

WE ARE  
RENEWABLE  
ENERGY  
SPECIALISTS.  
WE BRING  
THE FUTURE,  
TODAY.



## FULLY DELIVERED 'DESIGN-BUILD' ZERO CARBON SOLUTIONS



High Temperature  
Heat Pumps up to 200°C



Rooftop & Ground  
Mounted Solar Power



Fully Funded  
Option Available



*High Temperature Heat Pump technology installed at Ahascragh Distillery*

## HIGH TEMPERATURE HEAT PUMPS UP TO 200°C ARE AVAILABLE NOW

Industrial heat pumps can typically provide a 70% reduction in carbon emissions while also reducing operating costs by over 50%.

There are approximately ~20,000 industrial heat pump installations across Europe each year so this is a proven technology which can be rapidly deployed at scale today.

The maximum temperature available from an industrial heat pump is increasing all the time which is opening up new opportunities and applications. Today, high-temperature heat pumps which supply hot water up to 130°C are readily available across a wide variety of sizes, from 40 kW up to >50 MW. At these temperature levels some clients we have worked with can now replace all of their heating needs with an industrial heat pump. Typical applications include boiler feedwater, CIPs, hot water systems, dryer preheating, distillation, and pasteurizers.

Astatine is bringing this proven heat pump technology to Ireland and implementing it to replace oil and gas for industrial heating across these applications, which is helping clients to:

- Avoid escalating oil and gas prices with a typical reduction in operating costs of 50%
- Improve security of supply by providing an alternative to imported fossil fuels
- Reduce your Scope 1 carbon emissions by typically >70%

Above 130°C, we also offer bespoke industrial heat pumps which can produce 200°C, but due to their bespoke nature these are only available for applications >5 MW.

For all our projects, we provide a fully delivered 'design-build' solution and work with you from initial site assessment to final operation of the facility, so to get started please contact us for an initial assessment of your site.

### OUR CLIENTS



**Irish Distillers**  
Pernod Ricard





**Heat Pump Project:**

*Astatine is proud to be working with Ahascragh Distillery in Galway to deliver the first ever fossil fuel free distillery in Europe which will include a heat pump supplying 120°C hot water.*



## AN EXAMPLE OF OUR HEAT PUMP & SOLAR PV PROJECTS

**Solar PV Project:**

*We were delighted to partner with CMLS to deliver a solar solution for their cold storage facility in Oranmore, Co. Galway. The 850 kW rooftop solar system will deliver a 50% reduction in running costs and a 25% carbon reduction. The project was fully funded by Astatine and delivered at zero capital cost to CMLS.*







*A 5 MW solar PV installation installed by the Astatine team.*

## ROOFTOP & GROUND-MOUNTED SOLAR POWER CAN PROVIDE CHEAPER ELECTRICITY

Solar power costs have been falling rapidly in recent years, so with recent increases in fossil fuel prices, onsite solar power can now deliver savings of over 50%.

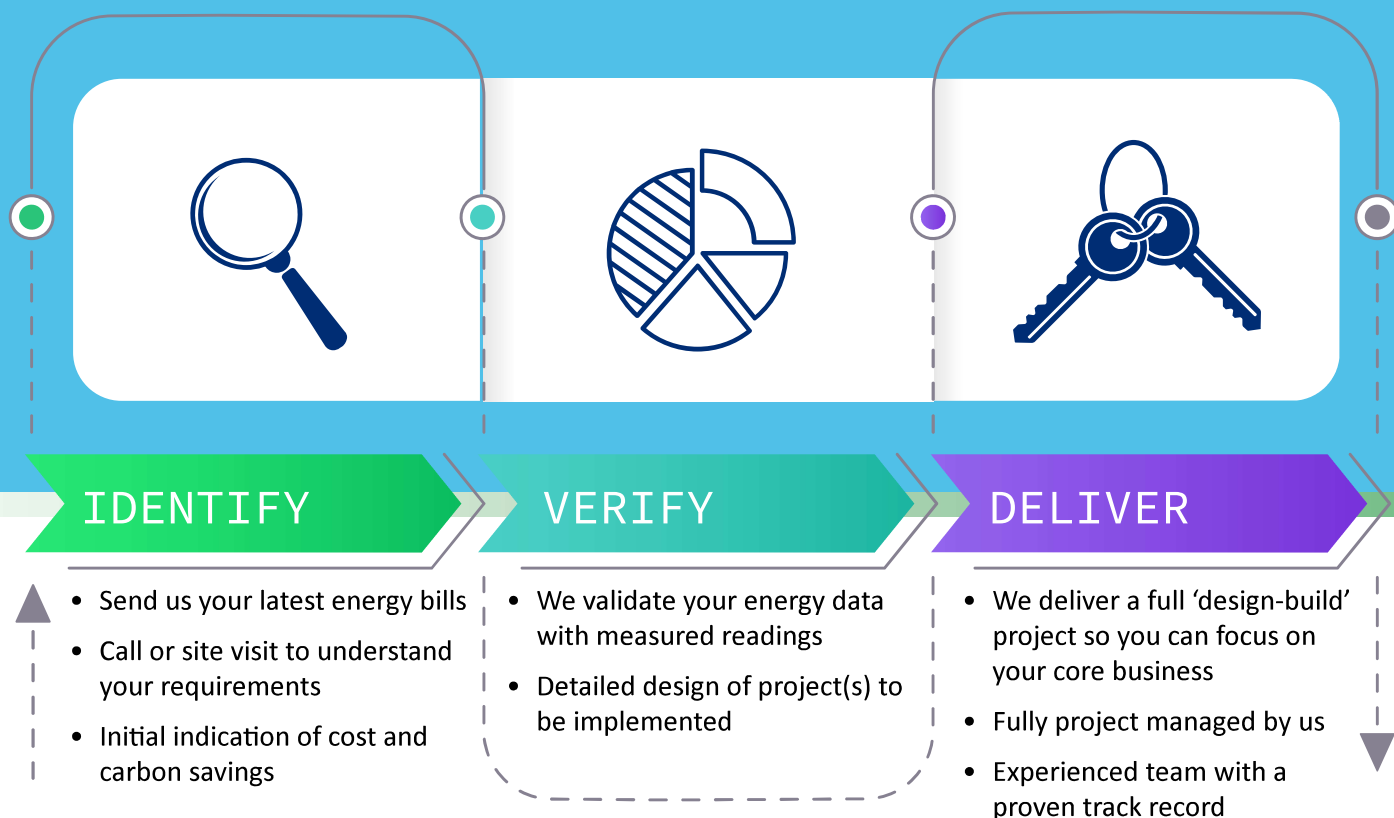
The sun may not shine as often as we would like in Ireland, but solar power technology is constantly improving which means it is now very cost competitive, even with our limited Irish sun!

The key to solar power in Ireland is to develop the project onsite, either on your roof or 'ground-mounted' on land near your facility. By using solar power onsite, you are avoiding charges from the electricity grid which can make up a very large part of your electricity costs. A combination of ever-improving solar power along with these avoided charges means that we have seen electricity cost savings of over 50% for some of our clients.

Astatine has delivered numerous Solar Projects from 10 kW to 5000 kW, both rooftop and ground-mounted, so if you want to save money on your electricity bills then contact us and we can prepare a proposal.



*An aerial view of our  
850 kW project  
at CMLS*



## PROJECT DEVELOPMENT PROCESS

Astatine is Your Decarbonisation Partner, so we are there every step of the way for a project, from initial site assessment through to final project delivery.

### We Can Fund Your Project if Preferred

Astatine offer both a 'Design-Build' option where our clients fund the project or if for any reason funding is a constraint, Astatine can finance the project.

If we fund the project, we will agree a unit rate for the energy we provide to you similar to how you pay for electricity, gas or oil from your existing supplier. Like other utilities, you will only pay for the energy you consume via a regular bill we send based on your metered consumption.

Both options can be explored as we develop a project with you, so you can decide at the delivery stage which option is best for you.

Once a project is complete, we will continue to work with you to save costs and carbon.

### Astatine and Solas Capital

Astatine is partnered with Solas Capital, an investment firm specialising in the funding of decarbonisation projects. Together Astatine and Solas Capital have the capacity and expertise to deliver large-scale decarbonisation projects at zero-capital cost to the client.

In February 2023, Astatine secured €25 million in funding from Solas Capital. This funding is a testament to our ongoing commitment to delivering decarbonisation solutions for our clients.

As seen on:

**RTÉ**



# TO START YOUR JOURNEY TOWARDS LOW CARBON HEATING AND ELECTRICITY,

Contact Us to Arrange a Call or Site Visit:  
[info@astatine.ie](mailto:info@astatine.ie)

## Who Are We?

Astatine is a team of almost 20 people across the full project development process which will support you through all steps of the project. Below are those involved in our senior management team.



### Tom Marren, Co-founder & CEO

- 30 years experience in the energy sector with strong technical and commercial focus.
- Started and majority owner of two companies which exited to larger businesses.
- Developed and delivered a range of large-scale energy projects using a variety of technologies across the globe.
- Energy board adviser into SGB in Middle East (Group Turnover \$25B).
- Finalist in the 2008 Ernst & Young Entrepreneur of the Year.



### Pat Nolan, Co-Founder & Chief Operating Officer

- 10 years experience in the energy sector with strong project development and project financing focus.
- Instrumental in building Astatine from inception to-date, building team and project pipeline, delivering multiple solar PV and heat pump projects and securing €25m project re-financing facility to fund Astatine PPA projects.
- Former Commercial Manager with Centrica Business Solutions Ireland and previously CES Energy.
- Developed and delivered a 5MW solar PV project for Dale Farm, Northern Ireland, commissioned in 2018.
- Delivered financial close on a 8MW thermal & 1.2MW electrical biomass ORC/CHP project in Ireland, commissioned in 2019.
- Engineering degree from University College, Dublin & Masters in Energy Engineering from University College, Dublin; Entrance Scholar to UCD.
- Pat's specialties include: Renewable Energy, Commercial Modelling, Project Financing and Financial Close Delivery & Management.



### Paul Dowling, Co-Founder

- Chartered Engineer and Chartered Director with over 30 years work experience in general management.
- Currently working as Director and private investor in a number of companies such as StayCity, ElectroRoute, Island Renewables (Ireland) and Pioneer Green Energy (Texas).
- Prior to this played a key role over a 10-year period founding & building the Airtricity business, making it a world leading renewable energy company in Europe and North America.
- Successfully sold the Airtricity North American operations to EON for circa €900 million and then completed the sale of the rest of the company to SSE for €1,100 million.