



Strategic Plan

May 2022

Executive summary

Cwmni Egino (CE) was established in 2021 by Welsh Government (WG) to deliver a site development plan for Trawsfynydd, focused on socio-economic growth. Since then, there is increased policy focus on new nuclear power generation as a means of delivering net zero and increasing energy security. We have defined our vision to achieve both aims:

'By 2027, Trawsfynydd will be the site of the first SMR/AMR under construction in the UK; North Wales will be recognised as a centre of excellence for low carbon energy; and people's quality of life will be improved.'

We will need to work in collaboration with NDA who owns the land and Magnox who operate part of the site. We have proposed a collaboration agreement with them and await their response.

We will also need to work closely with Department of Business, Enterprise and Industrial Strategy (BEIS) who is responsible for new nuclear and is NDA's sponsor. We have presented our plan to them and will have regular progress meetings with them.

WG has a critical role both as our sponsor and shareholder and in the relationship with BEIS to ensure CE receives the focus and attention needed to deliver a successful project.

Despite the increased focus on new nuclear, delivery remains challenging and uncertain. Therefore, CE plans to follow a staged approach to development, matching investment with increased certainty. The first stage is to confirm the business proposition for Trawsfynydd, that it is viable and has good prospects for successful delivery. We intend to complete this first stage by end March 2023 together with the business plan for the second stage of development.

The Board is invited to note the strategic plan for 2022/3.

1. Background

The Welsh Government (WG) approved in 2020 a Strategic Outline Plan¹ to establish a Trawsfynydd Site Development Programme (TSDP) in support of the Snowdonia Enterprise Zone strategy. The purpose of the TSDP is

to create sustainable job opportunities and promote economic and social regeneration by working collaboratively to drive future development at the former nuclear power station site in Trawsfynydd.

The means by which the purpose is achieved is not fixed. Snowdonia Enterprise Zone carried out extensive studies and options appraisals and identified the projects offering the greatest potential as:

- *Advanced Nuclear Technology* – deploying new generation small/ advanced nuclear reactors (SMR/AMR) to generate low carbon energy; and
- *Medical Research Reactors (MRR)* – developing a medical research reactor to produce radioisotopes for cancer diagnostics, treatment and research.

Cwmni Eginio was established by Welsh Government (WG) in 2021 as a standalone company to deliver the TSDP. It has funding until the end of 2023 to develop a business proposition (or propositions) for Trawsfynydd that:

- Delivers socio-economic growth in South Gwynedd and beyond;
- Defines the programme of work and organisation required to deliver the project;
- Demonstrates how the programme will be delivered;
- Demonstrates that the project can be financed through development and construction and has confirmed funding for the next phase of development; and
- Has broad and deep stakeholder support.

2. Trawsfynydd site

The Trawsfynydd site was identified as an opportunity for nuclear deployment in the 1950s. It is situated in the heart of Snowdonia National Park with the nearest settlement of Trawsfynydd Village being just to the south of the nuclear site. Access is via the A470 to the east which provides a strategic link between north and south Wales. Other significant settlements include Blaenau Ffestiniog some 15km to the north as well as Dolgellau some 21km distant. Llandudno is approximately 63km distant and Cardiff some 220km to the south.

¹ Amlinelliad Strategol o Raglen ar gyfer Datblygu Safle Trawsfynydd/ Strategic Outline Programme (SOP) for Trawsfynydd Site Development



The site image identifies a number of indicative boundaries:

- Red line denotes the boundary of NDA land ownership;
- Light yellow line denotes the boundary of the Snowdonia Enterprise Zone (SEZ) which includes NDA land;
- Blue line denotes the nuclear site licence boundary; and
- Yellow line within the nuclear site licence site is the radiological controlled area

The National Policy Statement for Nuclear Power Generation – EN6² identifies sites assessed to be strategically suitable for new nuclear deployment. The process at the time relied on there being a credible nuclear power operator for the site and focussed on GW scale developments. Trawsfynydd did not meet these criteria and was not one of the sites identified. UKG is considering the siting options for SMR/AMR but has yet to publish its conclusions. In the absence of an NPS that specifically addresses SMR/AMR technologies or that includes Trawsfynydd, EN-6 remains the most applicable basis for assessing an application for development consent of AMR/SMR at Trawsfynydd.

Under current legislation, if the capacity of the proposed development at Trawsfynydd exceeds 350 MW, it would be categorised as Nationally Significant Infrastructure Projects and planning

²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47859/2009-nps-for-nuclear-volumel.pdf

consent would be determined under the Planning Act 2008. This would place reliance on the National Policy Statement for Nuclear Power Generation –EN6.

If the capacity of the proposed development at Trawsfynydd were less than 350MW, it would be categorised as a 'Development of National Significance' (DNS) in accordance with Developments of National Significance (Wales) Regulations 2016.

3. Local socio-economic context³

The Trawsfynydd site is located in Dwyfor Meirionnydd within the county of Gwynedd and the boundaries of Snowdonia National Park. The local area is rich in industrial and cultural heritage, and is a popular tourism and recreation destination due to its magnificent mountain ranges and coastline. It is also, however, an area which faces many socio-economic challenges.

Within Dwyfor Meirionnydd (and Gwynedd), there is reliance on employment sectors such as tourism which tend to support lower value, temporary and seasonal employment. 22% of employees in Dwyfor Meirionnydd work within the accommodation and food services sector, compared to the Welsh average of 7.9%.

There is also a high level of dependency on large individual employment sites such as Trawsfynydd to support the local economy and create high value job opportunities. 88% of businesses in Dwyfor Meirionnydd are micro-businesses, employing up to 10 people, and fewer than 1% of businesses in the area employ more than 50 staff. The existing nuclear power station, which shut down in 1993 and is being decommissioned, is one of only 20 employers in the area with more than 100 staff.

Median weekly earnings for full-time workers in Dwyfor Meirionnydd are £478, which is significantly below the Wales average of £541. In 2019, Dwyfor Meirionnydd also had a greater proportion of JSA claimants for a period of under 6 months than other areas, suggesting that the local labour market may experience seasonal unemployment. During the Covid-19 pandemic, take-up of furlough in the Dwyfor Meirionnydd area was 40%, the second highest in the UK.

GVA per head in Gwynedd and Wales as a whole has been significantly below the UK average over the last decade, and Gwynedd's productivity levels show a rapid declining trend over the last decade compared to both the UK and Wales averages.

As a rural and peripheral area, out-migration of young people is an issue that is prevalent in Dwyfor Meirionnydd – partly due to a relative lack of high-quality employment opportunities. Demographic data shows that the proportion of residents of working age in Dwyfor

³ All data taken from Welsh Government Trawsfynydd Nuclear Licensed Site Economic Assessment of Siting a Small or Advanced Modular Reactor Economic Assessment, Arup, November 2020

Meirionnydd (56.2%) is comparatively low, whilst the proportion of residents aged 65 and over is comparatively high (27.8%, compared to a figure of 22.7% in Gwynedd, 23.0% in North Wales and 20.8% pan-Wales).

Census data indicates that 50.4% of the population of Meirionnydd can speak and write Welsh. Around 85% of workers at Trawsfynydd are Welsh speakers, and 97% of the Trawsfynydd workforce live in North Wales. Maintaining or expanding employment in the local area is seen as important to safeguarding the Welsh language and culture by enabling Welsh speakers to remain in, or take up high quality jobs in an area where Welsh is widely spoken.

4. Context of nuclear development

Policy

The Prime Minister's 10 Point Plan⁴ and the Energy White Paper⁵ highlight the role of new nuclear in the UK's future energy portfolio. These documents confirm the UK Government (UKG)'s intention to commit one additional GW scale project by 2024 and provide substantial funding for SMR and AMR development.

The need for nuclear was reinforced in the British Energy Security Strategy⁶, published by UKG on 7th April 2022. The strategy increases the plans for new nuclear to 24GW by 2050. The strategy was welcomed by Welsh Government in its written statement⁷ and reflects some of the broad policy commitment to nuclear in Net Zero Wales Carbon Budget 2 and Future Wales – the National Plan 2040.

In addition to the commitment to one additional GW scale project in the current Parliament (Sizewell C), UKG plans to commit 2 additional projects in the next Parliament, including Small Modular Reactors (SMR). The selection process for the next projects is expected to commence in 2023 *'with the intention that government will enter negotiations with the most credible projects to enable a potential government award of support as soon as possible, including (but not limited to) the Wylfa site.'*⁴

UKG also intends to establish Great British Nuclear (GBN) to support the development of new nuclear and help ensure a pipeline of projects. The scope of GBN is to be defined.

The UKG has entered substantive negotiations with EDF regarding Sizewell C and is investing £100m to help complete the development and committed to provide £1.7bn of direct Government funding. It has legislated for a new financing model⁸ and committed match

⁴ [The ten point plan for a green industrial revolution - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution)

⁵ [Energy white paper: Powering our net zero future - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future)

⁶ <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy>

⁷ <https://gov.wales/written-statement-uk-energy-security-strategy>

⁸ [Nuclear Energy \(Financing\) Bill \(parliament.uk\)](https://www.parliament.uk/bills/2023-24/nuclear-energy-financing)

funding of up to £210m to support the development of UK SMR⁹. The 2021 Comprehensive Spending Review provided for a Future Nuclear Enabling Fund of £120m to remove barriers to entry.¹⁰

In conclusion, the opportunity for new nuclear and for CE has strengthened.

Experience to Date

Nuclear development started in earnest in 2009 with 3 developers with interests in 5 of the 8 sites nominated in the National Policy Statement for Nuclear¹¹. Since then, just one site (Hinkley Point C) has entered construction and a second (Sizewell C) has started detailed negotiations with Government. Horizon and Moorside both withdrew part way through the development phase because they could not raise sufficient funding to build the project.

This experience highlights a gap between policy intent and the ability of commercial developers to bring forward projects, due to the high up-front costs of development coupled with insufficient certainty regarding the likelihood of achieving a Final Investment Decision to enable construction to proceed.

Today, there is one active developer of new nuclear projects (EDF/CGN), focused on large scale projects. There are a number of SMR/ AMR technology developers, including UK SMR, but none are developing site-specific projects.

UKG's plan to set up GBN should help to address the gap but it has yet to be defined and will take time to become established.

Opportunity for Cwmni Egino

Cwmni Egino is uniquely placed to drive delivery of new, smaller scale nuclear power plants at Trawsfynydd through its established relationships with critical stakeholders' focus on socio-economic development and its ownership and backing by Welsh Government.

Being the first site to deploy SMR increases the supply chain and skills development opportunities across North Wales and the prospects for sustainable, high-quality jobs for 60+ years at Trawsfynydd.

CE can provide a bridge between policy intent and delivery and can catalyse development and deployment of SMR at Trawsfynydd and provide a model for development of small-scale nuclear at other sites.

⁹ [UK backs new small nuclear technology with £210 million - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/uk-backs-new-small-nuclear-technology-with-210-million)

¹⁰ [Autumn Budget and Spending Review 2021: A Stronger Economy for the British People \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47859/2009-nps-for-nuclear-volume1.pdf)

¹¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47859/2009-nps-for-nuclear-volume1.pdf

5. Vision for Cwmni Egino

Cwmni Egino has the opportunity to capitalise on the increasing support for new nuclear and SMR/AMR technology developments in order to deliver its purpose of socio-economic regeneration at Trawsfynydd.

To maximise the benefit of this opportunity in terms of economic growth, CE should promote the delivery of the first SMR in the UK at Trawsfynydd.

Our vision is

'By 2027, Trawsfynydd will be the site of the first SMR/AMR under construction in the UK; North Wales will be recognised as a centre of excellence for low carbon energy; and people's quality of life will be improved.'

The ambition to be in construction by 2027 reflects that our primary purpose is socio-economic regeneration and these benefits start to be realised during construction rather than operation.

Our vision does not preclude development of a Medical Research Reactor. However, the critical enablers for such a facility (e.g. policy framework, customer model etc) are not in place at this stage. To deliver economic growth at the earliest opportunity, CE's initial focus is SMR/AMR development.

6. Development strategy

Nuclear development is complex and expensive. The development programme required to complete all the activities necessary to support a final business case and secure financing takes up to 5 years. Therefore, it's important to structure the programme in defined stages with associated stage gate criteria to manage risk.

The proposed development stages for CE are:

1. Confirm the business proposition, its feasibility and outline business case, covering
 - a. Project definition and scope
 - b. Target operating model, including key partnerships
 - c. Ability to secure the finance required to build the project
 - d. Secure funding for Stage 2 (below), including access to Future Nuclear Enabling Fund and North Wales Growth Fund), and
 - e. Framework defining the socio-economic benefits, including supply chain and skills opportunities and the interventions required.

2. Develop the consent and permit applications, including the associated engineering development, surveys, socio-economic development options and organisational development; and
3. Submit the permit applications, procure key contracts, preliminary site enabling works, secure the financing for construction, final business case.

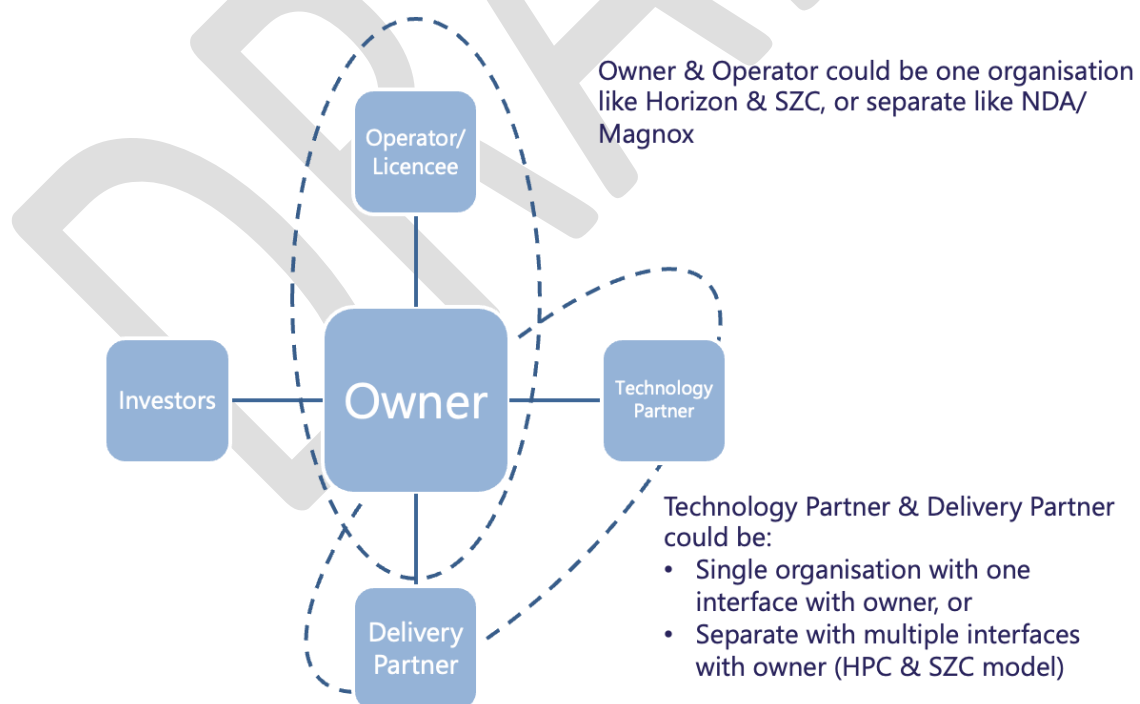
The key requirements to achieve a Final Investment Decision (FID) at the end of Stage 3 are summarised in Appendix 1.

Our plan is to complete Stage 1 by end March 2023.

7. Target operating model

CE has to develop the Target Operating Model (TOM) required to deliver the project. This must be credible and sufficiently robust to secure and manage the required permits and licences and to convince investors to support the project.

The key roles are summarised in the following chart. They need to be defined, alongside the interfaces between them as part of the TOM. Individual partners could assume more than one role.



The TOM will determine the role of CE which could be one of (or a combination of):

- Development agent, bringing together partners to form the TOM for the project but having no formal role within it,

- Developer, building the TOM but having no enduring role within it, or
- Developer/ owner/ operator (Horizon model)

The critical factor in the design of the TOM will be to establish the owner/ operator – the organisation that will be the contracting party with suppliers and lenders and hold the licences and permits, including the nuclear site licence. The owner/operator organisation will be the customer of the technology partner. The principal options are:

1. The technology partner has a relationship with an operator who is willing to set up an operator organisation in UK. Constellation is a shareholder in UK SMR and GE has a relationship with Ontario Power Generation;
2. Magnox could extend its current role to become the operator provided UKG amends its current vires and Magnox can build the broader range of capabilities required for new power plant development and operation.
3. GBN could become a UKG-owned developer and operator for new nuclear. However, the scope and remit of GBN has not been defined and it will take time to become established, or
4. CE becomes the owner/ operator.

We will consider all options as part of the development of the business proposition during 2022/3.

8. Technology selection

The selection of the technology partner is fundamental to the success of the project, both in terms of delivery of the power station and the socio-economic benefits.

There are a range of technologies at different stages of development, but none have reference plants to evidence claims. They are all first of a kind. The selection process needs to be designed with this in mind and cannot be a conventional procurement process, based around value for money.

UKG has also invested heavily in the development of the UK SMR, led by Rolls Royce. The UK SMR programme is predicated on deploying a fleet of 10+ reactors and promises a significant manufacturing opportunity for the UK. At the same time, UKG has made it clear it is open to other technologies and is not 'picking winners'. It plans to start its own selection process in 2023 for projects to be committed in the next Parliament.⁵

Given our ambition to be the first deployment of SMR in UK, technology selection will be scrutinised closely and could have a significant impact on the development of the SMR market. Therefore, in addition to careful design, we will need to consult widely on the selection process, including with BEIS and Welsh Government.

It would be difficult for CE to select a specific technology for Trawsfynydd in advance of the UKG's process planned for 2023. This approach would introduce the risk of selecting a technology that is subsequently not short-listed by BEIS which would restrict access to funding. It would also introduce the threat of a legal challenge to the selection process itself.

Our next best option is to assess our business proposition against 2-3 technologies that bound the range of options likely to be suitable for Trawsfynydd and a wider UK SMR/ AMR programme. This approach would enable us to identify the extent to which site factors impact technology selection and the specific opportunities and risks for each option.

9. Role of NDA

NDA owns the land at Trawsfynydd and the existing plant via Magnox. CE needs to define its relationship with NDA recognising:

- NDA/ Magnox already has a significant socio-economic support programme in the region
- Magnox is the licensee of the operational site. CE may want to use part of the licensed site for its construction
- Magnox has a high-profile plan for decommissioning which could offer mutual benefits for CE
- Magnox (or its staff) could form the owner/ operator
- CE needs certainty of land to underpin its business proposition

CE has written formally to NDA and its sponsor team in BEIS with a proposal to collaborate on the development of Trawsfynydd. NDA is considering our proposal and we await their response.

10. Objectives for 2022/3

1. Finalise the marketing position for Cwmni Egino, including purpose, vision, mission and strategic plan, and develop a communication plan to engage with key stakeholders;
2. Establish a collaboration agreement with NDA to provide a working framework to govern and manage the use of the Trawsfynydd site and interface with Magnox Ltd
3. Identify outline land requirements, services interfaces (including grid connection) and investments required in supporting infrastructure;
4. Select the preferred technology and put in place a collaboration agreement with the technology provider to develop and inform the project and the business proposition;
5. Prepare the business proposition to confirm the feasibility of deploying SMR at Trawsfynydd and the business case to proceed to Stage 2 development;
6. Assess the options for Target Operating Model and the role of Cwmni Egino;
7. Develop the strategy for the Grid Connection and submit a connection application to secure the capacity;
8. Maintain development of the operational capability of Cwmni Egino;

9. Develop a social value charter to help outline what community benefits Cwmni Eginno Ltd can aim to provide to the local community;
10. Prepare and complete the benefits management strategy and benefits plan for Cwmni Eginno Ltd.

With the exception of items 6 and 7, these targets are set out in the remit letter for 2022/3.

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Appendix 1 - Key requirements for a final investment decision & status at end of stage 1		
Key Requirement	Status at FID	Target Status at end of Stage 1
Viable Site	<ul style="list-style-type: none"> • Sufficient land for the permanent facility and temporary construction requirements • Secure tenure over the above land¹². • Site conditions suitable for the construction and operation of a nuclear facility. Including topography, geotechnical and sufficient cooling capacity 	<ul style="list-style-type: none"> • Confirmation of preferred location and land requirements • Confirmation of preferred cooling option • Suitability of site based on desktop analysis and historical records (geotechnical, seismic etc) • Outline terms for securing tenure, including access rights for surveys etc
Grid Connection	<ul style="list-style-type: none"> • Connection agreement with National Grid that provides sufficient export capacity and available to meet the project programme 	<ul style="list-style-type: none"> • Grid connection agreement in place to secure capacity and target construction schedule
Technology	<ul style="list-style-type: none"> • Partnership agreement in place • DAC and SoDA (or international equivalent) granted • Key supply chain partners appointed • 	<p>Candidate technologies identified:</p> <ul style="list-style-type: none"> • That optimise use of the site • Started GDA (or international equivalent) • Experienced provider with established capabilities and supply chain partners • Funding to develop the basic design and safety case
Consents and Licences	<ul style="list-style-type: none"> • Development Consent Order • Nuclear Site Licence • Environmental Permit (EPRSR) • Regulatory Justification (technology specific) • Generation licence 	<ul style="list-style-type: none"> • Schedule of consents & licences confirmed • Scope of work environmental surveys confirmed
Funded Decommissioning Plan	<ul style="list-style-type: none"> • FDP approved by BEIS, including Decommissioning Waste Management Plan (DWMP) and Funding Arrangements Plan (FAP) 	<ul style="list-style-type: none"> • Not required at Stage 1

Key Requirement	Status at FID	Target Status at end of Stage 1
Target Operating Model	<ul style="list-style-type: none"> Overall project structure defined, including the roles and responsibilities of primary project participants (e.g., client/ owner, operator, technology provider, construction partner etc); Organisational development plans for each participant, describing the capabilities required to deliver the project and the plan to acquire them; Commercial relationships between the partners, including risk allocation and performance incentives Organisational design of owner/ operator aligned to requirements in Nuclear Site Licence 	<ul style="list-style-type: none"> Proposed TOM, defining the key partners and their roles, including Cwmni Eginio Organisational development plan aligned to work scope
Revenue Agreement	<ul style="list-style-type: none"> RAB (or equivalent) agreed with BEIS 	<ul style="list-style-type: none"> Agree with BEIS revenue model that would apply to Cwmni Eginio
Fuel Supply Agreement	<ul style="list-style-type: none"> FSA negotiated 	<ul style="list-style-type: none"> Not required at Stage 1
Finance	<ul style="list-style-type: none"> Financing for construction phase in place 	<ul style="list-style-type: none"> Assess financing options for Cwmni Eginio and requirements necessary for FID Business plan to secure funding for Stage 2 development
Schedule	<ul style="list-style-type: none"> L1 & 2 schedule to Commercial Operation 	<ul style="list-style-type: none"> Level 1 master schedule to commercial operation Level 2 schedule for development phase (to end Stage 3)

¹² The Trawsfynydd Site is owned by the Nuclear Decommissioning Authority and managed on its behalf by Magnox Ltd. Cwmni Eginio will need a development mandate or land acquisition agreement with the NDA, Magnox Limited, and UK Government (BEIS and HMT) to provide sufficient certainty for development.

These requirements are underpinned by supporting workstreams, including:

- engineering development to provide the required input to consents and permits, cost model, schedule development and revenue agreement,
- development of the commercial agreements to underpin the suite of contracts required, and
- stakeholder engagement to build broad support for the project and optimise the capture of socio-economic opportunities locally.

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