

Notice: NN11 4NS, Pedigree Power LLP: environmental permit application advertisement

The Environment Agency consults the public on certain applications for waste operations, mining waste operations, installations, water discharge and groundwater activities. The arrangements are explained in its [Public Participation Statement](#)

These notices explain:

- what the application is about
- how you can view the application documents
- when you need to comment by

The Environment Agency will decide:

- whether to grant or refuse the application
 - what conditions to include in the permit (if granted)
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Notice: NN11 4NS, Henley Biomass Limited: environmental permit application advertisement

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[Guidance: Gwaredu daearegol](#)

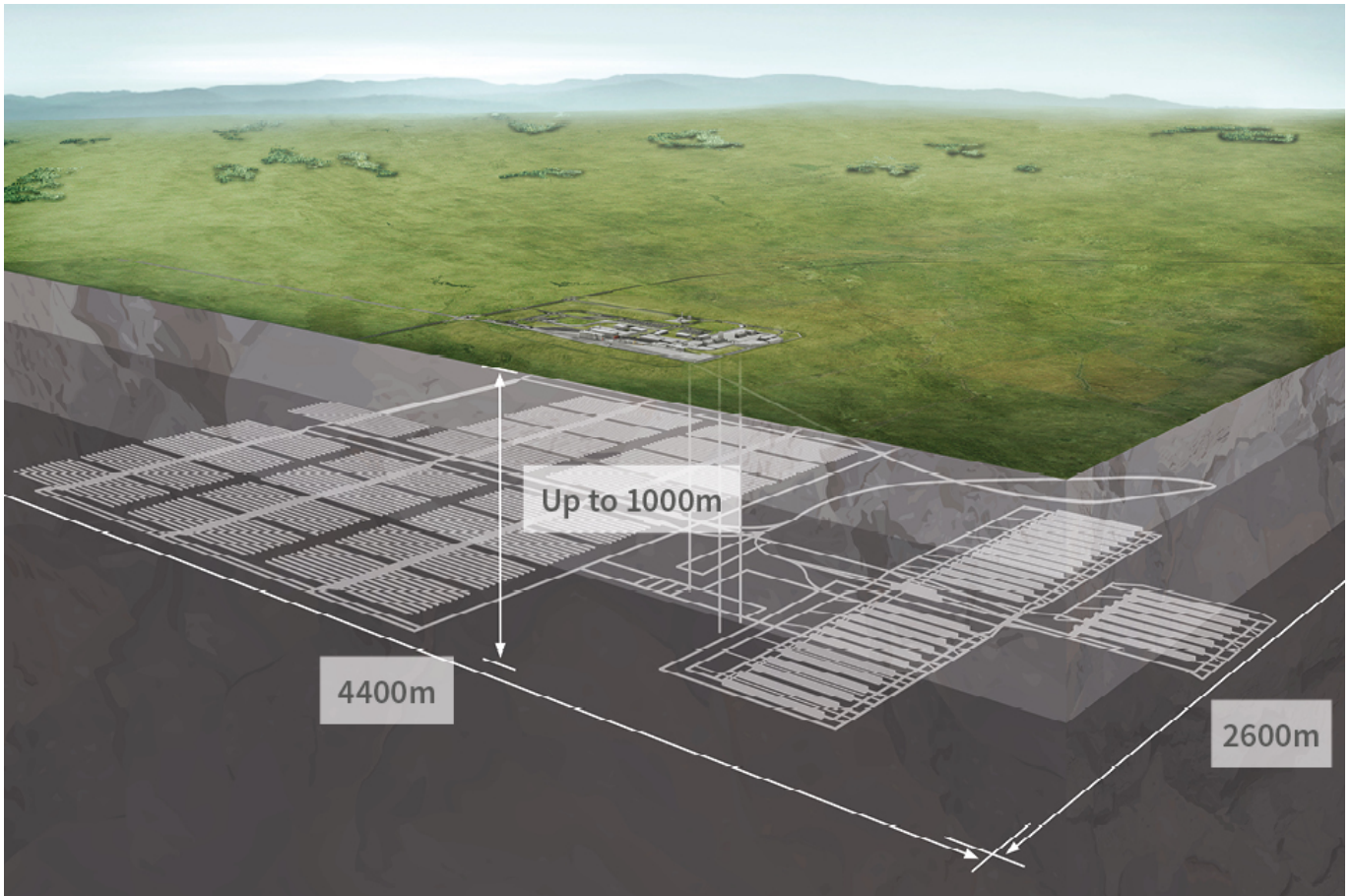
Mae technoleg niwclear wedi bod yn rhan o'n bywydau am dros 60 o flynyddoedd, ac mae'n cael ei ddefnyddio i gynhyrchu pŵer, ym maes diwydiant, meddygaeth ac amddiffyn. Erbyn heddiw, mae ynni niwclear yn darparu bron i un rhan o bump o holl drydan y DU. Mae'r gweithgareddau yma wedi creu gwastraff ymbelydrol y mae angen i ni ei reoli yn ddiogel.

Mewn Cyfleuster Gwaredu Daearegol (GDF) bydd y gwastraff yn cael ei roi gannoedd o fetrau o dan y ddaear. Cydnabyddir yn rhyngwladol mai GDF yw'r datrysiad hirdymor mwyaf diogel; bydd cael un yn y DU yn creu swyddi a buddsoddiad gwarantedig i'r gymuned dan sylw.

[Detailed guide: Why underground?](#)

There is international consensus that the safest permanent solution to manage higher activity radioactive waste is geological disposal, which involves putting the waste in a Geological Disposal Facility (GDF) beneath several hundred metres of solid rock.

This is already the chosen approach in countries including [Canada](#), [Finland](#), France, [Sweden](#) and Switzerland. Some of these countries are well on the way to developing their own GDFs.



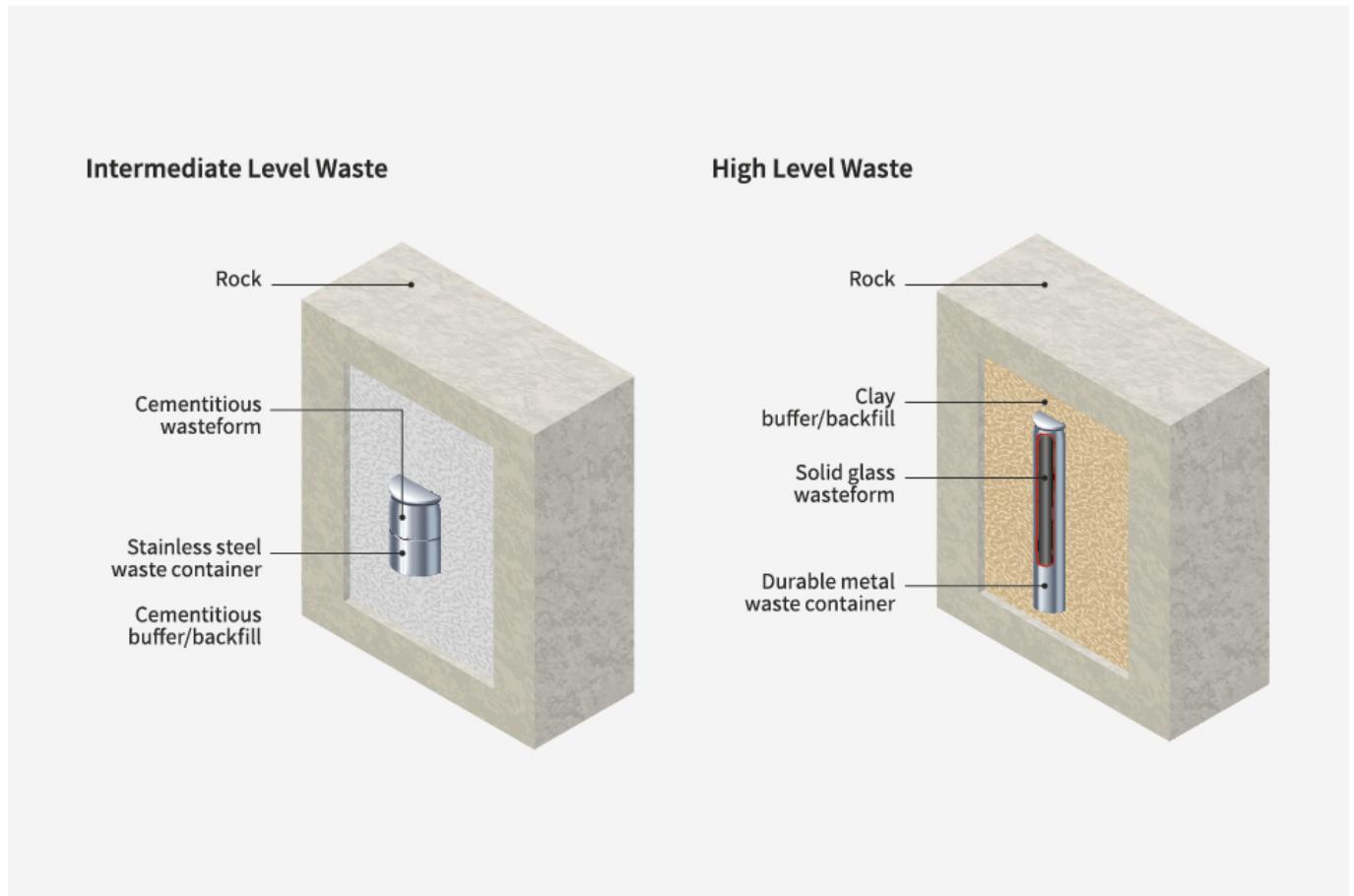
A Geological Disposal Facility (GDF)

How does geological disposal work?

Geological disposal is possible thanks to world-class engineering, science and technology. This involves:

- isolating the radioactive waste in sealed vaults and tunnels deep underground, between 200 m and 1000 m below the surface
- containing the radioactivity while it decays naturally over time
- preventing radioactivity from ever reaching the surface in levels that could cause harm

Solid radioactive waste is packaged in secure engineered containers, typically made of metal or concrete, and then placed in a stable rock formation hundreds of metres below the surface, with the containers surrounded by clay or cement. This is called the multi-barrier approach.



The multi-barrier concept

In addition, a GDF:

- requires no ongoing maintenance
- is less vulnerable than surface storage to human activities such as terrorism or war
- is less vulnerable than surface storage to natural processes such as climate change

Watch our video that shows how a GDF will be implemented.

[Welcome to the future of geological disposal](#)

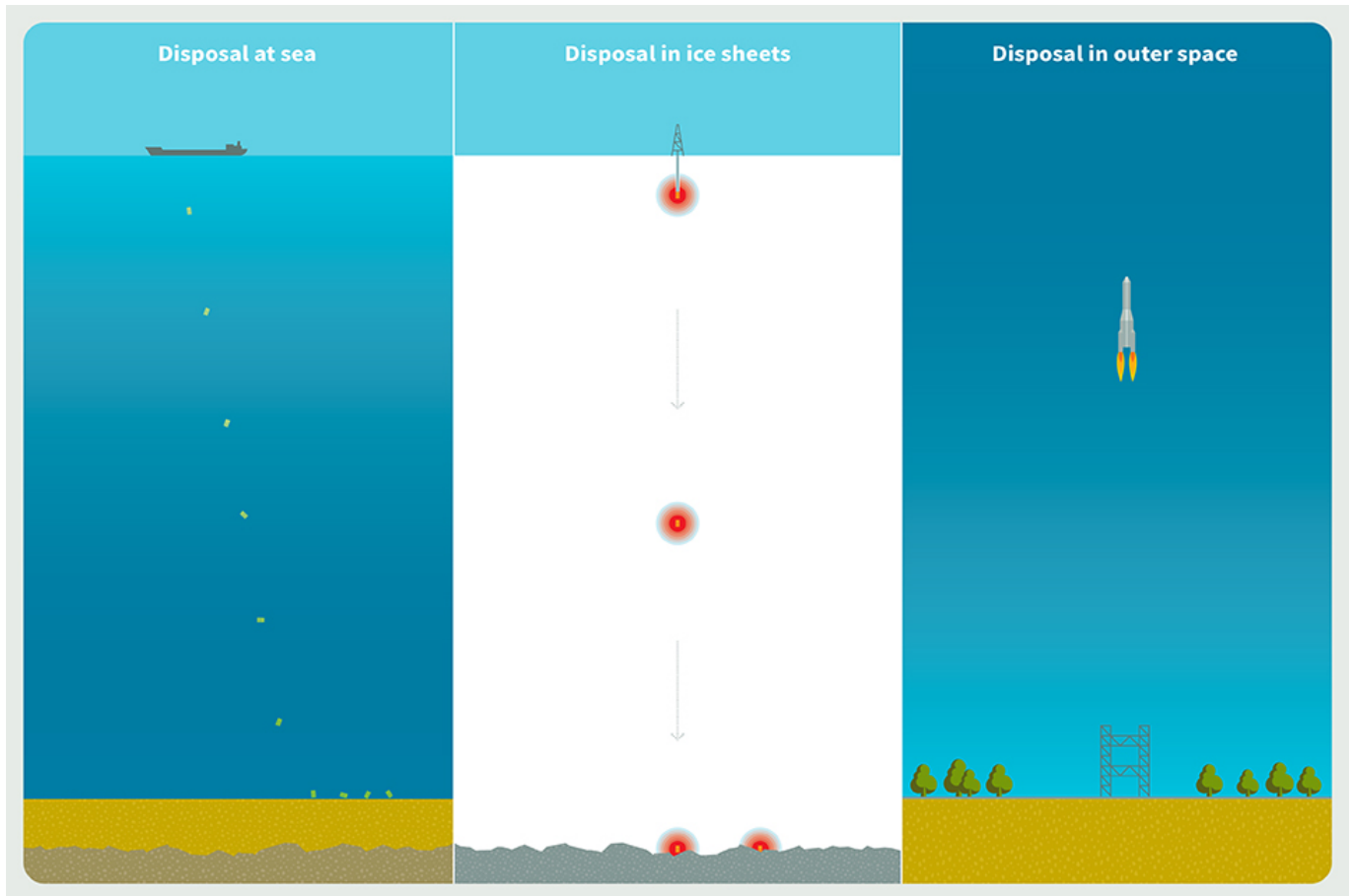
After the waste has been placed into a GDF, deep underground and away from people and the environment, it will eventually be permanently sealed to provide safety without the need for further action.

The safest solution

[Safety](#) is our absolute priority. When constructing a Geological Disposal Facility we are working to keep the risk arising from the GDF directly above ground to a lower than one in a million chance of people developing health problems at any time in the future. (Source: [Environment Agency's Guidance on Requirements for Authorisation of Geological Disposal, 2009](#))

Alternatives to geological disposal have been carefully considered and we continue to keep options under review. At present, they are all either not

technically achievable (for example: converting the waste to non-radioactive material), not environmentally safe (for example: disposal at sea or in ice sheets), or too dangerous to implement (for example: firing the waste into space on rockets).



Unsuitable waste disposal methods

Next steps

We are looking for a suitable site to implement geological disposal safely, with a [willing community](#) who will work in partnership with us, as part of an agreed vision for the future.

Planning for geological disposal will take between 15 to 20 years. Independent regulators will ensure that all processes have been followed to their satisfaction. Only then can construction start.

If you would like to receive email notification of updates to these pages, please [sign up to our e-bulletin service](#)

[Go to geological disposal homepage](#)

Got a question?

If you have any questions our scientists and engineers are on hand to answer any technical queries you may have. Please email us at gdfenquiries@nda.gov.uk

To understand in more detail what will go into a GDF, what it will look like and what the multi-barrier approach is, please read more in the downloadable science files below.

The science files



[What will go into a GDF?](#)

PDF, 978KB, 6 pages

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[The multi-barrier approach](#)

PDF, 10.6MB, 7 pages

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[What will a GDF look like?](#)

PDF, 1.75MB, 6 pages

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[Detailed guide: Communities and GDF](#)

Your voice matters

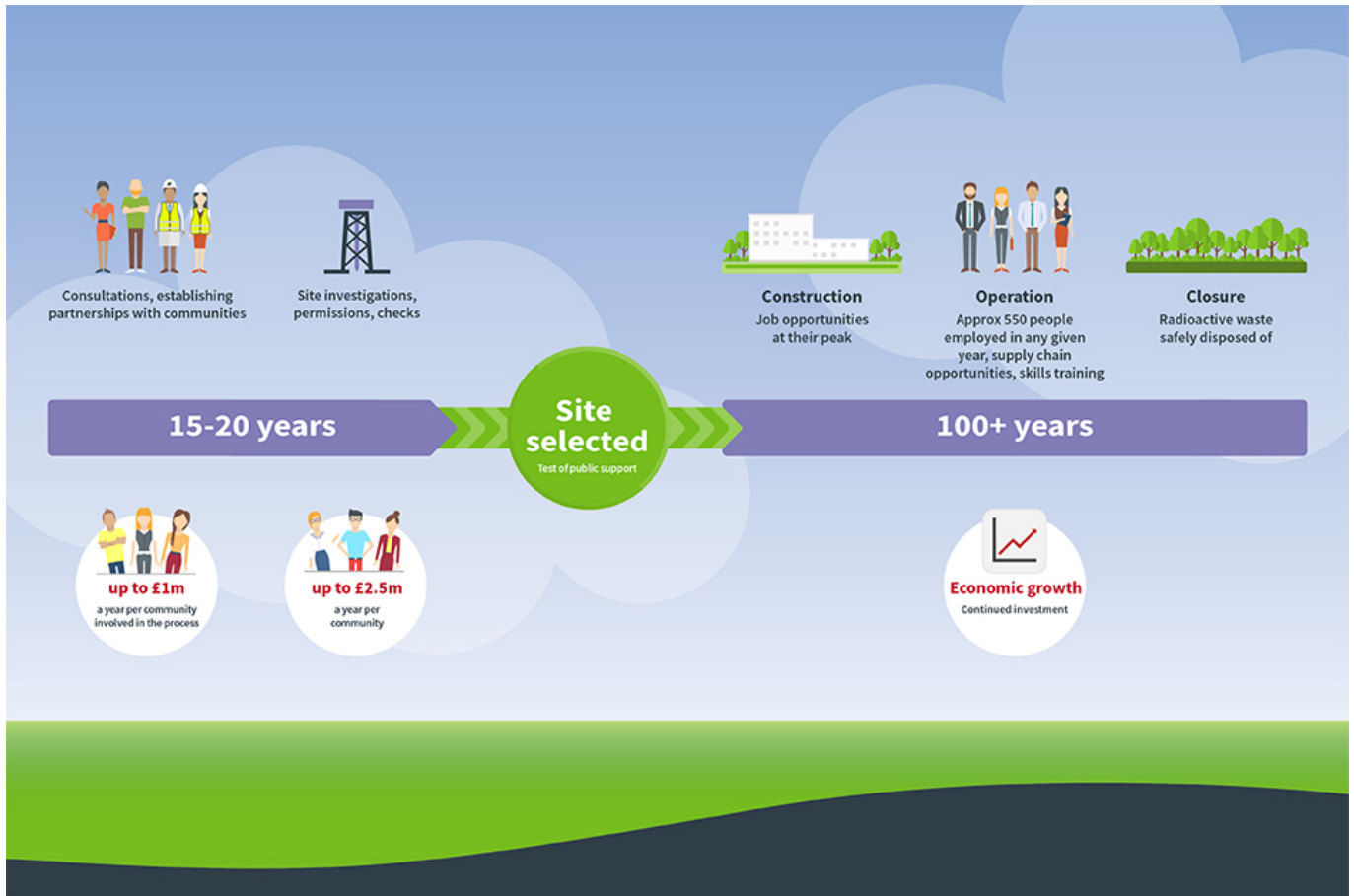
This year, we'll be starting a process to find a site for a safe [Geological Disposal Facility \(GDF\)](#) for radioactive waste in the UK. Communities will be right at the heart of the siting process for a GDF and a facility will be built where both a suitable site AND a willing community are selected.

The process of finding a site will take between 15 to 20 years. Then, only following a positive test of public support and after the relevant permissions from the independent regulators have been obtained, can construction start.

This process is consent-based and communities will be able to work in partnership with us from the beginning, so that people will have the opportunity to create a future that works for them.

As our commitment to interested communities, we will:

- cover the costs for communities engaged in the process
- invest up to £1 million per year in communities who enter the siting process
- also, invest up to £2.5 million per year in communities where deep borehole investigations take place
- support economic growth by employing an average of 550 people in any given year throughout the operational lifetime of the project, with skills training, supply chain opportunities and infrastructure investment
- enable a long-lasting economic and social legacy for future generations



The operational timeline of a Geological Disposal Facility (GDF)

The role of government

In 2014 the UK government and Northern Ireland Executive set out a renewed approach to finding a site to host a GDF in their [Implementing Geological Disposal White Paper](#). In it, the UK government committed to help interested communities understand more about hosting a geological disposal facility and engaging with confidence in the processes involved.

Building on this commitment, the UK government is now consulting on proposed policy on how communities should be engaged in a siting process for a geological disposal facility for higher activity radioactive waste.

In 2015 the Welsh Government set out its [Policy on the Management and](#)

[Disposal of Higher Activity Radioactive Waste](#), similar to that adopted in England and Northern Ireland. The Welsh Government is now consulting on the proposed policy on how communities in Wales should be engaged in a siting process for a GDF.

Scottish policy is not for geological disposal. The Scottish Government published its [Implementation Strategy for Scotland's policy on higher activity radioactive waste](#) following consultation in 2016.

Next steps

If you want to learn more about GDF and the role of communities in the siting process, please get in touch by emailing gdfenquiries@nda.gov.uk and one of our team will get back to you.

Following the government's consultations and final policy statements, we will also be publishing 'Guidance to Communities', which will contain helpful and more in-depth information on how to engage in the siting process.

[Go to geological disposal homepage](#)