- Eddi water heater controller

The goal was to create an energy-efficient, sustainable living environment while integrating cutting-edge renewable technologies for heating, electricity, and ventilation.

Daly Renewables implemented a custom renewable energy system, ensuring high efficiency and sustainability. The integration included solar power, heating, and ventilation systems, all working together to optimise energy use.

Results and Benefits
The homeowner is enjoying living in a home that is comfortable all year round and which has hot water on demand. The integration of solar power, heat recovery, and air source heating ensures year-round comfort and energy efficiency. The system's automation through the hybrid inverter and water heater controller further enhances its sustainability.

Geothermal Heating Solution for New Build Home

The client approached Daly Renewables intending to reduce energy costs for their new build home. While initially sceptical about the transition from oil heating to a Ground Source Heat Pump (GSHP), the client was determined to find a more sustainable heating solution.

As construction had already commenced before engaging the services of Daly, some important design and insulation opportunities were missed. Despite this, Daly Renewables worked closely with the client to overcome these challenges and implement an efficient and cost-effective geothermal heating system.

Key Features

After a detailed consultation, Daly Renewables implemented the following renewable energy solutions:

- EcoForest EcoGEO+ 1-6 PRO Lite
- Heating distribution pipework
- Cylinder (300L)
- Roth underfloor heating
- CEM modules
- Solar PV system

Results & Benefits

While initially hesitant about moving from oil to geothermal, the client was reassured by Daly's expertise. With our proven track record, we were able to show the actual outcomes and real-life advantages of geothermal heating for low-energy homes, including long-term control over energy costs.

Due to the stage the construction was already at, Daly Renewables had to implement extra measures, such as cutting the floor to install ducts for the GSHP, along with providing key airtightness advice to ensure optimal efficiency.

With over 17 years of industry experience and expertise in self-build projects, Ryan and the team ensured the seamless scheduling of the installation with all the client's project milestones being met.

By choosing the **EcoGEO+ 1-6 PRO Lite**, the client is now on track to achieve significant energy savings. Despite the initial reservations, the homeowner is confident in their decision, knowing they now have a reliable and sustainable heating solution to meet their long-term energy goals.

BALLYMONEY, CO. ANTRIM


Daly
Renewable Energy Solutions
Engineer-Led Specialists
Service 365

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