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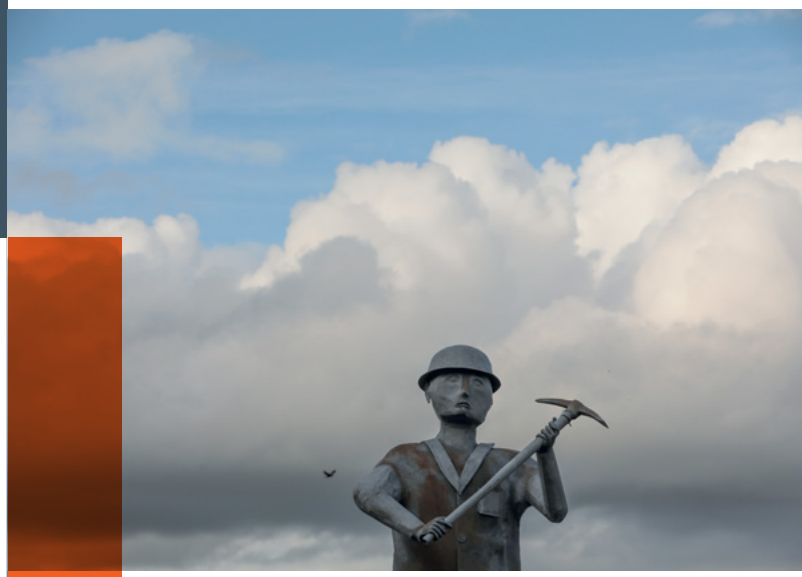
**Newsletter** Issue 2: February 2026

# **Silvermines** Hydro

www.silvermineshydro.ie



## Welcome to the second edition of the Silvermines Hydro Project consultation newsletter.

This newsletter is designed to keep you informed and up to date on the progress of the project, key developments, and opportunities for community involvement as we move forward together.

## In This Issue

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# Upcoming Events

On Friday 27th and Saturday 28th February, Siga Hydro will be holding a Public Information Event in Hickey's Lounge, Silvermines to provide further project information ahead of the main design exhibition later in the year. Members of the project team will be available to provide updates on the project, answer questions, and outline the next stages of the design and consultation process.

This event forms part of our ongoing commitment to keeping the community and stakeholders informed and up to date on project updates.

Public Event, June 2025, Hickey's lounge

# Community Engagement

## June 2025 Event Update

Public engagement is central to the Silvermines Hydroelectric Project, and a six-week consultation was held from 16th May to 27th June 2025 to gather feedback on the draft concept design. A key part of this process was a concept exhibition in Silvermines village on 6th and 7th June, with an additional display in Nenagh Library from 24th - 27th June.

The exhibition included interactive displays, information leaflets (in Irish and English), and comment forms, encouraging residents and stakeholders to share their views. An additional event was held on 5th June for pupils from the local primary school.

Around 90 people attended the Silvermines events, while the Nenagh Library display generated strong public interest. Feedback received covered a wide range of topics, such as traffic volumes, water management, construction activities, education opportunities, job and training opportunities, the community benefit policy, visitor centre and substation location.

There was interest in the potential for a visitor centre on the site.

To support the iterative design process, we are hosting this additional event to gather feedback that will inform the next stage of design.

Responses are welcomed and continue to be reviewed by the project design team.

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Community Ideas, June 2025

## Concept for Public Participation

In May 2025, Siga Hydro published its Concept for Public Participation (CPP), now available on the project website, setting out a clear framework for stakeholder and community engagement throughout the project's development. The CPP outlines who will be consulted, the range of engagement activities and meetings planned — including public information events as a central element — the overall project timeline, and the resources dedicated to ensuring meaningful and effective participation.

## Community Benefit Policy

We introduced a Community Benefit Policy that places local voices at the centre of decision-making. We have already received valuable ideas and feedback on the types of projects that could be supported, and we continue to seek further input as we shape the policy together.

The phased Community Benefit Fund will support initiatives in community development, tourism, education and environmental sustainability. It will commence at the start of construction and become fully accessible once the project is operational. Managed separately from the planning process, the fund will operate transparently and fairly, ensuring local priorities are reflected throughout.

# A Heritage of Mines and Miners

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We are delighted to announce the publication of ***Silvermines, A Heritage of Mines and Miners: Interpreting an Ancient Mining Landscape***.

Edited by Dr. Greg Finnegan and Laura McSherry, this 230-page full-colour volume was released in August 2025. The book brings together geologists, geographers, historians, and local voices to explore over 700 years of mining heritage in the Silvermines. Richly illustrated, it examines the geology, industry, and community life shaped by the geology and minerals of this unique landscape.


Tipperariana Book of the Year, 2025

Produced with support from the Geological Survey Ireland and the Silvermines Historical Society, the project was also backed by Siga Hydro, which hosted a launch event in the Silvermines on the 3rd of December 2025. In February 2026, Greg Finnegan delivered a heritage presentation to the Ormond Historical Society at the Abbey Court Hotel in Nenagh.

The publication has since received significant recognition, winning the Tipperariana Book of the Year Award for 2025, and was showcased at the 2026 Fethard Book Fair.

# Connecting to the Grid

The Silvermines Hydro Project must connect to the National Grid via a 220kV off-site substation to be developed, approximately 5km from the project site, as shown on the accompanying map. The substation is located close to Castlecranna. It is intended that the facility will be named Shallee Substation.

Following technical assessments and environmental studies, this location was identified as the most suitable point of connection to the existing 220kV overhead transmission line. The development will facilitate the integration of the project into the national electricity transmission network in consultation with EirGrid.

The proposed off-site substation will be a modern Gas Insulated Substation (GIS), meaning that the high-voltage electrical equipment will be housed within a purpose-built building.

We are continuing to develop plans for the underground cable connection between the on-site and off-site substations.

Detailed environmental, ecological, archaeological and engineering studies to inform the final route are well underway.

All works will be carried out in accordance with statutory requirements and best practice construction standards, with appropriate landscaping and reinstatement measures implemented as part of the development.


Substation Location Map

# Reliable Energy Supply

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In September 2025, the Silvermines Hydro design team had the pleasure of visiting Turlough Hill in Co. Wicklow, Ireland's only pumped hydro power station. Owned and operated by ESB, the plant has been operating successfully since the 1970s and is widely regarded as a jewel in the crown of the Irish power system.

Commissioned in 1974, Turlough Hill was designed to help manage changes in electricity demand throughout the day. It works using two reservoirs – an upper man-made lake and the natural Lough Nahanagan below. When electricity demand is low, surplus power is used to pump water uphill. When demand rises, water is released back down through underground turbines to generate electricity.

Silvermines Hydro Project Team at Turlough Hill, 2025

With a capacity of 292 MW and storage of approximately 1.6 GWh**,** Turlough Hill can move from standstill to full power in about 70 seconds. This super-fast response makes it a vital back-up facility, helping to keep the lights on when demand suddenly increases or when renewable output fluctuates.

During the visit, ESB provided a warm welcome and an informative tour of the station. The team explored the impressive underground caverns housing the pump-turbines, viewed the lower reservoir, visited the Control Centre, and saw first-hand the penstocks and major mechanical and electrical equipment. The discussions with ESB engineers offered valuable insight into the operation and long-term performance of this unique facility.

As Ireland continues to increase renewable energy generation, flexible storage solutions are becoming even more important. A second pumped hydro project such as Silvermines Hydro would underpin the secure operation of the Irish power system at scale, delivering significant reliability, resilience and energy security as demand grows and renewable penetration increases.

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# Turbine Design Configuration

During 2025, Silvermines Hydro carried out a comprehensive programme of engineering and economic studies to refine the design of plant. These studies examined how the plant would operate across a wide range of conditions, including generating electricity during periods of high demand, absorbing excess renewable energy when demand is low, and providing rapid response services to support system stability.

A key design decision was the type and number of turbines. The objective was not only to store energy, but to ensure the plant can support the electricity system in a reliable and cost-effective way. After assessing several technical options, a configuration with two synchronous turbines was selected, as it offers the best balance between system performance and construction cost for the Irish power system.

Using two turbines instead of a single large unit provides significantly greater operational flexibility. Electricity demand and renewable output vary continuously throughout the day. A two-unit arrangement allows the plant to operate efficiently across a wider range of outputs, enabling it to better match the needs of the system at any given time.


Turbine Hall, Turlough Hill

Synchronous turbines rotate in step with the electricity grid and provide important system services as part of their normal operation. As Ireland continues to add wind and solar generation, the system has less natural inertia, making frequency control more challenging. Synchronous turbines help stabilise both frequency and voltage, strengthening overall system security.

Economic analysis compared the lifetime costs and benefits of alternative configurations. While a two-turbine design requires additional equipment, the studies confirmed that the increased flexibility, improved reliability, and enhanced system support deliver greater overall value for consumers.

# How Silvermines Hydro Can Help Lower Electricity Costs

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For families and businesses electricity costs matter. What many people don't realise is that prices are set by a simple economic rule: supply and demand. Silvermines Hydro can help improve that balance and reduce price spikes across Ireland.

## How Electricity Prices Are Set

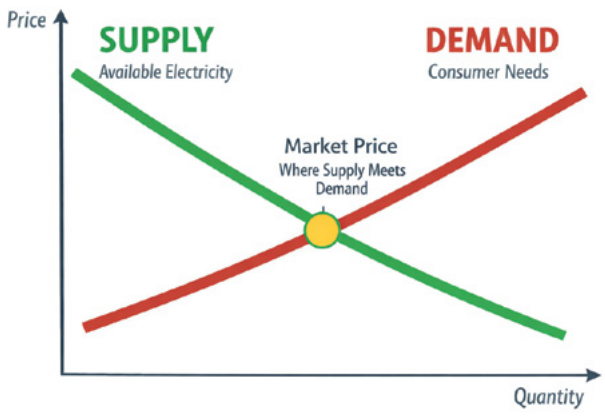
In economics, prices are determined by supply (how much producers are willing to provide) and demand (how much consumers want to use). Where supply and demand meet, the market price is set.

Power stations are organised in what is called the "merit order." This means they are ranked from the cheapest to run to the most expensive. Wind and solar are used first. Then come efficient gas plants, followed by older, more costly units.

The key point is this:

- The wholesale price is set by the last and most expensive generator needed to meet demand

So when demand is high, such as on cold winter evenings, or when wind output is low, more expensive generators are required. Their higher cost sets the price for everyone.




Ecomomic supply and demand

## How Electricity Prices Are Set

Pumped storage works like a large, long-lasting battery.

When electricity is plentiful and prices are low, for example during windy nights, Silvermines Hydro would use that electricity to pump water uphill into a reservoir. When demand rises and prices increase, the stored water is released downhill through turbines to generate electricity.

This additional supply at peak times reduces the need to switch on the most expensive plants. By lowering the role of those costly generators, pumped storage can help reduce wholesale electricity prices, improve grid stability, and make better use of Ireland's renewable energy.

## Why This Matters for Silvermines

A pumped storage project in our community would not only support Ireland's transition to renewable energy — it would also play a direct role in making the national electricity system more stable and cost-effective.

In simple terms:

- Prices rise when expensive plants are needed.
- Pumped storage reduces how often that happens.

By storing cheaper electricity and supplying it when demand is highest, Silvermines Hydro can help smooth price spikes benefiting households and businesses here in Silvermines and across the country.

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## Social Media

You can now follow us on Instagram, Facebook, and LinkedIn, where we post updates — from on-site snippets to project progress.

As the project advances, our social platforms will grow with it, offering insights at every stage.

## What's Next

After the public information event on the 27th and 28th February, a further information event will take place in Q4 2026 at Hickeys Lounge, Silvermines. This event will be advertised in Newsletter no. 3 which will be published and distributed in advance, and through local media, posters, the project website, and social media.

## Contact Us

If you have any questions or would like to provide feedback, please get in touch:

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Silvermines Hydro

Energy Diversity & Security

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Strategic Infrastructure Grid Asset